

BUILDER:	ROUND GREEN								t 169	ACOTA	2			GFA:	3389				May-21 90741							AIR CH						LOSS AT					SA-F280-1 CKAGE A
ROOM USE	l	- 1		MBR			ENS			WIC			BED-2			BED-3			BED-4			ENS-3/4			FLEX	(		WIC-3			ENS-2						
EXP. WALL	l			34	i		30			7			27			38			12			6			11			5		ļ	6						
CLG. HT.	ĺ	!		9			9			9			9			9			9			9			9			9		ł	9						
'	FACTO	RS																												i		1					
GRS.WALL AREA	LOSS	GAIN		306			270			63			243			342			108			54			99			45			54						
GLAZING	ĺ	- 1		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		Loss	GAIN		Loss	GAIN		LOSS	GAIN		LOSS	GAIN					
NORTH	21.8	14.9	0	0	0	14	305	209	0	0	0	16	349	239	0	0	0	0	Ō	0	0	0	0	13	283	194	0	0	0	7	152	105					
EAST	21.8	38.4	0	0	0	0	0	0	0	0	0	53	1155	2035	60	1307	2303	0	0	0	0	0	0	0	0	0	9	196	345	0	0	0					
SOUTH	21.8	23.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	349	370	7	152	162	0	0	0	0	0	0	0	0	0					
WEST	21.8	38.4	32	697	1228	14	305	537	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.	38.1	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	0	0	0	0	0	١					
DOORS	25.8	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	o l					
NET EXPOSED WALL	4.6	0.8	274	1252	206	242	1106	182	63	288	47	174	795	131	282	1288	212	92	420	69	47	215	35	86	393	65	36	164	27	47	215	35			- 1		
NET EXPOSED BSMT WALL ABOVE GR	3.7	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			- 1		
EXPOSED CLG	1.3	0.6	299	393	176	221	290	130	140	184	82	236	310	139	195	256	115	195	256	115	78	102	46	220	289	129	40	53	24	66	87	39					
NO ATTIC EXPOSED CLG		1.3	0	0	0	0	0	0	0	0	0	16	45	20	45	127	57	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	241	629	104	0	0	0	0	ō	0	0	ō	0	69	180	30	40	104	17	66	172	28					
BASEMENT/CRAWL HEAT LOSS	1			0	-		0	-	_	ō	-		0		ľ	0	•	اً	0	•	້	0	-	33	0	30	🕶	0	.,	"	0	20					
SLAB ON GRADE HEAT LOSS	i			0			0		İ	ō			ō			0			Ö			0			0			0		1	n						
SUBTOTAL HT LOSS	l	- 1		2342			2006		1	472			3282			2978			1025			470			1145		l	517			626				.		
SUB TOTAL HT GAIN	İ				1610			1058			130			2667		0	2686		.020	554		710	243		1140	418		311	413	1	020	207			1		
LEVEL FACTOR / MULTIPLIER	l		0.20	0.27		0.20	0.27		0.20	0.27		0.20	0.27		0.20	0.27	_500	0.20	0.27		0.20	0.27		0.20	0.27	710	0.20	0.27	713	0.20	0.27	207					
AIR CHANGE HEAT LOSS	l			642			550			129		20	899			816		J.20	281		0.20	129		0.20	314		0.20	142		0.20	172						
AIR CHANGE HEAT GAIN	l	- 1			118			77			9		•••	195		0.0	196		201	40		123	18		314	31	ŀ	142	30		172	15			- 1		
DUCT LOSS	l			0			0		i	0	٠		418	100		0	130		0	40		0	10		146	31		66	30			15			- 1		
DUCT GAIN	ı	- 1		•	0		·	0		٠	0		410	372		Ü	0		U			U	_		140	4.5		66			80						
HEAT GAIN PEOPLE	240	- 1	2		480	0		0			0	4		240	1		240			240	0		0	0		45	١,		44			22			- 1		
HEAT GAIN APPLIANCES/LIGHTS	1 240	- 1	-		621			0	١ ،		0	•		621	١'		621	'		621	۳		0	U		0	0		0	0		0					
TOTAL HT LOSS BTU/H	i			2983	021		2555	٠		601	٠		4600	021		3794	021		1306	021		Ene	۰		4005	•		705	U		070	١٣			- 1		
TOTAL HT GAIN x 1.3 BTU/H	1			2300	3677		2000	1476		001	181		4000	5323		3/34	4867		1306	1892		598	339		1605	641		725			878				- 1		
								1470	L		101			3323	L		4007			1032	L		339			641	l		634	L		318					
ROOM USE				FAM			LV/DN			KIT			LIB		Γ	LAUN			W/R			FOY			MUD		Г			Ι				WOD			AS
EXP. WALL		ļ		36	ŀ		30			37			19			12			18			18			30									47	ı		
CLG. HT.		- 1		10			10			10			10			9			10			10	l		11									41	İ		82 8
	FACTO	RS														•									• • •							l		۰	l		0
1	LOSS			360	,		300			370																						- 1		376	l		119
GLAZING		GAIN											190			108														l		1		LOSS G			
	1	GAIN			GAIN			GAIN			GAIN		190 LOSS	GAIN		108	GAIN		180	GAIN		180	GAIN		330	CAIN	ŀ			1		- 1				L	OSS GAII
NORTH		GAIN 14.9	0	LOSS	GAIN 0	0	Loss	GAIN 0	0	LOSS	GAIN 0	0	LOSS	GAIN n		Loss		0	LOSS	GAIN	0	Loss	GAIN		LOSS	GAIN							•		- 1		
NORTH EAST	21.8	14.9	-	LOSS 0	0	0	LOSS 0	0	0	LOSS 0	0	0	LOSS 0	0	0	LOSS 0	0	0	LOSS 0	0	0	LOSS 0	0	7	LOSS 152	105							0	0	0		87 60
EAST	21.8 21.8	14.9 38.4	0	LOSS 0 0	0	0	LOSS 0 0	0	0	LOSS 0 0	0	0	LOSS 0 0	0 0	0	LOSS 0 0	0 0	22	LOSS 0 479	0 845	6	LOSS 0 131	0 230	7 0	LOSS 152 0	105 0							0 0	0 0	0	0	0 0
EAST SOUTH	21.8 21.8 21.8	14.9 38.4 23.1	0	LOSS 0 0 0	0 0 0	0 42	0 0 915	0 0 971	0	LOSS 0 0	0 0 0	0 14	0 0 0 305	0 0 324	0 7	0 0 152	0 0 162	22 0	LOSS 0 479 0	0 845 0	6 0	LOSS 0 131 0	0 230 0	7 0 0	LOSS 152 0 0	105 0 0						1	0 0 0	0 0 0	0 0	0 8 1	0 0 74 185
EAST SOUTH WEST	21.8 21.8 21.8 21.8 21.8	14.9 38.4 23.1 38.4	0 0 28	0 0 0 0 610	0 0 0 1075	0 42 0	0 0 0 915 0	0 0 971 0	0 0 61	LOSS 0 0 0 0 1329	0 0 0 2342	0 14 0	0 0 0 305 0	0 0 324 0	0 7 0	0 0 0 152 0	0 0 162 0	22 0 0	0 479 0 0	0 845 0	6 0 0	LOSS 0 131 0 0	0 230 0 0	7 0 0 0	LOSS 152 0 0	105 0 0 0							0 0 0 14	0 0 0 305	0 0 0 537	0 8 1 0	0 0 74 185 0 0
EAST SOUTH WEST SKYLT.	21.8 21.8 21.8 21.8 21.8 38.1	14.9 38.4 23.1 38.4 101.5	0 0 28 0	0 0 0 0 610 0	0 0 0 1075 0	0 42 0 0	0 0 915 0	0 0 971 0	0 0 61 0	LOSS 0 0 0 1329	0 0 0 2342 0	0 14 0 0	0 0 0 305 0	0 0 324 0	0 7 0 0	0 0 152 0	0 0 162 0	22 0 0 0	0 479 0 0	0 845 0 0	6 0 0	0 131 0 0	0 230 0 0	7 0 0 0	152 0 0 0 0	105 0 0 0						1	0 0 0 14 0	0 0 0 305	0 0 0 537 0	0 8 1 0 0	0 0 74 185 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS	21.8 21.8 21.8 21.8 21.8 38.1 25.8	14.9 38.4 23.1 38.4 101.5 4.3	0 0 28 0	0 0 0 610 0	0 0 0 1075 0	0 42 0 0	USS 0 0 915 0 0	0 0 971 0 0	0 0 61 0	LOSS 0 0 0 1329 0	0 0 0 2342 0	0 14 0 0	0 0 305 0 0	0 0 324 0 0	0 7 0 0	0 0 152 0 0	0 0 162 0 0	22 0 0 0 0	0 479 0 0 0	0 845 0 0 0	6 0 0 0 40	0 131 0 0 0 1034	0 230 0 0 0 0 170	7 0 0 0 0	152 0 0 0 0 0	105 0 0 0 0						1	0 0 0 14 0	0 0 0 305 0	0 0 0 537 0	0 8 1 0 0 20 5	0 0 74 185 0 0 0 0 17 85
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	21.8 21.8 21.8 21.8 38.1 25.8 4.6	14.9 38.4 23.1 38.4 101.5 4.3 0.8	0 0 28 0 0 332	0 0 0 0 610 0	0 0 0 1075 0 0 250	0 42 0 0 0 258	LOSS 0 0 915 0 0 1179	0 0 971 0 0 0	0 0 61 0 0 309	LOSS 0 0 0 1329 0 0 1412	0 0 0 2342 0 0 232	0 14 0 0 0 0	LOSS 0 0 305 0 0 0 804	0 0 324 0 0 0	0 7 0 0 0 101	0 0 152 0 0 0 461	0 0 162 0 0 0	22 0 0 0 0 0 158	LOSS 0 479 0 0 0 0 722	0 845 0 0 0 0	6 0 0 0 40 134	LOSS 0 131 0 0 0 1034 612	0 230 0 0 0 170 101	7 0 0 0 0 0 0 323	152 0 0 0 0 0 0	105 0 0 0 0 0 0						1	0 0 0 14 0 0	0 0 0 305 0 0	0 0 0 537 0 0	0 8 1 0 0 20 5	0 0 74 185 0 0 0 0 17 85 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6	0 0 28 0 0 332	LOSS 0 0 0 610 0 0 1517	0 0 0 1075 0 0 250	0 42 0 0 0 258	LOSS 0 0 915 0 0 1179 0	0 0 971 0 0 0 194	0 61 0 0 309	LOSS 0 0 0 1329 0 0 1412 0	0 0 0 2342 0 0 232	0 14 0 0 0 176	LOSS 0 0 305 0 0 0 804	0 0 324 0 0 0 132	0 7 0 0 0 101	LOSS 0 0 152 0 0 0 461	0 0 162 0 0 0 76	22 0 0 0 0 0 158	LOSS 0 479 0 0 0 0 722	0 845 0 0 0 0 119	6 0 0 0 40 134	LOSS 0 131 0 0 0 1034 612 0	0 230 0 0 0 170 101	7 0 0 0 0 0 0 323	152 0 0 0 0 0 1476	105 0 0 0 0 0 243						1	0 0 0 14 0	0 0 0 305 0 0 0	0 0 537 0 0 0	0 8 1 0 0 20 5 0 338 1	0 0 74 185 0 0 0 0 17 85 0 0 243 205
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE OR EXPOSED CLG	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6	0 0 28 0 0 332 0	LOSS 0 0 0 610 0 0 1517 0	0 0 0 1075 0 0 250 0	0 42 0 0 0 258 0	LOSS 0 0 915 0 0 1179 0	0 0 971 0 0 0 194	0 0 61 0 0 309 0	LOSS 0 0 0 1329 0 0 1412 0	0 0 0 2342 0 0 232 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0	0 0 324 0 0 0 132 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252	0 0 162 0 0 0 76 0	22 0 0 0 0 158 0	LOSS 0 479 0 0 0 0 722 0	0 845 0 0 0 0 119 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 1034 612 0	0 230 0 0 0 170 101 0	7 0 0 0 0 0 0 323 0	LOSS 152 0 0 0 0 0 1476 0	105 0 0 0 0 0 243 0						2	0 0 14 0 0 0 268	0 0 0 305 0 0 0 987	0 0 0 537 0 0 0 162	0 8 1 0 0 20 5 0 338 1	0 0 74 185 0 0 0 0 17 85 0 0 243 205
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 610 0 0 1517 0 0	0 0 1075 0 0 250 0	0 42 0 0 0 258 0 0	LOSS 0 915 0 0 1179 0 0	0 0 971 0 0 0 194 0	0 0 61 0 0 309 0	LOSS 0 0 0 1329 0 0 1412 0 0	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0	0 0 162 0 0 0 76 0 113	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 0 722 0 0	0 845 0 0 0 0 119 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0	0 230 0 0 0 170 101 0	7 0 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 0 1476 0	105 0 0 0 0 0 243 0						2	0 0 14 0 0 0 268 0	0 0 0 305 0 0 0 987	0 0 537 0 0 0 162 0	0 8 1 0 0 20 5 0 338 1	0 0 74 185 0 0 0 0 17 85 0 0 243 205 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED ESM WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6	0 0 28 0 0 332 0	LOSS 0 0 0 610 0 0 1517 0 0	0 0 0 1075 0 0 250 0	0 42 0 0 0 258 0	LOSS 0 0 915 0 0 1179 0	0 0 971 0 0 0 194	0 0 61 0 0 309 0	LOSS 0 0 0 1329 0 0 1412 0	0 0 0 2342 0 0 232 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0 0	0 0 324 0 0 0 132 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0 0	0 0 162 0 0 0 76 0	22 0 0 0 0 158 0	LOSS 0 479 0 0 0 0 722 0 0	0 845 0 0 0 0 119 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0	0 230 0 0 0 170 101 0	7 0 0 0 0 0 0 323 0	LOSS 152 0 0 0 0 1476 0 0	105 0 0 0 0 0 243 0						2	0 0 14 0 0 0 268	0 0 0 305 0 0 0 987	0 0 0 537 0 0 0 162	0 8 1 0 0 20 5 0 338 1 0	0 0 74 185 0 0 0 0 17 85 0 0 243 205 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 0 610 0 0 1517 0 0 0 0 0 0 0 0 0	0 0 1075 0 0 250 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 1179 0 0 0	0 0 971 0 0 0 194 0	0 0 61 0 0 309 0	LOSS 0 0 0 1329 0 0 1412 0 0 0	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0 0 0	0 0 162 0 0 0 76 0 113	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 0 722 0 0 0 0 0 0 0	0 845 0 0 0 0 119 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 0 0 0 0	0 230 0 0 0 170 101 0	7 0 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0	105 0 0 0 0 0 243 0						2	0 0 14 0 0 0 268 0	0 0 0 305 0 0 0 987	0 0 537 0 0 0 162 0	0 8 1 0 0 20 5 0 338 1 0	0 0 74 185 0 0 0 0 17 85 0 0 243 205 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG SEXPOSED CLG EXPOSED CLG EXPOSED FLOG BASEMENTICRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 0 610 0 0 1517 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1075 0 0 250 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 0 1179 0 0 0 0 0 0 0	0 0 971 0 0 0 194 0	0 0 61 0 0 309 0	LOSS 0 0 1329 0 0 1412 0 0 0	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0 0 0 0 0 0	0 0 162 0 0 0 76 0 113	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 0 722 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 845 0 0 0 0 119 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 0 0 0 0 0	0 230 0 0 0 170 101 0	7 0 0 0 0 0 0 323 0 0	152 0 0 0 0 0 1476 0 0 0	105 0 0 0 0 243 0						2	0 0 14 0 0 0 268 0	0 0 0 305 8 0 0 0 987 0	0 0 537 0 0 0 162 0	0 8 1 0 0 20 5 0 338 1 0 0	0 0 74 185 0 0 0 0 17 85 0 0 243 205 0 0 0 0 364
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 0 610 0 0 1517 0 0 0 0 0 0 0 0 0	0 0 1075 0 0 250 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 1179 0 0 0	0 0 971 0 0 0 194 0 0	0 0 61 0 0 309 0	LOSS 0 0 0 1329 0 0 1412 0 0 0	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 0 804 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0 0 0	0 0 162 0 0 76 0 113 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 0 722 0 0 0 0 0 0 0	0 845 0 0 0 119 0 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 0 0 0 0	0 230 0 0 170 101 0 0	7 0 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0	105 0 0 0 0 0 243 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0	0 8 1 0 0 20 5 0 338 1 0 0	0 0 74 185 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED EMM WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 610 0 1517 0 0 0 2127	0 0 1075 0 0 250 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 0 1179 0 0 0 0 2094	0 0 971 0 0 0 194 0	0 0 61 0 0 309 0 0	LOSS 0 0 1329 0 0 1412 0 0 0 0 2740	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0 0	LOSS 0 0 305 0 0 0 804 0 0 0 0 0 1109	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 0 76 0 113	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201	0 845 0 0 0 0 119 0	6 0 0 40 134 0 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 0 1777	0 230 0 0 0 170 101 0	7 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 243 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5	0 0 74 185 0 0 0 0 177 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT., DOORS NET EXPOSED WALL NET EXPOSED EMM WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 1510 0 1517 0 0 0 2127	0 0 1075 0 0 250 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 0 1179 0 0 0 0 0 2094 0.51	0 0 971 0 0 0 194 0 0	0 0 61 0 0 309 0	LOSS 0 0 1329 0 0 1412 0 0 0 0 2740	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0	LOSS 0 0 305 0 0 804 0 0 0 0 1109	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192	LOSS 0 0 152 0 0 0 461 0 252 0 0 0 0 866 0.27	0 0 162 0 0 76 0 113 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 0 1201	0 845 0 0 0 119 0 0	6 0 0 0 40 134 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 1777 0.51	0 230 0 0 170 101 0 0	7 0 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 0 1628	105 0 0 0 0 0 243 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 1 0 0 5 0 5 0 0 5 7 7 0 1 1 0 0 1 1	0 0 74 185 0 0 0 177 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 610 0 1517 0 0 0 2127	0 0 1075 0 0 250 0 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 0 1179 0 0 0 0 2094	0 0 971 0 0 194 0 0	0 0 61 0 0 309 0 0	LOSS 0 0 1329 0 0 1412 0 0 0 0 2740	0 0 0 2342 0 0 232 0 0 0	0 14 0 0 0 176 0 0	LOSS 0 0 305 0 0 0 804 0 0 0 0 0 1109	0 0 324 0 0 0 132 0 0 0	0 7 0 0 0 101 0 192 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 76 0 113 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201	0 845 0 0 0 119 0 0	6 0 0 40 134 0 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 0 1777	0 230 0 0 170 101 0 0	7 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 243 0 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 1 0 0 5 0 5 0 0 5 7 7 0 1 1 0 0 1 1	0 0 74 185 0 0 0 0 0 0 117 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 610 0 1517 0 0 0 2127	0 0 1075 0 0 250 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 1179 0 0 0 0 0 2094 0.51 1068	0 0 971 0 0 0 194 0 0	0 0 61 0 0 309 0 0	LOSS 0 0 1329 0 1412 0 0 0 0 2740 0.51 1398	0 0 0 2342 0 0 232 0 0	0 14 0 0 0 176 0 0	LOSS 0 0 305 0 0 804 0 0 0 1109	0 0 324 0 0 0 132 0 0	0 7 0 0 0 101 0 192 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 76 0 113 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201 0.51 613	0 845 0 0 0 119 0 0	6 0 0 40 134 0 0	LOSS 0 131 0 0 1034 612 0 0 0 0 1777 0.51 906	0 230 0 0 170 101 0 0	7 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 0 243 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5 7 0.50 1 10	0 0 74 185 0 0 0 0 0 177 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIL NET EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 1510 0 1517 0 0 0 2127	0 0 0 1075 0 0 250 0 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 0 1179 0 0 0 0 0 2094 0.51	0 0 971 0 0 0 194 0 0 0	0 0 61 0 0 309 0 0	LOSS 0 0 1329 0 0 1412 0 0 0 0 2740	0 0 0 2342 0 0 2322 0 0 0 0	0 14 0 0 0 176 0 0	LOSS 0 0 305 0 0 804 0 0 0 0 1109	0 0 324 0 0 0 132 0 0 0	0 7 0 0 0 101 0 192 0	LOSS 0 0 152 0 0 0 461 0 252 0 0 0 0 866 0.27	0 0 162 0 0 76 0 113 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 0 1201	0 845 0 0 0 119 0 0 0	6 0 0 40 134 0 0	LOSS 0 131 0 0 0 1034 612 0 0 0 0 1777 0.51	0 230 0 0 0 170 101 0 0 0	7 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 0 1628	105 0 0 0 0 243 0 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 5 0 0 0 0 987 6 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5 7 0.50 1 10	0 0 74 185 0 0 0 0 117 85 0 0 0 0 0 0 1243 205 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3 2.8 2.6	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 3332 0 0 0	LOSS 0 0 0 610 0 1517 0 0 0 2127	0 0 0 1075 0 0 250 0 0 0	0 42 0 0 0 0 258 0 0 0 0	LOSS 0 0 915 0 0 1179 0 0 0 0 0 2094 0.51 1068	0 0 971 0 0 0 194 0 0 0	0 0 61 0 309 0 0 0	LOSS 0 0 1329 0 1412 0 0 0 0 2740 0.51 1398	0 0 0 2342 0 0 2322 0 0 0 0 2574	0 14 0 0 0 176 0 0 0	LOSS 0 0 305 0 0 804 0 0 0 1109	0 0 324 0 0 0 132 0 0 0 0	0 7 0 0 101 0 192 0 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 0 76 0 113 0 0	22 0 0 0 0 158 0 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201 0.51 613	0 845 0 0 0 0 119 0 0 0 0	6 0 0 40 134 0 0 0	LOSS 0 131 0 0 1034 612 0 0 0 0 1777 0.51 906	0 230 0 0 0 170 101 0 0 0 501	7 0 0 0 0 323 0 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 243 0 0 0 347						2	0 0 14 0 0 0 0 268 0 0	0 0 0 305 8 0 0 0 987 6 0 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 0 5 0 5 7 0 0 5 1 1 0 0 0 1 0 0 1 1 1 0 0 1 1 1 1	0 0 74 185 0 0 0 0 0 117 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS 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 GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3 2.8 2.6	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 332 0 0	LOSS 0 0 0 610 0 1517 0 0 0 2127	0 0 0 1075 0 250 0 0 0 0	0 42 0 0 0 258 0 0	LOSS 0 0 915 0 0 1179 0 0 0 0 0 2094 0.51 1068	0 0 971 0 0 194 0 0 0 0	0 0 61 0 0 309 0 0	LOSS 0 0 1329 0 1412 0 0 0 0 2740 0.51 1398	0 0 0 2342 0 0 2322 0 0 0 0 2574	0 14 0 0 0 176 0 0	LOSS 0 0 305 0 0 804 0 0 0 1109	0 0 324 0 0 0 132 0 0 0 0	0 7 0 0 0 101 0 192 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 76 0 113 0 0	22 0 0 0 0 158 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201 0.51 613	0 845 0 0 0 1119 0 0 0 0	6 0 0 40 134 0 0	LOSS 0 131 0 0 1034 612 0 0 0 0 1777 0.51 906	0 230 0 0 0 170 101 0 0 0 0 0	7 0 0 0 0 0 323 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 243 0 0 0						2	0 0 14 0 0 0 268 0	0 0 0 305 8 0 0 0 987 6 0 0 0	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5 7 0.50 1 10	0 0 0 74 1850 0 0 0 0 0 117 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BAMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN HEAT GAIN PEOPLE HEAT GAIN APPLIANCES/LIGHTS	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3 2.8 2.6	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 3322 0 0 0	LOSS 0 0 0 610 0 0 0 1517 0 0 0 0 2127 0.51 1085 0	0 0 0 1075 0 0 250 0 0 0	0 42 0 0 0 0 258 0 0 0 0	LOSS 0 0 915 0 0 0 0 1179 0 0 0 0 0 2094 0.51 1068 0	0 0 971 0 0 0 194 0 0 0	0 0 61 0 309 0 0 0	LOSS 0 0 1329 0 0 1412 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2342 0 0 2322 0 0 0 0 2574	0 14 0 0 0 176 0 0 0	LOSS 0 0 0 305 0 0 0 0 804 0 0 0 0 1109 0 0.51 5566 0 0	0 0 324 0 0 0 132 0 0 0 0	0 7 0 0 101 0 192 0 0	LOSS 0 0 0 152 0 0 0 461 0 252 0 0 0 0 866 0 0.27 237 0	0 0 162 0 0 0 76 0 113 0 0	22 0 0 0 0 158 0 0 0	LOSS 0 479 0 0 0 0 722 0 0 0 0 1201 613 0 0	0 845 0 0 0 0 119 0 0 0 0	6 0 0 40 134 0 0 0	LOSS 0 131 0 0 0 0 1034 612 0 0 0 17777 0.51 906 0	0 230 0 0 0 170 101 0 0 0 501	7 0 0 0 0 323 0 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628 0.51	105 0 0 0 0 243 0 0 0 347						2	0 0 0 114 0 0 0 0 268 0 0	0 0 0 305 8 0 0 0 0 0 0 0 1292	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5 7 7 0.50 1	0 0 0 74 185 0 0 0 0 0 117 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED SEM WALL ADOVE EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS SUBTOTAL HT ALOSS AUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT LOSS DUCT GAIN HEAT GAIN PEOPLE	21.8 21.8 21.8 21.8 38.1 25.8 4.6 3.7 1.3 2.8 2.6	14.9 38.4 23.1 38.4 101.5 4.3 0.8 0.6 0.6 1.3	0 0 28 0 0 3322 0 0 0	LOSS 0 0 0 610 0 1517 0 0 0 2127	0 0 0 1075 0 250 0 0 0 0	0 42 0 0 0 0 258 0 0 0 0	LOSS 0 0 915 0 0 1179 0 0 0 0 0 2094 0.51 1068	0 0 971 0 0 194 0 0 0 0	0 0 61 0 309 0 0 0	LOSS 0 0 1329 0 1412 0 0 0 0 2740 0.51 1398	0 0 0 2342 0 0 2322 0 0 0 0 2574	0 14 0 0 0 176 0 0 0	LOSS 0 0 305 0 0 804 0 0 0 1109	0 0 324 0 0 0 132 0 0 0 0	0 7 0 0 101 0 192 0 0	LOSS 0 0 152 0 0 461 0 252 0 0 0 866	0 0 162 0 0 76 0 113 0 0	22 0 0 0 0 158 0 0 0	LOSS 0 479 0 0 0 722 0 0 0 0 1201 0.51 613	0 845 0 0 0 1119 0 0 0 0	6 0 0 40 134 0 0 0	LOSS 0 131 0 0 1034 612 0 0 0 0 1777 0.51 906	0 230 0 0 0 170 101 0 0 0 0 0	7 0 0 0 0 323 0 0 0	LOSS 152 0 0 0 0 1476 0 0 0 1628	105 0 0 0 0 243 0 0 0 347						2	0 0 0 114 0 0 0 0 268 0 0	0 0 0 305 8 0 0 0 0 0 0 1292	0 0 0 537 0 0 0 162 0 0	0 8 1 0 0 20 5 0 338 1 0 0 5 7 7 0.50 1	0 0 0 74 1850 0 0 0 0 0 117 85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TOTAL HEAT GAIN BTU/H:

36903

TONS: 3.08

LOSS DUE TO VENTILATION LOAD BTU/H: 1670

STRUCTURAL HEAT LOSS: 59843

TOTAL COMBINED HEAT LOSS BTU/H: 61513

Mahal Offante.



		ROUND						TYPE:	TERRAC	OTA 2			DATE:	May-21			GFA:	3389	LO#	90741				
HEATING CFM TOTAL HEAT LOSS AIR FLOW RATE CFM	59,843	A	TOTAL H	LING CFM EAT GAIN RATE CFM	36,628		а	furi a/c coil vailable	pressure nace filter pressure pressure r s/a & r/a	0.6 0.05 0.2 0.35						,	#GOODMAN GMEC960803BNA 80 FAN SPEED LOW				AFUE = 96 % INPUT (BTU/H) = 80,000 OUTPUT (BTU/H) = <b>76,800</b>			
RUN COUNT	4th	3rd	2nd	1st	Bas													EDLOW			DESIG	GN CFM = _		
S/A R/A	0	0	15 6	8 2	4				essure s/a ress. loss	0.18 0.02	r/s		pressure ess. Loss	0.17 0.02				MEDIUM JM HIGH	885 1005			CFM @ .6	" E.S.P.	
All S/A diffusers 4"x10" unl				ut.					ssure s/a	0.16			ssure r/a	0.15			WILDIO	HIGH	1122	7	EMPERATI	URE RISE_	63	°F
All S/A runs 5"Ø unless not	ted other	wise on la 2	yout. 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		04
ROOM NAME	MBR	ENS	wic	BED-2	BED-3	BED-4		-	WIC-3	MBR	ENS-2	FAM	LV/DN	KIT	KIT	LIB	LAUN	W/R	FOY	MUD	BAS	BAS	23 BAS	24 BAS
RM LOSS MBH.	1.49	1.28	0.60	2.30	1.90	1.31	0.60	1.60	0.73	1.49	0.88	3.21	3.16	2.07	2.07	1.67	1.10	1.81	2.68	2.46	4.99	4.99	4.99	4.99
CFM PER RUN HEAT	28	24	11	43	36	24	11	30	14	28	16	60	59	39	39	31	21	34	50	46	94	94	94	94
RM GAIN MBH. CFM PER RUN COOLING	1.84 56	0.74 23	0.18 6	2.66 82	2.43 75	1.89 58	0.34 10	0.64 20	0.63 19	1.84 56	0.32 10	2.65 81	2.43 75	2.20 67	2.20 67	1.44 44	1.30	1.34	0.70	0.48	0.63	0.63	0.63	0.63
ADJUSTED PRESSURE	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17	0.17	0.17	0.17	40 0.17	41 0.17	21 0.17	15 0.17	19 0.16	19 0.16	19 0.16	19 0.16
ACTUAL DUCT LGH.	37	56	39	59	56	34	34	51	45	39	39	22	10	40	31	27	20	33	41	44	38	19	5	31
EQUIVALENT LENGTH	190	160	150	130	170	200	220	160	110	130	150	140	130	150	160	140	180	110	90	140	140	120	140	130
TOTAL EFFECTIVE LENGTH	227	216	189	189	226	234	254	211	155	169	189	162	140	190	191	167	200	143	131	184	178	139	145	161
ADJUSTED PRESSURE	0.08	0.08	0.09	0.09	0.08	0.07	0.07	0.08	0.11	0.1	0.09	0.1	0.12	0.09	0.09	0.1	0.09	0.12	0.13	0.09	0.09	0.12	0.11	0.1
ROUND DUCT SIZE HEATING VELOCITY (ft/min)	5 206	4 275	4 126	<b>6</b> 219	<b>6</b> 184	6 122	4 126	<b>6</b> 153	4 161	5 206	4 184	5 441	5 433	5 286	5 286	4 356	4 241	4 390	4 574	4 528	<b>6</b> 479	<b>6</b> 479	6 470	6
COOLING VELOCITY (ft/min)	411	264	69	418	382	296	115	102	218	411	115	595	551	492	492	505	459	470	241	172	479 97	479 97	479 97	479 97
OUTLET GRILL SIZE	3X10	3X10	3X10	4X10	4X10	4X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10
TRUNK	В	A	В	D	<u> </u>	<u>C</u>	С	A	D	В	D	В	D	A	Α	C	В	С	C	Α	Α	В	D	С
RUN#	25	26	27																					
ROOM NAME		BED-3	ENS																					
RM LOSS MBH.	2.30	1.90	1.28																					
CFM PER RUN HEAT	43	36	24																					
RM GAIN MBH. CFM PER RUN COOLING	2.66 82	2.43 75	0.74 23																					
ADJUSTED PRESSURE	0.16	0.17	0.17																					
ACTUAL DUCT LGH.	52	48	52																					1
EQUIVALENT LENGTH	120	170	130																					
TOTAL EFFECTIVE LENGTH	172	218	182																					- 1
ADJUSTED PRESSURE ROUND DUCT SIZE	0.09 <b>6</b>	0.08 <b>6</b>	0.09 4																					
HEATING VELOCITY (ft/min)	219	184	275																					1
COOLING VELOCITY (ft/min)	418	382	264																					1
OUTLET GRILL SIZE	4X10	4X10	3X10																					
TRUNK	D	<u>C</u>	Α																					
SUPPLY AIR TRUNK SIZE																	RETURN A	AIR TRUNK	SIZE					
	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY		TRUNK	STATIC	ROUND	RECT			VELOCITY
TO 1816 A	CFM	PRESS.	DUCT	DUCT		•	(ft/min)			CFM	PRESS.	DUCT	DUCT		_	(ft/min)		CFM	PRESS.	DUCT	DUCT			(ft/min)
TRUNK A		0.08 0.08	8.9 11.1	10 14	X	8 8	533 692		TRUNK G TRUNK H	0	0.00 0.00	0	0	X	8 8	0	TRUNK O	0	0.05	0	0	Х	8 8	0
TRUNK C		0.07	9.4	10	x	8	569		TRUNK I	ő	0.00	0	0	X X	8	0	TRUNK Q	0	0.05 0.05	0	0	X X	8	0
TRUNK D		0.07	11.9	16	X	8	658		TRUNK J	Ō	0.00	ō	ō	x	8	ŏ	TRUNK R	ŏ	0.05	ŏ	Ö	x	8	ŏ
TRUNK E		0.00	0	0	x	8	0		TRUNK K	0	0.00	0	0	×	8	0	TRUNK S	0	0.05	0	0	X	8	0
TRUNK F	0	0.00	0	0	X	88	0		TRUNK L	0	0.00	0	0	Х	8	0	TRUNK T	0	0.05 0.05	0	0	X	8	0
	-																TRUNK V	0	0.05	0	0	X X	8 8	0
RETURN AIR #	1	2	3	4	5	6	7	8				_	_	_	_	BR	TRUNK W	0	0.05	0	0	X	8	0
AIR VOLUME	0	0 95	0	0	0	0 75	0	0	0	0	0	0	0	0	0	400	TRUNK X	1032	0.05	16	30	X	8	619
PLENUM PRESSURE	90 0.15	85 0.15	90 0.15	90 0.15	85 0.15	75 0.15	360 0.15	85 0.15	0 0.15	0 0.15	0 0.15	0 0.15	0 0.15	0 0.15	0 0.15	162 0.15	TRUNK Y TRUNK Z	695 445	0.05 0.05	13.8 11.6	22 16	X X	8 8	569 501
ACTUAL DUCT LGH.	41	52	53	58	53	59	45	41	1	1	1	1	1	1	1	15	DROP	1122	0.05	16.5	24	X	10	673
EQUIVALENT LENGTH	185	195	165	165	215	265	165	190	0	0	0	0	Ó	Ó	Ó	150						••		
TOTAL EFFECTIVE LH	226	247	218	223	268	324	210	231	1	1	1	1	1	1	1	165								
ADJUSTED PRESSURE ROUND DUCT SIZE	0.07 5.9	0.06 6	0.07 5.9	0.07 5.9	0.06 6	0.05 6	0.07	0.06	14.80 0	14.80	14.80 0	14.80 0	14.80	14.80	14.80	0.09	1							
INLET GRILL SIZE	5.9 8	8	5.9 8	5.9 8	8	8	9.9 8	6 8	0	0	0	0	0	0	0	6.9 8								
	x	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X								
INLET GRILL SIZE	14	14	14	14	14	14	30	14	00	0	0	0	0	0	0	14								



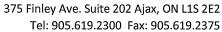
TYPE: TERRACOTA 2 SITE NAME: ROUNDEL HOMES INC LO# 90741

#### RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES 9.	.32.3.1(1)	SUPPLEMENTAL VENTILATION CAPACITY 9.32.3
a) Direct vent (sealed combustion) only		Total Ventilation Capacity cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Ventil. Capacity 79.5 cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Supplemental Capacity 121.9 cfm
d) Solid Fuel (including fireplaces)		
e) No Combustion Appliances		PRINCIPAL EXHAUST FAN CAPACITY
,		Model: VANEE V150H Location: BSMT
HEATING SYSTEM		79.5 cfm 3.0 sones ✓ HVI Approve
Forced Air Non Forced Air		PRINCIPAL EXHAUST HEAT LOSS CALCULATION           CFM         ΔT *F         FACTOR         % LOSS
		79.5 CFM X 78 F X 1.08 X 0.25
Electric Space Heat		SUPPLEMENTAL FANS PANASONIC
		Location Model cfm HVI Sones
HOUSE TYPE	9.32.1(2)	ENS FV-05-11VK1 50 ✓ 0.3 ENS-3/4 FV-05-11VK1 50 ✓ 0.3
I Type a) or b) appliance only, no solid fuel		ENS-2 FV-05-11VK1 50 ✓ 0.3
		W/R FV-05-11VK1 50 ✓ 0.3
II Type I except with solid fuel (including fireplaces)		HEAT RECOVERY VENTILATOR 9.32.3.1
III Any Type c) appliance		Model: VANEE V150H
IV Type I, or II with electric space heat		150 cfm high35 cfm low
		75 % Sensible Efficiency HVI Approve
Other: Type I, II or IV no forced air		@ 32 deg F ( 0 deg C)
		LOCATION OF INSTALLATION
SYSTEM DESIGN OPTIONS O.I	N.H.W.P.	Lot: Concession
1 Exhaust only/Forced Air System		
2 HRV with Ducting/Forced Air System		Township Plan:
LIPLY Simplified/connected to forced air custom		Address
3 HRV Simplified/connected to forced air system		Roll # Building Permit #
4 HRV with Ducting/non forced air system		BUILDER: GREENPARK HOMES
Part 6 Design		Name:
TOTAL VENTILATION CAPACITY 9.	32.3.3(1)	Address:
Basement + Master Bedroom2 @ 21.2 cfm42.4	cfm	City:
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #: Fax #:
Kitchen & Bathrooms5 @ 10.6 cfm53	cfm	INSTALLING CONTRACTOR
Other Rooms 7 @ 10.6 cfm 74.2	cfm	Name:
Table 9.32.3.A. TOTAL <u>201.4</u>	cfm	Address:
DDIVIONAL MENTILLATION OF PARITY DECUMPED.	20.0.4.(4)	City:
PRINCIPAL VENTILATION CAPACITY REQUIRED 9.3	32.3.4.(1)	Telephone #: Fax #:
1 Bedroom 31.8	cfm	DEGIOUED GENTIFICATION
2 Bedroom 47.7	cfm	DESIGNER CERTIFICATION I hereby certify that this ventilation system has been designed
3 Bedroom 63.6	cfm	in accordance with the Ontario Building Code.  Name: HVAC Designs Ltd.
4 Bedroom 79.5	cfm	Signature: Mehad Offinde.
5 Bedroom 95.4	cfm	HRAI# 001820
TOTAL 79.5 cfm		Date: May-21
I REVIEW AND TAKE RESPONIBILITY FOR THE DESIGN WORK AND AM QUALIFIE		PPROPRIATE CATEGORY AS AN "OTHER DESIGNER" UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.



				80-12 Residential Hea								
			Form	ula Sheet (For Air Lea	akage / Ventiliation C	alculation)						
LO#: 9	0741	Model: TERRACOTA	2	Builde	lder: GREENPARK HOMES Date: 2021-05-10							
		Volume Calculatio	n				Air Change & Delt	a T Data				
				-								
ouse Volume	El 1 (6:2)	T = 11 1 1 1 (51)	1	4			TURAL AIR CHANG		0.352			
Level	Floor Area (ft²) 1500	Floor Height (ft)	Volume (ft³)	4		SUMMER NA	TURAL AIR CHANG	GE RATE	0.110			
Bsmt First	1500	8 10	12000 15000	-								
Second	1889	9	17001	-			Docian To	mperature Diff	24222			
Third	0	9	0				Tin °C	Tout °C	ΔT °C	ΔT °F		
Fourth	0	9	0			Winter DTDh	22	-21	43	78		
		Total:	44,001.0 ft <sup>3</sup>	1		Summer DTDc	24	31	7	13		
		Total:	1246.0 m <sup>3</sup>	]			•		<u> </u>			
	5.0.0											
	5.2.3	3.1 Heat Loss due to A		6.2.6 S	ensible Gain due	to Air Leakage						
	$HL_{airh} =$	$LR_{airh} \times \frac{V_b}{3.6} \times I$	$DTD_h \times 1.2$		H	$G_{salb} = LR_{airc} \times$	$\frac{V_b}{V_b} \times DTD$	x 1 2				
		0.0			. 1		0.0					
0.352	x <u>346.10</u>	x <u>43 °C</u>	x <u>1.2</u>	= 6316 W	= 0.110	x <u>346.10</u>	. × <u> </u>	x1.2	. =	324 W		
				24554.0. (1	1							
				= 21551 Btu/h	]				=	1106 Btu/h		
	5.2.3.2 He	at Loss due to Mechar	ical Ventilation	<del></del>	-	6.2.7 Sen	sible heat Gain d	ue to Ventilatio	n			
						0.2.7 3011	sible fiedt dam d	ue to ventuatio				
	$HL_{vairb} =$	$PVC \times DTD_h \times 1$	$08 \times (1-E)$		$HL_{vairb} = PVC \times DTD_h \times 1.08 \times (1 - E)$							
80 CFM	x 78 °F	x 1.08	x 0.25	= 1670 Btu/h	80 CFM	x 13 °F	x 1.08	x 0.25	=	275 Btu/h		
	•		···			. x <u>131</u>	. ×	X	•	2/3 btu/11		
			5.2.3.3 Calcula	tion of Air Change Heat	Loss for Each Room (Floo	or Multiplier Section)						
		$HL_a$	<sub>irr</sub> = Level Fact	or $\times$ $HL_{airbv}$ $\times$ {(H	$\left(L_{agcr} + HL_{bgcr}\right) \div$	$(HL_{agclevel} + HL_{bg})$	$gclevel)$ }					
		Level	Level Factor (LF)	HLairve Air Leakage + Ventilation Heat Loss	Level Conductive Heat Loss: (HL <sub>clevel</sub> )	Air Leakage Heat Los HLairbv / H						
		1	0.5	(Btu/h)	9,177	1.174						
		2	0.3	1	12,676	0.510						
		3	0.2	21,551	15,729	0.274						
		4	0	1	0	0.000						
		5	0	1	0	0.000						
		*HLairby = A	ir leakage heat loss :	ventilation heat loss								







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

#### **HEAT LOSS AND GAIN SUMMARY SHEET**

MODEL:	TERRACOTA 2	100° 100 10 10 10 10 10 10 10 10 10 10 10 10		BUILDER: GREENPARK HOMES	<u></u> 5
SFQT:	3389	LO#	90741	SITE: ROUNDEL HOMES II	NC
DESIGN A	SSUMPTIONS	18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE - 18 MARIE -	·		
HEATING			°F	COOLING	°F
OUTDOO	R DESIGN TEMP.		-6	OUTDOOR DESIGN TEMP.	88
INDOOR I	DESIGN TEMP.		72	INDOOR DESIGN TEMP. (MAX 75°F)	75
BUILDING	G DATA				
ATTACHM	1ENT:	I	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FA	ACES:		EAST	ASSUMED (Y/N):	Y
AIR CHAN	GES PER HOUR:		3.57	ASSUMED (Y/N):	Υ
AIR TIGHT	NESS CATEGORY:		AVERAGE	ASSUMED (Y/N):	Υ
WIND EXF	POSURE:	S	HELTERED	ASSUMED (Y/N):	Υ
HOUSE VO	DLUME (ft³):		44001.0	ASSUMED (Y/N):	Υ
INTERNAL	SHADING:	BLINDS/	CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR	LIGHTING LOAD (Btu/	h/ft²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDAT	TION CONFIGURATION		BCIN_1	DEPTH BELOW GRADE:	5.5 ft
LENGTH:	54.0 ft	WIDTH:	37.0 ft	EXPOSED PERIMETER:	182.0 ft

	Compliano	e 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	29.80
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

W	eather Statio	n Description
Province:	Ontario	
Region:	Richmond H	ill
	Site Des	cription
Soil Conductivity:	Normal con	ductivity: dry sand, loam, clay
Water Table:	Normal (7-1	0 m, 23-33 ft)
	Foundation (	Dimensions
Floor Length (m):	16.5	
Floor Width (m):	11.3	
Exposed Perimeter (m):	0.0	
Wall Height (m):	2.4	
Depth Below Grade (m):	1.68	Insulation Configuration
Window Area (m²):	2.4	Appending the location of the second state of
Door Area (m²):	1.9	
	Radian	t Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Design N	<b>Nonths</b>
Heating Month	1	
	Foundatio	n Loads
Heating Load (Watts):		1718

TYPE: TERRACOTA 2 LO# 90741

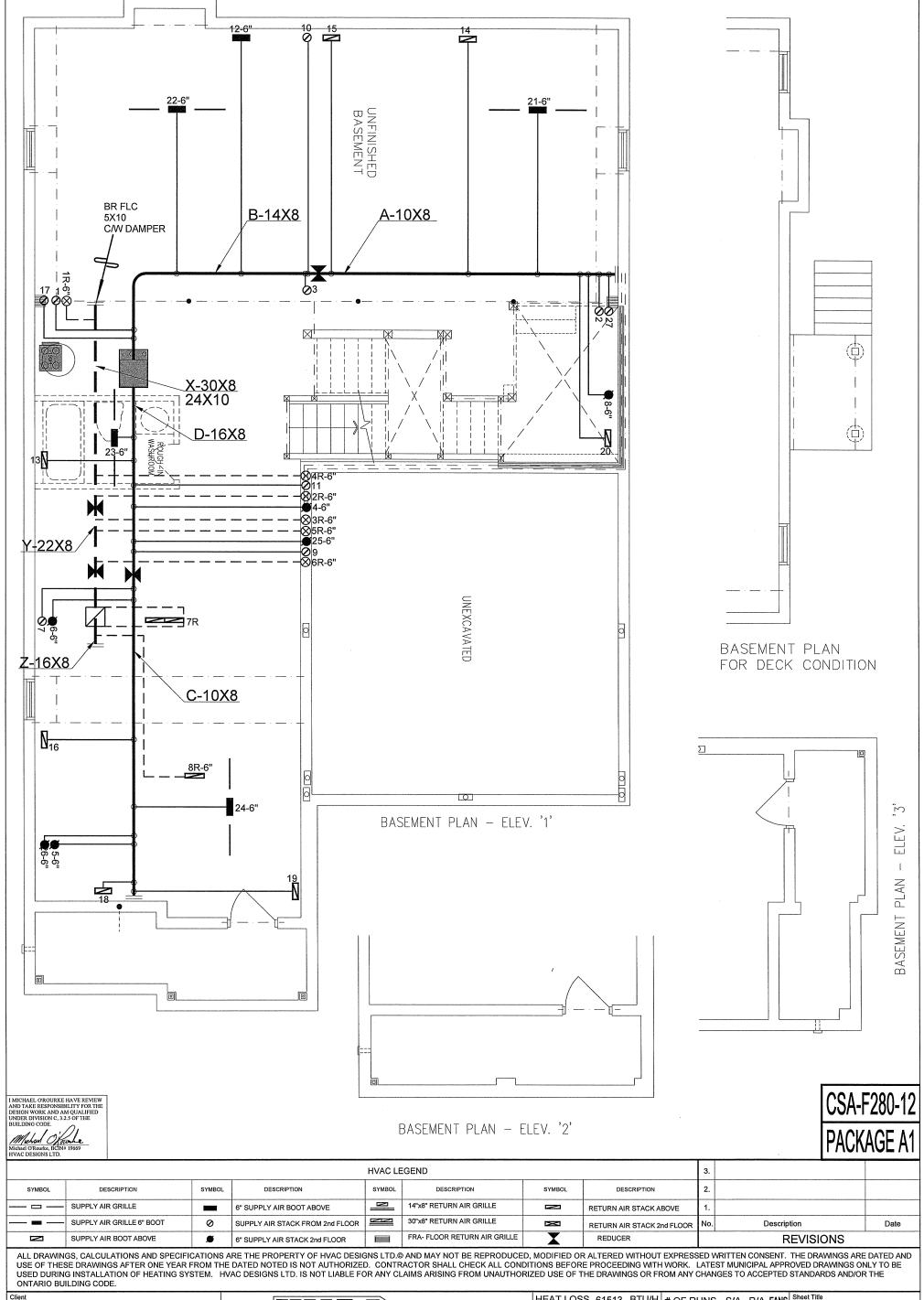


## **Air Infiltration Residential Load Calculator**

Supplemental tool for CAN/CSA-F280

Weather Statio	n Des	cript	ion					
Province:	Ontai	io						
Region:	Richn							
Weather Station Location:	Open flat terrain, grass							
Anemometer height (m):	10							
Local Sh	ieldin	g						
Building Site:	Subu	ban, f	orest					
Walls:	/							
Flue:	Heavy	/						
Highest Ceiling Height (m):	7.62							
Building Cor	nfigura	ation						
Type:	Detac	hed						
Number of Stories: Two								
Foundation:	Full							
House Volume (m³):	1246.	0						
Air Leakage/	Ventil	atior	1					
Air Tightness Type:	Prese	nt (196	61-) (3.	57 ACI	⊣)			
Custom BDT Data:	ELA @	10 Pa	€.		1660.9 cm²			
	3.57				ACH @ 50 Pa			
Mechanical Ventilation (L/s):	To	tal Sup	ply		Total Exhaust			
		37.5			37.5			
Flue S	Size							
Flue #:	#1	#2	#3	#4				
Diameter (mm):	0	0	0	0				
Natural Infiltr	ation	Rate	:S					
Heating Air Leakage Rate (ACH/H):		0	.35					
Cooling Air Leakage Rate (ACH/H):		0	.11	0				

**TYPE:** TERRACOTA 2 **LO#** 90741



### GREENPARK HOMES

Project Name

ROUNDEL HOMSE INC RICHMOND HILL, ONTARIO

Lot 169

TERRACOTA 2 3389

# HVA DESIGNS LTD.

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 61513	BTU/H	# OF	RUNS	S/A	R/A	FANS	S
	UNIT DATA		3RD	FLOOR				
	MAKE GOODMAN		2ND	FLOOR	15	6	4	
	MODEL GMEC960803BN	Α	1ST	FLOOR	8	2	3	
	INPUT 80	MBTU/H	BAS	EMENT	4	1	0	D
	оитрит 76.8	MBTU/H		S/A DIFFU				s
е	COOLING 3.0	TONS	ONL	AYOUT. A	LL S/A	RUN	S 5''Ø	L

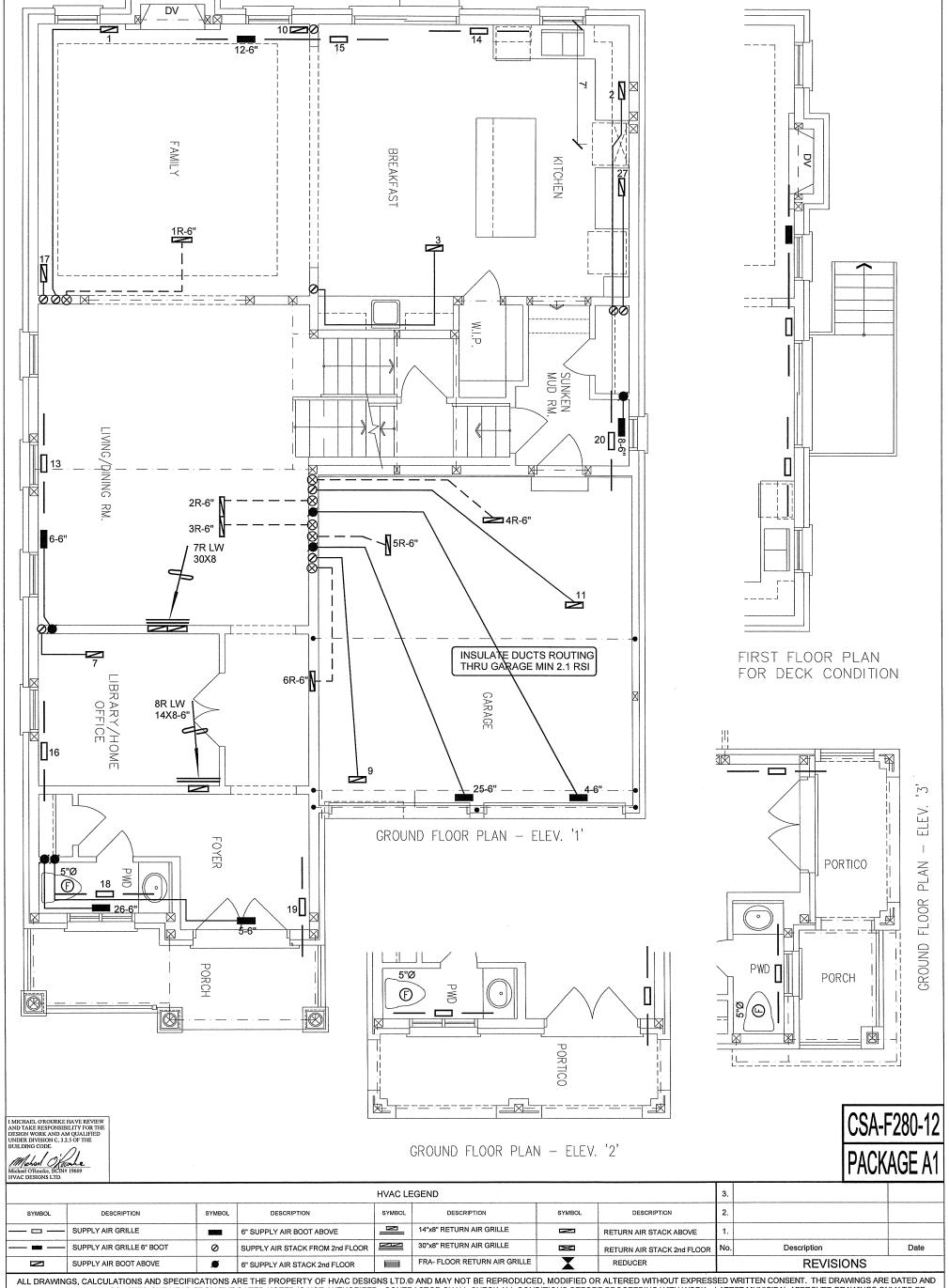
FAN SPEED

1122

ON LAYOUT. UNDERCUT

DOORS 1" min. FOR R/A

ANS	Sheet Title	
	BAS	SEMENT
4	HE	EATING
3	L/	AYOUT
0	Date <b>V</b>	IAY/2021
	Scale 3/	/16" = 1'-0"
E 5''Ø	ВС	IN# 19669
E	LO#	90741



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### GREENPARK HOMES

Project Name

ROUNDEL HOMSE INC RICHMOND HILL, ONTARIO

Lot 169

TERRACOTA 2 3

3389 sqft

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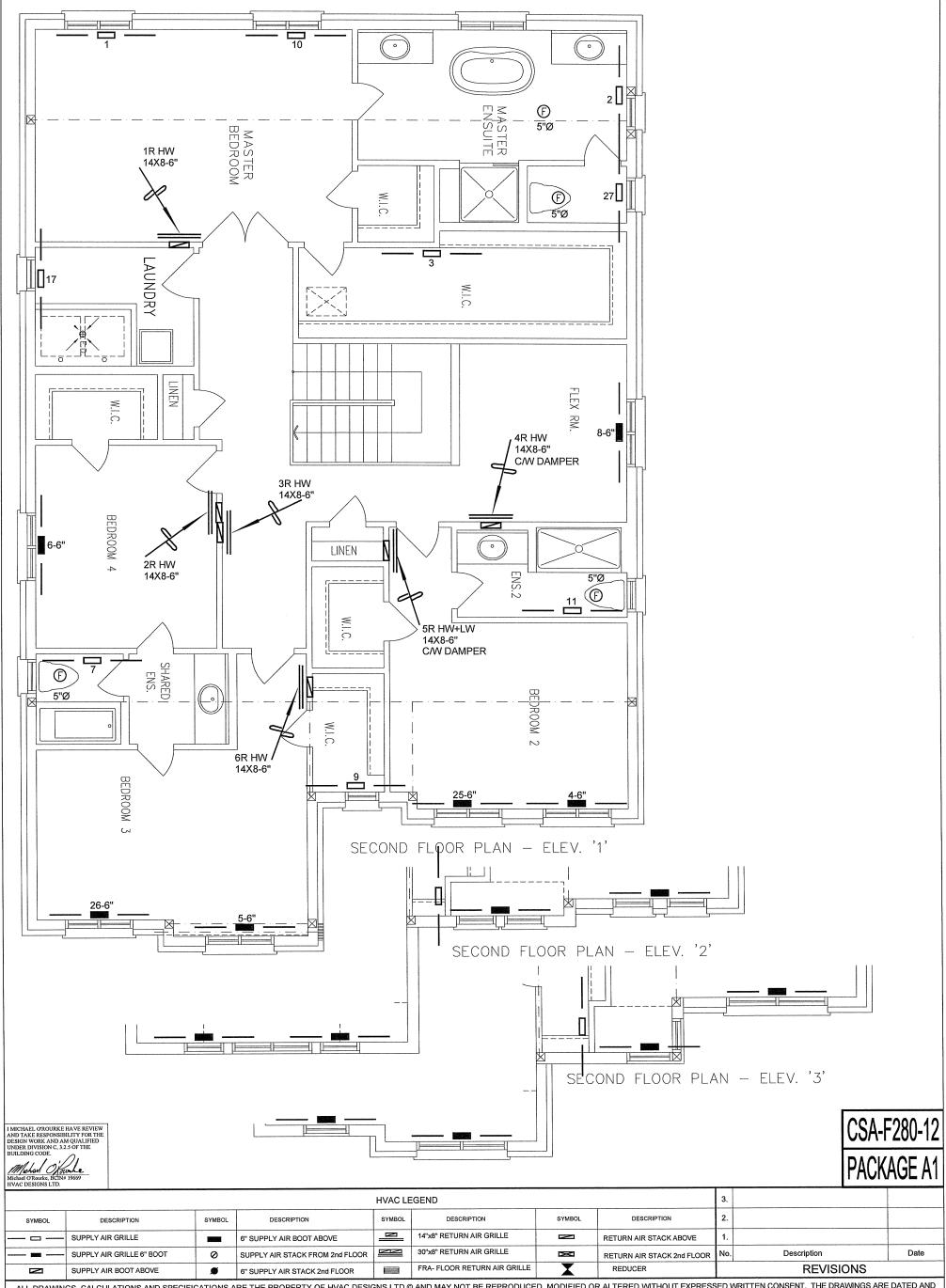
Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

FIRST FLOOR HEATING LAYOUT

Date MAY/2021
Scale 3/16" = 1'-0"

BCIN# 19669

LO# 90741



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#### **GREENPARK HOMES**

Project Name

ROUNDEL HOMSE INC RICHMOND HILL, ONTARIO

Lot 169

TERRACOTA 2

3389 sqft

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heet Title

#### SECOND FLOOR HEATING LAYOUT

Date MAY/2021
Scale 3/16" = 1'-0"

BCIN# 19669

LO# 90741