

CH SEFEENAME N	CZOFIENC	MA FS	TATE	INC					WOB									DATE:	Sen-23				WINTE	R NATURAL AIR CH	ANGE	RATE	0.36	7	HEAT LO						CSA-F28	
BUILDER:				•				TVDE:	PENR	OSE 2				GFA:	3045				102723					R NATURAL AIR CH					HEAT GA					SB-12	PACKAG	
	GREEN	NFARK	HOWE			1		I IFE.	PENK				DED 0	GFA.	3043	DED 4					1		OWNE	NATURAL AIR CH				<u>. </u>	HEAT GA	AIN AI	г.	"		3D-12	PACKAG	EAI
ROOM USE	•			MBR			ENS			WIC			BED-2			BED-3			BED-4			BATH				ENS-2	<u> </u>									
EXP. WALL	-			38			25			6			14			37			16			9				15										
CLG. HT.				9			9			9			11			10			9			9				9										
	FACTO																																			
GRS.WALL AREA	LOSS	GAIN		342			225			54			154			370			144			81				135										
GLAZING	i			LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN		LOSS	GAIN			LOSS	GAIN	ı								
NORTH	20.8	15.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0									
EAST	20.8	41.0	0	0	0	0	0	0	0	0	0	26	540	1067	31	644	1272	0	0	0	0	0	0		10	208	410	1								
SOUTH	20.8	24.4	0	0	0	11	229	268	0	0	0	0	0	0	0	0	0	16	332	390	9	187	220		0	0	0									
WEST		41.0	32	665	1314	14	291	575	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0									
SKYLT.	36.4	100.7	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		2.9	ő	0	0	o	0	0	0	0	0	ō	0	0	0	0	0	ō	0	0	ō	Ō	0		0	0	0									
NET EXPOSED WALL	4.4	0.6	310	1351	200	200	871	129	54	235	35	128	558	83	339	1477	219	128	558	83	72	314	47		125	545	81									
					0	0	0	0									0		0	0		0	0		0	0	0									
NET EXPOSED BSMT WALL ABOVE GR		0.5	0	0	•		-	-	0	0	0	0	0	0	0	0	-	0	-	-	0	-	-		-	-	-									
EXPOSED CLG		0.6	385	482	215	156	195	87	96	120	53	182	228	101	271	340	151	243	304	135	110	138	61		61	76	34									
NO ATTIC EXPOSED CLG		1.2	0	0	0	0	0	0	0	0	0	60	161	72	32	86	38	0	0	0	0	0	0		0	0	0									
EXPOSED FLOOR	2.5	0.4	0	0	0	0	0	0	0	0	0	242	603	89	0	0	0	0	0	0	0	0	0		61	152	23									
BASEMENT/CRAWL HEAT LOSS	i			0			0			0			0			0			0			0				0										
SLAB ON GRADE HEAT LOSS	·l		1	0		1	0		1	0			0			0		1	0		1	0				0										
SUBTOTAL HT LOSS	1			2498			1586			356			2089			2547			1195			639				981										
SUB TOTAL HT GAIN	I		1		1728	1		1059	1		88			1412			1681	l		608	1		327				548									
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										
AIR CHANGE HEAT LOSS	6			765			486			109			640			780			366			196				300										
AIR CHANGE HEAT GAIN	ı				106			65			5			87			103			37			20				34									
DUCT LOSS	;			0			0			0			273			0			0			0				128										
DUCT GAIN					0			0			0			253			0			0			0				58									
HEAT GAIN PEOPLE			2		480	0		0	0		0	1		240	1		240	1		240	0		0		0		0									
HEAT GAIN APPLIANCES/LIGHTS	,				786			0			0			786			786			786			0				0									
TOTAL HT LOSS BTU/H				3263			2072	_		464	-		3002			3326			1560			834	-			1409	-									
TOTAL HT GAIN x 1.3 BTU/H					4031			1462			122			3612			3654			2174			452				831									
	11		l						·								0004	l		21/4	l		402							- 1						
			1	LV/DN		1	OFF			KT/FM			WIC-2			LAUN	0004		MUD	2174	l	FOY	402					l			v	WOB			BAS	
ROOM USE				LV/DN 21			OFF 28			KT/FM 74			WIC-2			LAUN 15	0004		MUD 29	2174		FOY 21										NOB 54			BAS 128	
ROOM USE EXP. WALL				21			28			74			11			15	5554		29	2114		21	402									54			128	
ROOM USE)RS															0004			21/4			402													
ROOM USE EXP. WALL CLG. HT.	FACTO			21 10			28 10			74 10			11 11			15 9	0004		29 12	2174		21 11	702									54 9			128 9	
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA	FACTO			21 10 210			28 10 280			74 10 740			11 11 121			15 9 135			29 12 348			21 11 231										54 9 486	GAIN		128 9 768	2 AIN
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING	FACTO	GAIN		21 10 210 LOSS	GAIN		28 10 280 LOSS	GAIN		74 10 740 LOSS	GAIN	•	11 11 121 LOSS	GAIN	22	15 9 135 LOSS	GAIN		29 12 348 LOSS	GAIN		21 11 231 LOSS	GAIN							26	L	54 9 486 .OSS		0	128 9 768 LOSS G	
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH	FACTO LOSS	GAIN 15.5	0	21 10 210 LOSS 0	GAIN 0	0	28 10 280 LOSS 0	GAIN 0	0	74 10 740 LOSS 0	GAIN 0	0	11 11 121 LOSS 0	GAIN 0	23	15 9 135 LOSS 478	GAIN 356	0	29 12 348 LOSS 0	GAIN 0	0 22	21 11 231 LOSS 0	GAIN 0							26	L: 6 !	54 9 486 .OSS 540	402	0	128 9 768 LOSS G	0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST	FACTO LOSS 20.8	15.5 41.0	0	21 10 210 LOSS 0	GAIN 0 0	0	28 10 280 LOSS 0	GAIN 0 0	0	74 10 740 LOSS 0 0	GAIN 0 0	10	11 11 121 LOSS 0 208	GAIN 0 410	0	15 9 135 LOSS	GAIN 356 0	0	29 12 348 LOSS	GAIN 0 0	23	21 11 231 LOSS 0 478	GAIN 0 944							0	L(6 - 5	54 9 486 .OSS 540 0	402 0	0	128 9 768 LOSS 6	0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH	FACTO LOSS 20.8 20.8 20.8	15.5 41.0 24.4	0 22	21 10 210 LOSS 0 0 457	GAIN 0	0 20	28 10 280 LOSS 0 0 416	GAIN 0 0 488	0 0	74 10 740 LOSS 0 0	GAIN 0 0	10 0	11 11 121 LOSS 0 208 0	GAIN 0 410 0	0	15 9 135 LOSS 478 0	GAIN 356 0	0	29 12 348 LOSS 0 0	GAIN 0 0	23 0	21 11 231 LOSS 0 478 0	GAIN 0 944 0							0	L(6 .	54 9 486 OSS 540 0	402 0 0	0 10	128 9 768 LOSS 6 0 0 208	0 0 244
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST	FACTO LOSS 20.8 20.8 20.8 20.8 20.8	15.5 41.0 24.4 41.0	0 22 0	21 10 210 LOSS 0 0 457 0	GAIN 0 0 537 0	0 20 0	28 10 280 LOSS 0 0 416 0	GAIN 0 0 488 0	0 0 0 78	74 10 740 LOSS 0 0 0	GAIN 0 0 0 0 3202	10 0 0	11 11 121 LOSS 0 208 0	GAIN 0 410 0	0 0 0	15 9 135 LOSS 478 0 0	GAIN 356 0 0	0 0 0	29 12 348 LOSS 0 0 0	GAIN 0 0 0	23 0 0	21 11 231 LOSS 0 478 0	GAIN 0 944 0							0 0 27	L(6 !	54 9 486 .OSS 540 0 0	402 0 0 1108	0 10 0	128 9 768 LOSS G 0 0 208	0 0 244 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT.	FACTO LOSS 20.8 20.8 20.8 20.8 36.4	15.5 41.0 24.4 41.0 100.7	0 22 0 0	21 10 210 LOSS 0 0 457 0	GAIN 0 0	0 20 0 0	28 10 280 LOSS 0 0 416 0	GAIN 0 0 488 0	0 0 0 78 0	74 10 740 LOSS 0 0 0 1621 0	GAIN 0 0 0 3202	10 0 0 0	11 11 121 LOSS 0 208 0 0	GAIN 0 410 0 0	0 0 0	15 9 135 LOSS 478 0 0	GAIN 356 0 0	0 0 0	29 12 348 LOSS 0 0 0	GAIN 0 0 0	23 0 0 0	21 11 231 LOSS 0 478 0 0	GAIN 0 944 0 0							0 0 27 0	L	54 9 486 OSS 540 0 0 561	402 0 0 1108 0	0 10 0	128 9 768 LOSS G 0 0 208	0 0 244 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS	20.8 20.8 20.8 20.8 20.8 20.8 36.4 19.6	15.5 41.0 24.4 41.0 100.7 2.9	0 22 0 0	21 10 210 LOSS 0 0 457 0 0	GAIN 0 0 537 0 0	0 20 0 0	28 10 280 LOSS 0 0 416 0 0	GAIN 0 0 488 0 0	0 0 0 78 0	74 10 740 LOSS 0 0 0 1621 0	GAIN 0 0 0 3202 0	10 0 0 0 0	11 11 121 LOSS 0 208 0 0 0	GAIN 0 410 0 0 0	0 0 0 0	15 9 135 LOSS 478 0 0 0	GAIN 356 0 0 0	0 0 0 0 20	29 12 348 LOSS 0 0 0 0 0 0 392	GAIN 0 0 0 0 0	23 0 0 0 25	21 11 231 LOSS 0 478 0 0 0	GAIN 0 944 0 0 0							0 27 0 10	L(6 !)	54 9 486 .OSS 540 0 0 561 0	402 0 0 1108 0 29	0 10 0 0 20	128 9 768 LOSS 6 0 0 208 2 0 0 392	0 0 244 0 0 58
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL	FACTO LOSS 20.8 20.8 20.8 20.8 36.4 19.6 4.4	15.5 41.0 24.4 41.0 100.7 2.9 0.6	0 22 0 0 0 188	21 10 210 LOSS 0 0 457 0 0 0 819	GAIN 0 0 537 0 0 0	0 20 0 0 0 260	28 10 280 LOSS 0 0 416 0 0	GAIN 0 0 488 0 0 0	0 0 0 78 0 0 662	74 10 740 LOSS 0 0 0 1621 0 0 2884	GAIN 0 0 0 3202 0 0 428	10 0 0 0 0 111	11 11 121 LOSS 0 208 0 0 0 0	GAIN 0 410 0 0 0 0	0 0 0 0 0 112	15 9 135 LOSS 478 0 0 0 0	GAIN 356 0 0 0 0	0 0 0 0 20 328	29 12 348 LOSS 0 0 0 0 0 0 392 1429	GAIN 0 0 0 0 0 58 212	23 0 0 0 25 183	21 11 231 LOSS 0 478 0 0 0 489 797	GAIN 0 944 0 0 0 73 118							0 0 27 0 10 423	L(6 4)	54 9 486 OSS 540 0 0 561 0 196	402 0 0 1108 0 29 273	0 10 0 0 20	128 9 768 LOSS G 0 0 208 : 0 0 392 0	0 0 244 0 0 58
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE GR	FACTO LOSS 20.8 20.8 20.8 20.8 36.4 19.6 4.4 3.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5	0 22 0 0 0 188	21 10 210 LOSS 0 0 457 0 0 819 0	GAIN 0 0 537 0 0	0 20 0 0 0 260	28 10 280 LOSS 0 0 416 0 0 1133	GAIN 0 0 488 0 0 0 168	0 0 0 78 0 0 662	74 10 740 LOSS 0 0 0 1621 0 0 2884	GAIN 0 0 0 3202 0 0 428 0	10 0 0 0 0 1111	11 11 121 LOSS 0 208 0 0 0 0 484	GAIN 0 410 0 0 0 0 72	0 0 0 0 0 112	15 9 135 LOSS 478 0 0 0 0 0 488 0	GAIN 356 0 0 0 0 72	0 0 0 0 20 328 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0	GAIN 0 0 0 0 0 58 212 0	23 0 0 0 25 183 0	21 11 231 LOSS 0 478 0 0 489 797 0	GAIN 0 944 0 0 73 118							0 27 0 10	L(6 4)	54 9 486 .OSS 540 0 0 561 0	402 0 0 1108 0 29 273 0	0 10 0 0 20 0 384	128 9 768 LOSS G 0 0 208 : 0 0 392 0 1349 : :	0 0 244 0 0 58 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMT WALL ABOVE OR EXPOSED CLG	FACTO LOSS 20.8 20.8 20.8 20.8 36.4 19.6 4.4 3.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0	GAIN 0 0 537 0 0 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0	GAIN 0 0 0 3202 0 0 428 0	10 0 0 0 0 111 0	11 11 121 LOSS 0 208 0 0 0 0 484 0	GAIN 0 410 0 0 0 72 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0	GAIN 0 0 0 0 0 58 212 0	23 0 0 0 25 183 0	21 11 231 LOSS 0 478 0 0 489 797 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0	L() () () () () () () () () ()	54 9 486 OSS 540 0 0 561 0 196 1843 0	402 0 0 1108 0 29 273 0	0 10 0 0 20 0 384	768 LOSS G 0 0 208 : : 0 0 392 0 1349 : : 0	0 0 244 0 0 58 0 200
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0	GAIN 0 0 537 0 0 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0	GAIN 0 0 3202 0 0 428 0 0	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0	GAIN 0 410 0 0 0 72 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48	GAIN 0 0 0 0 58 212 0 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0 0	L() () () () () () () () () ()	54 9 486 OSS 540 0 0 561 0 196 1843 0 0	402 0 0 1108 0 29 273 0 0	0 10 0 0 20 0 384 0	768 LOSS G 0 0 208 :: 0 0 392 0 1349 :: 0 0	0 0 244 0 0 58 0 200 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMY WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED FLOOR	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0	GAIN 0 0 537 0 0 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0	GAIN 0 0 0 3202 0 0 428 0	10 0 0 0 0 111 0	11 11 121 LOSS 0 208 0 0 0 0 484 0	GAIN 0 410 0 0 0 72 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0	GAIN 0 0 0 0 0 58 212 0	23 0 0 0 25 183 0	21 11 231 LOSS 0 478 0 0 489 797 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0	L() () () () () () () () () ()	54 9 486 OSS 540 0 0 561 0 196 1843 0	402 0 0 1108 0 29 273 0	0 10 0 0 20 0 384	128 9 768 LOSS 0 0 0 208 : 0 0 392 0 1349 : 0 0 0	0 0 244 0 0 58 0 200
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0	GAIN 0 0 537 0 0 121 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0	GAIN 0 0 3202 0 0 428 0 0	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0	GAIN 0 410 0 0 0 72 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48	GAIN 0 0 0 0 58 212 0 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0 0	L() () () () () () () () () ()	54 9 486 OSS 540 0 0 561 0 196 1843 0 0	402 0 0 1108 0 29 273 0 0	0 10 0 0 20 0 384 0	768 LOSS G 0 0 208 :: 0 0 392 0 1349 :: 0 0	0 0 244 0 0 58 0 200 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BSMY WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED FLOOR	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0 0	GAIN 0 0 537 0 0 121 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0	GAIN 0 0 3202 0 0 428 0 0	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 484 0 0	GAIN 0 410 0 0 0 72 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89 0 177	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48	GAIN 0 0 0 0 58 212 0 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0 0	L(1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 561 0 196 1843 0 0	402 0 0 1108 0 29 273 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 208 : 0 0 392 0 1349 : 0 0 0	0 0 244 0 0 58 0 200 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0 0 0	GAIN 0 0 537 0 0 121 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0 0 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 27 0	GAIN 0 0 3202 0 0 428 0 0	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 484 0 0 0	GAIN 0 410 0 0 0 72 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89 0 177 0	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48 0	GAIN 0 0 0 0 58 212 0 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 561 0 196 1843 0 0	402 0 0 1108 0 29 273 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 208 : 0 0 392 0 1349 : 0 0 0	0 0 244 0 0 58 0 200 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMIT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG SEXPOSED CLG AND ATTIC EXPOSED CLG EXPOSED CLG SEXPOSED CLG SEXPOSED CLG AND ATTIC EXPOSED CLG SEXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0	21 10 210 LOSS 0 0 457 0 0 819 0 0 0	GAIN 0 0 537 0 0 121 0	0 20 0 0 0 260 0	28 10 280 LOSS 0 0 416 0 0 1133 0 0 0	GAIN 0 0 488 0 0 168 0	0 0 0 78 0 0 662 0	74 10 740 LOSS 0 0 1621 0 2884 0 27 0	GAIN 0 0 3202 0 0 428 0 0	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0	GAIN 0 410 0 0 0 72 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89 0 177 0 0	GAIN 356 0 0 0 0 72 0 40	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 392 1429 0 0 48 0 0	GAIN 0 0 0 0 58 212 0 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0	GAIN 0 944 0 0 73 118 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 6 0 0 208 : 0 0 392 0 1349 : 0 0 2522 4470	0 0 244 0 0 58 0 200 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED BMM WALL ABOVE GR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SLAB ON GRADE HEAT LOSS SUBTOTAL HT LOSS	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 0 457 0 0 819 0 0 0	GAIN 0 0 0 537 0 0 0 121 0 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 0 416 0 0 1133 0 0 0	GAIN 0 0 488 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 1621 0 2884 0 27 0	GAIN 0 0 3202 0 0 428 0 0 12	10 0 0 0 0 111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0	GAIN 0 4410 0 0 0 0 72 0 0 0 0 0	0 0 0 0 0 112 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89 0 177 0 0 1232	GAIN 356 0 0 0 0 72 0 40 0 26	0 0 0 0 20 328 0 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48 0 0 0	GAIN 0 0 0 0 0 588 212 0 0 21 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0 0 0 0 0	GAIN 0 944 0 0 73 118 0 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 6 0 0 208 : 0 0 392 0 1349 : 0 0 2522 4470	0 0 2244 0 0 558 0 2200 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG SEXPOSED CLG ATTIC EXPOSED CLG EXPOSED CLG SEXPOSED CLG SEXPOSED CLG EXPOSED CLG SEXPOSED	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 0 457 0 0 819 0 0 0 0	GAIN 0 0 0 537 0 0 0 121 0 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 416 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 0 1621 0 2884 0 0 27 0 0 4532	GAIN 0 0 3202 0 0 428 0 0 12	10 0 0 0 0 1111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0	GAIN 0 4410 0 0 0 0 72 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 488 0 89 0 177 0 0 1232	GAIN 356 0 0 0 0 72 0 40 0 26	0 0 0 0 20 328 0 0 18	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48 0 0 0	GAIN 0 0 0 0 0 588 212 0 0 21 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0 0 0 0 0	GAIN 0 944 0 0 73 118 0 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS G 0 0 208 : 0 0 392 0 1349 : 0 0 25522	0 0 2244 0 0 558 0 2200 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE OR EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 457 0 0 819 0 0 0 0 1276	GAIN 0 0 537 0 0 121 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 416 0 0 1133 0 0 0 0	GAIN 0 0 488 0 0 0 168 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 1621 0 0 2884 0 0 27 0 0 4532	GAIN 0 0 3202 0 0 428 0 0 12 0	10 0 0 0 0 1111 0 0	11 11 121 LOSS 0 208 0 0 0 484 0 0 0 0 0 0	GAIN 0 410 0 0 0 72 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 488 0 89 0 177 0 1232	GAIN 356 0 0 0 0 0 72 0 40 0 26	0 0 0 0 20 328 0 0 18	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 58 212 0 0 21 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 1765	GAIN 0 9444 0 0 0 73 118 0 0 0 0 1135							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 208 0 0 392 0 1349 0 0 2522 4 4470 1.20 10044	0 0 244 0 0 58 0 200 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG ON 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 COSA	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 0 457 0 0 0 819 0 0 0 0 1276	GAIN 0 0 0 537 0 0 0 121 0 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 0 416 0 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 27 0 0 4532	GAIN 0 0 3202 0 0 428 0 0 12	10 0 0 0 0 1111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0 0 691	GAIN 0 4410 0 0 0 0 72 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89 0 1777 0 0 1232 0.31	GAIN 356 0 0 0 0 72 0 40 0 26	0 0 0 0 20 328 0 0 18	29 12 348 LOSS 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 588 212 0 0 21 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 944 0 0 73 118 0 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 208 : 0 0 1349 : 0 0 2522 4470 1.20 10044	0 0 2244 0 0 558 0 2200 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NO ATTIC EXPOSED CLG 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	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 457 0 0 819 0 0 0 0 1276	GAIN 0 0 537 0 0 121 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 416 0 0 1133 0 0 0 0 1548	GAIN 0 488 0 0 0 168 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 0 1621 0 2884 0 0 27 0 0 4532	GAIN 0 0 0 3202 0 0 428 0 0 12 0 0 3641	10 0 0 0 0 1111 0 0	11 11 121 LOSS 0 208 0 0 0 484 0 0 0 0 0 0	GAIN 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 488 0 89 0 177 0 1232	GAIN 356 0 0 0 0 72 0 40 0 26	0 0 0 0 20 328 0 0 18	29 12 348 LOSS 0 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 5 5 12 0 0 2 1 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 1765	GAIN 0 944 0 0 738 1118 0 0 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 208 0 0 392 0 1349 0 0 2522 4 4470 1.20 10044	0 0 0 2244 0 0 58 0 2000 0 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG NO ATTIC EXPOSED CLG NO ATTIC EXPOSED CLG EXPOSED CLG NO ATTIC EXPOSED CLG SUBTOTAL HT LOSS SUBTOTAL HT LOSS SUBTOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT LOSS DUCT GAIN	FACTC LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0 0	21 10 210 LOSS 0 0 457 0 0 0 819 0 0 0 0 1276	GAIN 0 0 537 0 0 0 121 0 0 0 0 658 41 0	0 20 0 0 0 260 0 0 0	28 10 280 LOSS 0 0 416 0 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 0 168 0 0 0 0 0 656 40 0	0 0 0 78 0 0 662 0 0 10 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 27 0 0 4532	GAIN 0 0 3202 0 0 428 0 0 12 0 0	10 0 0 0 0 1111 0 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0 0 691	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89 0 1777 0 0 1232 0.31	GAIN 356 0 0 0 0 0 72 0 40 0 26	0 0 0 20 328 0 0 18 0	29 12 348 LOSS 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 588 212 0 0 21 0 0	23 0 0 0 25 183 0 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 944 0 0 0 73 118 0 0 0 1135 70 0							0 0 27 0 10 423 0 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0	128 9 768 LOSS 0 0 0 0 392 0 1349 0 0 2522 4470 1.20 10044 0	0 0 2444 0 0 58 0 2000 0 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE OR EXPOSED LG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	FACTC LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0	21 10 210 LOSS 0 0 457 0 0 0 819 0 0 0 0 1276	GAIN 0 0 0 537 0 0 0 121 0 0 0 0 658 41 0 0 0	0 20 0 0 0 260 0 0	28 10 280 LOSS 0 0 416 0 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 78 0 0 662 0 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 27 0 0 4532	GAIN 0 0 0 3202 0 0 428 0 0 12 0 0 3641 2224 0 0 0	10 0 0 0 0 1111 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0 0 691	GAIN 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89 0 1777 0 0 1232 0.31	GAIN 356 0 0 0 0 0 72 0 440 0 26 494 30 131 0	0 0 0 0 20 328 0 0 18	29 12 348 LOSS 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 5 5 12 0 0 2 1 0	23 0 0 0 25 183 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 944 0 0 738 1118 0 0 0							0 0 27 0 10 423 0 0	L() 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	54 9 486 OSS 540 0 0 196 1843 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0 0	128 9 768 LOSS 6 0 0 208 0 0 392 0 1349 0 0 25522 4470 1.20 1.0044	0 0 2444 0 0 558 0 2200 0 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED WALL NET EXPOSED CLG EXPOSED CLG ON ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL 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 PEOPLE	FACTC LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0 0	21 10 210 LOSS 0 0 457 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 537 0 0 0 121 0 0 0 0 658 41 0	0 20 0 0 0 260 0 0 0	28 10 280 LOSS 0 0 416 0 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 0 168 0 0 0 0 0 656 40 0	0 0 0 78 0 0 662 0 0 10 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 0 27 0 0 4532 0.52 2338	GAIN 0 0 3202 0 0 428 0 0 12 0 0	10 0 0 0 0 1111 0 0 0	11 11 121 LOSS 0 0 0 0 0 0 484 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89 0 1777 0 0 1232 0.311 3777	GAIN 356 0 0 0 0 0 72 0 40 0 26	0 0 0 20 328 0 0 18 0	29 12 348 LOSS 0 0 0 0 0 392 1429 0 48 0 0 1869 0.52 964	GAIN 0 0 0 0 0 588 212 0 0 21 0 0	23 0 0 0 25 183 0 0 0	21 11 231 LOSS 0 478 0 0 489 797 0 0 0 0 0 1765 0.52 910	GAIN 0 944 0 0 0 73 118 0 0 0 1135 70 0							0 0 27 0 10 423 0 0 0	LC L	54 9 486 OSS 540 0 0 561 0 196 1843 0 0 0 0	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0 0	128 9 768 LOSS 0 0 0 208 : 0 0 1349 : 0 0 2522 4470 1.20 10044	0 0 2444 0 0 588 0 2000 0 0 0
ROOM USE EXP. WALL CLG. HT. GRS.WALL AREA GLAZING NORTH EAST SOUTH WEST SKYLT. DOORS NET EXPOSED WALL NET EXPOSED BMT WALL ABOVE OR EXPOSED LG NO ATTIC EXPOSED CLG EXPOSED FLOOR BASEMENT/CRAWL HEAT LOSS SUB TOTAL HT GAIN LEVEL FACTOR / MULTIPLIER AIR CHANGE HEAT LOSS AIR CHANGE HEAT GAIN DUCT GAIN HEAT GAIN PEOPLE	FACTO LOSS 20.8 20.8 20.8 36.4 19.6 4.4 3.5 1.3 2.7 2.5	15.5 41.0 24.4 41.0 100.7 2.9 0.6 0.5 0.6 1.2	0 22 0 0 0 188 0 0 0	21 10 210 LOSS 0 0 457 0 0 0 819 0 0 0 0 1276	GAIN 0 0 0 537 0 0 0 121 0 0 0 0 658 41 0 0 0	0 20 0 0 0 260 0 0 0	28 10 280 LOSS 0 0 416 0 0 0 1133 0 0 0 0 1548	GAIN 0 0 488 0 0 0 168 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 78 0 0 662 0 0 10 0	74 10 740 LOSS 0 0 0 1621 0 0 2884 0 0 27 0 0 4532	GAIN 0 0 0 3202 0 0 428 0 0 12 0 0 3641 2224 0 0 0	10 0 0 0 0 1111 0 0 0	11 11 121 LOSS 0 208 0 0 0 0 484 0 0 0 0 0 691	GAIN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 112 0 71 0 71	15 9 135 LOSS 478 0 0 0 0 0 488 0 89 0 1777 0 0 1232 0.31	GAIN 356 0 0 0 0 0 72 0 440 0 26 494 30 131 0	0 0 0 20 328 0 0 18 0	29 12 348 LOSS 0 0 0 0 392 1429 0 0 48 0 0 0 1869	GAIN 0 0 0 0 0 588 212 0 0 21 0 0	23 0 0 0 25 183 0 0 0	21 11 231 LOSS 0 478 0 0 0 489 797 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	GAIN 0 944 0 0 0 73 118 0 0 0 1135 70 0							0 0 27 0 10 423 0 0 0	LC L	54 9 486 OSS 540 0 0 561 0 196 1843 0 0 0 752	402 0 0 1108 0 29 273 0 0 0	0 10 0 0 20 0 384 0 0	128 9 768 LOSS 0 0 0 208 0 0 392 0 1349 0 0 0 2522 ✓ 4470 1.20 10044 0	0 0 2444 0 0 558 0 2200 0 0 0

TOTAL HEAT GAIN BTU/H:

35203

TONS: 2.93

LOSS DUE TO VENTILATION LOAD BTU/H: 1593

STRUCTURAL HEAT LOSS: 53814

TOTAL COMBINED HEAT LOSS BTU/H: 55407

Michael Oxombe.

COOLING VELOCITY (ft/min)
OUTLET GRILL SIZE

MHP 23019

375 Finley Ave. Suite 202 Ajax, ON L1S 2E2
Tel: 905.619.2300 Fax: 905.619.2375
Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

DE	ER Combine	TO)RF	RA ESTA	TES INC					WOB															
,,,	CHIEF BUI BU	NEDERC							TYPE:	PENROS	SE 2			DATE:	Sep-23			GFA:	3045	LO#	102723				
									furnace	pressure	0.6														
	HEATING CFM	1131		COC	LING CFM	1131			fur	nace filter	0.05								#G	SOODM/	AN		AFUE =	96 %	
TC	OTAL HEAT LOSS	53,814		TOTAL F	HEAT GAIN	34,967			a/c coi	pressure	0.2						(MEC960	603BNA	60			(BTU/H) =		
AIR F	FLOW RATE CFM	21.02	Α	IR FLOW I	RATE CFM	32.34		a	available	pressure								FAN	SPEED			OUTPUT	(BTU/H) =	57,600	
									fo	r s/a & r/a	0.35								LOW						
RUN	N COUNT	4th	3rd	2nd	1st	Bas												M	EDLOW			DESI	IGN CFM =		_
	S/A	0	0	12	8	4		ple	enum pre	essure s/a	0.18		r/a	pressure					MEDIUM	928			CFM @ .	6 " E.S.P.	
	R/A	0	0	4	3	1		max	s/a dif p	ress. loss	0.02	r/a	grille pre	ess. Loss	0.02			MEDIL	JM HIGH	1017					
	fusers 4"x10" unle				out.			min adj	usted pre	essure s/a	0.16	adj	usted pre	ssure r/a	0.15				HIGH	1131	TE	EMPERAT	URE RISE	47	°F
All S/A runs	ns 5"Ø unless note	ed other	wise on la	ayout.																					
	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	WIC	BED-2	BED-3	BED-4	BATH	BED-2		MBR	ENS-2	LV/DN	OFF	KT/FM	KT/FM	WIC-2	LAUN	MUD	FOY	KT/FM	BAS	BAS	BAS	BAS
	RM LOSS MBH.	1.63	2.07	0.46	1.50	1.66	1.56	0.83	1.50	1.66	1.63	1.41	1.93	2.35	2.29	2.29	1.05	1.77	2.83	2.67	2.29	4.60	4.60	4.60	4.60
CFN	M PER RUN HEAT	34	44	10	32	35	33	18	32	35	34	30	41	49	48	48	22	37	60	56	48	97	97	97	97
	RM GAIN MBH.	2.02	1.46	0.12	1.81	1.83	2.17	0.45	1.81	1.83	2.02	0.83	1.93	1.93	2.02	2.02	0.67	1.87	0.40	1.57	2.02	1.05	1.05	1.05	1.05
	ER RUN COOLING	65	47	4	58	59	70	15	58	59	65	27	62	62	65	65	22	61	13	51	65	34	34	34	34
ADJUS	STED 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	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
AC*	TUAL DUCT LGH.	62	33	51	41	43	23	34	47	52	76	51	4	18	37	45	26	16	62	46	65	30	49	10	26
	IVALENT LENGTH	170	160	160	170	160	160	150	160	150	130	200	190	140	150	200	160	140	170	140	180	180	190	180	190
	FECTIVE LENGTH	232	193	211	211	203	183	184	207	202	206	251	194	158	187	245	186	156	232	186	245	210	239	190	216
	STED PRESSURE	0.07	0.09	0.08	0.08	0.08	0.09	0.09	0.08	0.09	0.08	0.07	0.09	0.11	0.09	0.07	0.09	0.11	0.07	0.09	0.07	0.08	0.07	0.09	0.08
	OUND DUCT SIZE	6	5	4	5	5	6	4	5	5	5	4	6	5	5	5	4	5	5	5	6	6	6	6	6
	VELOCITY (ft/min)	173	323	115	235	257	168	207	235	257	250	344	209	360	352	352	252	272	441	411	245	495	495	495	495
	VELOCITY (ft/min)	331	345	46	426	433	357	172	426	433	477	310	316	455	477	477	252	448	95	374	331	173	173	173	173
OU	JTLET GRILL SIZE	4X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	4X10	3X10	3X10	3X10	3X10	3X10	3X10	3X10	4X10	4X10	4X10	4X10	4X10
	TRUNK	С	D	D	A	Α	D	В	A	A	С	A	В	В	D	С	Α	В	С	Α	С	D	С	В	Α
	RUN#																								
	ROOM NAME																								
	RM LOSS MBH.																								
CFN	M PER RUN HEAT																								
0514.05	RM GAIN MBH.																								
	ER RUN COOLING																								
	STED PRESSURE																								
	IVALENT LENGTH																								
	FECTIVE LENGTH																								
	STED PRESSURE																								
	OUND DUCT SIZE																								
	VELOCITY (ft/min)																								
HEATING \	AFFOCITY (INTUIN)																								

TRUNK																								
SUPPLY AIR TRUNK SIZE																	RETURN A	AIR TRUN	K SIZE					-
	TRUNK	STATIC	ROUND	RECT			VELOCITY			TRUNK	STATIC	ROUND	RECT			VELOCITY		TRUNK	STATIC	ROUND	RECT			VELOCITY
	CFM	PRESS.	DUCT	DUCT			(ft/min)			CFM	PRESS.	DUCT	DUCT			(ft/min)		CFM	PRESS.	DUCT	DUCT			(ft/min)
TRUNK A	339	0.07	9.7	12	х	8	509		TRUNK G	0	0.00	0	0	х	8	0	TRUNK O	0	0.05	0	0	х	8	0
TRUNK E	581	0.07	11.8	16	х	8	654		TRUNK H	0	0.00	0	0	Х	8	0	TRUNK P	0	0.05	0	0	х	8	0
TRUNK C	321	0.07	9.5	10	х	8	578		TRUNK I	0	0.00	0	0	Х	8	0	TRUNK Q	0	0.05	0	0	х	8	0
TRUNK D	553	0.07	11.6	16	х	8	622		TRUNK J	0	0.00	0	0	х	8	0	TRUNK R	0	0.05	0	0	х	8	0
TRUNK E	0	0.00	0	0	х	8	0		TRUNK K	0	0.00	0	0	х	8	0	TRUNK S	0	0.05	0	0	х	8	0
TRUNK F	0	0.00	0	0	х	8	0		TRUNK L	0	0.00	0	0	Х	8	0	TRUNK T	0	0.05	0	0	Х	8	0
																	TRUNK U	0	0.05	0	0	х	8	0
																	TRUNK V	0	0.05	0	0	Х	8	0
RETURN AIR #	1	2	3	4	5	6	7									BR	TRUNK W	0	0.05	0	0	Х	8	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		TRUNK X	706	0.05	13.8	22	Х	8	578
AIR VOLUME	135	155	95	85	135	185	155	0	0	0	0	0	0	0	0	186	TRUNK Y	425	0.05	11.5	16	Х	8	478
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	TRUNK Z	0	0.05	0	0	Х	8	0
ACTUAL DUCT LGH.	55	47	55	56	41	20	23	1	1	1	1	1	1	1	1	14	DROP	1131	0.05	16.5	24	Х	10	679
EQUIVALENT LENGTH	225	185	165	175	230	165	220	0	0	0	0	0	0	0	0	135								
TOTAL EFFECTIVE LH	280	232	220	231	271	185	243	1	1	1	1	1	1	1	1	149								
ADJUSTED PRESSURE	0.05	0.06	0.07	0.06	0.05	0.08	0.06	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	0.10								
ROUND DUCT SIZE	7.5	7.5	6	6	7.5	7.5	7.5	0	0	0	0	0	0	0	0	7.1								
INLET GRILL SIZE	8	8	8	8	8	8	8	0	0	0	0	0	0	0	0	8								
	X	X	X	X	X	Х	Х	Х	X	X	X	Х	X	X	X	X								
INLET GRILL SIZE	14	14	14	14	14	14	14	0	0	0	0	0	0	0	0	14								

375 Finley Ave. Suite 202 Ajax, ON L1S 2E2 Tel: 905.619.2300 Fax: 905.619.2375 Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

LO # 102723 WOB

ILE PRINT DIAMBÉFICIAL ZADOR RA ESTATES INC WOB RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

COMBUSTION APPLIANCES	9.32.3.1(1)	SUPPLEMENTAL V	ENTILATION CAPACIT	Υ		9.32.3.5.
a) Direct vent (sealed combustion) only		Total Ventilation Cap	pacity	180.2	_	cfm
b) Positive venting induced draft (except fireplaces)		Less Principal Ventil	I. Capacity	79.5	_	cfm
c) Natural draft, B-vent or induced draft gas fireplace		Required Supplement	ntal Capacity	100.7	_	cfm
d) Solid Fuel (including fireplaces)		PRINCIPAL EXHAU	ST EAN CADACITY			
e) No Combustion Appliances		Model:	VANEE V150H	Location:	R	SMT
				EGGGGGG.		
HEATING SYSTEM		79.5	cfm	_	✓ H	HVI Approved
Forced Air Non Forced Air		PRINCIPAL EXHAU	ST HEAT LOSS CALCU	JLATION FACTOR		% LOSS
		79.5 CFM	X 74 F	X 1.08	Х	0.25
Electric Space Heat		SUPPLEMENTAL F	ANS	BY INSTALLING CON	ITRACTO	R
		Location	Model	cfm	HVI	Sones
HOUSE TYPE	9.32.1(2)	ENS	BY INSTALLING CONTR		V	3.5
Type o) or h) appliance only ne colid fuel		BATH ENS 2	BY INSTALLING CONTR		✓ ✓	3.5
✓ I Type a) or b) appliance only, no solid fuel		ENS-2 PWD	BY INSTALLING CONTR		√	3.5
II Type I except with solid fuel (including fireplaces	:)				1 1	
III Any Type c) appliance		HEAT RECOVERY Model:	VENTILATOR VANEE V150H	4		9.32.3.11.
III Any Type of appliance		150	cfm high	35		cfm low
IV Type I, or II with electric space heat						
Other: Type I, II or IV no forced air		75	_ % Sensible Efficie @ 32 deg F (0 de		✓ I	HVI Approved
		LOCATION OF INC	TALLATION			
SYSTEM DESIGN OPTIONS	O.N.H.W.P.	LOCATION OF INS	TALLATION			
		Lot:		Concession		
1 Exhaust only/Forced Air System		Township		Plan:		
2 HRV with Ducting/Forced Air System						
3 HRV Simplified/connected to forced air system		Address				
4 HRV with Ducting/non forced air system		Roll #		Building Per	mit #	
Part 6 Design		BUILDER:	GREENPARK H	OMES		
		Name:				
TOTAL VENTILATION CAPACITY	9.32.3.3(1)	Address:				
Basement + Master Bedroom 2 @ 21.2 cfm 42.4	cfm	City:				
Other Bedrooms <u>3</u> @ 10.6 cfm <u>31.8</u>	cfm	Telephone #:		Fax #:		
Kitchen & Bathrooms5@ 10.6 cfm53	cfm	INSTALLING CONT	RACTOR			
Other Rooms <u>5</u> @ 10.6 cfm <u>53.0</u>	cfm	Name:				
Table 9.32.3.A. TOTAL 180.2	cfm	Address:				
		City:				
PRINCIPAL VENTILATION CAPACITY REQUIRED	9.32.3.4.(1)	Tolophono #:		Fov #:		
1 Bedroom 31.8	cfm	Telephone #:		Fax #:		
2 Bedroom 47.7	cfm	DESIGNER CERTIF	TICATION this ventilation system ha	as been designed		
		in accordance with t	he Ontario Building Code	э.		
3 Bedroom 63.6	cfm	Name:	HVAC Designs L	. 0	62	
4 Bedroom 79.5	cfm	Signature:	5	Mehan Okounh	e.	
5 Bedroom 95.4	cfm	HRAI#		001820		
TOTAL 79.5 cfm	IEIED IN THE AD	Date:	"OTHER DESIGNED" LINDER I	September-23	III DING CO	DE



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			CSA F2	30-12 Residential Hea	t Loss and Heat Gain	Calculations				
			Form	ula Sheet (For Air Lea	kage / Ventiliation C	alculation)				
LO#:	102723	Model: PENROSE 2		Builde	r: GREENPARK HOMES				Date:	9/28/2023
		Volume Calculatio	n				Air Change & Delt	ta T Data		
				1						
House Volume	Floor Area (ft²)	Floor Hoight (ft)	\/aluma (f+3)				TURAL AIR CHANG		0.367	
Level Bsmt	1378	Floor Height (ft) 9	Volume (ft³) 12402			SUIVIIVIER INF	TORAL AIR CHAIN	GE RATE	0.101	
First	1378	10	13780							
Second	1667	9	15003				Design Te	emperature Diff	erence	
Third	0	9	0				Tin °C	Tout °C	ΔT °C	ΔT °F
Fourth	0	9 Total:	0 41,185.0 ft ³			Winter DTDh	22	-19 30	41	74
		Total: Total:	41,185.0 ft ⁻ 1166.2 m ³			Summer DTDc	24	30	6	11
			110012 111							
	5.2.3	.1 Heat Loss due to Ai	r Leakage			6.2.6	Sensible Gain due	to Air Leakage		
		V					17			
	$HL_{airb} =$	$LR_{airh} \times \frac{V_b}{3.6} \times L$	$TD_h \times 1.2$		Н	$IG_{salb} = LR_{airc} >$	$\langle \frac{v_b}{2.6} \times DTD_c \rangle$	× 1.2		
0.367		x 41 °C		= 5887 W	= 0.101	x 323.95	5.0		= [240 W
0.307	X <u>323.33</u>	- A - 41 C	X	3007 11	0.101	X 323.33	_ ^	X	L	240 ***
				= 20088 Btu/h					=	818 Btu/h
	5.2.3.2 Hea	at Loss due to Mechan	ical Ventilation			6.2.7 Se	nsible heat Gain d	ue to Ventilatio	on	
	<i>III</i> –	DUC V DTD V 1	00 v (1 E)		ш	$_{vairb} = PVC \times D$	TD v 100 v	(1 F)		
	$nL_{vairb} =$	$PVC \times DTD_h \times 1$.08 × (1 – E)		пь	vairb – PVC X D	1D _h × 1.00 ×	(1-E)		
80 CFM	v 71°E	x 1.08	v 0.25	= 1593 Btu/h	80 CFM	x <u>11°</u> F	v 1.09	v 0.25	= [236 Btu/h
80 CFIVI	X	XX	X	- 1555 Btu/II	80 CFIVI	_	X 1.06	X 0.23		230 Btu/11
			5.2.3.3 Calcula	tion of Air Change Heat	oss for Each Room (Flo	or Multiplier Section)				
			5.2.5.5 64.64.4	Girainge rieur						
		HL_{ai}	$_{rr} = Level\ Factor$	$pr \times HL_{airbv} \times \{(Hairbv) \times \{(Hairbv)\}\}$	$(L_{agcr} + HL_{bgcr}) \div$	$(HL_{agclevel} + HL$	$_{bgclevel})$ }			
				HLairve Air Leakage +		I				
		Level	Level Factor (LF)	Ventilation Heat Loss	Level Conductive Heat	_				
			, ,	(Btu/h)	Loss: (HL _{clevel})	HLairbv /	HLIevel)			
		1	0.5		8,362	1.20				
		2	0.3		11,681	0.51				
		3	0.2	20,088	13,121	0.30			Mish and CID	·····di -
		4	0		0	0.00			Michael O'Ro	
		5	0		0	0.00	IU .	1	BCIN# 19669	
			•	ventilation heat loss	0				Mheha	1 Ofounde.
		"For a balan	tea or supply only ve	entilation system HLairve	= U					~ 1



375 Finley Ave. Suite 202 Ajax, ON L1S 2E2 MHP 23019 Tel: 905.619.2300 Fax: 905.619.2375 Web: www.hvacdesigns.ca E-mail: info@hvacdesigns.ca

HEAT LOSS AND GAIN SUMMARY SHEET

BUILDER: GREENPARK HOMES MODEL: PENROSE 2 WOB LO# 102723 SFQT: 3045 **SITE:** ZADORRA ESTATES INC

DESIGN ASSUMPTIONS			
HEATING OUTDOOR DESIGN TEMP. INDOOR DESIGN TEMP. BUILDING DATA	°F -2 72	COOLING OUTDOOR DESIGN TEMP. INDOOR DESIGN TEMP. (MAX 75°F) WINDOW SHGC	°F 86 75 0.50
ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Υ
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Υ
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Υ
HOUSE VOLUME (ft³):	41185.0	ASSUMED (Y/N):	Υ
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	5
INTERIOR LIGHTING LOAD (Btu/h/	ft²): 1.60	DC BRUSHLESS MOTOR (Y/N):	Υ
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 57.0 ft	WIDTH: 34.0 ft	EXPOSED PERIMETER:	128.0 ft
WOB INSULATION CONFIGURATIO	N SCB_9	WOB EXPOSED PERIMETER	54.0 ft

2012 OBC - COMPLIANCE PACKAGE		
		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	96%	-
HRV/ERV Minimum Efficiency	75%	-
Domestic Hot Water Heater Minimum EF	0.8	-

INDIVIDUAL BCIN: 19669 MICHAEL O'ROURKE





HVAC Designs Ltd. 375 Finley Ave, Suite 202 Ajax ON, L1S 2E2 905-619-2300

Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

We	eather Stati	on Description
Province:	Ontario	-
Region:	Oshawa	
	Site Des	scription
Soil Conductivity:	Normal co	nductivity: dry sand, loam, clay
Water Table:	Normal (7-	10 m, 23-33 ft)
	Foundation	Dimensions
Floor Length (m):	6.1	
Floor Width (m):	10.4	
Exposed Perimeter (m):	39.0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.58	Insulation Configuration
Window Area (m²):	0.9	
Door Area (m²):	1.9	
	Radia	nt Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Design	Months
Heating Month	1	
	Foundati	ion Loads
Heating Load (Watts):		739

TYPE: PENROSE 2 **LO#** 102723

WOB

millist.



HVAC Designs Ltd. 375 Finley Ave, Suite 202 Ajax ON, L1S 2E2 905-619-2300

Residential Slab on Grade Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Wea	ther Sta	tion Description
Province:	Ontario	
Region:	Oshawa	
	Site D	escription
Soil Conductivity:	Normal co	onductivity: dry sand, loam, clay
Water Table:	Normal (7	7-10 m, 23-33 ft)
Fo	oundatio	n Dimensions
Length (m):	3.0	
Width (m):	10.4	-+ 0.6m √
Exposed Perimeter (m):	16.5	0.6m Insulation Configuration
	Radia	ant Slab
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
	Desigr	n Months
Heating Month	1	
	Re	esults
Heating Load (Watts):		220

TYPE: PENROSE 2 WOB



HVAC Designs Ltd. 375 Finley Ave, Suite 202 Ajax ON, L1S 2E2 905-619-2300

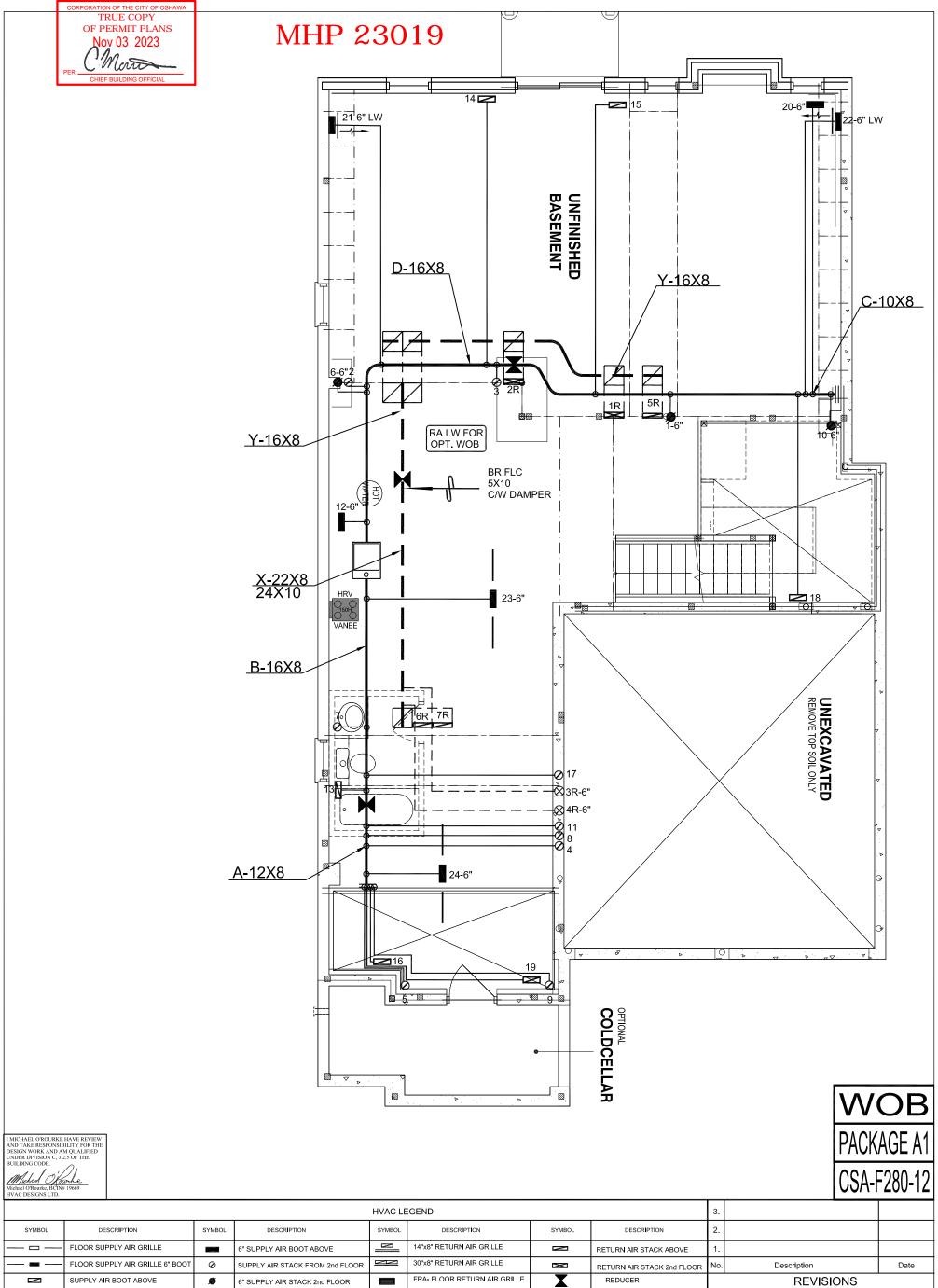
Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station	on Des	cripti	ion		
Province:	Ontar	io			
Region:	Oshav	wa			
Weather Station Location:	Open	flat te	rrain, g	grass	
Anemometer height (m):	10				
Local Sh	ieldin	g			
Building Site:	Subur	ban, fo	orest		
Walls:	Heavy	/			
Flue:	Heavy	/			
Highest Ceiling Height (m):	8.53				
Building Co	nfigura	ation			
Type:	Detac	hed			
Number of Stories:	Two				
Foundation:	Full				
House Volume (m³):	1166.	2			
Air Leakage,	' Ventil	atior	1		
Air Tightness Type:	Prese	nt (196	61-) (3.	57 ACH	1)
Custom BDT Data:	ELA @	9 10 Pa	Э.		1554.6 cm ²
	3.57				ACH @ 50 Pa
Mechanical Ventilation (L/s):	To	tal Sup	ply		Total Exhaust
		37.5			37.5
Flue	Size				
Flue #:	#1	#2	#3	#4	
Diameter (mm):	0	0	0	0	
Natural Infilt	ration	Rate	:S		
Heating Air Leakage Rate (ACH/H):		C	.36	7	
Cooling Air Leakage Rate (ACH/H):		C	.10	1	

TYPE: PENROSE 2 WOB





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GREENPARK HOMES

Project Name

ZADORRA ESTATES INC OSHAWA, ONTARIO

WOB PENROSE 2

3046 sqft

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. FAN SPEED

	HEAT L		BTU/H	# OF RUNS	S/A	R/A	FANS	She
		UNIT DATA		3RD FLOOR				
		GOODMAN		2ND FLOOR	12	4	3	
		C960603BNA	-60	1ST FLOOR	8	3	2	
	INPUT	60	MBTU/H	BASEMENT	4	1	0	Date
	OUTPUT	F7.0	MBTU/H	ALL S/A DIFFU:	SERS	4 "x10)"	Scal
	COOLING	57.6		UNLESS NOTE				
,	COOLING	3.0	TONS	ON LAYOUT. A UNLESS NOTE				_

ON LAYOUT. UNDERCUT

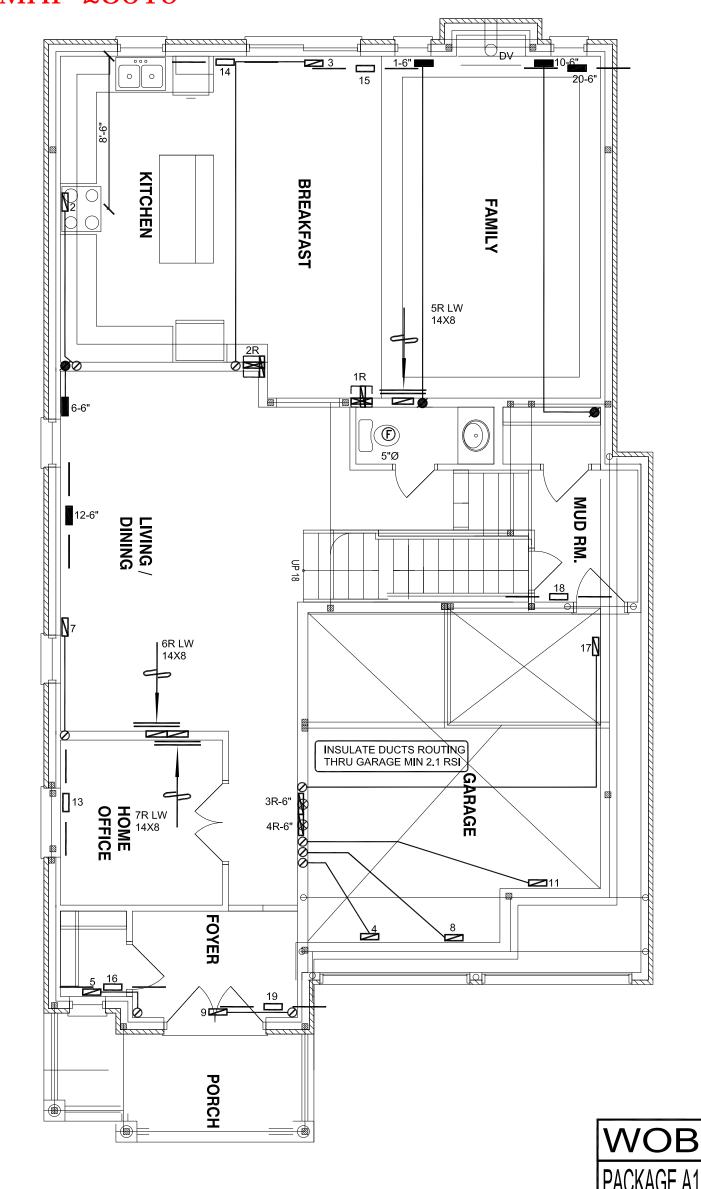
DOORS 1" min. FOR R/A

cfm @ 0.6" w.c

1131

BASEMENT HEATING LAYOUT SEPT/2023 3/16" = 1'-0" BCIN# 19669 102723 LO#





			3.							
SYMBOL DESCRIPTION SYMBOL DESCRIPTION SYMBOL DESCRIPTION S							DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE	N	RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	REDUCER		REVISIONS						

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GREENPARK HOMES

Project Name

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WOB PENROSE 2

3046 sqft

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Specializing in Residential Mechanical Design Services

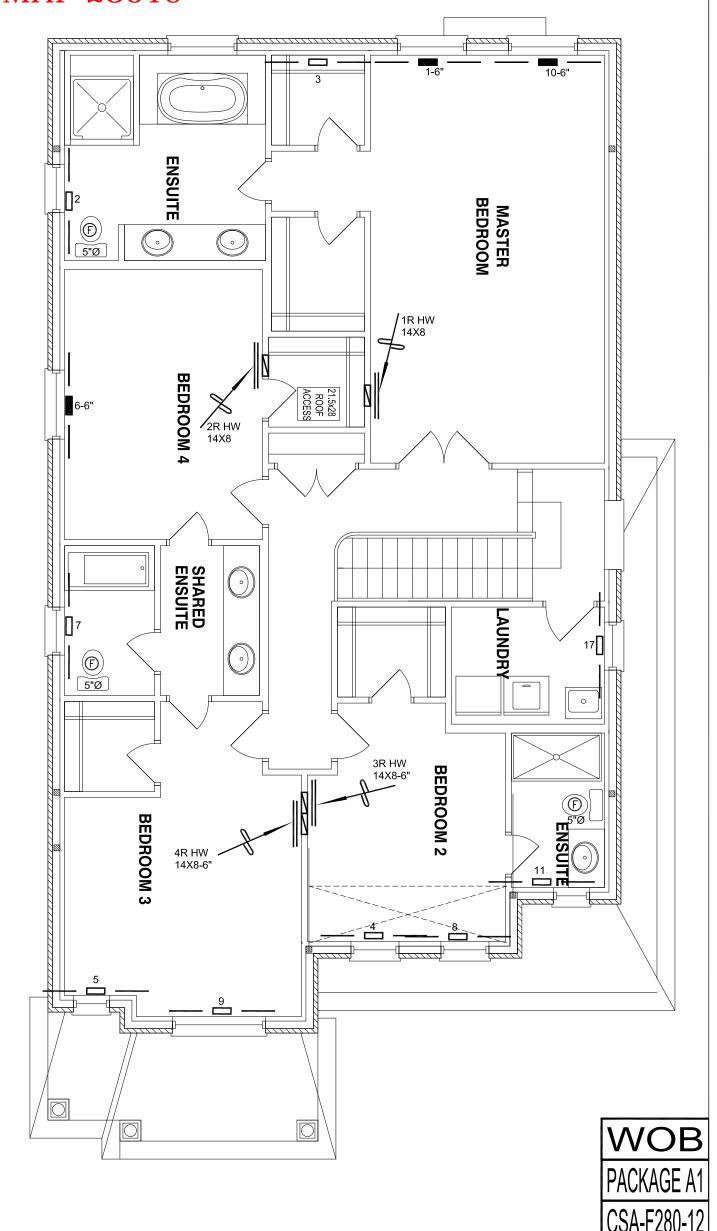
Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.

FIRST FLOOR **HEATING LAYOUT**

SEPT/2023 Date 3/16" = 1'-0"

BCIN# 19669





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, BC (Th# 19669

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT	0	SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE	×	RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE	Ø	6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE	X	REDUCER	REVISIONS		

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Cllent

GREENPARK HOMES

Project Name

ZADORRA ESTATES INC OSHAWA, ONTARIO

WOB PENROSE 2

3046 sqft

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.

SECOND FLOOR HEATING LAYOUT

Date SEPT/2023
Scale 3/16" = 1'-0"

BCIN# 19669