PANEL A SCHEDULE

225 AMPS/42 CIRCUIT CAPACITY, RECESSED MOUNTED PANEL, 120/208 VOLTS, 3 PHASE, 4 WIRES
60 HZ. LUGS ONLY TYPE: ITE NLAB OR EQUAL

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	20	2	2#12			1	HP/RM #116 UNIT B	1500		
2	20	1	2#12	6	6	1	RM #115	1400		
3									1500	
4	20	2	2#12			1	HP/RM #115		1500	
5	20	1	2#12	6	6	1	RM #116			1400
6										1500
7	20	1	2#12	2			MICROWAVE/REFRIG. RM #116	1400		
8	20	1	2#12	2			#115	1400		
9	20	1	2#12	2			#114		1400	
10	20	1	2#12	2			#113		1400	
11	20	2	2#12			1	HP/RM #114 UNIT B			1500
12	20	1	2#12	6	6	1	RM #113			1400
13								1500		
14	20	2	2#12			1	HP/RM #113	1500		
15	20	1	2#12	6	6	1	RM #114		1400	
16									1500	
17	20	1	2#12	2			MICROWAVE/REFRIG. RM #112			1400
18	20	1	2#12	2			MICROWAVE/REFRIG. RM #111			1400
19	20	2	2#12			1	HP/RM #112 UNIT B	1500		
20	20	1	2#12	6	6	1	RM #111	1400		
21									1500	
22	20	2	2#12			1	HP/RM #111		1500	
23	20	2	2#12	6	6	1	RM #112			1400
24										1500
25	40	3	3#8			1	STEAM GENERATOR RM 19	2400		
26	40	2	2#8			1	SAUNA RM #20	3500		
27									2400	
28									3500	
29										2400
30	50	2	2#8			1	SPA			3900
31										
32								3900		
33	20	1	2#12		1		VENDING MACHINE		1000	
34	20	1	2#12		8		CONV. OUTLET		1400	
35	20	1	2#12		2		VENDING MACHINE			1000
36										1500
37										
38										
39										
40										
41										
42										
							WATTS/PHASE	21400	20040	20300
							TOTAL CONNECTED LOAD	61740		
							LOAD AMPS @ 120 /208 VOLTS	171		

PANEL A1 SCHEDULE

225 AMPS/42 CIRCUIT CAPACITY, RECESSED MOUNTED PANEL, 120/208 VOLTS, 3 PHASE, 4 WIRES
60 HZ. LUGS ONLY TYPE: ITE NLAB OR EQUAL

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	20	2	2#12			1	HP/RM #110 UNIT A	1500		
2	20	1	2#12	6	7	1	RM #109	1500		
3									1500	
4	20	2	2#12			1	HP/RM #109		1500	
5	20	1	2#12	6	7	1	RM #110			1500
6										1500
7	20	1	2#12	2			MICROWAVE/REFRIG. RM #110	1400		
8	20	1	2#12	2			MICROWAVE/REFRIG. RM #109	1400		
9	20	1	2#12	2			MICROWAVE/REFRIG. RM #108		1400	
10	20	1	2#12	2			MICROWAVE/REFRIG. RM #107		1400	
11	20	2	2#12			1	HP/RM #108 UNIT A			1500
12	20	1	2#12	6	7	1	RM #107			1500
13								1500		
14	20	2	2#12			1	HP/RM #107	1500		
15	20	1	2#12	6	7	1	RM #108		1500	
16									1500	
17	20	1	2#12	2			MICROWAVE/REFRIG. RM #106			1400
18	20	1	2#12	2			MICROWAVE/REFRIG. RM #105			1400
19	20	2	2#12			1	HP/RM #106 UNIT A	1500		
20	20	1	2#12	6	7	1	RM #105	1500		
21									1500	
22	20	2	2#12			1	HP/RM #105		1500	
23	20	1	2#12	6	7	1	RM #106			1500
24										1500
25	20	2	2#12			1	HP/RM #104	1500		
26	20	1	2#12	6	7	1	RM #103	1500		
27									1500	
28	20	2	2#12			1	HP/RM #103		1500	
29	20	1	2#12	6	7	1	RM #104			1500
30										1500
31	20	1	2#12	2			MICROWAVE/REFRIG. RM #104	1400		
32	20	1	2#12	2			MICROWAVE/REFRIG. RM #103	1400		
33	20	1	2#12			12	GEN. LIGHTING		850	
34	20	1	2#12						1200	
35	20	1	2#12							1000
36	20	1	2#12							1000
37										
38										
39										
40										
41										
42										
							WATTS/PHASE	17600	16850	16800
							TOTAL CONNECTED LOAD	51250		
							LOAD AMPS @ 120 /208 VOLTS	142 AMP		

PANEL B SCHEDULE

225 AMPS/42 CIRCUIT CAPACITY, RECESSED MOUNTED PANEL, 120/208 VOLTS, 3 PHASE, 4WIRES
60 HZ. LUGS ONLY TYPE: ITE NLAB OR EQUAL

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	20	2	2#12			1	HP/RM #102 UNIT H/C	1500		
2	20	1	2#12	6	7	1	RM #101	1500		
3									1500	
4	20	2	2#12			1	HP/RM #101		1500	
5	20	1	2#12	6	7	1	RM #102			1500
6										1500
7	20	1	2#12	2			MICROWAVE/REFRIG. RM #102	1400		
8	20	1	2#12	2			#101	1400		
9	20	1	2#12	5			CONV. OUTLET		900	
10	20	1	2#12	5			CONV. OUTLET		900	
11	20	2	2#12			1	HP/RM #013			1500
12	20	1	2#12			1	REFRIGERATOR			800
13								1500		
14	20	1	2#12	2			SMALL APPLIANCE	1200		
15	30	2	2#10			1	CLOTHES DRYER		2750	
16	30	2	2#10			1	CLOTHES DRYER		2750	
17										2750
18										2750
19	40	2	2#2,3/4"C			1	EC/I	5000		
20	20	1	2#12	1			CLOTHES WASH. MACH.	1500		
21									5000	
22	20	1	2#12	2			CONV. OUTLET/TTB		600	
23	20	1	2#12	5			CONV. OUTLET/TTB			900
24	20	1	2#12	6			CONV. OUTLET/TTB			1080
25	20	1	2#12	5			CONV. OUTLETS	900		
26	20	1	2#12		21		GEN. LIGHTING	1500		
27	20	1	2#12		14		GEN. LIGHTING		1000	
28	20	1	2#12		14		GEN. LIGHTING		1000	
29	20	1	2#12		10		CORRIDOR LIGHTS TO T/S (ELR)			850
30	20	1	2#10, 1"C		7		OUTSIDE LIGHTS TO T/S			700
31	20	1	2#10, 1"C		19		OUTSIDE LIGHTS TO T/S	800		
32	20	1	2#10, 1"C		16		OUTSIDE LIGHTS TO T/S	800		
33	20	1	2#10, 1"C		16		OUTSIDE LIGHTS TO T/S		800	
34	20	1	2#10, 1"C				SIGNAGE TO T/S		800	
35	20	1	2#10, 1"C				ROOF LIGHTS TO T/S			800
36	20	1	2#12				SIGNAGE TO T/S			800
37	20	1	2#12				FOUNTAIN / GFI	600		
38	20	1	2#12				2nd FLOOR CORR. LT. TO T/S	800		
39	20	1	2#12				SIGNAGE FROM ROOF TO T/S		1000	
40	20	2	2#8,3/4"C				HPH		3350	
41	20	1	2#12,				WASHING MACHINE			1500
42										3350
							WATTS/PHASE	6400	12800	12040
							TOTAL CONNECTED LOAD +25% ELR	67110		
							LOAD AMPS @ 120 /208 VOLTS	186 AMPS		

PANEL C SCHEDULE

225 AMPS/42 CIRCUIT CAPACITY, RECESSED MOUNTED PANEL, 120/208 VOLTS, 3 PHASE, 4 WIRES
60 HZ. LUGS ONLY TYPE: ITE NLAB OR EQUAL

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	20	2	2#12			1	HP/RM # 207 UNIT C	1500		
2	20	1	2#12	6	7	1	RM # 206	1500		
3									1500	
4	20	2	2#12			1	HP/RM # 206		1500	
5	20	1	2#12	6	7	1	RM # 207			1500
6										1500
7	20	1	2#12	2			MICROWAVE/REFRI. RM #207	1400		
8	20	1	2#12	2			MICROWAVE/REFRIG.RM #206	1400		
9	20	1	2#12	2			MICROWAVE/REFRIG.RM #205		1400	
10	20	1	2#12	2			MICROWAVE/REFRIG.RM #204		1400	
11	20	2	2#12			1	HP/RM #205 UNIT C			1500
12	20	1	2#12	6	7	1	RM #205			1500
13								1500		
14	20	2	2#12			1	HP/RM #204	1500		
15	20	1	2#12	6	7	1	RM #205		1500	
16									1500	
17	20	1	2#12	2			MICROWAVE/REFRIG. RM #203			1400
18	20	1	2#12	2			MICROWAVE/REFRIG. RM #202			1400
19	20	2	2#12			1	HP/RM #203	1500		
20	20	1	2#12	6	7	1	RM #202	1500		
21									1500	
22	20	2	2#12			1	HP/RM #202		1500	
23	20	1	2#12	6	7	1	RM #203			1500
24										1500
25	20	2	2#12			1	HP/RM #201	1500		
26										
27									1500	
28	20	1	2#12				SPARE		1400	
29	20	1	2#12	6	7	1	RM #201			1500
30	20	1	2#12				SPARE			1400
31	20	1	2#12	2			MICROWAVE/REFRIG. RM #201	1400		
32	20	1	2#12					1000		
33	20	1	2#12						1000	
34										
35	20	1	2#12							1000
36										
37										
38										
39										
40										
41										
42										
							WATTS/PHASE	15700	15700	15700
							TOTAL CONNECTED LOAD	47100		
							LOAD AMPS @ 120 /208 VOLTS	131 AMP		

PC

TS

TB

29
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35
36

PANEL D SCHEDULE

225 AMPS/42 CIRCUIT CAPACITY, RECESSED MOUNTED PANEL, 120/208 VOLTS, 3 PHASE, 4 WIRES
60 HZ. LUGS ONLY TYPE: ITE NLAB OR EQUAL

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	20	2	2#12			1	HP/RM #211 UNIT C	1500		
2	20	1	2#12	6	7	1	RM #212	1500		
3									1500	
4		2	2#12			1	HP/RM #212		1500	
5		1	2#12	6	7	1	RM #211			1500
6										1500
7		1	2#12	2			MICROWAVE/REFRI. RM #211	1400		
8		1	2#12	2			MICROWAVE/REFRI. RM #212	1400		
9		1	2#12	2			MICROWAVE/REFRI. RM #213		1400	
10		1	2#12	2			MICROWAVE/REFRI. RM #214		1400	
11	20	2	2#12			1	HP/RM #213 UNIT C			1500
12	20	1	2#12	6	7	1	RM #214 UNIT C			1500
13								1500		
14	20		2#12			1	HP/RM #214 UNIT C	1500		
15	20		2#12	6	7	1	RM #213 UNIT C		1500	
16									1500	
17	20	1	2#12	2			MICROWAVE/REFRI. RM #215			1400
18	20	1	2#12	2			MICROWAVE/REFRI. RM #210			1400
19	20	2	2#12			1	HP/RM #215 UNIT C	1500		
20	20	1	2#12	6	7	1	RM #210 UNIT C	1500		
21									1500	
22	20	2	2#12			1	HP/RM #210 UNIT C		1500	
23	20	1	2#12	6	7	1	RM #215 UNIT C			1500
24										1500
25	20	2	2#12			1	HP/RM #209	1500		
26	20	1	2#12	6	7	1	RM #208	1500		
27									1500	
28	20	2	2#12			1	HP/RM #208		1500	
29	20	1	2#12	6	7	1	RM #209			1500
30										1500
31	20	1	2#12	2			MICROWAVE/REFRI. RM #209	1400		
32	20	1	2#12	2			MICROWAVE/REFRI. RM #208	1400		
33									1500	
34									1500	
35										1500
36										1500
37										
38										
39										
40										
41										
42										
							WATTS/PHASE	17600	17300	17300
							TOTAL CONNECTED LOAD	52200		
							LOAD AMPS @ 120 /208 VOLTS	145 AMPS		

PANEL MS SCHEDULE

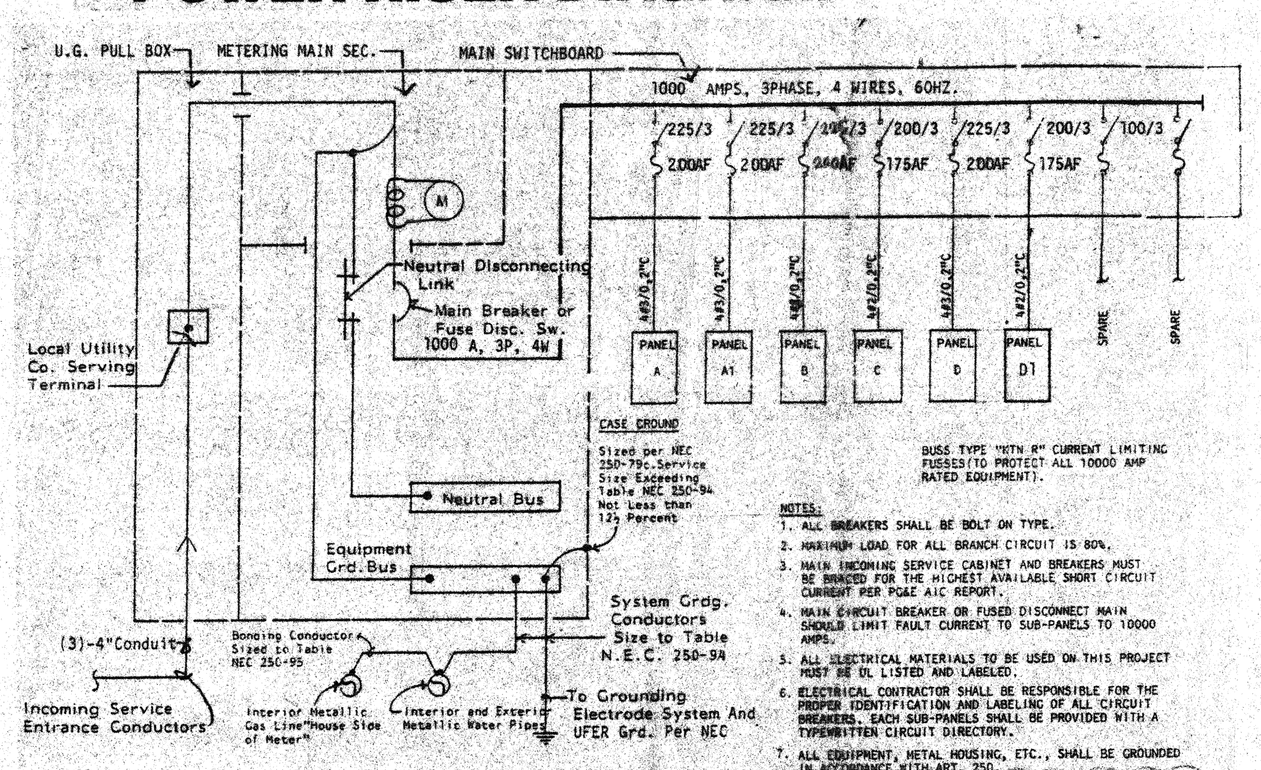
1000 AMPS/(8)-3 POLE CIRCUIT CAPACITY, SURFACE MOUNTED DISTRIBUTION SWITCHBOARD/MAIN SWITCH, 1000A, 120/208VOLS, 3 PHASE, 4 WIRES, 60HZ; W/METERING SEC. & U.G. PULL BOX

POLE	AMP TRIP	NO. POLES	WIRE SIZE AND CONDUIT	REC.	LIGHTS	MISC.	LOAD SERVE	LOAD WATTS A	B	C
1	200	3	4#3/0,2"C			1	PANEL-A	20600		
2	200	3	4#3/0,2"C			1	PANEL-A1	17100		
3									20600	
4									17100	
5										20600
6										17100
7	200	3	4#3/0,2"C			1	PANEL-B	16820		
8	175	3	4#2/0,2"C			1		15700		
9									16820	
10									15700	
11										16820
12										15700
13	200	3	4#3/0,2"C			1	PANEL-D	17400		
14	175	3	4#2/0,2"C			1	PANEL-D1	13300		
15									17400	
16									13300	
17										17400
18										13300
19	60	3					SPARE	5000		
20	60	3					SPARE	5000		
21									5000	
22									5000	
23										5000
24										5000
							WATTS/PHASE	110920	110920	110920
							TOTAL CONNECTED LOAD	332760		
							LOAD AMPS @ 120 / 208 VOLTS	924 AMPS		

Feeder load Calc's for a motel building per NEC art. 220.

Lighting (20120 SF x 2 W/SF)		40.24 KW
+ 25% lighting Load		10.06 KW
Receptacle (20120 x 1 W/SF)		20.12 KW
Heat Pump (38 x 3KW ea.) at 100% Dem.		114.00 KW
Microwave/Refrl. (51.8KW @ 80% Dem.)		41.44 KW
Steam Generator 7.2KW @ 100% Dem		7.2 KW
Sauna 7 Kw @ 80%		5.6 KW
Spa 7.8 KW @ 80%		6.2 KW
Clothes Dryer 11 KW @ 100%		11.00 KW
FAU .73 KW @ 100%		0.73 KW
Total Demand	=	256.59 KW
LOAD AMPS @ 120/208/3PH./4WIRES	=	712.75 AMPS
SERVICE SIZE	=	1000.00 AMPS

POWER RISER DIAGRAM



NOTES:

1. ALL BREAKERS SHALL BE BOLT ON TYPE.
2. MAXIMUM LOAD FOR ALL BRANCH CIRCUIT IS 80%.
3. MAIN INCOMING SERVICE CABINET AND BREAKERS MUST BE BRACED FOR THE HIGHEST AVAILABLE SHORT CIRCUIT CURRENT PER PG&E AIC REPORT.
4. MAIN CIRCUIT BREAKER OR FUSED DISCONNECT MAIN SHOULD LIMIT FAULT CURRENT TO SUB-PANELS TO 10000 AMPS.
5. ALL ELECTRICAL MATERIALS TO BE USED ON THIS PROJECT MUST BE UL LISTED AND LABELED.
6. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER IDENTIFICATION AND LABELING OF ALL CIRCUIT BREAKERS. EACH SUB-PANELS SHALL BE PROVIDED WITH A TYPEWRITTEN CIRCUIT DIRECTORY.
7. ALL EQUIPMENT, METAL HOUSING, ETC., SHALL BE GROUNDED IN ACCORDANCE WITH ART. 250.
8. PROVIDE GROUND FAULT PROT. OF EQPT. FOR EACH SERVICE DISCONNECTING MEANS RATED 1000 AMPS OR MORE PER ARTICLE 230-9 1990 NEC
9. MAIN SERVICE SHALL BE GROUND FAULT PROTECTED.
10. WORKING SPACE CLEARANCE AT SIDES & FRONT OF ALL PANELS SHALL BE AS PER ART. 110-16(a) AND TABLE 110-16(a). 1990 NEC

I HAVE REVIEWED THE CURRENT CALIFORNIA ENERGY CONSERVATION STANDARDS FOR RESIDENTIAL BUILDINGS. IN MY PROFESSIONAL JUDGEMENT, THE DESIGN ON THIS SET OF PLANS AND SPECIFICATIONS WILL CONFORM SUBSTANTIALLY WITH TITLE 24 SUBCHAPTER 7 & 8, SECTIONS 150 & 151.

REGISTERED PROFESSIONAL ENGINEER ARTURO O. CABRERA E 010569 ELECTRICAL STATE OF CALIFORNIA

ARTURO O. CABRERA P.E.
MECHANICAL/ELECTRICAL EE 010569

SKL ARCHITECTURE & PLANNING
3018 Vista Pass Road Suite 206
Concord, California 94519
Phone 510 680 2711
Fax 510 680 2717

OWNER H.L. PATEL
CONTACT: VIJAY PATEL
1133 PEBBLEWOOD WAY
SAN MATED, CA 94403
TEL : (415) 570 6970

PROJECT
PROPOSED 37-UNIT MOTEL
2934 EL CAMINO REAL
REDWOOD CITY, CA 94063

NORTH

SHEET TITLE
LOAD SCHEDULE & ONE LINE DIAGRAM

DRAWN	A. CABRERA
CHKD	A. CABRERA
SCALE	NONE
DATE	OCT. 7,1992
JOB NO.	

SHEET NO. E-9 OF

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