87828

ELECTRICAL PANEL "HPA" (A)

VOLTAGE 120/240V., 1Ø, 3W. MOUNTING SURFACE
BUS SIZE 100A MAIN LUGS ONLY

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	20	2	6			1080		STREET LTG (A.N.
2	20			4		720		M/G "M9B"
3							1080	
4	20			4			720	M/G "M9C"
5	20		5			600		WALKWAYS LTS (L.O.
6	20			4		720		M/G "M9D"
7	20		4				480	WALKWAYS
8	20						720	CONTROL CIR.
9	20					500		SPARE
10	20					500		
11	20						500	
12	20						500	
13								SPACE
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
PER PHASE AND TOTAL LOAD						3670	3030	6700 W.

L.G.L. 2340 W x 1.25% = 2925 W

OTHER LOAD = 4360 W
TOTAL = 7285 W 60.4 AMPERES

ELECTRICAL PANEL "HPB" (A)

VOLTAGE 120/240V. 1Ø 3W. MOUNTING SURFACE
BUS SIZE 100A MAIN LUGS ONLY

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	20	2	2			210		STREET LTG
2	20		5			600		WALKWAYS L.O.
3							210	
4	20			4			720	M/G "M9E"
5	20		8			1080		HLWY LIGHTS L.O.
6	20			4		720		M/G "M9F"
7	20		8				312	WALKWAY A.N.
8	20						720	CONTROL CIR.
9	20			4		720		M/G "M9G"
10	20			4		720		M/G "M9H"
11	20						520	SPARE
12	20			4			720	M/G "M9I"
13	20					500		SPARE
14	20					500		
15	20						520	
16	20						500	
17								SPACE
18								
19								
20								
21								
22								
23								
24								
PER PHASE AND TOTAL LOAD						4930	4162	9092 W.

L.G.L. 2700 W x 1.25% = 3375 W

OTHER LOAD = 6992 W
TOTAL = 9767 W 40.7 AMPERES

ELECTRICAL PANEL "A"

VOLTAGE 120/240V. 1Ø 3W. MOUNTING RECESSED
BUS SIZE 100A MAIN C.B. 100A/2P N/A

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	15	1	12		1	1289		GENERAL LIGHTING
2	20	1		5	1	1500		SMALL APPLIANCE
3	15	1	12				1289	GEN. LTG.
4	20	1		4			1500	SM. APPL.
5	15	1	9	3		1289		GEN. LTG.
6	15	1		1		1200		DISHWASHER
7	15	1	10				1289	GEN. LTG.
8	15	1		1			900	DISPOSAL
9	15	1	7		3	1289		GEN. LTG.
10	15	1		1		600		FAN
11	20	1		1			1000	MICROWAVE
12	20	1		1			1500	LAUNDRY
13	50	2		1		4000		RANGE
14	30	2		1		2500		DRYER
15							4000	-
16							2500	
17	20	1				500		SPARE
18	15	1		1		900		GARAGE OPENER
19	20	1					500	SPARE
20	1							SPACE
21	1							
22	1							
PER PHASE TOTAL						4991	4476	W.

UNIT "1" LOAD CALCULATION — RWRA # 10151
214Ø SQUARE FEET — APPL. LOAD # 003

I) AIR CONDITIONING LOAD:
F.A.U. = 0.6
A/C TOTAL = 0.6 KW. 0.6 KW.

II) OTHER LOAD:

214Ø SQ. FT. X 3 W./SQ. FT.	= 6.4 KW.
2 SMALL APPLIANCE CIRCUITS	= 3.0
LAUNDRY CIRCUIT	= 1.5
MICROWAVE OVEN	= 1.0
DRYER	= 5.0
DISHWASHER	= 1.2
DISPOSAL	= 0.8
RANGE	= 8.0
SUBTOTAL	=26.9 KW.

DEMAND PER NEC TABLE #220-30:

FIRST 10 KW. @ 100%	= 10.0 KW.	
REMAINDER @ 40%	= 6.7	
OTHER TOTAL	= 16.7 KW.	16.7 KW.
	UNIT TOTAL LOAD	=17.3 KW.

17,300 W. / 240V. = 72.0 AMPERES

ELECTRICAL PANEL "B"

VOLTAGE 120/240V., 1Ø 3W. MOUNTING RECESSED
BUS SIZE 100A MAIN C.B. 100A/2P N/A

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	15	1	12		1	1289		GENERAL LIGHTING
2	20	1		5	1	1500		SMALL APPLIANCE
3	15	1	12				1289	GEN. LTG.
4	20	1		4			1500	SM. APPL.
5	15	1	9	3		1289		GEN. LTG.
6	15	1		1		1200		DISHWASHER
7	15	1	12				1289	GEN. LTG.
8	15	1		1			900	DISPOSAL
9	15	1		1		1289		GEN. LTG.
10	15	1		1		600		FAN
11	20	1		1			1000	MICROWAVE
12	20	1		1			1500	LAUNDRY
13	50	2		1		4000		RANGE
14	30	2		1		2500		DRYER
15				-			4000	-
16				-			2000	
17	20	1				500		SPARE
18	15	1		1		900		GARAGE OPENER
19	20	1					500	SPARE
20	1							SPACE
21	1							
22	1							
PER PHASE TOTAL						4991	4476	W.

UNIT "2" LOAD CALCULATION — RWRA # 10152
214Ø SQUARE FEET — APPL. LOAD # 003

I) AIR CONDITIONING LOAD:
F.A.U. = 0.6
A/C TOTAL = 0.6 KW. 0.6 KW.

II) OTHER LOAD:

214Ø SQ. FT. X 3 W./SQ. FT.	= 6.4 KW.
2 SMALL APPLIANCE CIRCUITS	= 3.0
LAUNDRY CIRCUIT	= 1.5
MICROWAVE OVEN	= 1.0
DRYER	= 5.0
DISHWASHER	= 1.2
DISPOSAL	= 0.8
RANGE	= 8.0
SUBTOTAL	=26.9 KW.

DEMAND PER NEC TABLE #220-30:

FIRST 10 KW. @ 100%	= 10.0 KW.	
REMAINDER @ 40%	= 6.7	
OTHER TOTAL	= 16.7 KW.	16.7 KW.
	UNIT TOTAL LOAD	=17.3 KW.

17,300 W. / 240V. = 72.0 AMPERES

ELECTRICAL PANEL "HPC" (A)

VOLTAGE 120/240V. 1Ø, 3W MOUNTING SURFACE
BUS SIZE 100A MAIN LUGS ONLY

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	20	2	5			525		STREET LTG A.N.
2	20			4		720		M/G "M9I"
3							525	
4	20						720	M/G "M9K"
5	20		8			480		WLKWY/PTS L.O.
6	20					500		SPARE
7	20		5				600	WALKWAY A.N.
8	20						600	CONTROL CIR.
9	20					500		SPARE
10	20					500		
11	20						500	
12	20						500	
13								SPACE
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
PER PHASE AND TOTAL LOAD						3705	3045	6750 W.

L.G.L. 3010 W x 1.25% = 3762 W

OTHER LOAD = 4140 W
TOTAL = 7402 W 30.8 AMPERES

ELECTRICAL PANEL "HPR" (A)

VOLTAGE 120/240V. 1Ø 3W. MOUNTING SURFACE
BUS SIZE 200A MAIN LUGS ONLY

CIRC. NO.	BREAKER AMP	BREAKER POLE	OUTLETS LTG	OUTLETS REC	OUTLETS OTHER	WATTAGE ΦA	WATTAGE ΦB	REMARKS
1	20	2	5			525		STREET LTG A.N.
2	20		5			840		WALKWAY A.N.
3							525	
4	20		6				960	WLKWY/PTS L.O.
5			6			480		WLKWY/PTS L.O.
6			6			720		WALKWAY A.N.
7			5				1200	WALKWAY A.N.
8			7				420	SEATING AREA L.O.
9			16			780		WALKWAYS L.O.
10			10			1200		POOL AREA LTG L.O.
11			7				840	WALKWAY A.N.
12			13				420	POOL AREA LTG E.O.
13			8			960		BBQ STR. LTG L.O.
14			4			420		POOL AREA LTG A.N.
15				2			360	TELE. BACK
16				1			226	JACUZZI SPA LTG
17				3		540		POOL BLDG PWR
18						500		SPARE
19							180	POOL BLDG LTG.
20			4				780	M/G "M9A"
21			4			780		M/G "M9M"
22						500		SPARE
23			4				780	M/G "M9N"
24						500		SPARE
25			4			780		M/G "M9O"
26						500		SPARE
27			4				780	M/G "M9P"
28							500	SPARE
29								SPACE
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
PER PHASE AND TOTAL LOAD						8745	8727	W.

L.G.L. 10052 W x 1.25% = 12565 W

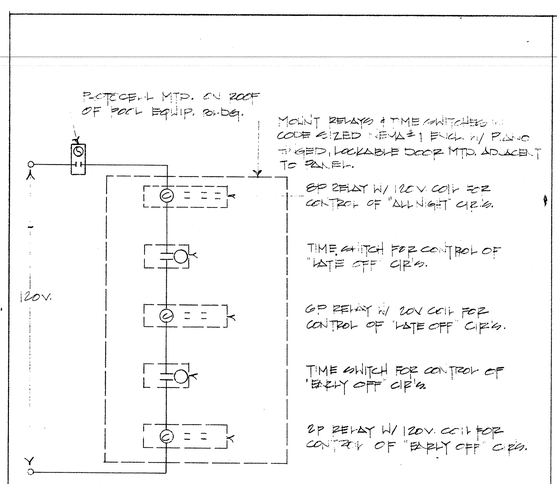
OTHER LOAD = 7420 W
TOTAL = 19985 W 83.4 AMPERES

PANEL SCHEDULE NOTES:

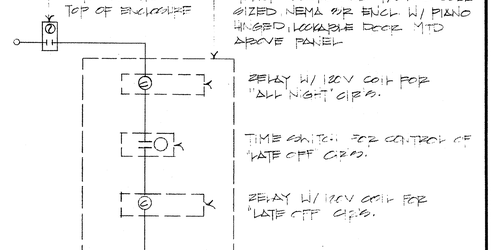
(A) PROVIDE (3) - 3/4" CND. STUBBED OUT INTO UNFINISHED AREA. CAP AND MARK FOR FUTURE USE.

(B) PROVIDE A P/C ON TOP OF ENCLOSURE, A 1 PST., 7-DAY TIME SWITCH, A 4P AND A 2P RELAY FOR CONTROL OF CIRCUITS INDICATED, REFER TO CONTROL WIRING DIAG. "A", THIS SHEET. (NOTE: A.N. INDICATES "ALL NIGHT" CIRCUITS, L.O. INDICATES "LATE OFF" CIRCUITS.

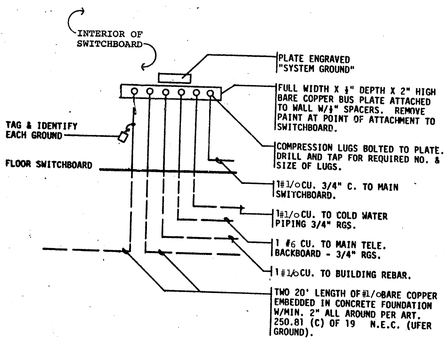
(C) REFER TO CONTROL WIRING DIAGRAM "B", THIS SHEET. (NOTE: A.N. INDICATES "ALL NIGHT" CIR'S.; L.O. INDICATES "LATE OFF" CIR'S., E.O. INDICATES "EARLY OFF" CIR'S.)



CONTROL WIRING DIAGRAM "B" N.T.S.



CONTROL WIRING DIAGRAM "A" N.T.S.



SYSTEM GROUND DETAIL N.T.S.

PLAN VIEW DETAIL NOTES:

(1) METER CIRCUITS AS PER SITE PLAN, SINGLE LINE DIAGRAMS.

(2) (2) - 2' x 3' x 3/4" THK. PLYWOOD TELEPHONE BACKBOARD PROVIDE (2) - 2" C.O. "LONG RADIUS SWEEP INTO UTILITY TRENCH FOR BOTH BACKBOARDS. PROVIDE (2) - 2" C.O. BETWEEN BOARDS.

(3) SAME AS (2) EXCEPT FOR TELEVISION BACKBOARDS.

(4) HOUSE PANEL WHERE INDICATED ON SITE PLAN ONLY.

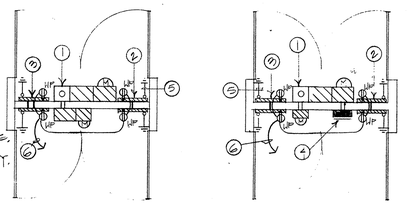
(5) 1 #6 TO REBAR FOR GROUND, PROVIDE 18" SLACK AT BKBD. TYP. ALL BACKBOARDS.

(6) HOME RUN TO HOUSE PANEL, CIRCUITS AND PANELS AS FOLLOWS: ALL OTHER METER GROUPS

METER GROUP	CIRCUIT
"M9A"	- HPB-20
"M9B"	- HPA-2
"M9C"	- HPA-4
"M9D"	- HPA-6
"M9E"	- HPB-1
"M9F"	- HPB-3
"M9G"	- HPB-5
"M9H"	- HPB-10

METER GROUP	CIRCUIT
"M9I"	HPB-12
"M9K"	HPB-2
"M9L"	HPB-4
"M9M"	HPB-21
"M9N"	23
"M9O"	25
"M9P"	27

METER GROUPS - "M9D", M9E", "M9H", "M9J", M9K, "M9N & M9O" ONLY.



METER GROUP ENCLOSURE PLAN VIEW DETAIL SCALE 1/4" = 1'-0" (A)

AS BUILT
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no. | date | by
revision

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project title
U C S B

sheet title
PANEL SCHEDULES & LOAD CALCULATIONS

scale	date
NO SCALE	
drawn	checked
J. RIDENOUR	
project no.	sheet no
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