

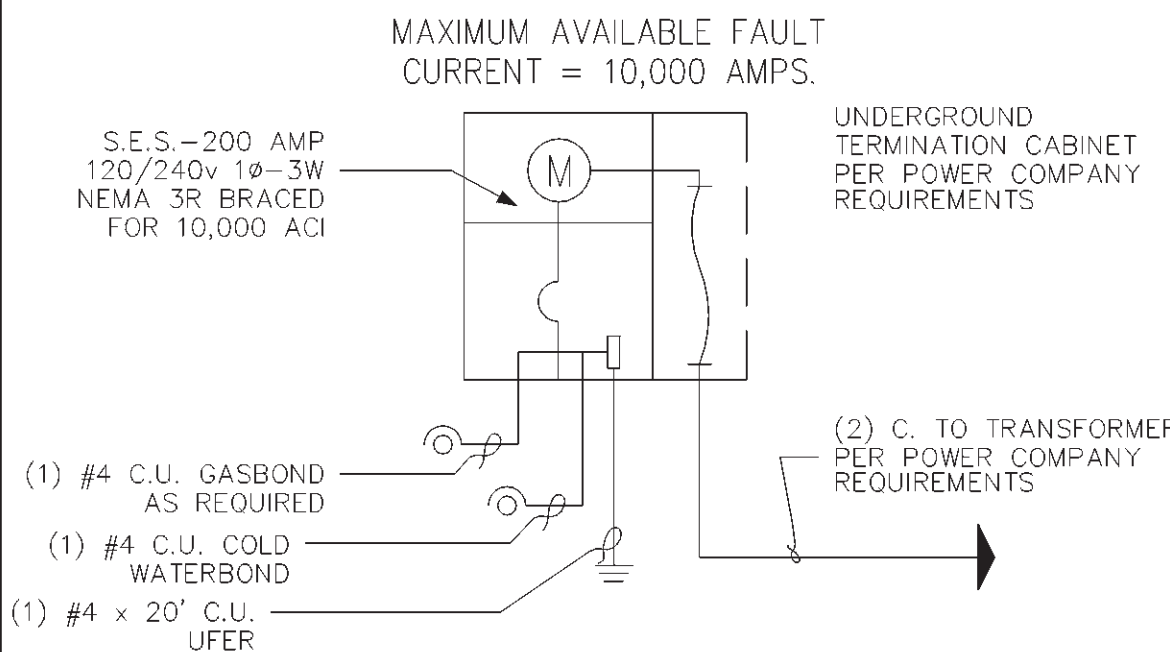
ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

LOAD CALCULATIONS

OPTIONAL METHOD WHEN SERVICE ENTRANCE EXCEEDS 100 AMPS			
220-3(b)	1. Dwelling, area in square feet - 1775 x 3 watts per sq. ft.	5,325	
220-4(c)	2. Laundry circuit, each at 1500 watts	1,500	
220-4(b)	3. 2 or more small appliance circuits each at 1500 watts	3,000	
220-19	4. Range at name plate rating	12,000	
220-18	5. Dryer (use 5000 or name plate rating if larger)	5,000	
220-3	6. Dishwasher	1,200	
220-3	7. Garbage disposer	750	
220-3	8. Water heater	4,500	
220-3	9. Cooling, unit FLA + 25% of larger motor 440-33	10,063	
(Code Sec.)			
NOTE: TOTAL WATTS INCLUDE ALL LIVABLE OPTIONS		Total watts, less cool/heat	33,275
		1st 10,000 watts at 100%	10,000
		Remainder at 40% Total -10,000 x .40 =	9,310
		(Item 11 Heating) Use Larger	10,063
		(Item 12 Cooling)	
		Total watts 10,000 + 40% + 10063	29,373
		TOTAL WATTS	
1996 N.E.C		WATTS 29,373 ÷ 240 VOLTS =	122.39 AMPS

ONE LINE DIAGRAM



ELECTRICAL PANEL SCHEDULE (SEE NOTE 16)

200 AMP 115/230V, 1Ø, 3W PANEL, 175 AMCB OR 200 AMCB												
NO	CKT. DESCRIPTION	LOAD	Ø	T	P	T	Ø	LOAD	CKT. DESCRIPTION	NO		
1	GEN. LTG.	1200	A	15	1	50	A	6000	RANGE/OVEN	2		
3			B			2	B	6000		4		
5			A			30	A	2250	WATER HEATER	6		
7			B			2	B	2250		8		
9			A			60	A	5495	AC UNIT	10		
11	DISHWASHER	1500	B	20		2	B	5495		12		
13	DISPOSAL		A			1	15	A	1200	GFCI	14	
15	KITCHEN APPLIANCE CKT.		B			1	15	B	1200	ADD. APPLIANCE	16	
17	KITCHEN APPLIANCE CKT.		A			1	20	A	1500	BATHROOM CIRCUIT	18	
19	LAUNDRY CKT.		B			1	20	B	1500	ADD. APPLIANCE	20	
21	DRYER	2250	A	30			A				22	
23		2250	B	2			B				24	

ELECTRICAL SYMBOLS

○ = RECESSED LIGHT	TV = TELEVISION OUTLET
⊕ = "VAPOR PROOF" LIGHT	⊕ = LOW VOLTAGE OUTLET
○ = STD. LIGHT	▽ = OPT. OUTSIDE TELEPHONE
⊕ = STD. WALL MOUNT LIGHT	▼ = STD. TELEPHONE
\$ = STD. SWITCH	☯ = EXHAUST FAN 5 AIR CHANGES PER HOUR
⊕ = STD. DUPLEX OUTLET	□ = FUSED DISCONNECT SWITCH
⊕ = STD. SWITCHED OUTLET	⊕ = CHIMES
⊕ = G.F.C.I., W.P. DUPLEX OUTLET	⊕ = CONDENSOR MOTOR
⊕ = STD. 220v. OUTLET	⊕ = PUSH BUTTON SWITCH
⊕ = STD. CEILING FAN	⊕ = SMOKE DETECTOR
⊕ = OPT. CLG. FAN / STD. LIGHT	⊕ = FLOURESCENT LIGHT
	⊕ = INCANDESCENT BAR LIGHT

GENERAL INFORMATION

1. ALL KITCHEN ABOVE COUNTER RECEPTACLES SHALL BE INSTALLED @ +44" UNLESS NOTED OTHERWISE
2. ALL BATHROOM ABOVE COUNTER RECEPTACLES SHALL BE INSTALLED @ +40" UNLESS NOTED OTHERWISE
3. GARAGE AND EXTERIOR CONVENIENCE RECEPTACLES SHALL BE INSTALLED @ +24" UNLESS NOTED OTHERWISE
4. EXTERIOR CONVENIENCE RECEPTACLES SHALL BE WEATHER PROOF
5. (2) OR MORE 20 AMP SMALL APPLIANCE CIRCUITS SHALL BE PROVIDED TO SERVE THE KITCHEN, BREAKFAST & DINING ROOM, SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
6. PROVIDE AT LEAST 1-20 AMP CIRCUIT TO SERVE LAUNDRY ROOM. THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS.
7. OUTLET BOXES IN WALLS BETWEEN LIVING SPACE AND GARAGE SHALL BE METAL OR U.L. APPROVED FIRE RESISTIVE PLASTIC. OUTLET BOXES IN GARAGE CEILING SHALL BE METAL.
8. ELECTRICAL PANELS, INCLUDING MECH. EQUIPMENT DISCONNECTS REQUIRE 30" WIDE, 36" DEEP, 75" HIGH CLEAR WORK SPACE IN FRONT. AIR CONDITIONING EQUIPMENT SHALL NOT BE LOCATED IN REQUIRED PATHS OF BEDROOM EGRESS.
9. THE EXHAUST FAN SHOULD BE RATED AT 75 C.F.M.
10. CEILING FAN OUTLET BOXES SHALL BE LISTED FOR THE APPLICATION/LOCATION AND SHALL BE RIGIDLY SECURED IN PLACE.
11. PROVIDE HARD WIRED SMOKE DETECTORS INTERCONNECTED WITH BATTERY BACKUP IN ALL PREVIOUSLY REQUIRED LOCATIONS AND CENTRALLY LOCATED IN BEDROOMS. MAINTAIN MANUFACTURER'S RECOMMENDED DISTANCE FROM CEILING FANS AND SUPPLY AND RETURN AIR OPENINGS.
12. SMOKE DETECTORS LOCATION SHALL COMPLY WITH U.B.C. AS AMENDED FOR DIFFERENT CEILING HEIGHT REQUIREMENTS: 24" RULE.
13. CEILING FANS OR LIGHTS INSTALLED UNDER PATIO COVERS MUST BE LISTED FOR DAMP LOCATIONS. LIGHTS NOT UNDER COVER MUST BE LISTED FOR WET LOCATIONS.
14. FIXTURES IN CLOTHES CLOSETS ARE REQUIRED TO BE 30" FROM STORAGE WALLS, OR IF THE CLOSET IS 24" DEEP, A FLOURESCENT WITH LENS MAY BE MOUNTED ON THE WALL FARTHEST FROM THE STORAGE AREAS.
15. ALL EXTERIOR LIGHTS SHALL BE APPROVED FOR DAMP LOCATIONS.
16. ALL CIRCUIT BREAKERS AND WIRE SHALL BE SIZED FOR THE APPLICATION PER 96 NEC. ALL WIRE SHALL BE THE SAME SIZE ALONG THE ENTIRE LENGTH OF THE BRANCH CIRCUIT. (REFER TO NEC 220 & 310)

KEYNOTES

- | NO. | DESCRIPTION |
|-----|--|
| 1 | RANGE/COOKTOP - OPTIONAL GAS |
| 2 | OVEN - OPTIONAL GAS |
| 3 | REFRIGERATOR |
| 4 | FREEZER |
| 5 | DISHWASHER |
| 6 | PREWIRE FOR MICROWAVE. |
| 7 | SINK w/ DISPOSAL |
| 8 | WASHER |
| 9 | DRYER - 220v. OUTLET REMAINS w/ OPT. GAS. |
| 10 | NOT USED |
| 11 | 20 AMP. CIRCUIT BREAKER OUTLET - 1 LEG SWITCHED @ DISPOSAL, 1 LEG HOT @ DISHWASHER 75 C.F.M. EXHAUST FAN |
| 12 | STANDARD CEILING FAN - (SEE NOTE 10) |
| 13 | STANDARD CEILING FAN/LIGHT- (SEE NOTE 10) |
| 14 | REINFORCE J-BOX FOR OPTIONAL PREWIRE PACKAGE FOR CEILING FAN |
| 15 | OPTIONAL PATIO LIGHT OR FAN OR FAN/LIGHT. (SEE NOTE 13) |
| 16 | NOT USED |
| 17 | NOT USED |
| 18 | CHIMES - WIRE TO FRONT DOOR - USE THERMOSTAT FOR POWER |
| 19 | SMOKE DETECTOR PER '94 UBC SEC 310.9.1.4. (SEE NOTE 11) |
| 20 | NOT USED |
| 21 | CEILING OUTLET FOR AUTOMATIC GARAGE DOOR OPENER - Ø1 PER N.E.C. SEC. 210-8 |
| 22 | LOW VOLTAGE WIRING TO GARAGE DOOR SENSORS. |
| 23 | LIGHT AND SWITCH WITH OPTIONAL EXTERIOR DOOR ONLY. |
| 24 | SCUTTLE ACCESS w/ SWITCH AND LIGHT. SEE TYPICAL ATTIC INSTALLATION DIAGRAM SHT. M1 |
| 25 | NOT USED |
| 26 | ROOF MOUNTED GAS/ELECTRIC AC UNIT w/ 110v CONVENIENCE OUTLET - SEE SHEET M1 |
| 27 | A/C COMPRESSOR DISCONNECT - COORDINATE LOCATION w/ MECHANICAL CONTRACTOR |
| 28 | NOT USED |
| 29 | BUILT-IN IRONING BOARD |
| 30 | 200 AMP SERVICE ENTRANCE - LOCATE PER UTILITY COMPANY |
| 31 | 200 AMP ELECTRICAL PANEL |
| 32 | NOT USED |
| 33 | NOT USED |
| 34 | NOT USED |

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ELECTRICAL PLAN
SHEET CONTENT:

PROJECT NO.: RH98-0504
DRAWN BY: DRAFTER
DATE: 12 JULY 99
REVISIONS
Rev. 1 DATE:
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PLAN
1775

SHEET
E-1