

### Electrical SYMBOLS

- ⊕ 8PST WALL SWITCH
- ⊕ DPDT WALL SWITCH (3-WAY)
- ⊕ DUPLEX WALL RECEPTACLE
- ⊕ DUPLEX WALL RECEPT. BELOW COUNTER
- ⊕ 240V OUTLET
- ⊕ GND FAULT INTERRUPTER DUPLEX RECEPT.
- ⊕ WEATHER PROOF GFI DUPLEX RECEPT.
- ⊕ DUPLEX WALL RECEPTACLE, 1/2 SWITCHED
- ⊕ MOTOR
- ⊕ ELECTRICAL PANEL
- ⊕ EXHAUST FAN
- ⊕ DBL. LAMP INC. FLOOD LIGHT
- ⊕ CEILING FAN, W/ INC. LIGHT FIXTURE
- ⊕ INC. LIGHT FIXTURE
- ⊕ SMOKE DETECTOR, 120V
- ⊕ 4 TUBE FLU. PRISMATIC WRAP SURFACE FIXTURE
- ⊕ CHIME
- ⊕ MOMENTARY PUSHBUTTON SWITCH, LIGHTED
- ⊕ SWITCH/FIXTURE WIRING
- ⊕ CONTROL WIRE - LOW VOLTAGE
- ⊕ NON-FUSED DISC. SWITCH
- ⊕ TELEPHONE
- ⊕ TELEVISION OUTLET
- ⊕ HVAC THERMOSTAT, 0-60° AFF

### ELECTRICAL COMPUTATIONS

General Lighting/Receptacles @ 3 w/sf  
1500 sf x 3 w = 4770W

Washer Circuit 1500W

Dishwasher Circuit 1500W

Sm. Appliance Circuits (3 @ 1500 w) 4500W

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Sub-Total 12270W

1st 3 KW @ 100% 3000W

Bal. of KW @ 35% 3244.5W

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Fixed Appliances:

Refrigerator 1200W

Cig. Fans (5 @ 300 w) 1500W

Water Well Pump 1200W

EUH 4500W

Spares (8 @ 400 w) 3200W

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Sub-Total 11600W

Load @ 75% D.F. 8700W

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100% Demand Factor Loads:

Dryer 5000W

Range 8000W

HVAC System (80kw Strip Heat) 8000W

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Total Demand Load: 35944.5W

SERVICE SIZE: 35944.5 w / 240v = 149.77 Amperes  
USE: 3 # THW w/ 1 # Cu GND / 2 1/2" C.

### PANEL SCHEDULE

PANEL "L": 150A - MLO - 120/240V - 1P - 4 WIRE  
40 SLOT - FLUSH MOUNT

Cir. No.	Location	Trip Poles	Wire Size	Load
1-8	Lighting/Recept.	15A/1P	14NM	4770W
9	Dishwasher	"	"	1500W
10-12	Sm. Kit. Appliances	20A/1P	12NM	4500W
13-14	Ceiling Fans	15A/1P	14NM	1500W
15,17	EUH	30A/2P	10NM	3000W
16	Refrigerator	15A/1P	14NM	1200W
18	Spares	"	"	400W
19,21	Range	50A/2P	6NM	8000W
20,22	Water Well	20A/2P	12NM	1200W
23,25	Dryer	30A/2P	10NM	5000W
24,26	HVAC CU	40A/2P	8NM	(3600W)
27,29	HVAC AHU	45A/2P	8NM	8000W
30-36	Spares	"	"	2800W
37-40	Space	"	"	0W
TOTAL CONNECTED LOAD:				41870W

### ELECTRICAL PLAN NOTES

WIRE ALL APPLIANCES, HVAC UNITS AND OTHER EQUIPMENT PER MANUF. SPECIFICATIONS.

CONSULT THE OWNER FOR THE NUMBER OF SEPERATE TELEPHONE LINES TO BE INSTALLED.

INSTALLATION SHALL BE PER NAT'L. ELECTRIC CODE.

ALL SMOKE DETECTORS SHALL BE 120V W/ BATTERY BACKUP OF THE PHOTOELECTRIC TYPE, AND SHALL BE INTERLOCKED TOGETHER. INSTALL INSIDE AND NEAR ALL BEDROOMS.

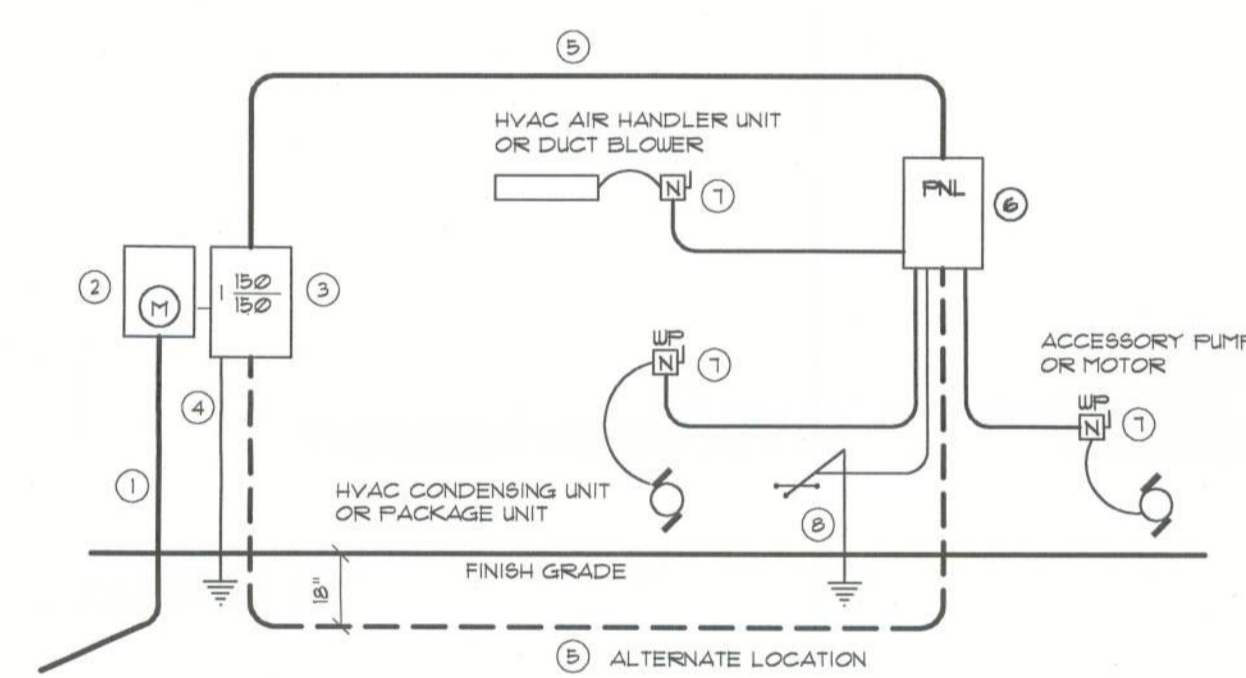
TELEPHONE, TELEVISION AND OTHER LOW VOLTAGE DEVICES OR OUTLETS SHALL BE AS PER THE OWNER'S DIRECTIONS, 4 IN ACCORDANCE W/ APPLICABLE SECTIONS OF NEC-LATEST EDITION.

ELECTRICAL CONTR SHALL PREPARE "AS-BUILT" SHOP DWGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELEC. PLAN, ADD'NG TO THE ELEC. PLAN, RISER DIAGRAM, AS-BUILT PANEL SCHEDULE W/ ALL CKTS IDENTIFIED W/ CKT N°. DESCRIPTION & BRKR, SERVICE ENT. & ALL UNDERGROUND WIRE LOCATIONS/ROUTING/DEPTH. RISER DIA. SHALL INCLUDE WIRE SIZES/TYPE & EQUIPMENT TYPE W/ RATINGS & LOADS. CONTRACTOR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER & 1 COPY TO THE PERMIT ISSUING AUTHORITY.

ALL RECEPTALS IN ALL BEDROOMS SHALL BE ARC FAULT INTERRUPTER TYPE (AFI).

ALL RECEPTALS IN KITCHEN AND BATHS SHALL BE GROUND FAULT INTERRUPTER TYPE (GFI).

ALL EXTERIOR RECEPTALS SHALL BE WEATHERPROOF GROUND FAULT INTERRUPTER TYPE (WP/GFI).



- ① Service/Feeder Entrance Conductors: 2 1/2" rigid conduit, min. 18" deep, w/ continuous Ground Bonding Conductor. Service/Entrance Conductors shall not be spliced except that bolted connections at the Meter, Disconnecting Devices and Panel shall be allowed.
- ② Meter Enclosure, weatherproof, UL Listed.
- ③ Main Disconnect Switch: fused or Main BRKR, weatherproof, UL Listed.
- ④ Service Entrance Ground: 3/4" Iron/Steel rod x 8'-0" long and/or concrete encased foundation steel rebar x 20'-0" long. Grounding Conductor shall be bonded to each piece of Service/Entrance Equipment, and shall be sized per item 5, below.
- ⑤ 150 AMPERE SERVICE: 3 # THW-Cu, 1 # Cu-GND, 1 1/2" Conduit.
- ⑥ House Panel (PNL): UL Listed, sized per schedule.
- ⑦ Equipment Disconnect Switch: non-fused, in weatherproof enclosure, size according to Panel Schedule loads.
- ⑧ Provide Ground Bond Wire to metal piping, size in accordance with the Service Ground Conductor.

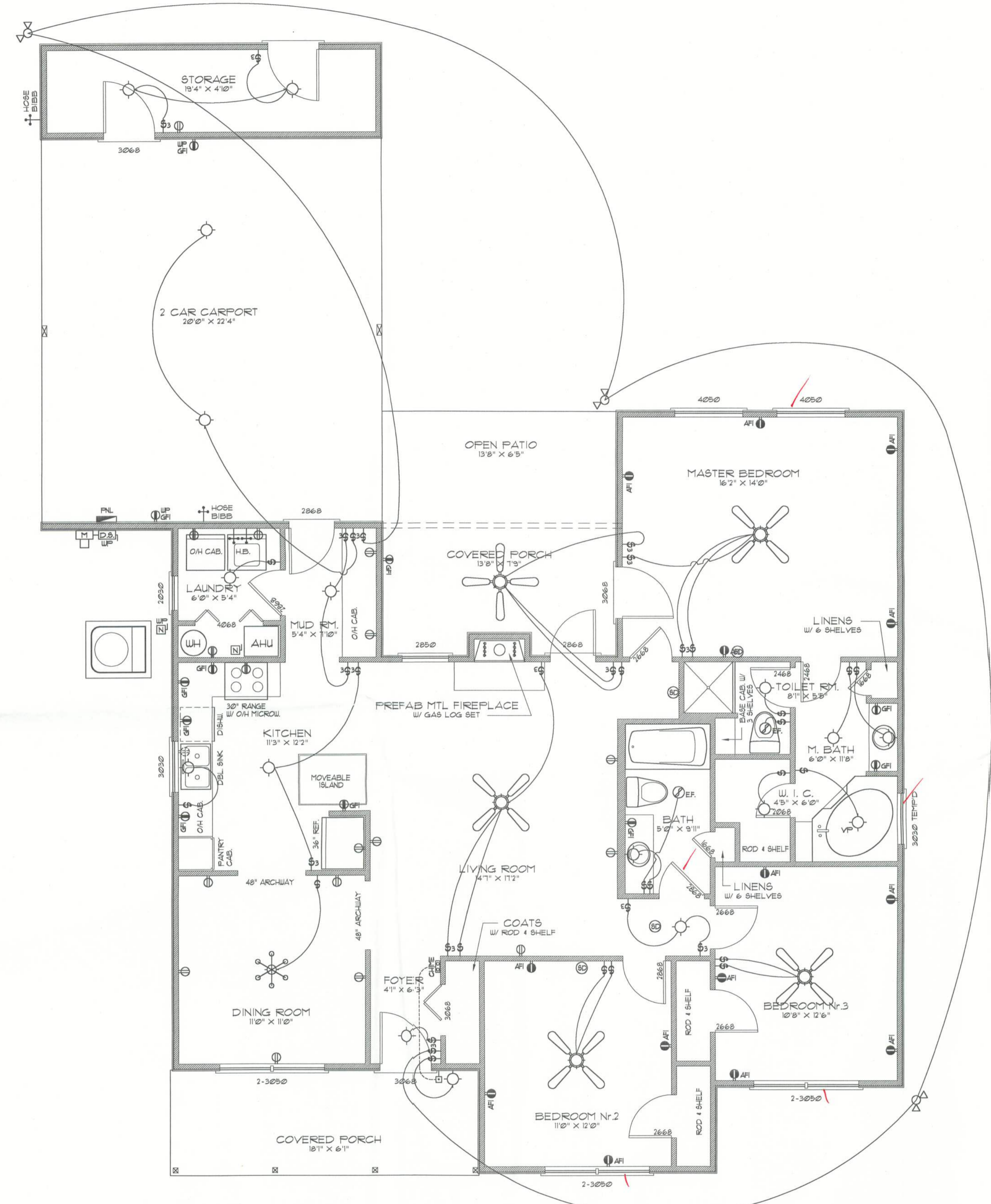
NOTE!  
THE MINIMUM AIC RATING FOR PANEL BOARDS, BRKRS AND DISCONNECT SWITCHES SHALL BE 22,000 AIC.

### ELECTRICAL RISER DIAGRAM: 150A

SCALE: NONE

NOTE!  
CABINETS, COUNTERS, SHELVES AND THE LIKE, SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS OF QUALITY AS OUTLINED IN THE NOTES TITLED "GENERAL MILLWORK NOTES", AND SHALL INCLUDE SUCH FEATURES, HARDWARE AND FINISHES AS DIRECTED BY THE OWNER. THE PLAN VIEWS INDICATED ARE FOR GENERAL LOCATION AND EXTENT OF THE WORK - UNLESS DETAILED CABINET PLANS ARE INCLUDED WITH THIS PLAN'S PACKAGE ALL OTHER PHYSICAL CHARACTERISTICS SHALL BE AS DIRECTED BY THE OWNER.

NOTE!  
PROVIDE 2X6 BACKING AT ALL OVERHEAD CABINET LOCATIONS, FLUSH WITH FACE OF FRAMING - TOP OF BACKING TO BE 1'-0" AFF.



### Floor PLAN

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

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