16. ELECTRICAL REQUIREMENTS:

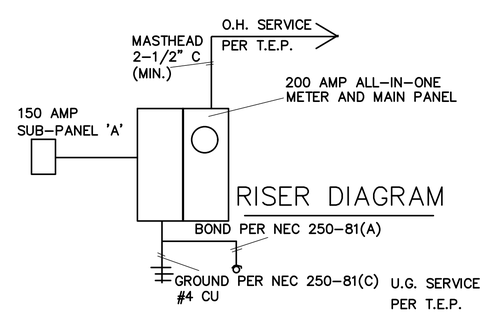
1. WORKING CLEARANCES AND SPACE FOR PANEL BOARDS AND SERVICE EQUIPMENT: FROM FLOOR TO 6.5' HIGH. FROM FRONT: 36"; WIDTH: 30". PANEL BOARDS AND SERVICE EQUIPMENT ARE NOT ALLOWED IN BATHS, STORAGE AREAS OR CLOSETS.
2. RECEPTACLE DISTRIBUTION:
   6' FROM OPENINGS, 12' BETWEEN RECEPTACLES, ANY 2' FIXED WALL. KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM TO MINIMUM TWO 20 AMP SMALL APPLIANCE RECEPTACLES (GFI). BATH(S) TO HAVE ONE 20 AMP SMALL APPLIANCE RECEPT. (GFI) WITHIN 36" OF OUTSIDE EDGE OF LAV. OUTDOORS – AT LEAST ONE RECEPT. (GFI) AND (WP) FROM GRADE TO 6.5' HIGH FRONT AND BACK OF BUILDING, & MIN. 1 IN GARAGE. HALLWAYS LONGER THAN 10' TO HAVE AT LEAST ONE RECEPT.
3. ALL WORK SHALL CONFORM WITH THE NATIONAL ELECTRICAL CODE, 2017 EDITION, & 2018 IRC CH. 34 – 43.
4. CLOSET AND STORAGE LIGHTS – 6" CLEAR FROM ANY POINT OF STORAGE.
5. FANS – INSTALL NEC, UL, AND MANUFACTURER'S INSTRUCTIONS. USE ONLY APPROVED BOXES.
6. BATHROOM LIGHT FIXTURES – INSTALL PER ELECTRICAL NOTE 5.
   LAMP HOLDERS – TO BE WEATHERPROOF TYPE IN WET/DAMP LOCATIONS. HANGING FIXTURES NOT TO BE OVER SHOWER/TUB AREA, OR WITHIN 3' OF OUTSIDE EDGE.
   A) ALL CONDUCTORS SHALL BE COPPER, MINIMUM SIZE #12 AWG WITH 'THHN' OR 'THWN' INSULATION FOR SIZE #12 THROUGH #1 AWG, AND 'XHHW', 'THHN', 'THWN' FOR NO. 1/0 AWG AND LARGER.
   B) ALL WIRING UNDER SLAB TO BE IN CONDUIT.
   C) CABLE RUN UNDERGROUND TO BE (UF) UNDERGROUND RATED.
   D) BURY DEPTH BELOW GRADE: 18" < 30 AMP 24" IF > 30 AMP.
   E) PLACE MARKER TAPE 12" ABOVE BRIED CABLE, CONTINUOUS FOR ENTIRE BURIED RUN.
7. RECEPTACLES:
   A) COVER COLORS SHALL BE AS SELECTED BY OWNER.
   B) MOUNTING HEIGHTS: SWITCHES: 48" AFF; RECEPT.: 15" AFF (46" AT COUNTERS, 48" IN GARAGE), UNLESS NOTED OTHERWISE ON PLANS.
   C) MOUNT ALL RECEPT. VERTICAL WITH GROUNDING POLE AT THE TOP.
   D) OUTLETS AND SWITCH BOXES TO BE PROPERLY SUPPORTED.
   E) OUTLET BOXES LOCATED IN FIRE WALL SHALL BE MTL. OR APPR. PLAS.
   F) APPLIANCE CIRCUITS TO BE 20 AMP.
   G) PROTECT ALL INTERIOR 15 AND 20 AMP OUTLETS (EXCEPT GARAGE, KITCHEN AND BATHROOMS) INCLUDING OUTLETS, LIGHTS, AND SMOKE DETECTORS WITH COMBINATION TYPE ARC–FAULT CIRCUIT INTERRUPTERS.
   H) PROVIDE TAMPER RESISTANT RECEPTACLES FOR 125 VOLT, 15A AND 20 AMP OUTLETS.
8. GROUND FAULT INTERRUPTERS (GFI):
   A. BATHROOM, GARAGE, OUTDOOR RECEPTACLES, OTHER CIRCUITS AND RECEPTACLES AS NOTED ON PLANS,TO BE PROVIDED WITH GFI'S.
   B. GFI'S MAY BE INSTALLED IN RECEPTACLES OR IN CIRCUIT BREAKER.
9. MATERIALS:
   A. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW.
   B. ALL STYLES AND COLORS OF FIXTURES TO BE SELECTED AND APPR. BY OWNER.
   C. ALL EXTERIOR COMPONENTS TO BE CERTIFIED WEATHERPROOF AND RAIN–TIGHT.
10. VERIFY REQUIREMENTS:
   A. VERIFY EXACT ELECTRICAL REQUIREMENTS OF EQUIP. FURNISHED BY OTHERS AND COMPLY WITH THESE REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
11. RECORD DRAWINGS:
   A. MAKE NOTE OF ANY CHANGES IN THE LAYOUT MADE IN THE FIELD ON DRAWINGS.
12. PROVIDE MANUALS AND WARRANTY INFORMATION.
13. COMPLETE AND PROPER INSTALLATION:
   A. OWNER TO SELECT FIXTURES BY ALLOWANCE, INSTALL BY CONTRACTOR. INSTALL ALL ITEMS NECESSARY FOR COMPLETE AND PROPER INSTALLATION OF THE WORK WETHER SPECIFICALLY CALLED–OUT OR NOT.

7. CONDUCTORS:

ELECTRICAL NOTES:

ALSO REFER TO ELECTRICAL REQUIREMENT SPECIFICATIONS

1. SMOKE/CO DETECTORS TO BE HARD WIRED TO POWER SOURCE WITH BATTERY BACK–UP. CONNECT MULTIPLE SMOKE DETECTORS TO ACTIVATE SIMULTANEOUSLY.
2. STORAGE/EQUIP. AREAS: TO HAVE ONE LIGHT FIX. W/SWITCH.
3. INSTALL CEILING FANS PER IRC, UL, AND MFGR INSTRUCTIONS. USE ONLY APPROVED BOXES.
4. ALL ELECTRICAL WORK PER NEC 2017 AND 2018 IRC CH. 34 – 43.
5. SERVICE RECEPTACLES WITHIN 25' OF HVAC UNITS. PROTECTED GFIC'S
6. CLOSET FIXTURES: ENCLOSED LAMPS ONLY.
7. PROTECT ALL INTERIOR 15 AND 20 AMP OUTLETS (EXCEPT GARAGE, KITCHEN, AND BATHROOMS) INCLUDING OUTLETS, LIGHTS, AND SMOKE DETECTORS WITH COMBINATION TYPE ARC–FAULT CIRCUIT INTERRUPTERS.
8. PROVIDE TAMPER RESISTANT RECEPTACLES FOR 125V, 15 AMP AND 20AMPOUTLETS.
9. PROTECT EXTENDED BRANCH CIRCUITS WITH COMBINATION TYPE ARC–FAULT CURCUIT INTERRUPTERS, OR AN AFCI TYPE OUTLET ON THE 1ST OUTLET ON THE BRANCH LINE.
10. PROVIDE HIGH EFFICIENCY LAMPS FOR AT LEAST 90% OF ALL LIGHTING FIXTURES.
11. PROVIDE ENERGY CERTIFICATE: PLACE NEAR INDOOR FURNACE OR UTILITY ROOM



RISER DIAGRAM

ELECTRICAL NOTES

200 AMP MAIN PANEL @ METER

CIR	WIRE	BKR	DESTINATION	DESTINATION	BKR	WIRE	CIR.
1		150	SUB– PANEL 'A'	SPACE			2
3	CU	2	SUB–PANEL 'A'	SPACE			4
5			SPACE	SPACE			6
7			SPACE	SPACE			8

150 AMP SUB–PANEL 'A' (@ GAR.)

CIR	WIRE	BKR	DESTINATION	DESTINATION	BKR	WIRE	CIR.
1	#6	60	A/C #1	KITT APPL. GFI	20	#12	2
3	CU	2	A/C #1	KIT APPL GFI	20	#12	4
5	#14	15	HALL	BEDROOM #3	15	#14	6
7	#14	15	HALL	BEDROOM #3	15	#14	8
9	#10	30	DRYER	YARD	15	#14	10
11	CU	2	DRYER	SMOKE OR CO	20	#12	12
13	#15	15	SPARE	GARAGE GFI	20	#12	14
15	#15	15	HOOD LTS/FAN	SERVICE REC.	20	#12	16
17	#12	20	GAR GFI	EXT. LIGHTS	15	#14	18
19	#12	20	OVERHEAD DR.	LAUNDRY	20	#12	20
21	#12	20	GFI WASHER	BEDROOM #2	15	#14	22
23	#6	60	A/C #2	BEDROOM #2	15	#14	24
25	CU	2	A/C #2	LOW VOLT LTG.			26
27	#14	15	LIVING ROOM	GFI BATH	20	#12	28
29	#12	20	LIVING ROOM	AZ ROOM	15	#14	30
31	#14	15	DINING	AZ ROOM	15	#14	32
33	#14	15	KITCHEN LTS.	GARAGE	15	#14	34
35	#14	15	GFI REF.	M. BATH	15	#14	36
37	#14	15	OUTSIDE LTS.	M. BEDROOM	15	#14	38
39	#14	15	BEDROOM #1	M. BEDROOM	15	#14	40
41	#14	15	BEDROOM #1	GFI (OUTSIDE)	20	#12	42

LOAD CALCULATION:

HOUSE: 2,366 X 3 = 7,098
(3) GFI X 1500 = 4,500
(2) APPLIANCE @ 1500 = 3,000
LAUNDRY = 5,000
DISPOSAL = 1,200
OVEN/STOVE = GAS
WH = GAS
REFRIG = 1,200

1ST 10K AT 100% = 10,000
BALC. AT 40% (11,998 X .40) = 4,800
14,800/230 = 65 AMPS
A/C (S) = 90 AMPS
POOL = 10 AMPS
TOTAL LOAD = 165 AMPS

200 AMP ALL–IN–ONE MAIN SERVICE

LEDGEND:

- SIDE MOUNTED LIGHTING
- DUPLEX RECEPT. W/1 SIDE SWITCHED
- LOW VOLT EXT. LIGHTING
- $ SWITCH
- $3 3 WAY SWITCH
- RECESSED CAN
- © CABLE BY OTHERS BUT CONTRACTOR TO PROVIDE CONDUIT/BOX LOCATIONS PER OWNERS INSTRUCTION
- FLOOD LIGHT
- DUPLEX RECEPT. (UNDER CNTR.)
- DUPLEX RECEPT.
- RECESSED CAN (PER NOTE #7 AT CLOSET & NOTE #5 AT WET AREAS)
- CLG. MOUNTED LIGHTING
- PENDENT MOUNTED LIGHTING

EXPIRES 03/31/2023

REGISTERED ARCHITECT
CERTIFICATE NO.
26992
RICK L.
GONZALEZ
Date Signed 12/21/21
ARIZONA U.S.A.

REVISION	date

DO NOT USE SCALED DIMENSIONS, USE WRITTEN DIMENSIONS OR WHERE NO DIMENSION IS PROVIDED, CONSULT ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

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DOMINGUEZ RESIDENCE
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TUCSON, AZ 85757

NEW RESIDENCE

A9.1