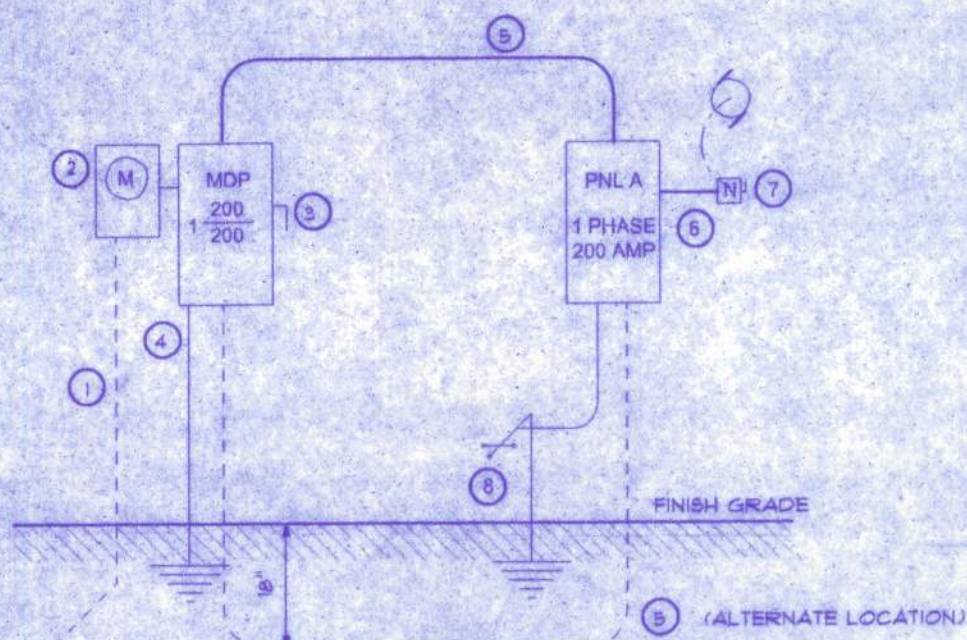




- 1 Service Entrance Conductors: 2 1/2" rigid conduit, min 15' deep, without ground bonding conductor. Service Entrance conductors shall not be spliced except the bolted connection to Meter, Disconnecting Devices and Panel shall be #4.
- 2 Existing Enclosure, weatherproof, U.L. Listed.
- 3 Main Disconnect Switch: fused or Main Breaker, weatherproof, U.L. Listed.
- 4 Service ground: 5/8" diameter iron-steel rod x 8'-0" long and/or inside enclosed foundation steel rebar x 20'-0" long. Ground conductor shall be bonded to each piece of Service Equipment, and shall be sized per item #5 below.
- 5 200 Amp feeder: 3-3/0 THW-Cu, 1-4/0 Cu-GND, 2-1/2" Conduit.
- 6 House PNL, U.L. Listed, sized per schedule.
- 7 Equipment Disconnect Switch: non-fused, in weather proof enclosure according to Panel Schedule loads.
- 8 Provide 4 Bond Wire to metal piping, size in accordance with the #8 Ground Conductor.

WIRING NOTES:
WIRING, DISTRIBUTION EQUIPMENT AND DEVICES
 A. CONDUCTORS: Copper, in accordance with ASTM standards, size reference AWG. Conductors No. 10 and smaller size solid, No. 8 and larger, stranded. Insulation of conductor thermoplastic type THHN min. abs. No. 12 any wire installed outside, underground, in slabs or exposed to moisture shall have THWN insulation.
 B. RACEWAYS: RIGID STEEL CONDUIT, full weight pipe galvanized, threaded, and minimum 1/2 inch except as noted or required for wiring. ELECTRICAL METALLIC TUBING (EMT), thin wall pipe, galvanized, threaded, compression fittings, and minimum 1/2" size except as noted or required for wiring. FLEXIBLE STEEL CONDUIT, continuous single step, galvanized, and minimum 1/2" size except as noted or required for wiring. PVC CONDUIT, heavy duty type, size as indicated. Separate raceways shall be used for each voltage system.
 C. DISCONNECT SWITCHES: General Duty, horsepower rated for motor loads 250 volt rating, fused or non-fused as noted; number of poles as indicated. Enclosure NEMA 1 for indoor use and NEMA 3R for weatherproof applications. Switch to be Square "D" or equal.
 D. CIRCUIT BREAKERS: molded case, thermal-magnetic, quick make, quick break, bolt-on type with manually operated insulated trip-free handle. Multi-pole types with internal common trip bar. Terminals suitable for copper or aluminum conductors. Interrupting capacity minimum 10,000 RMS symmetrical amperes circuit circuit breakers to be Square "D", Siemens or equal, type as required.
 E. PANELBOARDS: Voltage, phasing, and ampere ratings as indicated, circuit breaker type as indicated, bus bars of hard drawn copper, minimum 95% conductivity, galvanized steel knock box door and trim. All corners lapped and welded, hardware chrome plated with flush lock and catch. Hinges semi-concealed, 5 knockouts steel with 180 degree openings. Minimum gutter space 5/16" sides, top and bottom. Increases size where required by code. Directory holder complete with clear plastic transparent cover indicating typewritten list of feeder cables, conduit sizes, circuit number, outside of equipment supplied, and their location. Circuit breaker type and location to be Square "D" type NOOD or I-Line, or equal. A plastic label shall be located on exterior of panelboard identifying the system voltage, phase, and current rating.
 F. WIRING DEVICES: All devices their product of the same manufacturer. Wall switches and receptacles to be 20 amp, 125 volt, unless noted otherwise. Color to be selected by Architect.
 G. DEVICE PLATES: provide for all outlets where devices are installed. Provide engraved marking for special outlets (where noted). Provide blank plates for empty or future outlet boxes. DEVICE AND DEVICE PLATE COLORS TO BE VERIFIED WITH ARCHITECT AND OWNER.

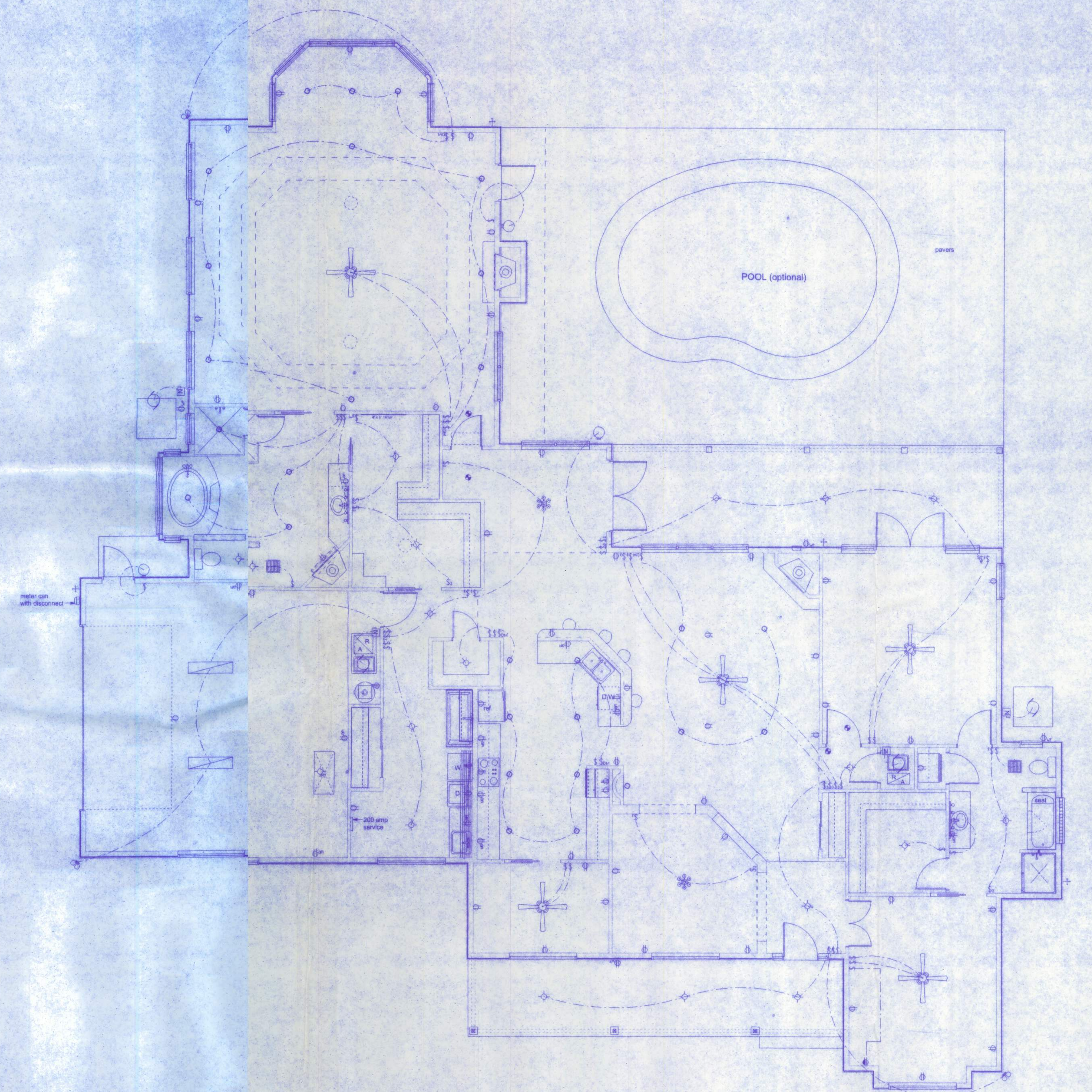
GROUNDING SYSTEM
 A. EQUIPMENT: Ground non-current carrying metal parts of panel board, raceways and all lighting fixtures. All conduit shall have equipment grounding conductors.

INSTALLATION:
 A. Secure all supports to building structure as specified under raceways. Support horizontal runs of metallic conduit not more than 10 feet apart. Run exposed raceways parallel with or at right angles to walls.
 B. Trace raceways over water, steam or other piping when pull boxes are not required. No raceway within 3 inches of steam or hot water pipes, or appliances. Expect crossing where the raceway shall be at least 2 inches from pipe cover.
 C. Cut conduit ends square, ream smooth. Paint male threads of field threaded conduit with Graphite based pipe compound. Draw up tight with conduit couplings.
 D. Leave wire sufficiently long to permit making final connections. In raceway over 50 feet in which wiring is not installed, furnish pull wires.
 E. Verify locations of outlets and switches.
 F. Support panel, junction and pull boxes independently to building structure with no weight bearing on conduits.
 G. Connect conduit to motor conduit terminal boxes with flexible conduit, minimum 18 inches in length and 50% slack. Do not terminate in or fasten raceways to motor foundation.
 H. This contractor shall provide a temporary electrical distribution system as required, 120/208 volt, 1 phase, 100 amp, for new construction. All temporary work shall be installed in a neat and safe manner.
 I. Contractor to remove and salvage all abandoned electrical equipment.
 J. This contractor shall warrant all labor and materials for one year from date of final written acceptance.

ELECTRICAL PLAN NOTES

WILL APPLIANCES, HVAC UNITS AND OTHER EQUIPMENT PERMITS SPECIFICATIONS.
 C. THE OWNER FOR THE NUMBER OF SEPARATE TELEPHONE LINES TO BE INSTALLED.
 INFORMATION SHALL BE PER NATL. ELECTRIC CODE.
 ALARMS DETECTORS SHALL BE 120V W/ BATTERY BACKUP OF THE PHOTOELECTRIC TYPE, AND SHALL BE LOCKED TOGETHER. INSTALL INSIDE AND NEAR BEDROOMS.
 TELEVISION AND OTHER LOW VOLTAGE DEVICES OR OUTLETS SHALL BE AS PER THE OWNER'S OPTIONS, & IN ACCORDANCE WITH APPLICABLE SECTIONS OF NEC-LATEST EDITION.
 ELECTRICAL CONTRACTOR SHALL PREPARE "AS-BUILT" SHOP DRAWINGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELEC. PLAN, ADDS TO THE ELEC. PLAN, AND A PANEL SCHEDULE. AS-BUILT PANEL SCHEDULE WILL CONTAIN: CIRCUIT NO., DESCRIPTION & BRKR. SERVICE ENT. & UNDERGROUND WIRE LOCATIONS, ROUTING, DEPTH, ETC. SHALL INCLUDE WIRE SIZE, TYPE & EQUIPMENT RATING & LOADS.
 CONTRACTOR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER & 1 COPY TO THE PERMIT ISSUING AUTHORITY.

ELECTRICAL	COUNT	SYMBOL
ceiling spotlights 1	6	
ceiling 6 inch	28	
ceiling 4 inch	2	
ceiling 1 x 4	3	
ceiling spotlight	3	
ceiling light 1	3	
ceiling meter	1	
ceiling panel	1	
ceiling 5	5	
ceiling disconnected	5	
ceiling exhaust fan	2	
ceiling switch	5	
ceiling light	16	
ceiling 52	52	
ceiling 20v	4	
ceiling 11	11	
ceiling 4	4	
ceiling light	1	
ceiling detector	4	
ceiling replace	1	
ceiling 27	27	
ceiling way	22	
ceiling 1	1	
ceiling light	2	



ELECTRICAL PLAN
 SCALE: 3/16" = 1'-0"

William H. Frie
 2/25/11
 P.E. # 456031

HARRISON RESIDENCE

128 SW NASSAU ST
 LAKE CITY, FL 32003
 (386) 758-4209
 CERTIFICATE OF AUTHORIZATION # 00008701

Freeman
 Design Group inc

DATE: 2/25/11
 DRAWN BY: W.H.F.
 APPROVED: W.H.F.

REVISIONS

SHEET A-13

OF 13

PROJECT NO. 10.R009