

1. ALL ELECTRICAL WIRING SHALL BE IN ACCORDANCE WITH NEC-NEPA -70-2020-680.
2. PROVIDE GROUND WIRE SYSTEMS LOOP WITH #8 COPPER WIRE FOR THE POOL DECK WIRE MESH AND STRUCTURAL STEEL.
3. ALL WIRING SHALL BE COPPER THIN.
4. ALL SWIMMING POOL EQUIPMENTS SHALL BE THRU CFCI BREAKER (NEC 68022b).
5. ALL SWIMMING POOL ESTABLISH LOCATIONS OF UTILITIES AT THE SITE. MINIMUM CLEARANCE DIMENSIONS SHALL BE HELD AND SHALL BE AS REQUIRED BY THE LOCAL REGULATORY AGENCY IN GENERAL, HOLD A DISTANCE OF 10 FEET FROM OVERHEAD ELECTRIC LINES TO OPEN POOL WATER EDGE AND 5 FEET FROM UNDERGROUND ELECTRIC LINES.
6. ELECTRICAL EQUIPMENT-METAL PARTS OF ELECTRICAL EQUIPMENT ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM, INCLUDING PUMP MOTORS AND METAL PARTS OF EQUIPMENT ASSOCIATED WITH THE POOL COVERS, INCLUDING ELECTRICAL EQUIPMENT, SHALL BE CODED AND IDENTIFIED BY THE LISTED EQUIPMENTS INCORPORATING AN APPROVED SYSTEM OF DOUBLE INSULATION SHALL NOT BE BONDED (NEC 680.26.5).
7. POOL MOTORS REQUIRE OVERLOAD PROTECTION TO COMPLY WITH NEC 430.32.
8. BURIAL DEPTH OF ELECTRICAL CONDUIT AND GROUNDING WIRES TO COMPLY WITH NEC 300-5 TABLE, PROTECT THE GROUNDING WIRE UNDER SUBJECT TO DAMAGE.
9. ALL JUNCTION BOXES, EQUIPMENT, LIGHTING, ETC SHALL BE UL LISTED.
10. METAL WIRING METHODS AND EQUIPMENT, METAL SHEATHED CABLES AND RACEWAYS, METAL PIPING, AND ALL FIXED METAL PARTS THAT ARE WITHIN THE FOLLOWING DISTANCES OF THE POOL, EXCEPT THOSE SEPARATED FROM THE POOL BY A PERMANENT BARRIER, SHALL BE BONDED:
 - a. WITHIN 5M (15FT) HORIZONTALLY OF THE INSIDE WALLS OF THE POOL.
 - b. WITHIN 3.1M (12FT) MEASURED VERTICALLY ABOVE THE MAXIMUM WATER LEVEL OF THE POOL, OR ANY OBSERVATION.



EQUIPMENTAL BONDING SHALL REQUIRE THE PARTS (CONDUCTIVE POOLS SHELLS, PERIMETER SURFACES, METAL COMPONENTS (SUCH AS LIGHT NICK OR HANDRAIL), UNDERWATER LIGHTING, METAL FITTINGS, ELECTRICAL EQUIPMENT AND ALL FIXED METAL PARTS) SHALL BE BONDED USING A SINGLE SOLID #8 AWC BONDING WIRE, PLACED AROUND THE PERIMETER 18" TO 24" FROM THE POOLS WATER EDGE, PLACED 4" TO 6" BELOW GRADE, FOLLOWING THE CONTOUR OF THE PERIMETER SURFACE, CONNECTED TO THE STRUCTURAL STEEL REINFORCING IN FOUR (4) UNIFORMLY SPACED LOCATIONS BY EXOTHERMIC WELDING OR BY LISTED PRESSURE CONNECTORS OR CLAMPS THAT ARE LABELED AS BEING SUITABLE FOR THIS PURPOSE AND ARE OF STAINLESS STEEL, BRASS, COPPER OR ALUMINUM ALLOY. THIS SINGLE SOLID #8 AWC WIRE WILL EXTEND TO THE MAIN ELECTRICAL PANEL AND UNPAID TO THE MAIN ELECTRICAL PANEL.

ALL PARTS IN DIRECT CONTACT WITH THE POOL WATER, THE POOL WATER SHALL BE IN DIRECT CONTACT WITH AN APPROVED CORROSION-RESISTANT CONDUCTIVE SURFACE THAT EXPOSES NOT LESS THAN 9 IN2 (5800 MM2) OF SURFACE AREA TO THE POOL WATER AT ALL TIMES. IF 9 IN2 IS NOT ACCOMPLISHED BY THE BONDED ITEMS ABOVE, A POOL BOND PB-08 (10.1 SI), OR EQUAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS IN A RETURN LINE. GFCI PROTECTION SHALL BE PROVIDED FOR POOL PUMP MOTORS, F8C BITH EDITION RESIDENTIAL R4501.16 ELECTRICAL EQUIPMENT WIRING AND INSTALLATION, INCLUDING THE BONDING AND GROUNDING OF POOL COMPONENTS SHALL COMPLY WITH CHAPTER 27 OF THE FLORIDA BUILDING CODE, BUILDING, OUTLETS SUPPLYING POOL PUMP MOTORS CONNECTED TO SINGLE-PHASE 120-VOLT THROUGH 240-VOLT BRANCH CIRCUITS, WHETHER BY RECEPTACLE OR BY DIRECT CONNECTION, AND OUTLETS SUPPLYING OTHER EQUIPMENT, SUCH AS LIGHTS, SHALL BE INSTALLED AT VOLTAGES GREATER THAN THE LOW VOLTAGE CONTACT LIMIT, CONNECTED TO SINGLE-PHASE, 120 VOLT THROUGH 240 VOLT BRANCH CIRCUITS, RATED 15 OR 20 AMPERES, WHETHER BY RECEPTACLE OR BY DIRECT CONNECTION, SHALL BE PROVIDED WITH GROUND-FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL, 2020 NATIONAL ELECTRICAL CODE (NEC), NFPA 70 SHALL COVERN OUTSIDE OF THE PROVISIONS ABOVE. NEC 430.32 CONTINUOUS-DUTY MOTORS SUCH AS POOL PUMP MOTORS SHALL HAVE OVERLOAD PROTECTION.

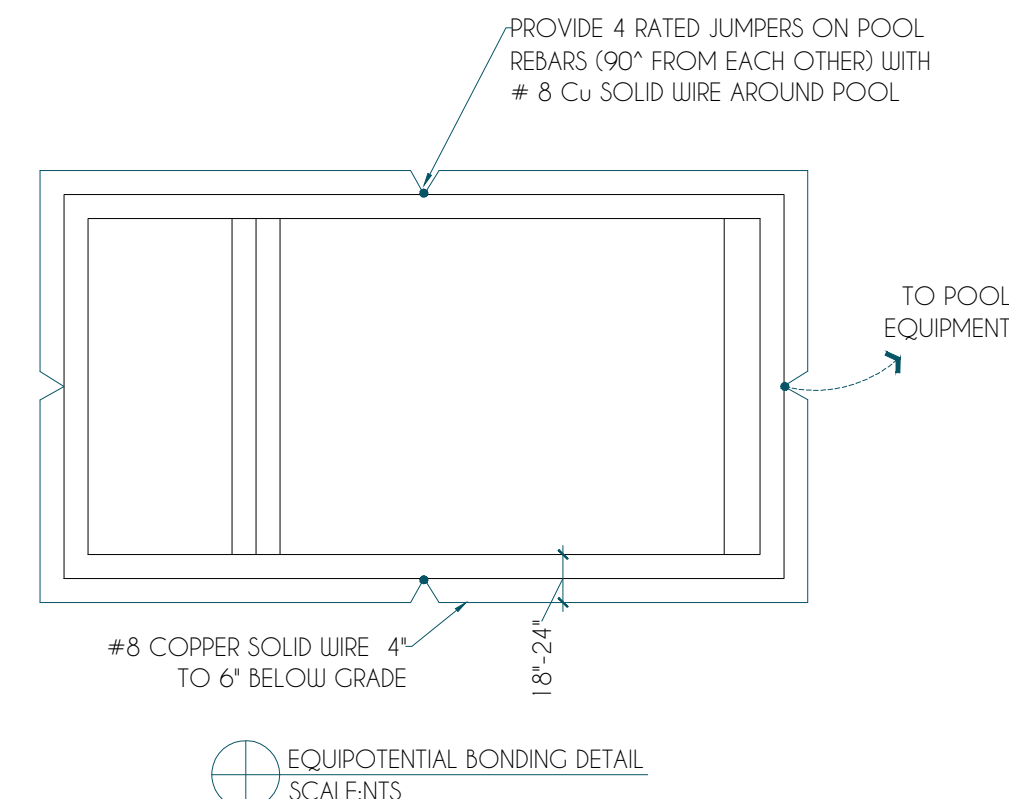
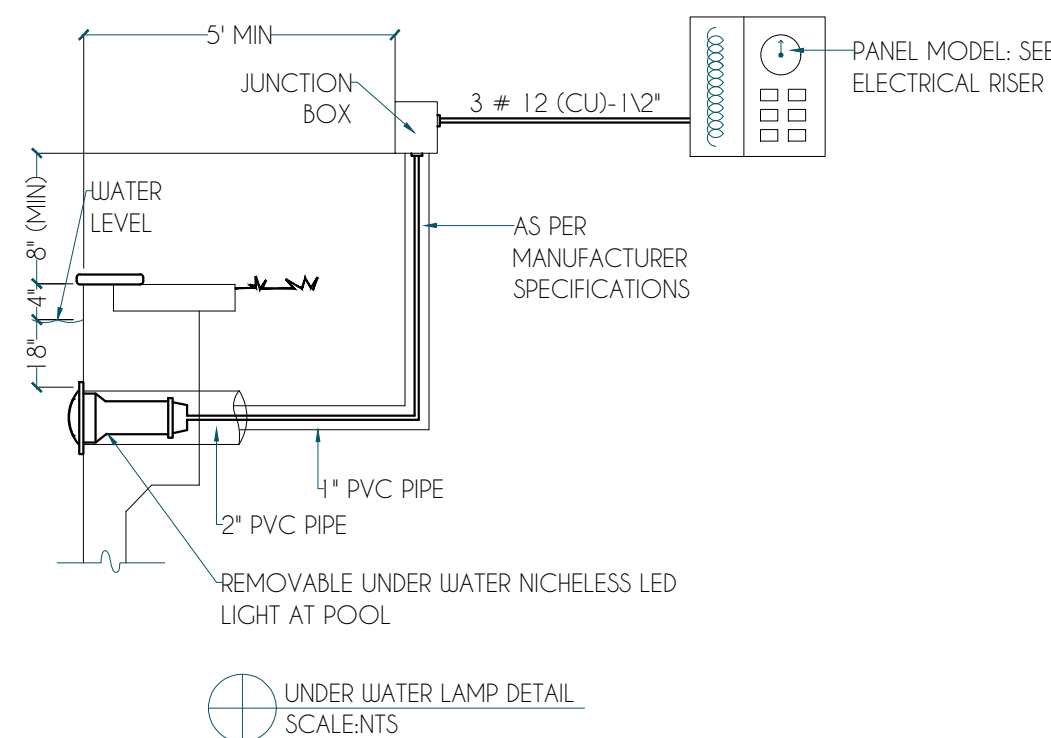
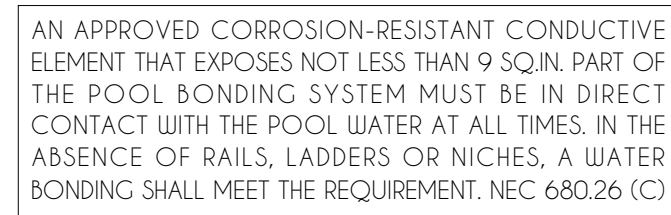
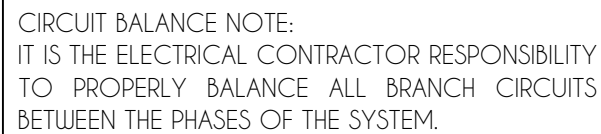


6802.25 FEEDERS, THESE PRISONS SHALL APPLY TO ANY FEEDER ON THE SUPPLY SIDE OF PANELBOARDS SUPPLYING BRANCH CIRCUITS FOR POOL EQUIPMENT COVERED IN PART II OF THIS ARTICLE AND ON THE LOAD SIDE OF THE SERVICE EQUIPMENT OR THE SOURCE OF A SEPARATELY DERIVED SYSTEM.

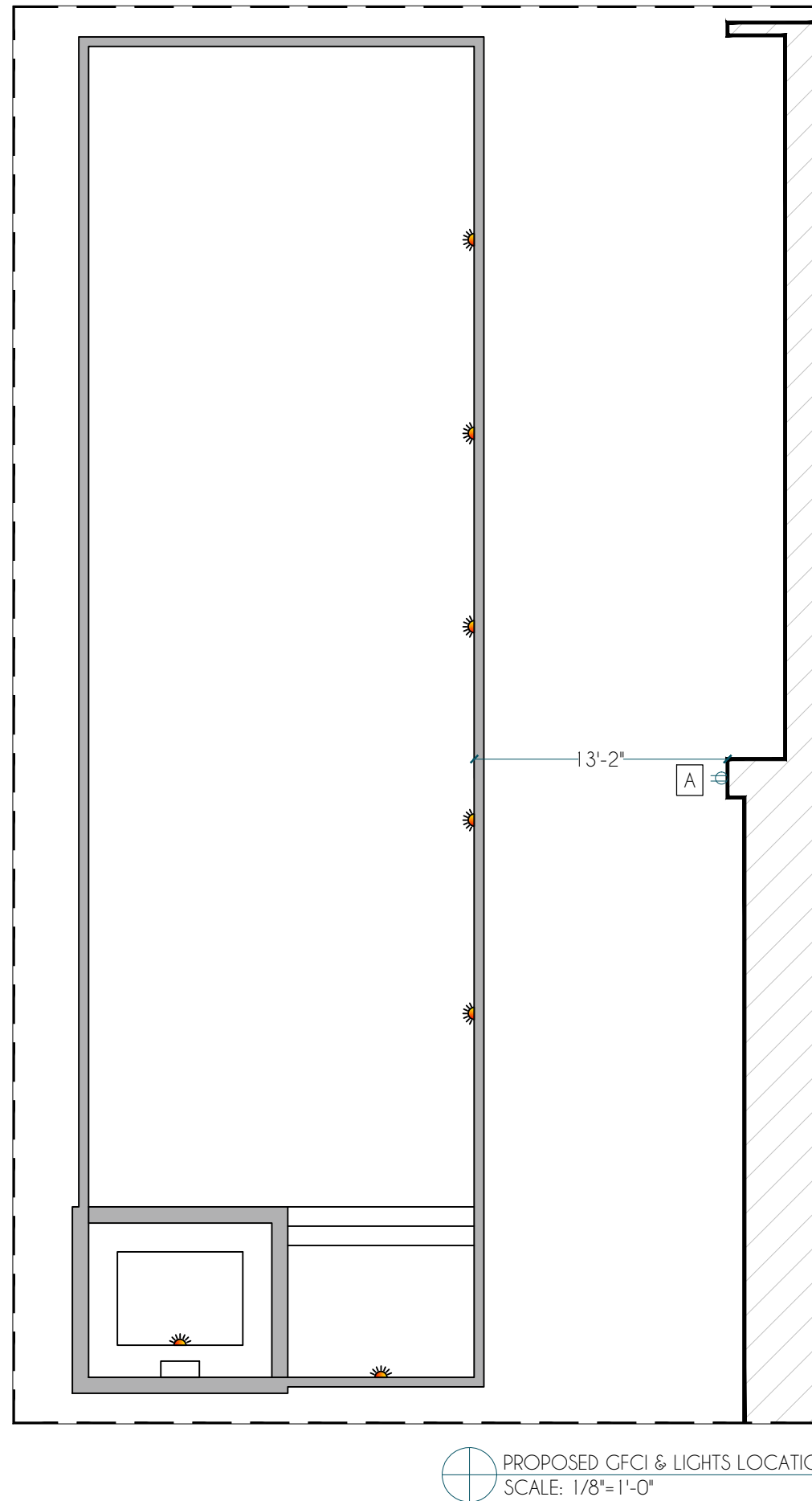
(A) WIRING METHODS, FEEDERS SHALL BE INSTALLED IN RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, LIQUIDTIGHT, FLEXIBLE NONMETALLIC CONDUIT, OR RIGID NONMETALLIC CONDUIT. ELECTRICAL METALLIC TUBING SHALL BE PERMITTED WHERE INSTALLED ON OR WITHIN A BUILDING, AND ELECTRICAL NONMETALLIC TUBING SHALL BE PERMITTED WHERE INSTALLED WITHIN A BUILDING.

EXCEPTION: AN EXISTING FEEDER BETWEEN AN EXISTING REMOTE PANEL BOARD AND SERVICE EQUIPMENT SHALL BE PERMITTED TO RUN IN FLEXIBLE METAL CONDUIT OR AN APPROVED CABLE ASSEMBLY THAT INCLUDES AN EQUIPMENT GROUNDING CONDUCTOR WITHIN ITS OUTER SHEATH. THE EQUIPMENT GROUNDING CONDUCTOR SHALL CONFORM WITH 250.24(A).

(B) GROUNDING. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH THE FEEDER CONDUCTORS BETWEEN THE GROUNDING TERMINAL OF THE POOL EQUIPMENT PANEL BOARD AND THE GROUNDING TERMINAL OF THE APPLICABLE SERVICE EQUIPMENT OR SOURCE OF A SEPARATELY DERIVED SYSTEM. FOR OTHER THAN (1) EXISTING FEEDERS COVERED IN 6802.25(A), EXCEPTION, OR (2) FEEDERS TO SEPARATE BUILDINGS THAT DO NOT UTILIZE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ACCORDANCE WITH 6802.55(B)(2), THIS EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSULATED.



680.26 NEC 2020 EDITION.
ALTERNATE EQUAL POTENTIAL BONDING GRID OF ONE #8 SOLID COPPER
PLACED 18" TO 24" FROM THE INSIDE EDGE OF POOL ENCOMPASSING 360
DEGREES WITH 4 EQUAL BONDING POINTS TO THE STEEL. THE EQUAL POTENTIAL
BONDING NEEDS TO BE 4" TO 6" BELLOW GRADE AND SECURED IN PLACE.

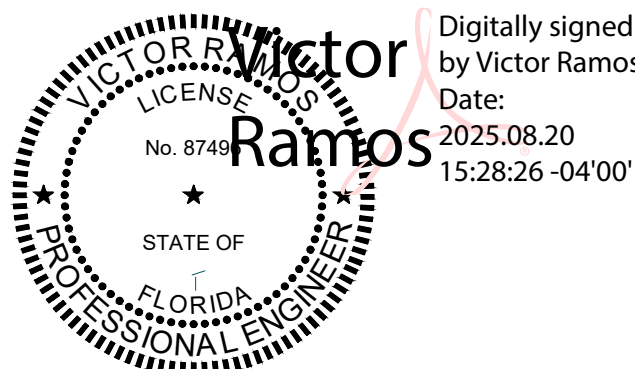


POOL SPECIFICATION TABLE		
SIZE	20 X 69	FT
SHALLOW END	3.00	FT
BOTTOM OF POOL	5.00	FT
PERIMETER	178	LF
AREA	1380	SQFT
CAPACITY	41,290	GLS
PUMP*	2.7	HP
FILTER	300	SQ.FT
TILE	6" (BY OWNER)	
TYPE OF PATIO	SLIP RESISTANT	
BLOWER	N/A	HP
WATER HEATER (GAS)	400,000	BTU
TURNOVER RATE	5.93	HRS
*RESIDENTIAL POOL FILTER PUMP MOTORS WITH A CAPACITY OF 1 HP OR GREATER SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS PER FBC RE R403. 12		

SPA SPECIFICATION TABLE		
SIZE	8 X 9.5	FT
DEPTH	3.00	FT
PERIMETER	35.00	LF
AREA	76	SQFT
CAPACITY	1706	GLS
PUMP*	1.50	HP
FILTER	SAME AS POOL 6" (BY OWNER)	SQ.FT
TILE	SLIP RESISTANT	
TYPE OF PATIO		
BLOWER	2	HP
WATER HEATER (GAS)	400000	BTU
TURNOVER RATE	0.52	HRS
*RESIDENTIAL POOL FILTER PUMP MOTORS WITH A CAPABILITY OF 1 HP OR GREATER SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS PER FBC RE R403.12		

ENGINEER

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THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY VICTOR RAMOS, P.E. ON THE DATE AND/OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED BY A 3RD PARTY CERTIFICATE AUTHORITY ON ANY ELECTRONIC COPY.

DESIGNER: _____



PROJECT: _____

NEW CONCRETE SWIMMING POOL & SPA

ADDRESS: _____

6200 SW 123RD TERRACE, MIAMI, FL 33156

PROJECT DATE: 5.9.2025

DRAWING BY: MR
CHECKED: FD

SHEET TITLE: _____

ELECTRICAL PLAN

SHEET No: _____