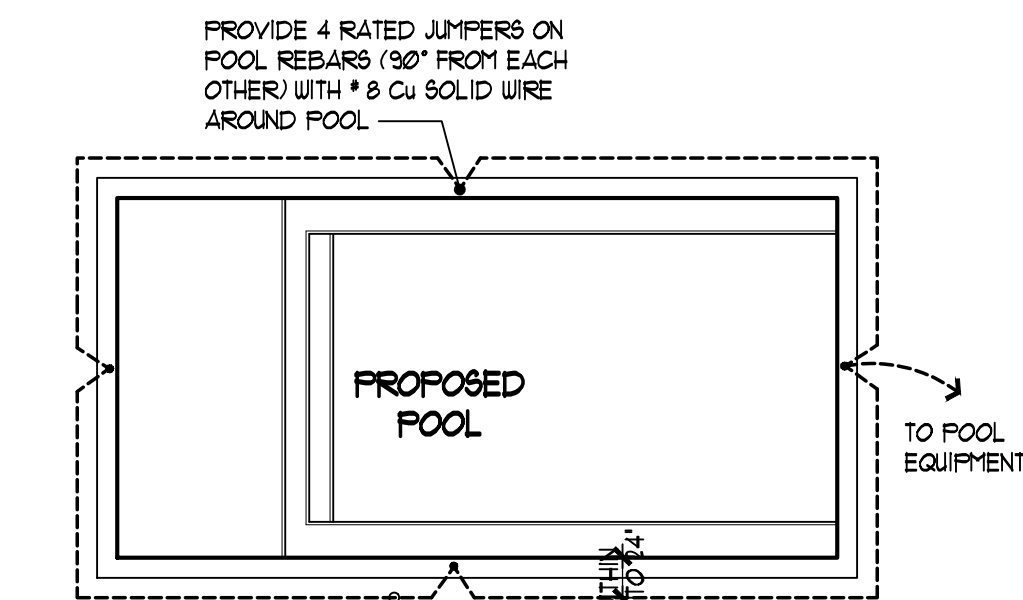
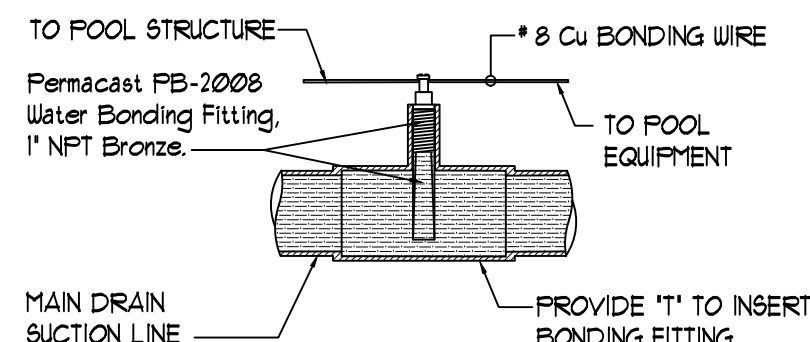




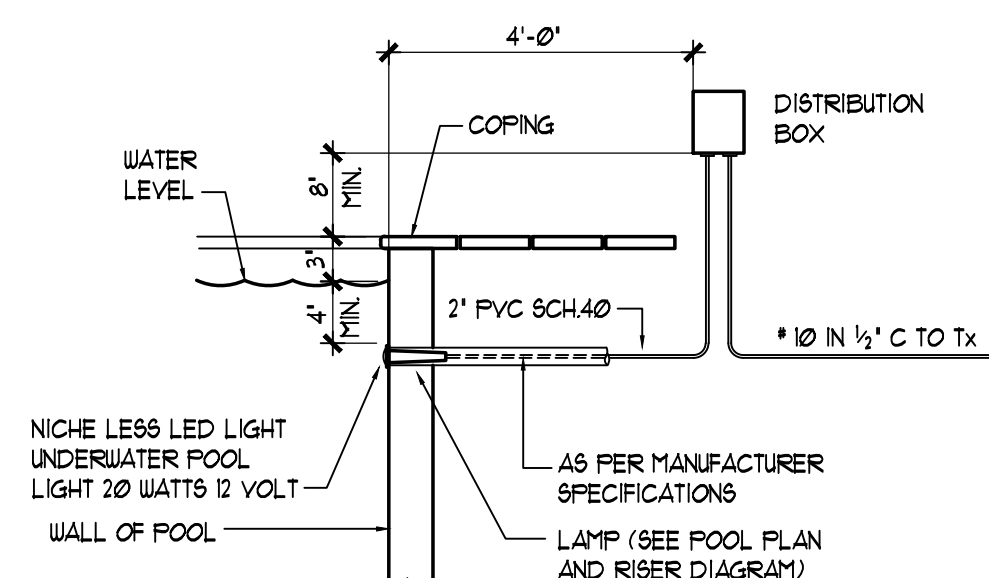
EQUIPOTENTIAL BONDING DETAIL

68026 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 POOL STEEL. THE EQUAL POTENTIAL BONDING NEEDS TO BE 4" TO 6" BELOW THE SUBGRADE AND SECURED IN PLACE.
(All the components that are part of it for this specific design according NEC-2020 article 68026 (a), (b) 4 (c) requirements)

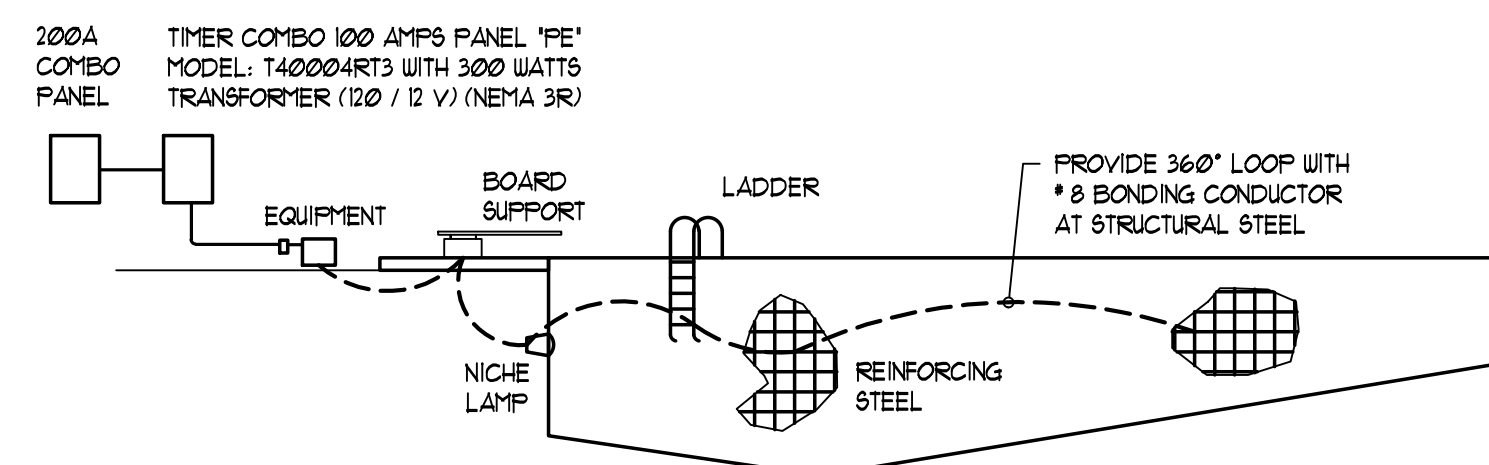


INTENTIONAL BONDING DETAIL

2020 NEC 680-26(C) POOL WATER: AN INTENTIONAL BOND OF A MINIMUM CONDUCTIVE SURFACE AREA OF 58000 MM² (9 IN²) SHALL BE INSTALLED IN CONTACT WITH THE POOL WATER. THIS BOND SHALL BE PERMITTED TO CONSIST OF PARTS THAT ARE REQUIRED TO BE BONDED IN 68026(B).

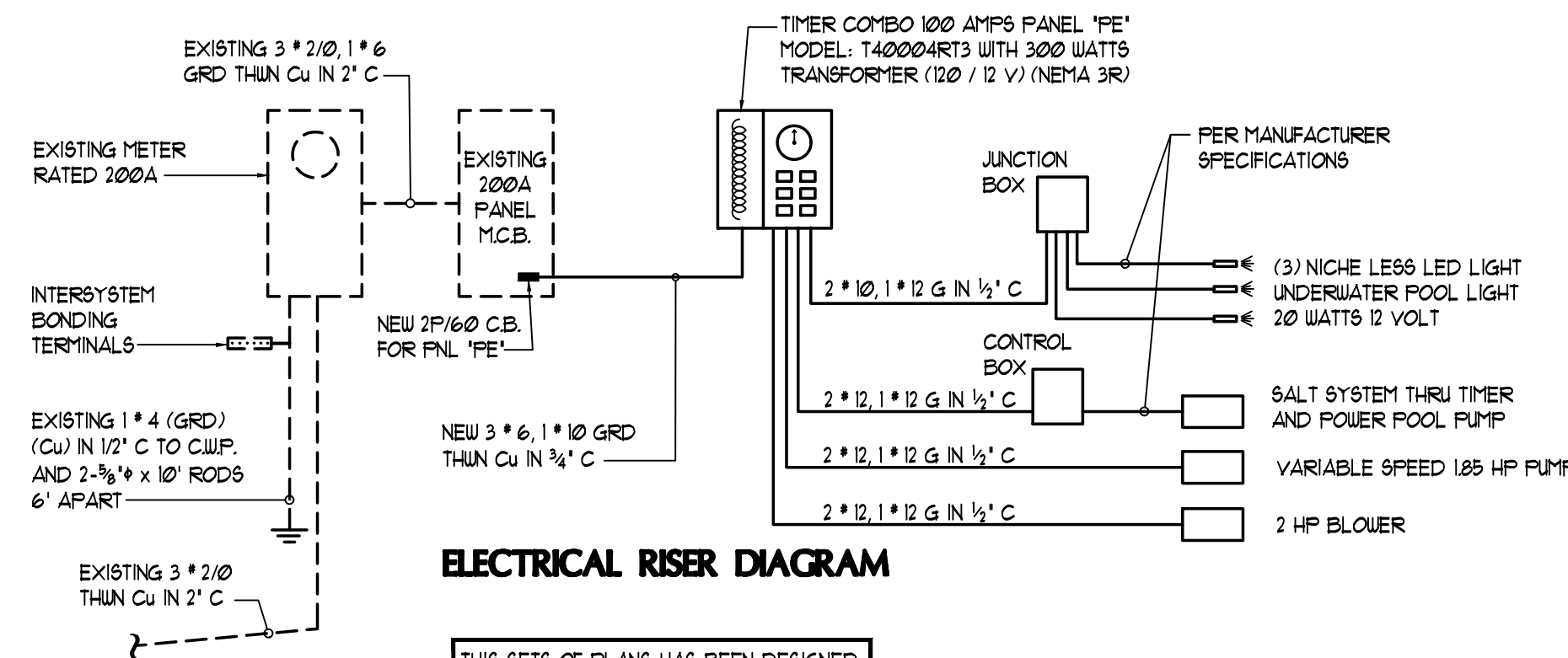


UNDERWATER LAMP DETAIL



NEC 2020 EDITION CHAPTER 680-25

(A) Wiring Method: Feeder conductors to panel boards containing permanently installed pool, outdoor spa, or outdoor hot tub equipment circuits must be installed in rigid metal conduit, intermediate metal conduit, liquid tight flexible nonmetallic conduit, or PVC conduit. Electrical metallic tubing is permitted where installed on or within a building, and electrical nonmetallic tubing is permitted where installed within a building.
Exception: Branch circuits for permanently installed pool, outdoor spa, or outdoor hot tub equipment can originate from an existing panel board where the existing feeder contains an equipment grounding conductor within the outer sheath of a cable.
(B) Equipment Grounding Conductor: An insulated copper or aluminum equipment grounding conductor must be installed with the feeder conductors between the grounding terminal of the pool, outdoor spa, or outdoor hot tub equipment panel board and the grounding terminal of the applicable service equipment.



ELECTRICAL RISER DIAGRAM

THIS SETS OF PLANS HAS BEEN DESIGNED UNDER 68026 NEC 2020 EDITION AND RESIDENTIAL 2023 FBC 8th EDITION

ELECTRICAL NOTES:

- ALL ELECTRIC WIRING SHALL BE IN ACCORDANCE WITH NEC-NFPA-70-2020-680
- PROVIDE GROUND WIRE SYSTEMS LOOP WITH #8 COOPER WIRE FOR THE POOL, DECK WIRE MESH AND STRUCTURAL STEEL.
- ALL WIRING SHALL BE COPPER THAN
- ALL SWIMMING POOL EQUIPMENTS SHALL BE THRU GFCI BREAKER (NEC 68022b)
- CONTRACTOR SHALL 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 CREEP POOL WATER EDGE AND 5 FEET FROM UNDERGROUND ELECTRIC LINES.
- ELECTRICAL EQUIPMENT- METAL PARTS OF ELECTRICAL EQUIPMENT ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM, INCLUDING PUMP MOTORS AND METAL PARTS OF EQUIPMENT ASSOCIATED WITH POOL COVERS, INCLUDING ELECTRIC MOTORS, SHALL BE BONDED. EXCEPTION: METAL PARTS OF LISTED EQUIPMENT INCORPORATING AN APPROVED SYSTEM OF DOUBLE INSULATION SHALL NOT BE BONDED. (NEC 68026.5)
- POOL MOTORS REQUIRE OVERLOAD PROTECTION TO COMPLY WITH NEC 430.32 AND MUST BE PROVIDED WITH GFCI PROTECTION PER NEC 680-21(C)
- BURIAL DEPTH OF ELECTRICAL CONDUIT AND GROUNDING WIRES TO COMPLY WITH NEC 300-5 TABLE. PROTECT THE GROUNDING WIRE WHERE SUBJECT TO DAMAGE.
- ALL JUNCTION BOXES, EQUIPMENT, LIGHTING, ECT SHALL BE UL LISTED
- 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 15 M (5 FT) HORIZONTALLY OF THE INSIDE WALLS OF THE POOL
(b) WITHIN 3.1 M (12 FT) MEASURED VERTICALLY ABOVE THE MAXIMUM WATER LEVEL OF THE POOL, OR ANY OBSERVATION
- AT LEAST ONE GFCI PROTECTED, 15v RECEPTACLE OUTLETS REQUIRED BETWEEN 6' AND 20' OF THE INSIDE WALL OF THE POOL NEC 68022 (A) (1)
- LIGHTING OUTLETS MUST BE LOCATED A MINIMUM OF 5 FEET FROM THE INSIDE WALL OF A POOL, OR MOUNTED A MINIMUM 12 FEET ABOVE THE MAXIMUM WATER LEVEL, NEC 68022 (B) (1), NE 424.2.11.3
- OVERHEAD CONDUCTORS ARE NOT BE PERMITTED OVER THE POOL OR WITHIN 10 FEET HORIZONTALLY FROM THE EDGE OF THE POOL, FBC 424.2.11.3
- WHEN USING EXIT ALARMS SHALL COMPLY WITH THE PROVISIONS OF FBC 424.2.11.3. DOORS AND WINDOWS REQUIRE PROTECTION. ALARM MUST BE CONTINUOUS WHEN DOOR OR WINDOW IS OPEN
- ALL METAL PARTS WITHIN 5 FEET OF THE POOL MUST BE BONDED TO A COMMON BONDING GRID NEC 680-26 (B) (5)
- A CONDUCTIVE ELEMENT THAT IS PART OF THE POOL BONDING SYSTEM MUST BE IN DIRECT CONTACT WITH THE POOL WATER IN THE ABSENCE OF RAILS, LADDERS OR NICHES. A WATER BONDING SHALL MEET THE REQUIREMENTS NEC 680-25 (C)
- THE EQUIPMENT GROUNDING CONDUCTORS MUST BE A MINIMUM 12 AWG COPPER NEC 680-21 (C), 680-23 (F), 680-25 (B) (1)

Completion Requirements 2023 EC FBC 8th EDITION

C405.5.41 Drawings.
Construction documents shall require that within 30 days after the date of system acceptance, record drawings of the actual installation shall be provided to the building owner, including:
1a single-line diagram of the building electrical distribution system and 2 floor plans indicating location and area served for all distribution.
C405.5.42 Manuals.
Construction documents shall require that an operating manual and maintenance manual be provided to the building owner. The manuals shall include, at a minimum, the following:
1a Submittal data stating equipment rating and selected options for each piece of equipment requiring maintenance.
2 Operation manuals and maintenance manuals for each piece of equipment requiring maintenance. Required routine maintenance actions shall be clearly identified.
3 Names and addresses of at least one qualified service agency.
Note: Enforcement agencies should only check to be sure that the construction documents require this information to be transmitted to the owner and should not expect copies of any of the materials.

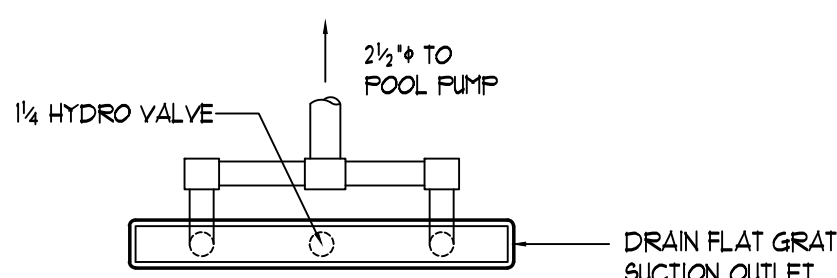
EXISTING 200A SERVICE ELECTRICAL CALCULATIONS

TOTAL AREA: 1958 SQFT.	
3W / SQFT.	5.81 KW
MICROWAVE	12 KW
APPLIANCES	3.0 KW
DISHWASHER	10 KW
GARAGE DISPOSAL	10 KW
HOOD	0.5 KW
CLOTHES WASHER	15 KW
DRYER	5.0 KW
WATER HEATER	4.5 KW
REFRIGERATOR	10 KW
RANGE	12.0 KW
OTHER LOADS	2.5 KW
POOL PANEL 'FE'	3.86 KW
TOTAL CONNECTED LOAD =	42.93 KW
FURTHER DEMAND	
FIRST 10.0 KW @ 100%	10.0 KW
REST @ 40%	13.17 KW
A/C @ 100 %	10.0 KW
TOTAL DEMAND LOAD =	33.17 KW
33.17 KW / 240 V =	139 AMPs
EXISTING ELECTRICAL SERVICE HAS ENOUGH CAPACITY TO HANDLE ALL ELECTRICAL LOADS ADDED	

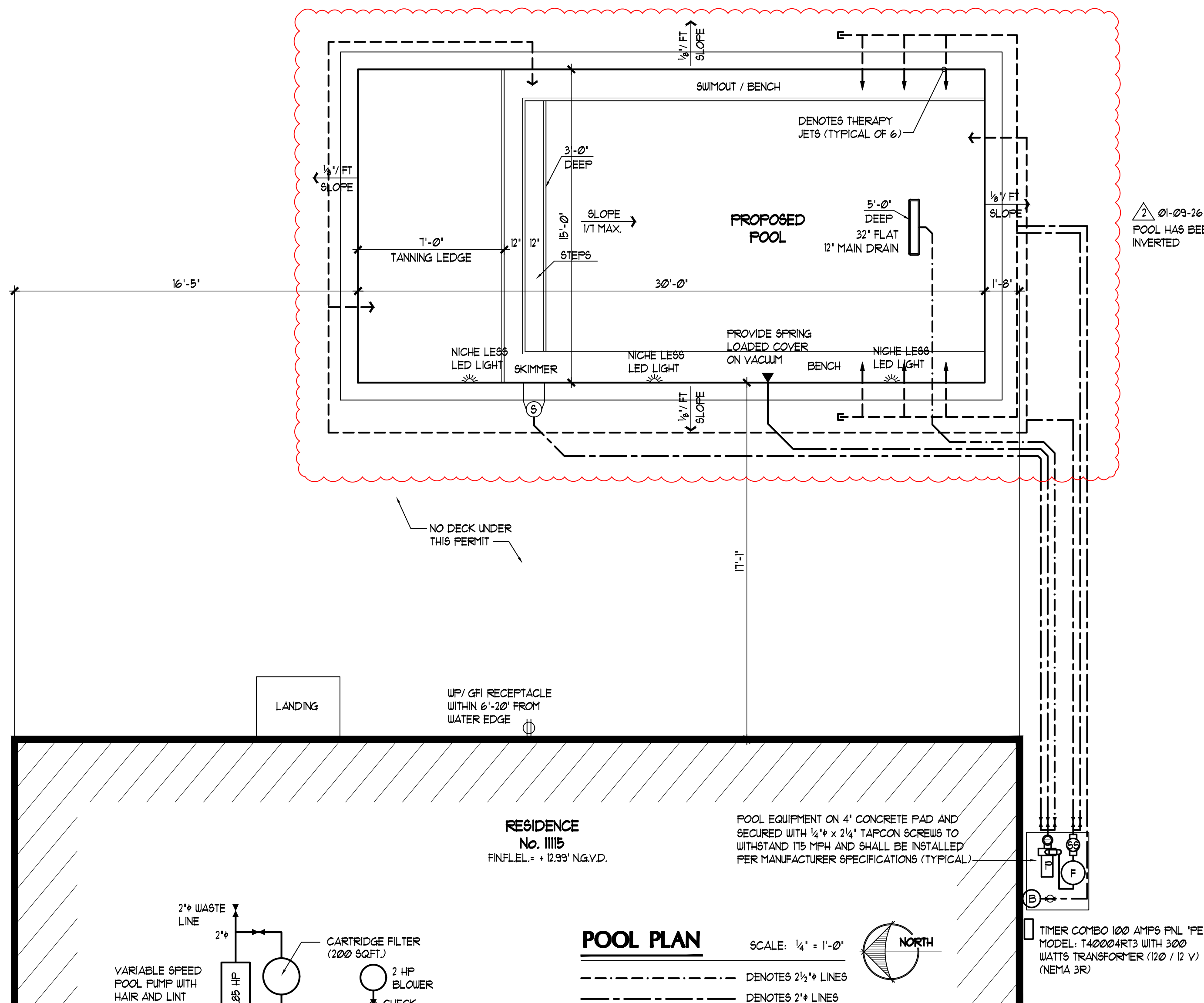
ELECTRICAL DATA NEW 100A PANEL 'FE'				FEEDER THRU 2P/60A IN 200A PANEL WITH 3#6, 1#10 THIN CU IN 3/4" C		120 / 240v W 3W NEMA 3R	
CKTS	SERVES	C.B.	P	KW	WIRE - COND.		
CKT-1, 3	POOL PUMP (GFCI)	20	2	223	#12 - 1/2" C		
CKT-2, 4	BLOWER (GFCI)	20	2	132	#12 - 1/2" C		
CKT-5	POOL LIGHTS (GFCI)	20	1	0.3	#12 - 1/2" C		
3.86 KW @ 100% / 240v = 16 AMPs				(GFCI) GROUND FAULT CIRCUIT INTERRUPTER			

PLUMBING NOTES:

- ALL POOL AND EQUIPMENT PIPING SHALL BE SCHEDULE 40, PVC-FW, NON-THREADED, NSF APPROVED SUPPORTED CONTINUOUSLY ON GROUND OR ON MAXIMUM 4'0" CENTERS WITH CLEVIS HANGERS.
- ALL SUCTION PIPING SHALL BE 2" DIAMETER AND ALL PRESSURE PIPING 1 1/2" DIAMETER UNLESS OTHERWISE NOTED.
- POOL WATER DISPOSAL SHALL BE IN ACCORDANCE WITH LOCAL BUILDING DEPARTMENT REQUIREMENTS.
- ANTI VORTEX MAIN DRAIN SHALL HAVE ITS PLATE SECURELY FASTENED WITH TAMPERPROOF SCREWS.
- POOL VACUUM SHALL HAVE SPRING LOADED CAP IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.
- ALL PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE-PLUMBING SECTION 309.
- THE WATER VELOCITY THROUGH ALL SUCTION PIPING SHALL BE LESS THAN 8 FEET PER SECOND.
- THE WATER VELOCITY THROUGHOUT ALL PRESSURE PIPING SHALL BE LESS THAN 10 FEET PER SECOND.
- ALL PIPING SHALL BE SUITABLE FOR EXPOSURE TO ULTRA VIOLET RADIATION AND NORMAL OPERATING TEMPERATURES.
- VACUUM SHALL BE EQUIPPED WITH SELF-CLOSING SAFETY COVER REQUIRING TOOLS FOR REMOVAL.
- PLUMBER CONTRACTOR SHALL PROVIDE HARTFORD LOOP WHEN BLOWER IS INSTALLED.



32" CHANNEL DRAIN FLAT CONNECTION DETAIL



POOL PLAN

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



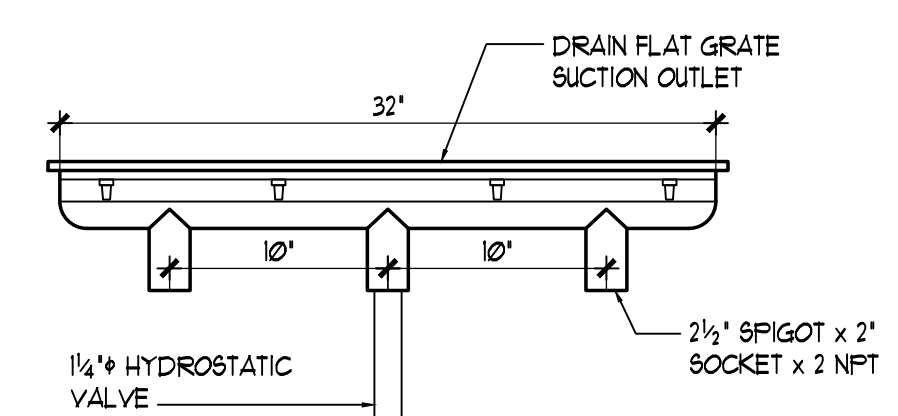
IMPORTANT SAFETY NOTES:

- DO NOT USE OR OPERATE POOL OR SPA IF THE SUCTION INLET FITTING IS MISSING, BROKEN, OR LOOSE.
- VACUUM SHALL BE EQUIPPED WITH SELF-CLOSING SAFETY COVER REQUIRING TOOLS FOR REMOVAL.
- ENTRAPMENT PROTECTION DESIGN CRITERIA AND INSTALLATION IN ACCORDANCE WITH ANSI/APSP/ICC 2023 FBC-R 8th EDITION 4501.6.1/R4501.6.6

POOL DATA & EQUIPMENT

SIZE x DEPTH	15' x 30'	3' TO 5'
CAPACITY	9,669 GALLONS	
PERIMETER/AREA	90 LF. / 450 SQFT.	
PUMP	* 185 HP. (VARIABLE SPEED)	
FILTER	* CARTRIDGE (200 SQFT.)	
TILE	6" CHOICE	
TYPE OF PATIO	SLIP RESISTANT	
EXIT RAILINGS	-	
COPING	STONE	
TURNOVER	18 HOUR	

* 9,669 GALLONS RE-CIRCULATED IN 18 HOUR
200 SQFT. FILTER AREA @ 1 GPM / SQFT FILTER RATED AND 185 HP RE-CIRCULATION POOL PUMP 1 PHASE, 330V, 84 GPM @ 50' TDH

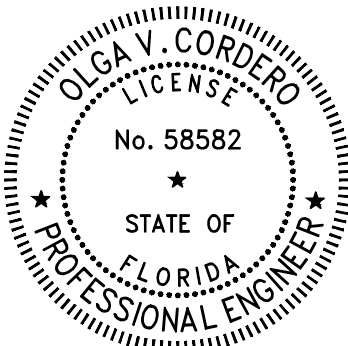


32" CHANNEL DRAIN FLAT DETAIL

MAIN DRAIN OUTLET IS IN COMPLIANCE WITH THE NEW VIRGINIA GRAEBE-BAKER POOL & SPA SAFETY ACT (ASME/ANSI A112.19.8A-2008 AND 2023 FBC/B 45-416.5.10.2. MAIN DRAIN WATER VELOCITY TO COMPLY WITH 2023 FBC/B 45-416.5.10.2 & FBC/R4501.6.3. UNLOCKABLE DRAIN (NO SECOND SUCTION OUTLET OR BACKUP SVCS REQUIRED)

REVISIONS	BY
12-10-25	RM
01-09-26	RM

Olga V. Cordero, P.E.
Structural Engineer, P.E. No. 58582
1220 SW 39th Terrace Miami, FL 33155
olgavictoria@aol.com / Ph: (305) 510-1638



Michael Anthony Villanueva
PROPOSED POOL PLAN FOR:
LOCATED AT:
1115 SW 18th Court, Village of Pinecrest, FL 33156

DRAWN: RMG
CHECKED: O.V.C.
DATE: July '25
SCALE: SHOWN
JOB NO: 25-1071

THIS SET HAS BEEN DIGITALLY SIGNED AND SEALED BY OLGA V. CORDERO P.E. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED IN ANY ELECTRONIC COPIES.

GENERAL NOTES

- 1- ALL FLOORS AND WALLS OF POOL TO BE CONCRETE SHALL BE FINISHES WITH PLACED CONCRETE OR GUNITE. A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
- 2- ALL REINFORCING STEEL TO CONFORM TO ASTM 615 GRADE 60.
- 3- ALL POOL PIPING TO BE SCHEDULE 40 PVC BEARING NSF APPROVAL WITH LOGO PRINTED. PLASTIC PIPE SUBJECT TO A PERIOD OF PROLONGED SUNLIGHT EXPOSURE SHALL BE COATED TO PROTECT IT FROM ULTRAVIOLET LIGHT DEGRADATION. 2023 FBC 8th EDITION R4501.6.5
- 4- FILTER BACKWASH SHALL COMPLY WITH CHAPTER R4501.12 OF THE 2023 FBC 8th EDITION.
- 5- NO POOL OR SPA DECK SHALL BEAR ON ANY TYPE OF SOILS EXCEPT CLEAN SANDS OR ROCK WHICH SHALL BE COMPACTED TO PROVIDE A SAFE BEARING CAPACITY OF 2,000 PSF. ANY ORGANICS, MARLS, OR OTHER TYPES OF DELETERIOUS MATERIALS ENCOUNTERED ON EXCAVATION SHALL BE REMOVED (DEMOLISHED) IN THEIR ENTIRETY AND THE AREA SHALL BE BACKFILLED WITH ACCEPTABLE SOIL AND COMPACTED IN 12" THICK LAYERS. WHERE THE CONTRACTOR CAN NOT REMOVE THE ORGANICS DUE TO WHATEVER CAUSED, THE POOL SHALL BE REDESIGN FOR FILLING.
- 6- IN ALL CASES THE POOL CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT EXISTING STRUCTURES FROM FAILURE BY SHORING, UNDERPINNING OR ANY OTHER METHOD IF REQUIRED, THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR THE SAFETY OF EXISTING STRUCTURE.
- 7- THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR POOL CONSTRUCTION IN ELEMENTS OR REQUIRED SETBACK AREAS. PLAT PLANS NOT PREPARED FROM LEGAL SURVEYS OF THE EXISTING LOT AND RESIDENCE ARE SO INDICATED. POOL CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND ESTABLISH LOT LINES IF NECESSARY. CONTRACTOR AND / OR OWNER SHALL VERIFY LAYOUT SHOWN AND ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- 8- CONTRACTOR SHALL 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.
- 9- POOL SLIDES TO BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF CONSUMER PRODUCTS SAFETY COMMISSION.
- 10- MINIMUM 4'-0" HIGH IS FENCE RECOMMENDED AROUND ALL POOLS IN UNSCREENED AREAS. COMPLY WITH CHAPTER R4501.11 OF THE 2023 FBC 8th EDITION.
- 11- WHERE POOLS ABUT OR ARE PLACED NEARBY SEAWALLS OR BULKHEADS SPECIAL CARE SHALL BE EMPLOYED. THE WALLS SHALL BE IN GOOD CONDITIONS NOT PERMITTING ANY SHIFTING OR REMOVAL OR LOOSENING OF THE SUPPORTING SOIL AWAY FROM THE POOL. IF THE WALLS DO NOT FULLY CONTAIN THE SOILS BEHIND THEM, THEY SHALL BE REPLACED OR REPAIRED. CONTINUAL MAINTENANCE OF THE WALLS IS REQUIRED OF THE PROPERTY OWNER WHEN EXCAVATING FOR THE POOL, THE SEAWALL TIEBACKS SHALL NOT BE CUT. WHERE CONCRETE DEAD-EN FALL WITHIN THE EXCAVATION, NOTIFY THE ENGINEER FOR INSTRUCTIONS.
- 12- THE CONTRACTOR SHALL BACKFILL THE POOL SHELL WITH CAUTION. THE PLUMBING SHALL NOT BE DISTURBED. BACKFILL SHALL BE ACCOMPLISHED WITH CLEAN SANDS FREE OF ORGANIC MATERIALS AND SHALL BE PLACED IN 12" THICK LAYERS. EACH LAYER SHALL BE COMPACTED TO 90% OF THE SOILS MAXIMUM DENSITY BY TAMPING SOLIDLY. SOILS BELOW THE PATIO SHALL BE PLACED IN A SIMILAR MANNER.
- 13- WHERE PATIOS ARE INDICATED BY OTHERS, THE PATIO DESIGN NOTES SHOWN ON THE TYPICAL WALL SECTION DO NOT APPLY. PATIO DESIGN SHALL BE BY OTHERS.
- 14- WARNING: TO EMPTY POOL AFTER CONSTRUCTION FOR REPAIRS OR ANY OTHER REASON, THE HYDROSTATIC UPLIFT PRESSURES BEHIND THE POOL MUST BE ELIMINATED TO PREVENT THE POOL FROM FLOATING UPWARD. THE OWNER MUST CONSULT AND POOL REPAIR CONTRACTOR EXPERIENCED IN ELIMINATING UPLIFT PRESSURES.
- 15- THIS PLANS REMAINS THE PROPERTY OF THE DESIGN ENGINEER. IT IS NOT TRANSFERABLE FROM ONE CONTRACTOR TO ANOTHER WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER AND TO THE BEST OF OUR PROFESSIONAL KNOWLEDGE AND BELIEF, THEY HAVE BEEN PREPARED IN COMPLIANCE WITH THE ANSI-NSPI-5-2003, 2023 FBC 8th EDITION AND ALL APPLICABLE LOCAL CODES AND REGULATIONS.
- 16- CONCRETE POOL DECK SHALL BE PROVIDED WITH 1/4" WIDE SAUCUT CRACK CONTROL JOINTS SPACED AT 5'-0" O.C. OR FOR AN EFFECTIVE CONCRETE AREA OF 160 SQ. FT. CRACK CONTROL JOINTS SHALL BE SAUCUT AT A DEPTH OF 1/3 THE SLAB THICKNESS.
- 17- SHORING MAYBE REQUIRED WHEN SOIL CONDITIONS EXHIBIT UNSTABLE ROCK FORMATION WHEN POOLS ARE LESS THAN 5' FROM STRUCTURE. IF UNSTABLE SOIL IS FOUND IT AT TIME OF EXCAVATION NOTIFY ENGINEER FOR POOL SHORING DETAIL.
- 18- THIS SET OF PLANS ARE IN COMPLIANCE WITH ANSI / NSPI-5 2011, IN REFERENCE TO FLOOR SLOPES, WALL PLUMB, ENTRAPMENTS, ENTRY/EXIT, DECK, AND CIRCULATION SYSTEM OF PROPOSED POOL.

BACKFILL AND GRADING NOTES:

- 2023 BUILDING FBC 8th EDITION
1804.3 Placement of backfill.
The excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles and boulders or with a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted in a manner that does not damage the foundation or the waterproofing or damp proofing material.
Exception: CLSM need not be compacted.
1804.4 Site grading.
The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one unit vertical in 20 units horizontal (5-percent slope) for a minimum distance of 10 feet (3048 mm) measured perpendicular to the face of the wall. If physical obstructions or lot lines prohibit 10 feet (3048 mm) of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Swales used for this purpose shall be sloped a minimum of 2 percent where located within 10 feet (3048 mm) of the building foundation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building, except as otherwise permitted in section 1801.5, 1802.3 or 1802.6.1.
Exception: Where climatic or soil conditions warrant, the slope of the ground away from the building foundation shall be permitted to be reduced to not less than one unit vertical in 48 units horizontal (2-percent slope).

GOVERNING BUILDING CODES

- ANSI / APSP / ICC 3-14
- ANSI / APSP / ICC 4-12
- ANSI / APSP / ICC 5-11
- ANSI / APSP / ICC 6-13
- ANSI / APSP / ICC 7-15
- 2023 FBC BUILDING 8th EDITION
- 2023 FBC EXISTING BUILDING 8th EDITION
- 2023 FBC ACCESSIBILITY 8th EDITION
- 2023 FBC RESIDENTIAL 8th EDITION
- 68026 N.E.C. 2020 EDITION

FENCE REQUIREMENTS:

- 2023 FBC 8th EDITION
R4501.1 Residential swimming barrier requirement.
Residential swimming pools shall comply with Sections R4501.11 through R4501.13.
Exception: A swimming pool with an approved safety pool cover complying with ASTM F344.
R4501.11 Outdoor swimming pools.
Outdoor swimming pools shall be provided with a barrier complying with R4501.11.1 through R4501.11.4.
R4501.11.1
The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade the barrier may be at ground level or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
R4501.11.2
The barrier may not have any gaps, openings, indentations, protrusions, or structural components that could allow a young child to crawl under, squeeze through, or climb over the barrier as herein described below. One end of a removable child barrier shall not be removable without the aid of tools. Openings in any barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
R4501.11.3
Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooling masonry joints.
R4501.11.4
Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1/4 inches (44 mm) in width.
R4501.11.5
Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1/4 inches (44 mm) in width.
R4501.11.6
Maximum mesh size for chain link fences shall be a 2 1/4-inch square (57 mm) unless the fence is provided with slats fastened at the top or bottom which reduce the openings to no more than 1 3/4 inches (44 mm).
R4501.11.7
Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1 3/4 inches (44 mm).
R4501.11.8
Access gates, when provided, shall be self-closing and shall comply with the requirements of Sections R4501.11.1 through R4501.11.1 and shall be equipped with a self-latching locking device located on the pool side of the gate. Where the device release is located no less than 54 inches (1371 mm) from the bottom of the gate, the device release mechanism may be located on either side of the gate and so placed that it cannot be reached by a young child over the top or through any opening or gap from the outside. Gates that provide access to the swimming pool must open outward away from the pool. The gates and barrier shall have no opening greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

STRUCTURAL NOTES:

1. ALL POOL CONCRETE SHALL DEVELOP A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF $f'_{c}=4000$ PSI.
2. ALL CONCRETE SHALL BE IN CONFORMANCE WITH 2023 FBC 8th EDITION AND ACI 318, 301, 341, 2019 EDITION AND ASTM C94-18A AND PROPORTIONED FOR STRENGTH AND QUALITY REQUIREMENTS IN ACCORDANCE WITH ACI 318, SECTION 4.3 "PROPORTIONING ON THE BASIS OF FIELD EXPERIENCE".
3. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF $F_y=60,000$ PSI.
4. ALL DECK CONCRETE (WHEN INSTALLED UNDER THESE PLANS) SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF $f'_{c}=2500$ PSI.
5. THE DESIGN OF THIS PROJECT HAS INCORPORATED A RATIONAL DESIGN APPROACH BASED ON ACCEPTED ENGINEERING PRINCIPLES.
6. ALL REINFORCING SPLICES SHALL BE 18" IN LENGTH UNLESS OTHERWISE INDICATED ON THESE PLANS.

SOIL CONDITION

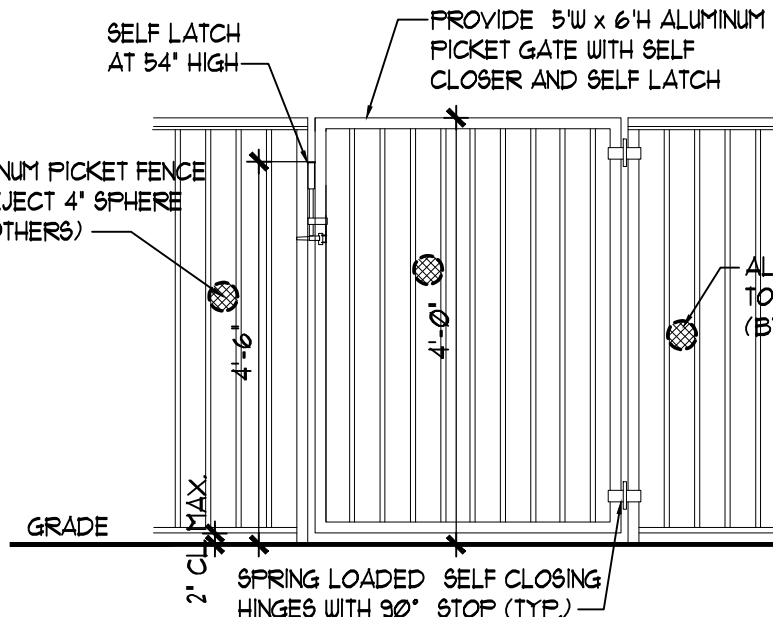
SOIL CONDITION AT SITE BY VISUAL INSPECTION INDICATES AN ALLOWABLE BEARING CAPACITY OF 2,000 PSF. (UNDISTURBED SAND AND/OR ROCK.)
UPON EXCAVATION OF POOL, PRIOR TO THE INSTALLATION OF POOL FOUNDATION SYSTEM THE BUILDING OFFICIAL SHALL BE PROVIDED WITH A STATEMENT FROM AN ARCHITECT OR ENGINEER TO CERTIFY THE PRESUMPTIVE SOIL BEARING CAPACITY.

BARRIER SCHEDULE

COMPLYING WITH
2023 F.B.C. 8th EDITION R4501.1 Residential swimming barrier requirement.

BARRIER	DESCRIPTION
FENCE	SEE SITE PLAN FOR FENCE INFORMATION
ALARM	ALL DOORS & WINDOWS PROVIDING DIRECT ACCESS TO POOL FROM DWELLING SHALL BE EQUIPPED W/ EXIT ALARM COMPLYING W/ UL 2011 W/ A MINIMUM SOUND PRESSURE RATING OF 85 DB AT 10 FEET. OR, SHALL BE EQUIPPED W/ SELF-CLOSING, SELF-LATCHING DEVICE INSTALLED MIN. 54" ABOVE FLOOR PER R4501.13

GATE ALARM: MANUFACTURER - TECHKO MODEL - 918TD / ETL APPROVED UNDER UL 2011 STANDARDS. 9V BATTERY OPERATION. WATER/WEATHER RESISTANT. AUDIBLE ALARM- 110-115 db @ 10 FT. UNIT SHALL BE INSTALL AT A MINIMUM HEIGHT OF 54", HIGH ENOUGH TO BE OUT OF REACH OF CHILDREN



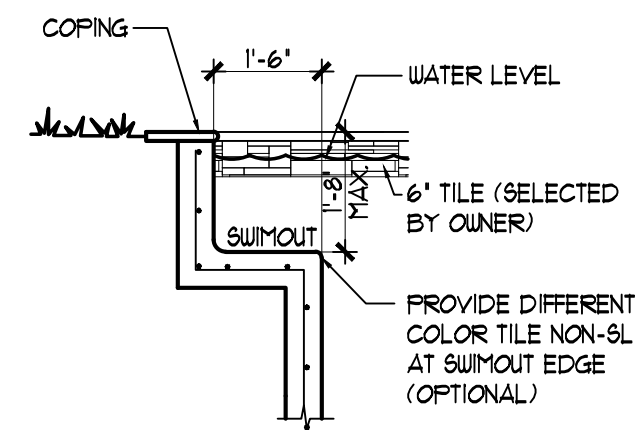
ALUMINUM PICKET SINGLE GATE DETAIL
(TO COMPLY WITH F.B.C. 2023 8th EDITION R4501.1)

FLOOR AND WALL THICKNESS SCHEDULE

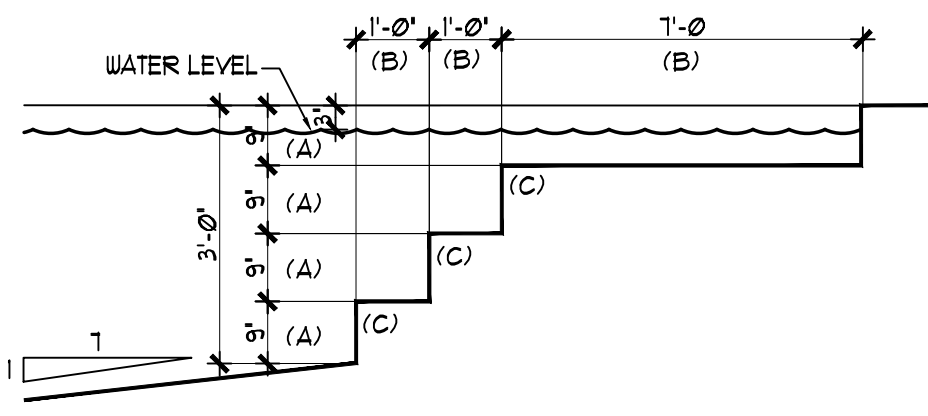
WALL THICKNESS	TOP	BOTTOM
PLACED CONCRETE	6"	6"
FLOOR THICKNESS	BOTTOM	
PLACED CONCRETE	6"	

FLOTATION ANALYSIS

WATER LEVEL ELEVATION (TOP OF WALL)	12.49'
POOL DEPTH (bottom of pool slab)	5.6'
LOW POINT POOL LEVEL	6.89'
BASE FLOOD ZONE "AH"	7.5'
B.F. DEPTH LEVEL	0.61'
LESS HYDROVERTICAL (1/4" VALVE)	-2.0'
HYDROSTATIC UPLIFT	-1.39'
NEGATIVE UPLIFT THEREFORE USE A MINIMUM OF 6" CONCRETE SLAB	
As min. = $0.002 \times l \times t$ (Slab thickness) $\times b$ (column of water)	
As min. = $0.002 \times 6 \times 12 \times 0.14$	
Spacing = $\frac{\text{Bar } \#}{\text{As min.}} = \frac{3 \times (0.11)}{0.14} = 0.78 \times 9'$	
THEREFORE USE 6" CONCRETE SLAB WITH 3 # 9" O.C. EACH WAY	

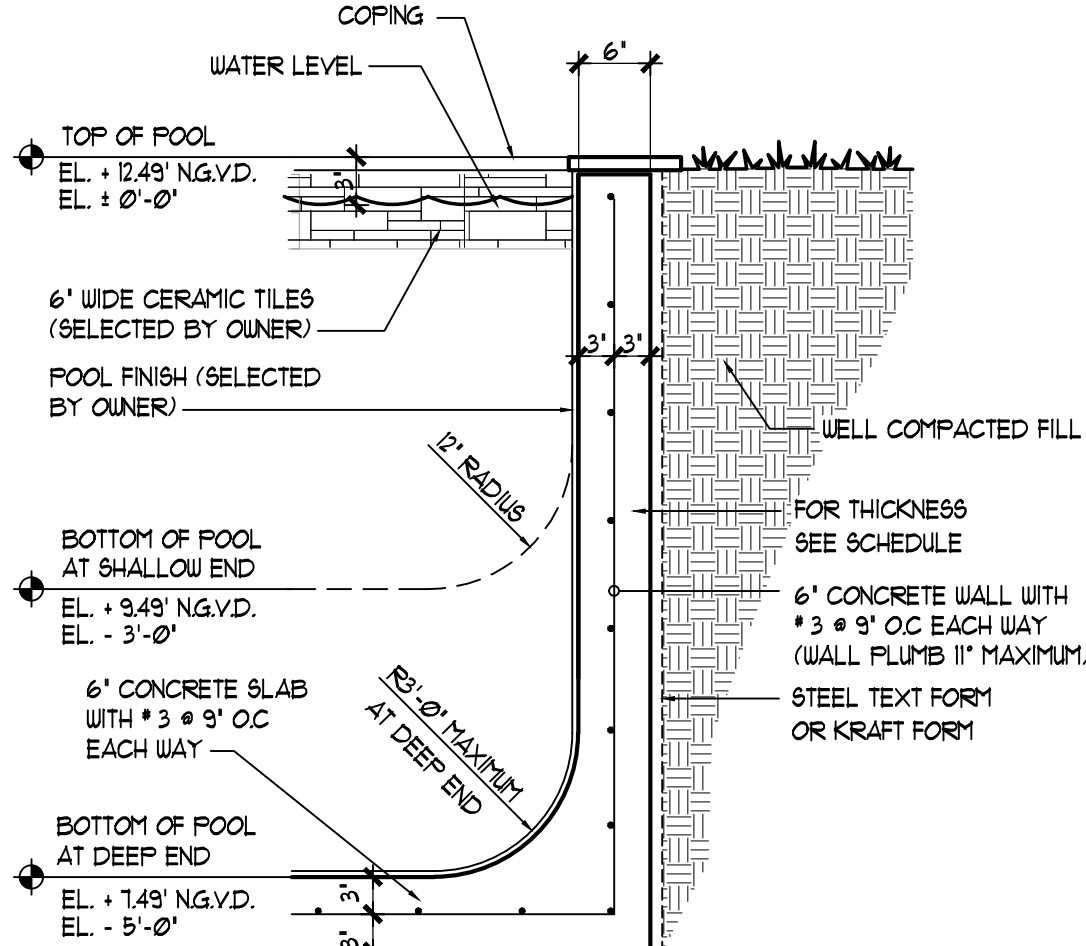


SWIMOUT DETAIL

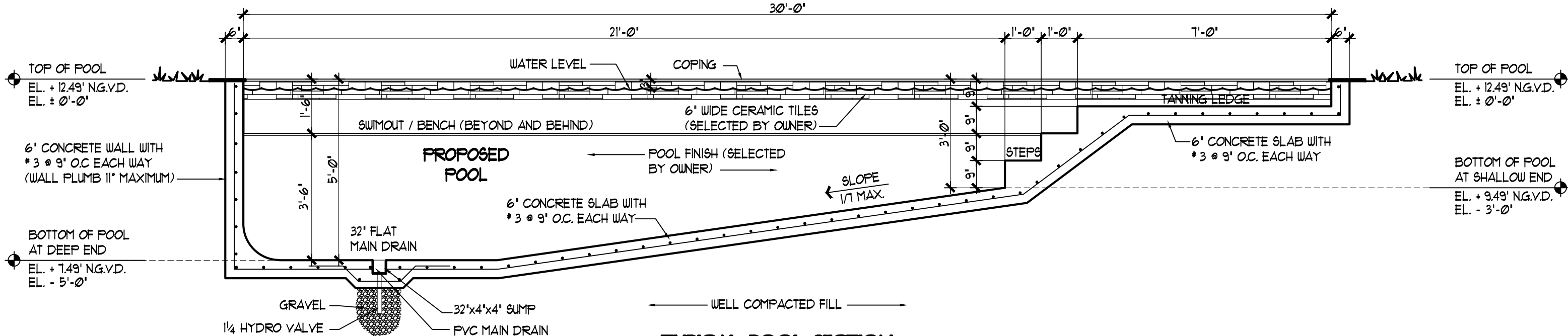


POOL STEPS

- (A) RISER HEIGHT MUST BE UNIFORM (2" MAX.) except top and bottom riser which may vary in height but shall not exceed 12"
(B) TREAD LENGTH 10" MINIMUM
(C) CONTRASTING TILE AT EDGE (OPTIONAL)
TREADS SHALL HAVE SLIP-RESISTANT SURFACES- ANSI/APSP-ICC-5 6.13.



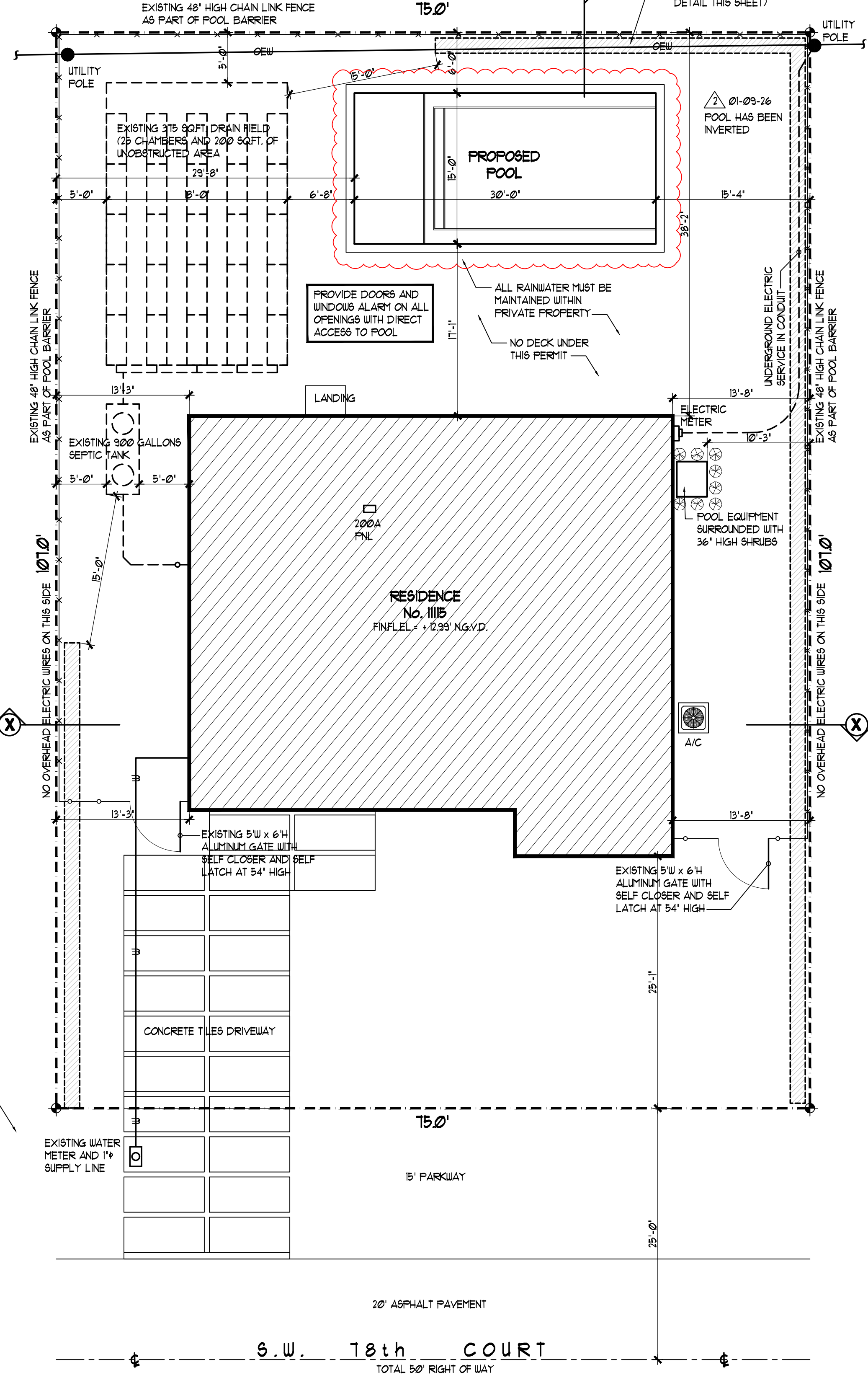
TYPICAL WALL SECTION



TYPICAL POOL SECTION

STATEMENT:

THE PROPOSED LOCATION OF SWIMMING POOL SHALL COMPLY WITH ALL OVERHEAD CONDUCTORS (POWER LINES, SERVICE DROP, AND LOW VOLTAGE LINES) PER N.E.C. - 680-3 (A) (B) (C) Overhead Conductor Clearances



SITE PLAN

SCALE: 1/8" = 1'-0"

LEGAL DESCRIPTION:

Lot 6 of "DIAGLES Subdivision", according to the plat thereof, as recorded in Plat Book 41, at Page 16, of the Public Record of Miami-Dade County, Florida.

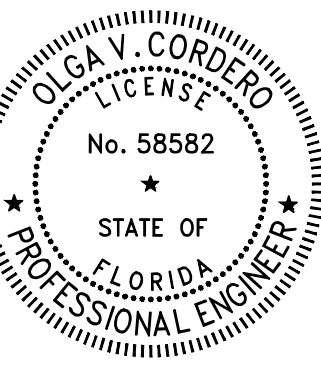
Folio: 20-5010-005-0031

PERVIOUS & IMPVIOUS AREA

Lot Size = 8,075 sq.ft.	
MINIMUM PERVIOUS AREA REQUIRED = 8,075 sq.ft. x 25% = 2,019 sq.ft.	
RESIDENCE	189,114 sq.ft.
POOL & COPING	52,111 sq.ft.
DRIVEWAY & WALKWAY	919,028 sq.ft.
CONCRETE LANDING	12 sq.ft.
A/C & POOL EQUIPMENT SLAB	21 sq.ft.
TOTAL IMPVIOUS AREA = 3,036,59 sq.ft. = 37.84%	
TOTAL PERVIOUS AREA = 4,388,41 sq.ft. = 62.16%	

REVISIONS	BY
1	RM
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Structural Engineer, P.E. No. 58582
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olgavictoria@aol.com / Ph: (305) 310-1638



Michael Anthony Villanueva
LOCATED AT:
1115 SW 18th Court, Village of Pinecrest, FL 33156

DRAWN: RMG	CHECKED: O.V.C.
DATE: July '25	SCALE: SHOWN
JOB NO: 25-1071	SHEET
1	OF 2 SHEETS

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY OLGA V. CORDERO P.E. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED IN ANY ELECTRONIC COPIES.