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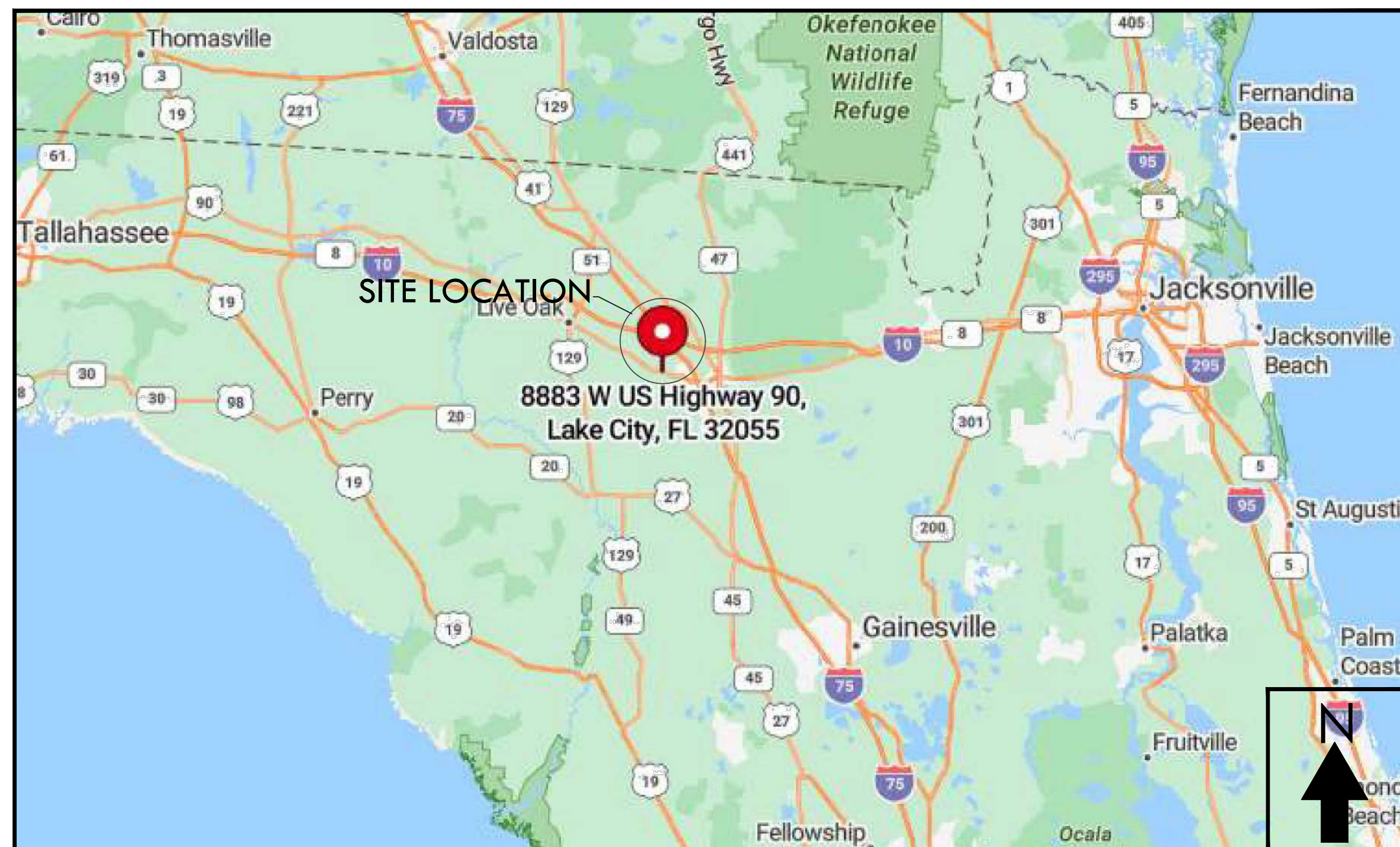
SAMUEL A. LIBERATORE, P.E.
#55740

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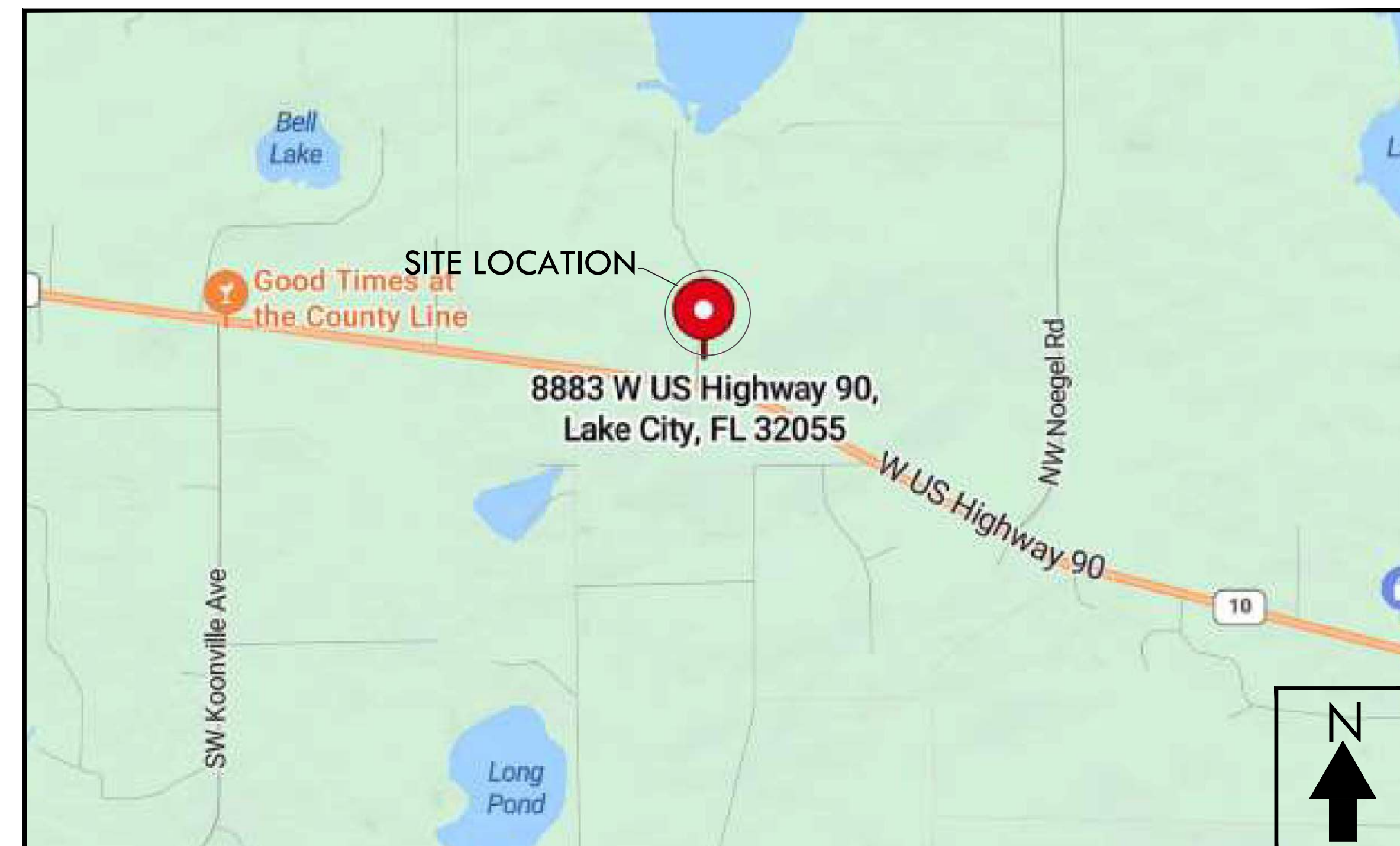
G.B. COLLINS ENGINEERING P.A.
CERTIFICATE OF AUTHORIZATION 27934

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Project Vicinity Map
Not to scale



Project Location Map
Not to scale

INDEX OF DRAWINGS	
SHEET #	SHEET NAME
SP - 1	COVER SHEET
SP - 2	NOTES & SPECIFICATIONS
SP - 3	SITE PLAN
SP - 4	POOL PLUMBING PLAN
SP - 5	POOL LAYOUT PLAN
SP - 6	POOL DETAILS
SP - 7	POOL PROFILES & SECTIONS
SP - 8	POOL EQUIPMENT DETAILS
SP - 9	POOL BONDING PLAN

THE POOL, DECK AND EQUIPMENT SHOWN ARE DESIGNED TO MEET THE REQUIREMENTS OF THE FOLLOWING APPLICABLE CODES:
DEPARTMENT OF HEALTH (DOH) 64E-9 FLORIDA ADMINISTRATIVE CODE
FLORIDA STATUTES, CHAPTER 514
FLORIDA BUILDING CODE, 8TH EDITION (2023)
FLORIDA PLUMBING CODE, 2023
NATIONAL ELECTRIC CODE (NEC) 2020
NATION FIRE PROTECTION ASSOCIATION 2021 (NFPA) 70 (Update)
NATION FIRE PROTECTION ASSOCIATION 2021 (NFPA) 101
FLORIDA FIRE PREVENTION CODE, 8TH EDITION 2023

For: QUALITY POOLS			DREAMIN N DRIFTIN RV AMENITY POOL			COVER SHEET		
REV.		DESCRIPTION			DATE			
DRAWN		CHECKED						
JP		SAL						
DATE		SCALE						
4-3-2024		AS SHOWN						
GCE PROJECT #: 2024-03-0076								
SP - 1		SHEET <u>1</u> OF <u>8</u>						

GENERAL NOTES:

1. Structure suitable when empty for ground water not higher than 6" above main drain.
2. Permanent Tile depth markers, minimum 4" high with contrasting color, slip resistant flush on deck or top of beam not more than 2 feet from water edge and inside back of gutter (glaze minimum 4" high.
3. Permanent Red International *NO DIVE* Tiles, non-slip flush minimum 4" high, on top of the deck not more than 2 feet from water edge every 25 feet of perimeter maximum see detail.
4. All equipment shall have NSF, UL, or appropriate approval.
5. All electrical, grounding, wiring & bonding to comply with Florida building code FBC 2023, 8th Edition, Chapter 27, NEC 2020, Section 680 and 680.26(C).
No overhead power within 10 feet.
Electrician must certify compliance to engineer. NEC 680.26(C) requires that all parts specified in 680.26(B) shall be connected to an equipotential bonding grid with solid copper conductor, insulated, covered, or bare, not smaller than 8 AWG or rigid metal conduit of brass or other identified corrosion-resistant metal conduit. Connection shall be made by exothermic welding or by listed pressure connectors suitable for the purpose and are of stainless steel, brass, copper, or copper alloy.
6. Pool make-up water is from an approved source with air gap.
7. No direct connections between water and sanitary systems, minimum 3" gap.
8. Vacuum breakers on all hose bibs in pool area.
9. Minimum 7" vertical clearance above deck and pool water.
10. No food or drink services to be within 12 feet of inner edge pool deck.
11. Walkways between pool and sanitary facilities shall be impervious, slip resistant for the first 15 feet from pool water edge.
12. If night swimming is allowed, overhead lighting shall provide at least 3 foot candles of illuminations at the water and wet deck level.
13. Overhead illumination of 30 foot candles at floor level in equipment room.
14. Owner to provide storage of chemicals under roof, protected from access by unauthorized persons.
15. Owner to provide traffic barriers at deck if needed.
16. Main drain(s) to meet ANSI/APSP 16 NSF50, 64E-9 and comply with Virginia Graeme Baker Act.
17. Feeders to be interlocked with recirculation pump.
18. Pipe: PVC schedule 40 NSFpw
19. Gauges: 2" minimum; 0-60 psi.
20. Test Kit: Taylor 2006 or Equal; Taylor K-1766 Sodium Chloride Testking Kit where applicable
21. All electric and ground to meet NEC or local code.
22. The equipment area or collector tank or chemical containers shall not be accessible to unauthorized individuals.
23. Install new equipment and plumbing per manufacturers instructions.
24. Plastic pipe subject to a period of prolonged sunlight exposure must be coated to protect it from ultraviolet light degradation
25. ALL EQUIPMENT MUST BE LABELED AND EASILY READ, THIS INCLUDES THE FLOWMETER.
26. All equipment (pumps, motors, pressure gauges, valves, auto and manual fills, piping, filters, flow indicators and flow meters) must be operating properly before calling this office and/or the Health Department for inspection.
27. Lighting certification is not part of this submittal. Contact a Lighting or Electrical engineer for certification.
28. Direct access to equipment is required.
29. The equipment enclosure, area or room floor shall be of concrete or other nonabsorbent material having a smooth slip-resistant finish and shall have positive drainage, including a sump pump if necessary.
30. Equipment rooms shall either forced draft or cross ventilation.
31. Pool and Bathhouse electrical outlets to be GFCI with trip points 6mA or less with cover.
32. Pool chemicals to be stored away from other materials in a cool, dry , ventilated area with restricted access.
33. Only NSF-60 approved chemicals shall be provided
34. Pool to have Shepherd's Hook, Straight Pole, Ring Buoy for safety equipment.
35. The deck must not have pits and crevices more than $\frac{3}{16}$ " deep.
36. A flow meter shall be provided with properly located and proper clearances upstream and down stream.
37. A gate to the equipment area must be provide within 10' of the equipment area.
38. The equipment room area must provide clearances for all equipment as prescribed by the manufacturer to allow normal maintenance and removal.
39. All equipment meets NSF/ANSI Standards 50-2007.
40. Recirculation pump must have a hair and lint strainer.
41. All exposed PVC piping will be painted for UV protection.
42. The plans meet FBC 2023, 8th Edition, Section 454.1.
43. The plans meet 2020 National Electric Code
44. All depth markers are to indicate actual depths within 3".
45. Horizontal tile used in less than 5' (1524 mm) of water must be slip resistant.
46. If one-inch(25mm) square tile is used the manufacturer must specify the adhesive for use underwater to adhere to the type of tile used [vitreous (glass) or ceramic]. Tiles shall not have sharp edges exposed that could cause bather injury.
47. The pool shell may need to be modified based on soil conditions and geotechnical engineering requirements. GCE shell design requires suitable soil conditions and subsoil preparation. Shell preparation will include proper de-watering and soil compaction. Soil preparation needs to meet ASTM D7380-15 standards. All organic soils under the shell shall be removed and hydrostatic relief valves installed as necessary. Additionally, in-ground shells are to be installed in native material, any shells installed in "Fill" material will need to be structurally designed and may require the shell to have a support foundation.

POOL ILLUMINATION REQUIREMENT
(incandescent equivalent or 10 Lumens:
1,000 SF X 0.5 (watts/sf) = 500 sf
500 sf/300 watt light = 1.6 MIN. # OF U/W LIGHTS REQ'D

2 UNDERWATER LIGHTS PROVIDED

MINIMUM BATHER LOAD & FLOW RATE CALCULATIONS

IN ACCORDANCE WITH 2023 FLORIDA BUILDING CODE, EIGHTH EDITION
(FROM SECTION 454.1.1.1)

UNIT COUNT: 100 TRANSIENT UNITS

100 NON-TRANSIENT UNITS X 6.0 SQ. FT. PER UNIT = 600 SQ. FT. WATER SURFACE REQUIRED

1,000 SQ. FT. WATER SURFACE PROVIDED

100 LIVING UNITS * 1.0 = 100 GPM MINIMUM REQUIRED FLOW RATE

150 GPM PROVIDED / 5 GALLONS PER MINUTE PER BATHER = 30 PERSON BATHING LOAD

POOL INFORMATION

Area:
Perimeter:
Designed Volume:
Pool Turnover:
Unit Count:
Bather Load:

1,000 Square Feet
140'-0" Linear Feet
28,000 Gallons
3.1 Hour
100 Transient
30 Bathers

Design Flow Rate:
Pool Width:
Pool Length:
Pool Depths:

150 GPM
20'-0"
50'-0"
3'-0" to 5'-0" (Avg. Depth 4'-0")

POOL EQUIPMENT

RECIRCULATION PUMP	PENTAIR WHISPERFLO XFVS, Q22035, 3 HP WITH INTEGRAL BASKET STRAINER, 150 GPM @ 60' TDH, 230V, 1Ø, 15.0A (CONFIRM)
COLLECTOR TANK	AT215, 215 GALLON CAPACITY (INTERNAL)
CARTRIDGE FILTER (2)	STA-RITE PLM200, 200 SQ FT FILTER AREA, (75 GPM MAX EACH)
WATER LEVEL CONTROL	AQUATEK HYDRAULIC VALVE W/ MANUAL FILL VALVE & RESERVOIR
CHLORINE FEEDER	STENNER 45M4, 35 GPD CAPACITY, 110V, 1.7A
CHLORINE RESERVOIR TANK	30 GALLON WITH LOCKABLE LID
pH FEEDER	STENNER 45M3, 22 GPD CAPACITY, 110V, 1.7A
pH RESERVOIR TANK	30 GALLON WITH LOCKABLE LID
FLOWMETER	3" BLUE/WHITE F-30300P, 45 TO 240 GPM RANGE
THERMOMETER	PRECISION INSTRUMENT CO B2B1-K WITH 1/2" NPT THERMOWELL 30° TO 240°F RANGE
VACUUM GAUGE	WIKA, 0-30 IN HG, LIQUID FILLED, 1/4" NPT, 2" FACE DIAMETER
CHEMISTRY CONTROLLER	CES MR1 OR APPROVED EQUAL REQUIRED
HEATER	PENTAIR, MASTERTEMP 400K BTU PROPANE

*Chemical Feeders to be interlocked with Recirculation pump.

MATERIAL SPECIFICATIONS

Valves: Proportional flow, ball globe, or butterfly for return line, main drain, gutter and heater by-pass or approved equal, otherwise gate.Feeders to be wired with failure proof interlock with the recirculation pump.

Pipe: PVC Schedule 40 NSFpw
Skimmer: Hayward SP10712
Anchors: Hayward SP1392
Transformers: Area Lighting LG-300/12 Volt
Leaf Skimmer: Lion 1010
Vacuum Head: Rainbow 214
Brush: A&B 3004
Vacuum Hose: Plastiflex
Shell: Concrete, 3,500 P.S.I., 28 Day, Rigid Construction
Steel: ASTM GR40, A615
Poles: (2) Jed, 16" Straight
Portable Vacuum Unit: Aladdin Scamp Portable Filter & Vac. (Or approved equal)

ADA Lift: SR Smith AXSII or approved equal

Level (Static) Line Grate: SP1019
Main Drain: 12"x12" Lawson Aquatics MLD-FGD-1212, VGB Compliant
Inlets: Hayward SP1425 (Floor)
Hayward SP1419 (Wall)
Escutcheons: Frost 41661
Lights: Pentair 5G Intellibrite
NEC 2020, Section 680.26
Florida Building Code 2023, 8th edition, Chapter 27
Life Ring: (2) 24" W/ 30' Throw Line, Jim Buoy
Hook: (2) Rainbow 153
Test Kit: Taylor K-2006 Standard Testing Kit
Taylor K-1766 Sodium Chloride Test Kit (When Applicable)
Ladder: Smith LFB-36B
Tread: 6" Maximum from wall, 3" Minimum from wall.
Crossed braced stainless steel, slip-resistant treads, 28" minimum above deck. Must have caps or bumpers that rest firmly against pool wall.
Finish: Floors and walls shall be white or pastel in color and shall have the characteristics of reflecting rather than absorbing light. The finish coating shall have a dry lightness level (CIE L Value) of 80.0 or greater and a wet luminous reflectance value of (CIE Y) value of 50.0 or greater, as determined by the test results provided by the manufacturer, utilizing testing methodology from American Standard ASTM D4086, ASTM E1477, ASTM E1347.

POST POOL RULE SIGN:

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POOL RULES

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NO FOOD OR BEVERAGES IN THE POOL OR ON POOL WET DECK. COMMERCIALY BOTTLED WATER IS ALLOWED ON THE POOL WET DECK FOR POOL PATRON HYDRATION.

NO GLASS OR ANIMALS IN THE FENCED POOL AREA OR 50 FEET FROM UNFENCED POOL.

BATHING LOAD 30 PERSONS.

POOL HOURS: DAWN TO DUSK.

SHOWER BEFORE ENTERING.

DO NOT SWALLOW THE POOL WATER IT IS RECIRCULATED.

DO NOT PLACE FURNITURE IN THE POOL. ←

POOL MAXIMUM DEPTH: 5'-0" FEET ←

NO DIVING ←

1" HIGH LETTERS MIN. (TYP.)

2" HIGH LETTERS MIN.

4" HIGH LETTERS MIN.

*NOTES:
1) NO NIGHT SWIMMING ALLOWED PRIOR TO PROVIDING THE DOH WITH AN ENGINEER'S APPROVED DECK ILLUMINATION DESIGN AND PHOTOMETRIC CALCULATIONS STUDY AND RECEIVING APPROVAL FROM THE DOH FOR NIGHT SWIMMING.
2) OWNERSHIP MAY ADD ADDITIONAL RULES TO SIGN.
3) POOL RULES LETTERS TO BE 1" HIGH MIN. EXCEPT "NO DIVING" SHALL BE 4" HIGH MIN.
4) MAX. POOL DEPTH TO BE 2" LETTERING.

RESTROOM LOCATOR SIGN

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REST ROOMS

•

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PROVIDED BY OWNERSHIP

RESTROOMS:

Outside access to facilities shall be provided for bathers at outdoor pools and if they are not visible from any portion of the pool deck, signs shall be posted showing directions to the facilities. These directions shall be legible from any portion of the pool deck and the letters shall be a minimum of one inch high. Walkways shall be provided between the pool and the sanitary facilities, and shall be constructed of concrete or other nonabsorbant material having a smooth slip resistant finish for the first 15 feet of the walkway measured from the nearest pool water's edge.

Floors: smooth, non-slip, impervious, pitched to floor drains, cove wall to floor, no carpet, duckboard or footbaths. Provide permanent towel, tissue, soap dispensers and waste baskets. Label doors. Install hose bib w/ vacuum breaker, either in resorts or outside nearby. Water shall be from an approved potable source with air break. Diaper changing tables shall be provided at facilities that cater to families with small children.

NOTE: Restrooms are located within 200 FT walking distance of pool waters edge.

RESTROOM FACILITIES:

- ARE WITHIN 200 FEET WALKING DISTANCE FROM THE WATERS EDGE.
- SHALL BE AT LEAST AS INDICATED ON THE FOLLOWING TABLE:

TOTAL AREA IN SQ. FT.	MEN'S RESTROOM			WOMEN'S RESTROOM	
	URINAL	W/C	LAVATORY	W/C	LAVATORY
0 - 1,250	1	1	1	1	1
1,251 - 2,500	1	1	1	2	1
2,501 - 3,750	1	2	1	3	1
3,751 - 5,000	1	2	1	4	1
5,001 - 6,250	1	3	2	5	2
6,251 - 7,500	1	3	2	6	2
7,501 - 8,750	1	4	2	7	2
8,751 - 10,000	1	4	2	8	2
PROVIDED	1	1	1	1	1

FENCE (design by others):

Florida Building Code requires that all public pools shall be surrounded by a minimum 48" high fence. The fence shall be continuous around the perimeter of the pool area that is not otherwise blocked or obstructed by adjacent buildings or structures and shall adjoin with itself or abut to the adjacent members. Access through the barrier other than from doored exits of adjacent building(s) shall be through self-closing, self-latching, lockable gates of 48" minimum height with the latch located a minimum of 54" from the bottom of the gate or at least 3" below the top of the gate on pool side. Gates shall open outward away from the pool area. Operable parts used for opening doors at these access points shall be 45 inches (1143 mm) minimum to 48 inches (1220mm) maximum above the finish floor ground.

OCCUPANT LOAD CALCULATIONS					
IN ACCORDANCE WITH NFPA 101, 2021 EDITION (FROM TABLE 7.3.1.2)					
SWIMMING POOL WATER SURFACE:	1,000 + 50 =	20.0			
SWIMMING POOL DECK AREA:	+ 1,680 + 30 =	56.0			
SWIMMING POOL OCCUPANT LOAD		86.0			
TOTAL OCCUPANT LOAD:		86			
MINIMUM REQUIRED EGRESSES PER SECTION 7.4.1:	1- 500 501- 1000 > 1001	2 3 4			
* PANIC HARDWARE REQUIRED ON ALL GATES WHEN OCCUPANT LOAD EXCEEDS 100					

SWIMMING POOL DEWATERING PROCEDURE

1. DETERMINE THE GROUND WATER TABLE IN THE IMMEDIATE AREA BY:
A. OBSERVING THE WATER LEVEL IN THE DITCHES, SWALES AND RETENTION POUNDS.
B. DIGGING A TEST HOLE WITH THE POST HOLE DIGGERS AT LEAST 4 FT. DEEP.

2. PULL THE MAIN DRAIN PLUG(S).

3. SEE THAT GROUND WATER ENTERING THE POOLS FILLS IT TO THE LEVEL OF THE GROUND WATER TABLE, IF NOT, PERFORM THE FOLLOWING PROCEDURES:
A. CLEAN OUT ANYTHING BLOCKING THE MAIN DRAIN OPENING USING REBAR AND OTHER METHODS OR TOOLS.
B. ATTACH A PUMP TO THE DEADLINE DISCHARGING WATER AWAY FROM THE POOL AT LEAST 200 FT.
C. ESTABLISH AT LEAST ONE (1) WEEP HOLE WITH A MINIMUM DIAMETER OF 2" PREFERABLY 4". MAKE SURE IT IS OPEN AND ACTIVE BELOW THE POOL FLOOR.
D. INSTALL A DEWATERING SYSTEM UTILIZING AT LEAST FOUR (4) WELL POINTS DISCHARGING WATER AT LEAST 200 FT. AWAY FROM THE POOL.

4. BEGIN THE REMODEL WORK ONCE THE HYDROSTATIC PRESSURE HAS BEEN EQUALIZED AND COMPLETE THE PROJECT WITHIN TWO (2) WEEKS IF POSSIBLE DEPENDING ON THE WEATHER CONDITIONS.

5. IT MAY BE NECESSARY TO HAVE A DEWATERING SYSTEM CONTINUOUSLY WHILE THE POOL IS DRAINED.

CONFIRM ALL EQUIPMENT VOLTAGE AND AMPERAGE TO MEET ALL ELECTRICAL SPECIFICATIONS AND POWER NECESSARY.

ALL EQUIPMENT IS SPECIFIED ON THE BASIS OF DESIGN. SUBSTITUTION FOR ANY EQUIPMENT NEEDS TO BE APPROVED BY THE DESIGN ENGINEER AND OWNER. THE OWNER IS NOT RESPONSIBLE FOR FEE AJUSTMENTS FOR BIDS THAT HAVE BEEN SUBMITTED BASED ON CONTRACTORS EQUIPMENT THAT IS NOT SPECIFIED ON THE PLANS AND NOT APPROVED BY THE DESIGN ENGINEER.

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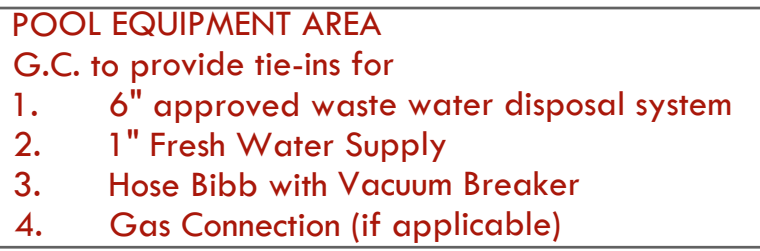
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For: QUALITY POOLS

DREAMIN N DRIFTIN RV
AMENITY POOL

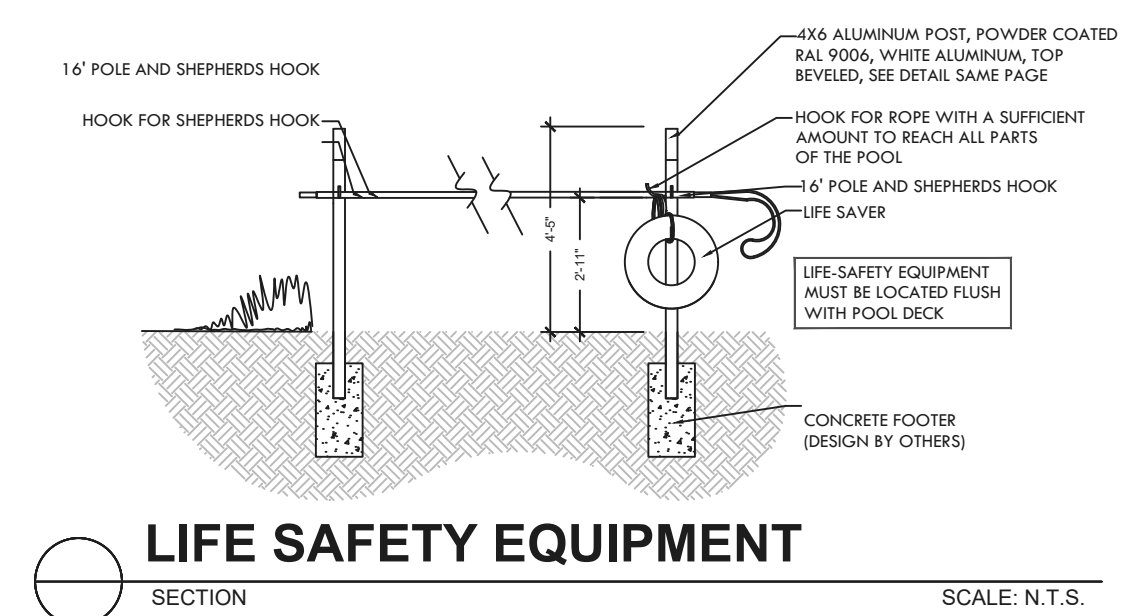
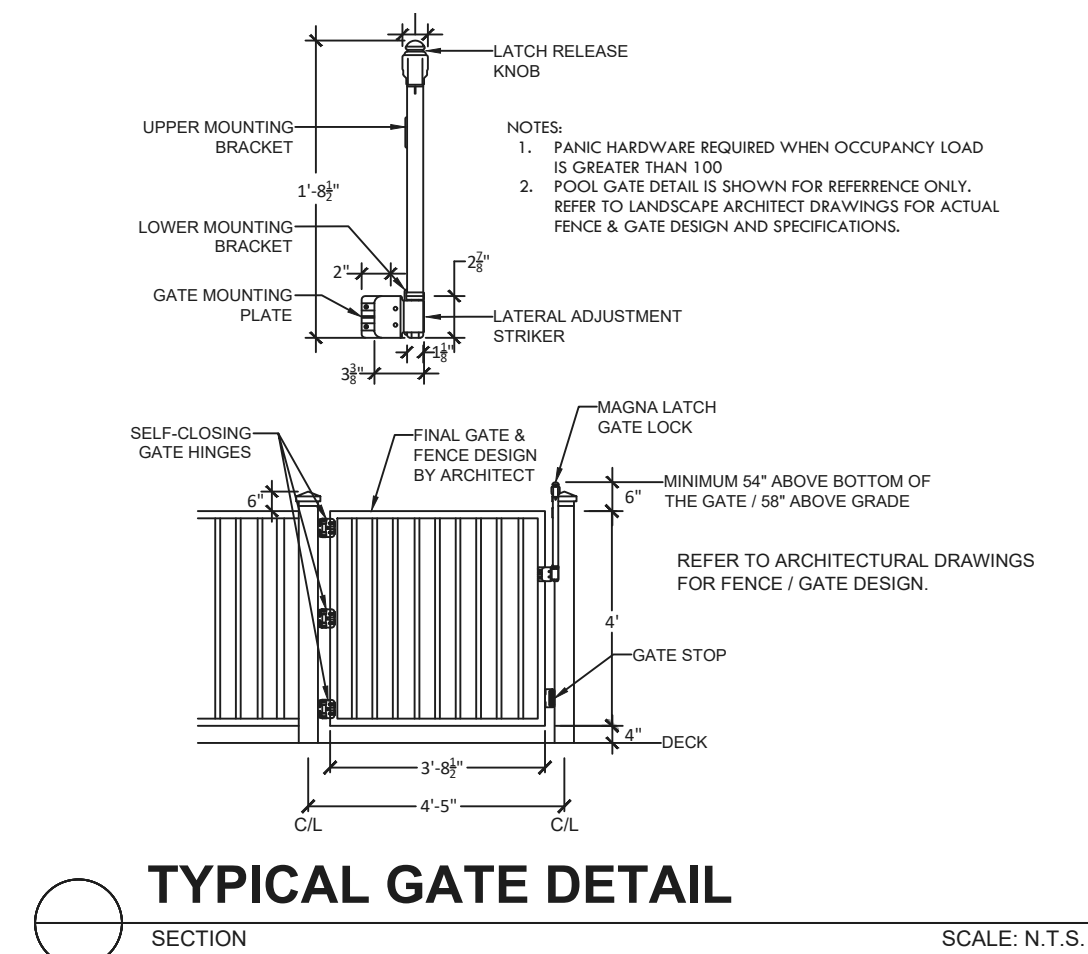
NOTES & SPECIFICATIONS

REV.	DESCRIPTION	DATE
DRAWN		CHECKED
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4-3-2024		As SHOWN
GCE PROJECT #: 2024-03-0076		
SP- 2	SHEET <u>2</u> OF <u>8</u>	



SITE PLAN NOTES:

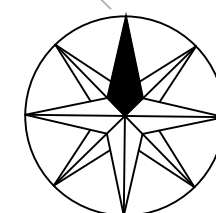
1. RINSE SHOWER SHALL BE PROVIDED ON THE POOL DECK WITHIN THE PERIMETER OF THE FENCE.
2. HOSE BIBB WITH VACUUM BREAKER REQUIRED ON DECK.
3. WASTE TO STORM COLLECTION SYSTEM WITH AIR GAP, MEET LOCAL CODES, PAINT EXPOSED PVC. EACH WASTE LINE SHALL HAVE A UNIQUE AIR GAP.
WASTE LINES FROM DIFFERENT SOURCES SHALL NOT BE TIED TOGETHER, BUT MAY DISCHARGE INTO A COMMON SUMP OR RECEPTACLE AFTER AIR GAP. (CONTRACTOR TO PROVIDE)
4. CONFIRM LOCATIONS AND ELEVATIONS WITH THE OWNER AND LANDSCAPE CONTRACTOR.
5. NO FOOD OR DRINK FACILITIES WITHIN 12 FEET OF POOL.
6. PROVIDE A HOSE BIBB WITHIN 25 FEET OF THE RESTROOMS
7. PROVIDE DIRECTIONAL SIGNS TO RESTROOMS
8. NO RECLAIMED WATER SHALL BE USED AS AN IRRIGATION SOURCE FOR THE PLANTER AREAS ALONG THE POOL DECK
9. PAINT ALL EXPOSED PVC.
10. OUTDOOR POOL DECK TO HAVE A MINIMUM OF 2% AND A MAXIMUM OF 4% UNIFORM SLOPE AWAY FROM POOL OR TO DECK DRAINS.
11. CONTRACTOR TO PROVIDE A MINIMUM 48" OF CLEARANCE AROUND THE POOL PERIMETER. THIS CLEARANCE DISTANCE NEEDS TO BE PROVIDED AND MEASURED FROM THE OUTSIDE FACE OF ANY STEP RAILS AND LADDER ANCHORS.
12. CONTRACTOR TO VERIFY EQUIPMENT LOCATION AND CONFIRM ALL ELEVATIONS AND SITE DRAINAGE.



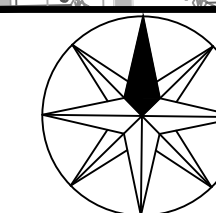
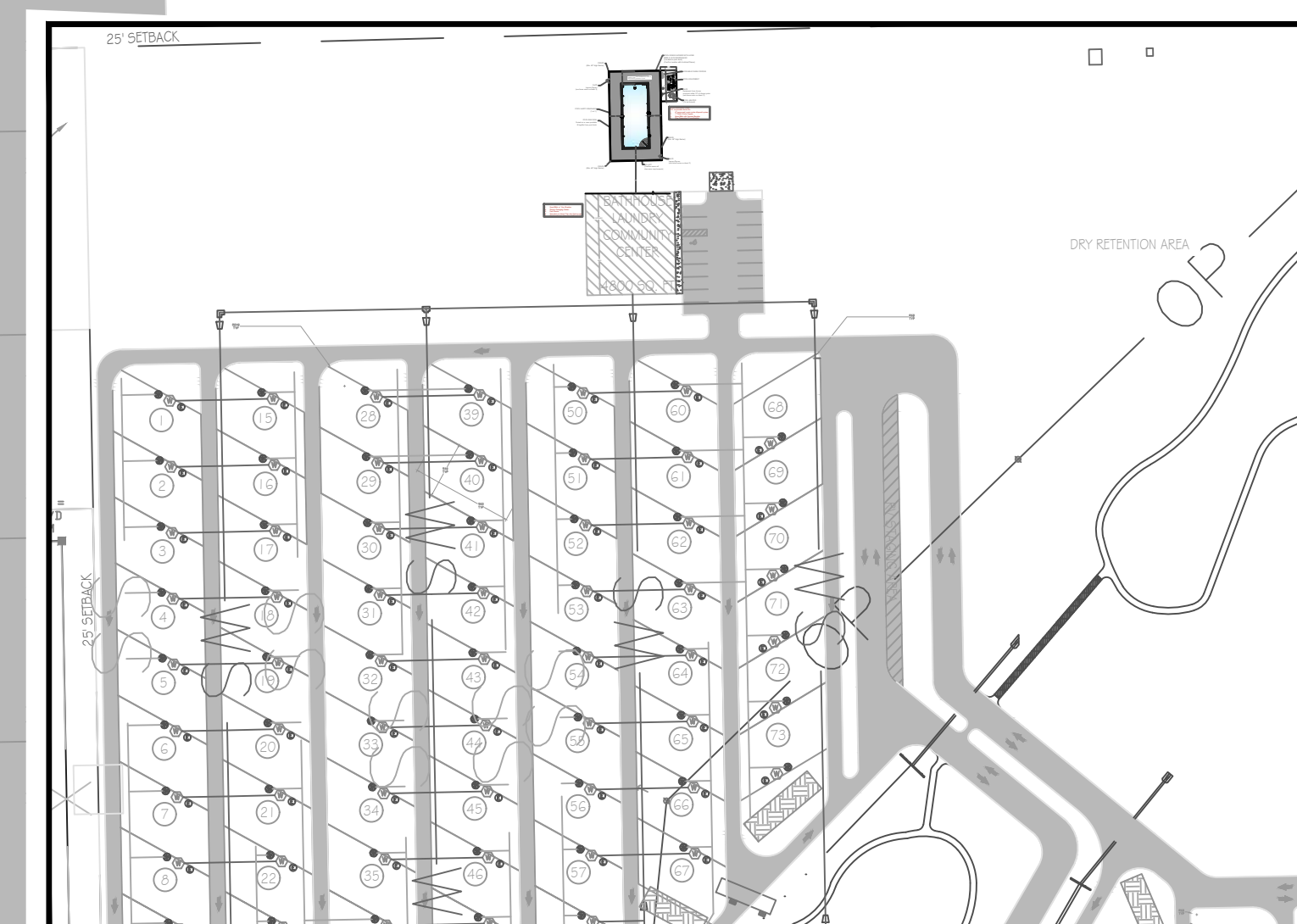
- RESTROOMS TO INCLUDE:**
1. Hose Bibb w/ Vac. Breaker
 2. Diaper Changing Tables
 3. Floor Drains
 4. See chart on sheet 2 for min. fixture count
 5. See Hardscape plans for additional info.



LEGEND	
E	ELECTRICAL SUPPLY
S	WASTE LINE
P	POTABLE WATER SUPPLY
G	GAS CONNECTION



Site Plan
Scale: 1/8" = 1'-0"



Overall Site Plan
Scale: 1/128" = 1'

For: QUALITY POOLS

DREAMIN N DRIFTIN RV
AMENITY POOL

Amenity Site Plan

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SP - 3	SHEET <u>3</u> OF 8	

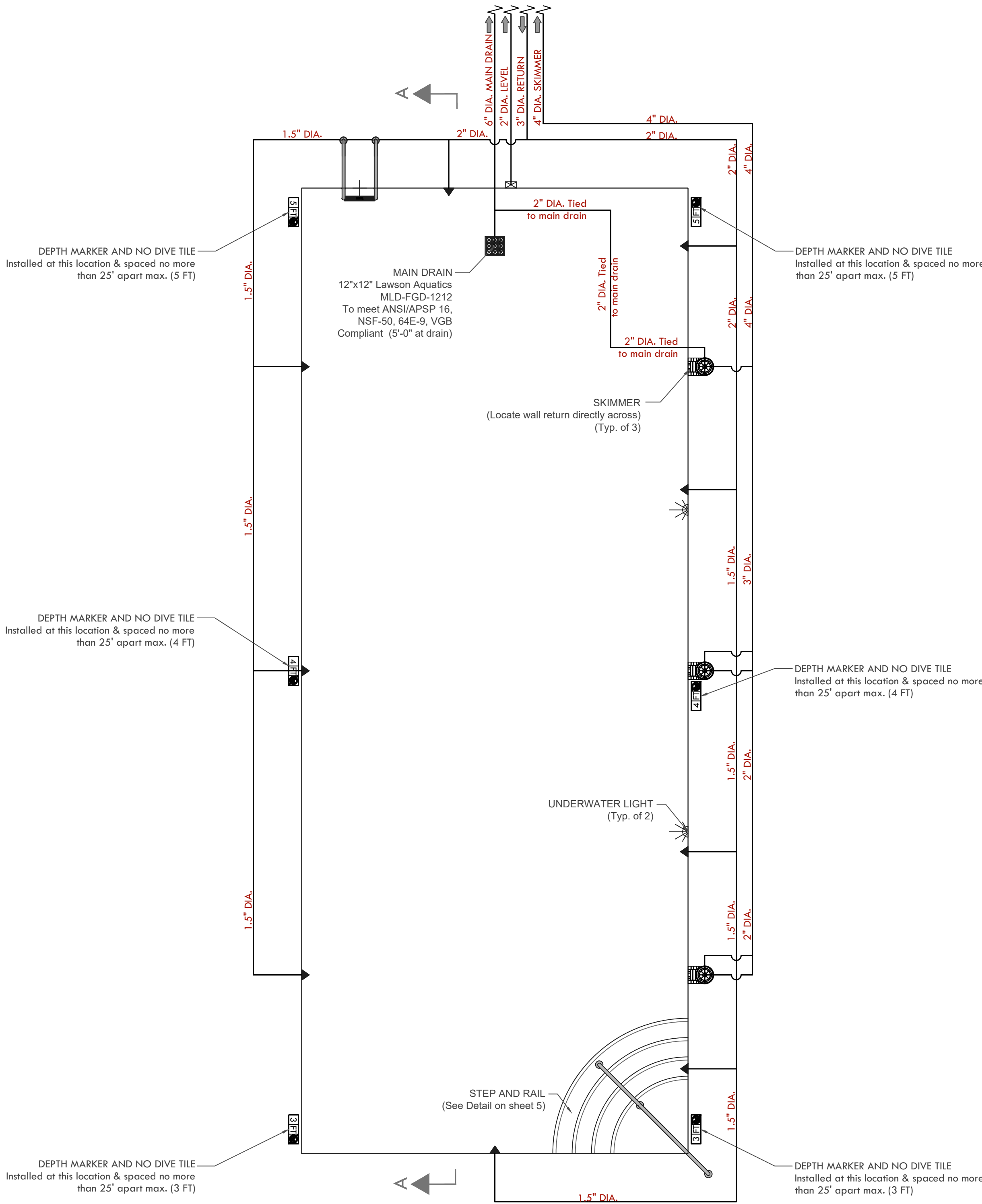
MAXIMUM FLOW VELOCITIES (GPM)			
PIPE DIAMETER	¹ GRAVITY	² SUCTION	³ PRESSURE
1.5	17	33	55
2.0	29	59	98
3.0	66	132	220
4.0	117	235	392
6.0	264	529	881
8.0	470	940	1,567

¹ GRAVITY, MAXIMUM FLOW, IN GPM, AT 3.0 FPS
² SUCTION, MAXIMUM FLOW, IN GPM, AT 6.0 FPS
³ PRESSURE, MAXIMUM FLOW, IN GPM, AT 10.0 FPS

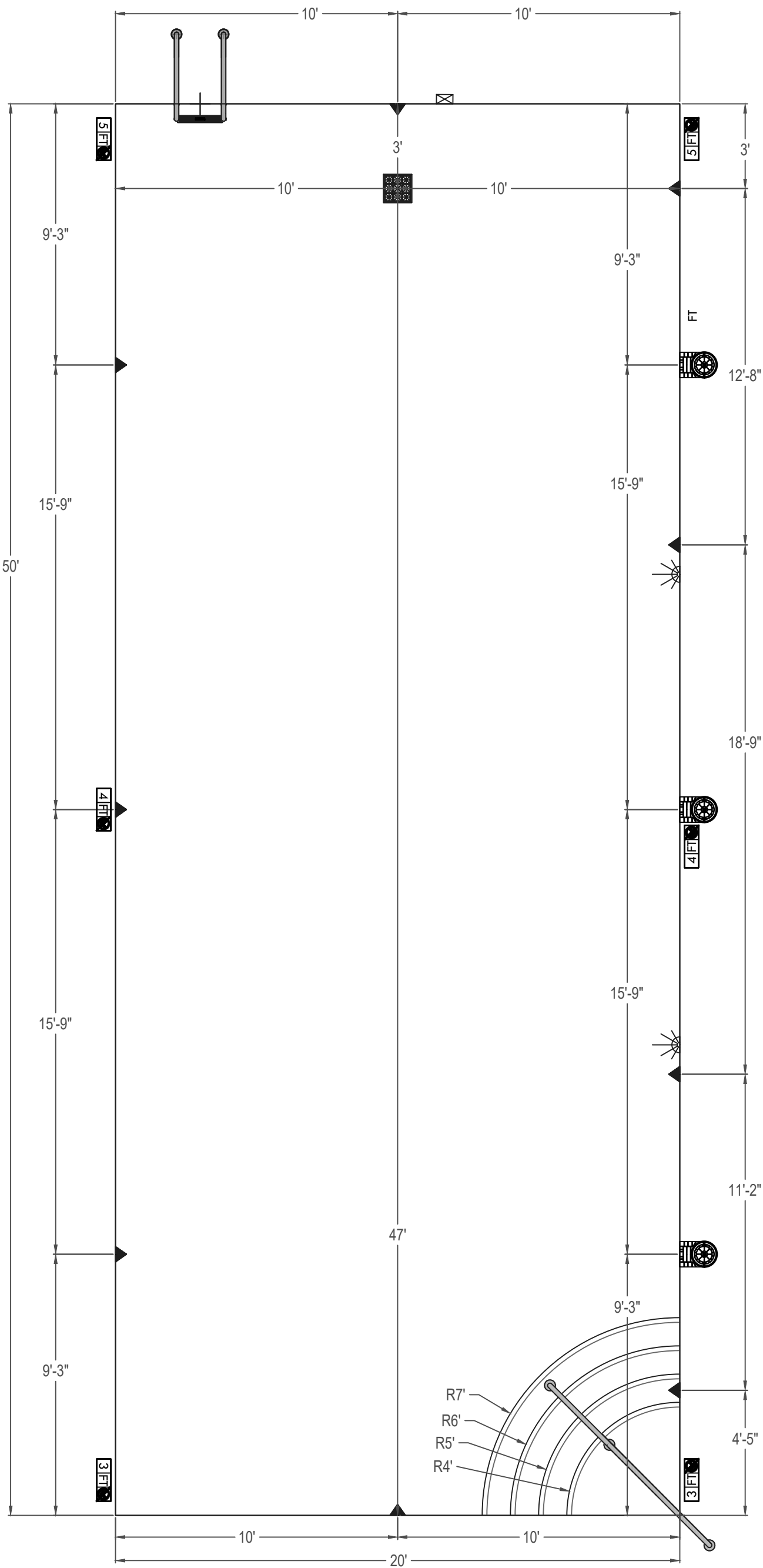
FITTING LOCATIONS AND PIPE ROUTING ARE SHOWN IN SCHEMATIC FORM TO ILLUSTRATE DESIGN AND INTENT. INFORMATION NOT SPECIFIED OR DETAILED IS ABLE TO BE ADJUSTED BY THE POOL CONTRACTOR TO FACILITATE INSTALLATION OR ADJUST TO FIELD CONDITIONS

POOL MAIN DRAIN COVER - 1.5 FPS MAX. FLOW LAWSON MLD-FGD-1212, 12"x12" VGB COMPLIANT MAIN DRAIN COVER WITH 81.03 IN OPEN AREA; 365 GPM AT 1.5 FPS.

HYDRAULIC DESIGN MEETS 2023 FLORIDA BUILDING CODE, 8TH EDITION



Pool Plumbing Plan
Scale: 1/4" = 1'-0"



Pool Layout Plan
Scale: 1/4" = 1'-0"

LEGEND		
SYMBOL	QTY.	ITEM
	2	UNDERWATER LIGHTS - Pentair 5G LED
	1	MAIN DRAIN - 12" x 12" Lawson
	6	DEPTH MARKER TILE
	6	NO DIVE TILE
	9	REC. WALL RETURNS Hayward SP1419E
	3	SKIMMER - Hayward SP10712
	1	LEVEL - Hayward SP1019
	1	LADDERS - S.R. Smith, LFB-36B
		BENCH & STAIR TILE

- NOTES:
- DEPTH MARKERS TO INDICATE ACTUAL DEPTH WITHIN 3 INCHES.
 - ALL CORNERS TO HAVE A MINIMUM 2" RADIUS.
 - 15' MINIMUM AND 20' MAXIMUM POOL WIDTH.
 - RETURNS MUST BE LOCATED DIRECTLY ACROSS FROM ALL SKIMMERS.
 - WALL RETURNS SHALL BE SPACED EVERY 20' OR LESS AROUND PERIMETER.
 - ONE SKIMMER MUST BE INSTALLED IN THE SUN SHELF AREA (IF APPLICABLE)

TOTAL POOL VOLUME & CALCULATIONS

- Area.....1,000 Sq. Ft.
- Perimeter.....140' Ln. Ft.
- Volume.....28,000 Gallons
- Turnover.....3.1 Hours
- Flow Rate.....150 GPM
- Unit Count.....100 Transient
- Bather Load.....30 Bathers

For: QUALITY POOLS

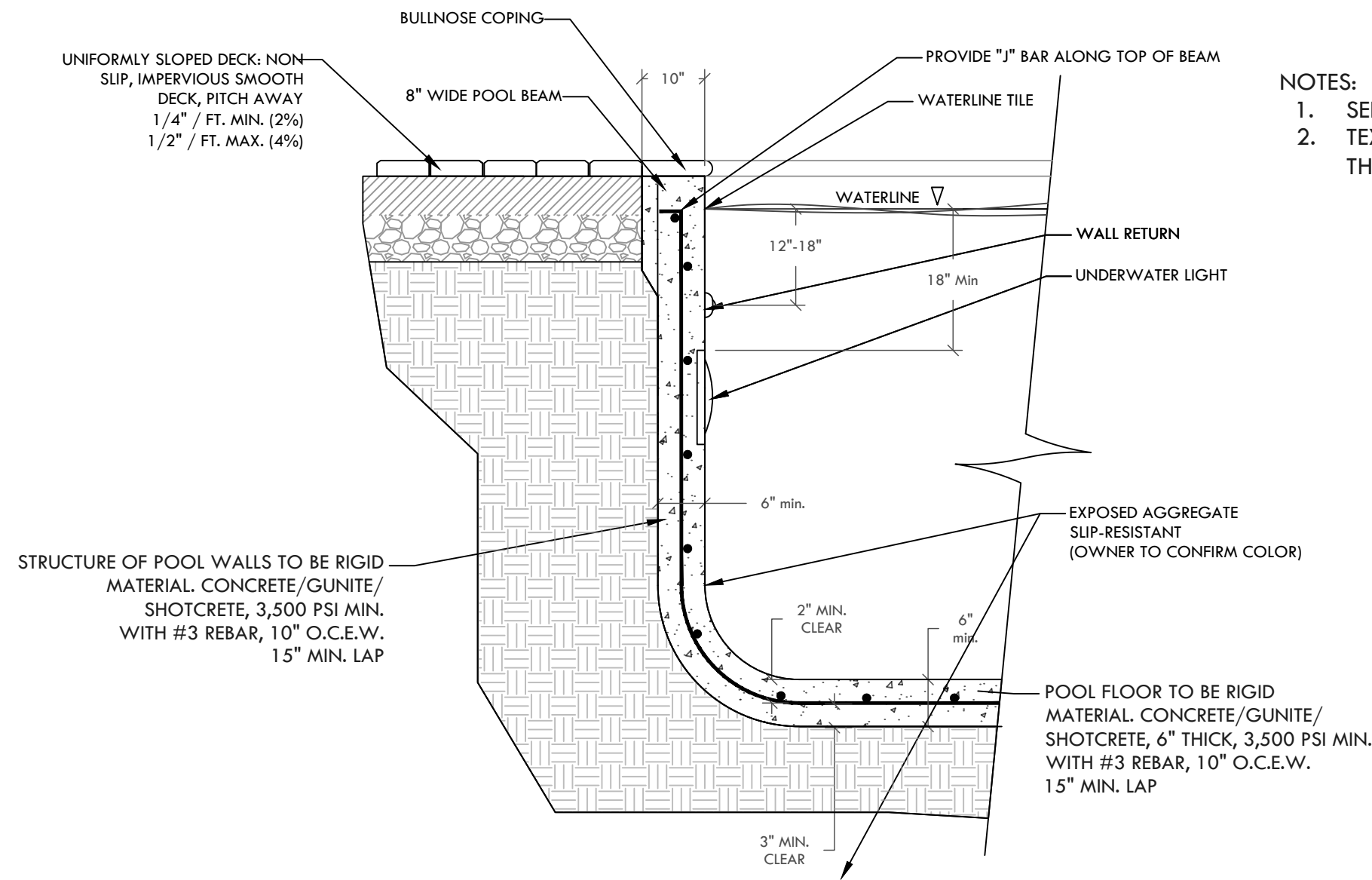
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PALM HARBOR, FLORIDA 34684
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(727)-442-8443

POOL PLUMBING & LAYOUT PLAN

REV.	DESCRIPTION	DATE
DRAWN		CHECKED
JP		SAL
DATE		SCALE
4-3-2024		As Shown
GCE PROJECT #: 2024-03-0076		
SP - 4	SHEET <u>4</u> OF <u>8</u>	



- NOTES:
- SEE HARDSCAPE PLANS FOR ALL TILE, COPING, DECK AND POOL FINISHES
 - TEXTURED DECK FINISHES THAT PROVIDE PITTED OR CREVICES OF MORE THAN 3/16" ARE PROHIBITED.

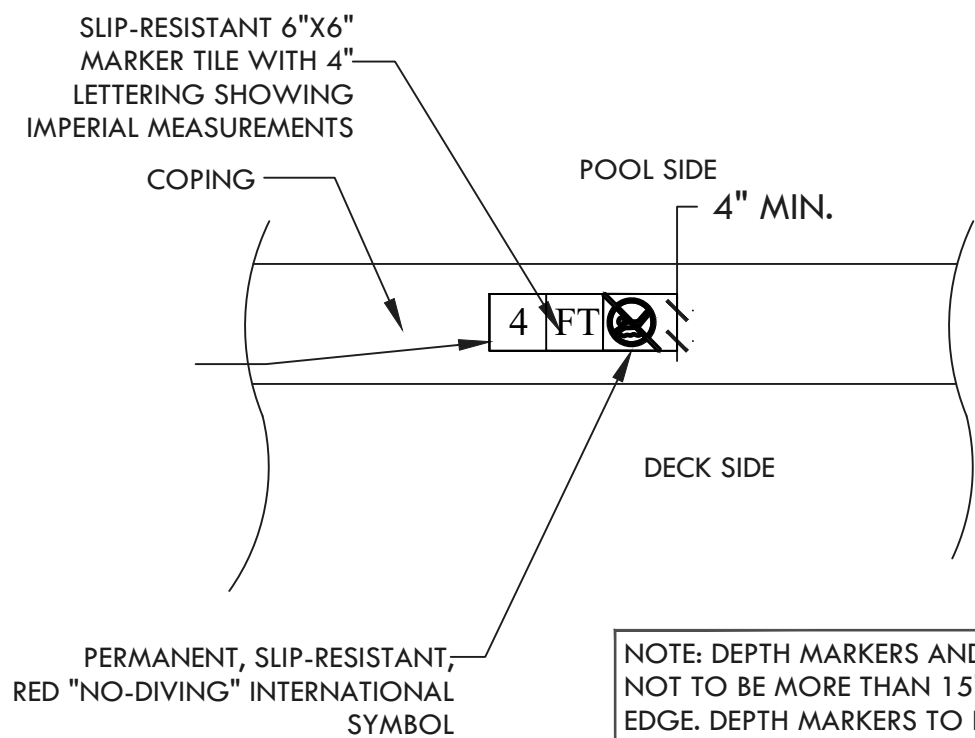
IF SETTLING OR WEATHERING OCCURS THAT WOULD CAUSE STANDING WATER, THE ORIGINAL SLOPES SHALL BE RESTORED OR CORRECTIVE DRAINS INSTALLED.

POOL SUBBASE TO BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

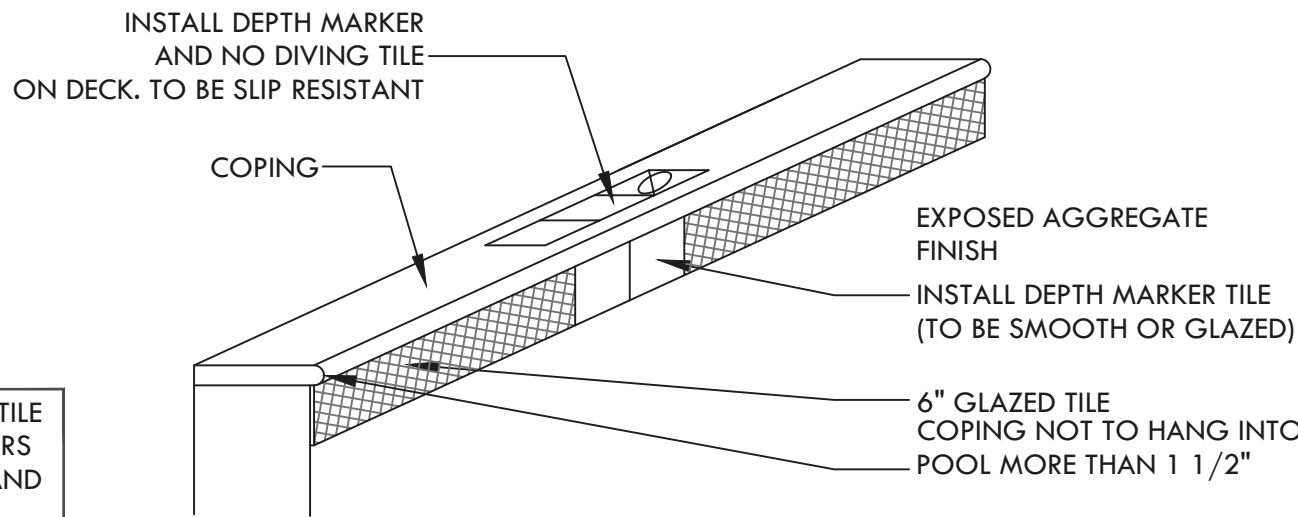
STRUCTURAL SUBJECT TO SUITABLE SOIL CONDITIONS. THE AREA OF THE POOL CONSTRUCTION SHALL BR PROBED AT THE TIME OF CONSTRUCTION TO VERIFY THE PRESENCE OF SUITABLE EXISTING SOILS. ALL ORGANIC MATERIAL WILL NEED TO BE OVER-EXCAVATED AND REPLACED PER GEOTHECNICAL RECOMMENDATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPER DEWATERING MEASURES DURING CONSTRUCTION. HYDROSTATIC RELIEF VALVES NEED TO BE PROPERLY INSTALLED AND VERIFIED THAT THEY ARE WORKING PROPERLY.

TYPICAL WALL & FLOOR SECTION

SCALE: N.T.S.



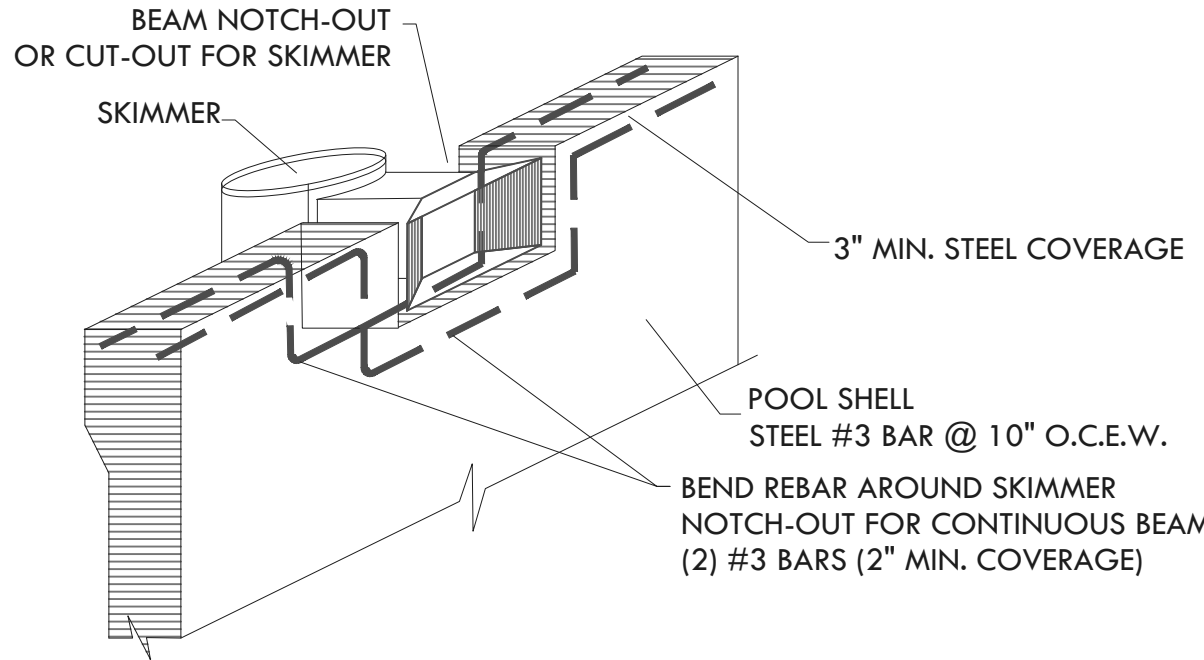
NOTE: DEPTH MARKERS AND NO DIVING TILE NOT TO BE MORE THAN 15" FROM WATERS EDGE. DEPTH MARKERS TO BE ON DECK AND INSIDE POOL AT WATER LINE.



SKIMMER DETAIL

SECTION

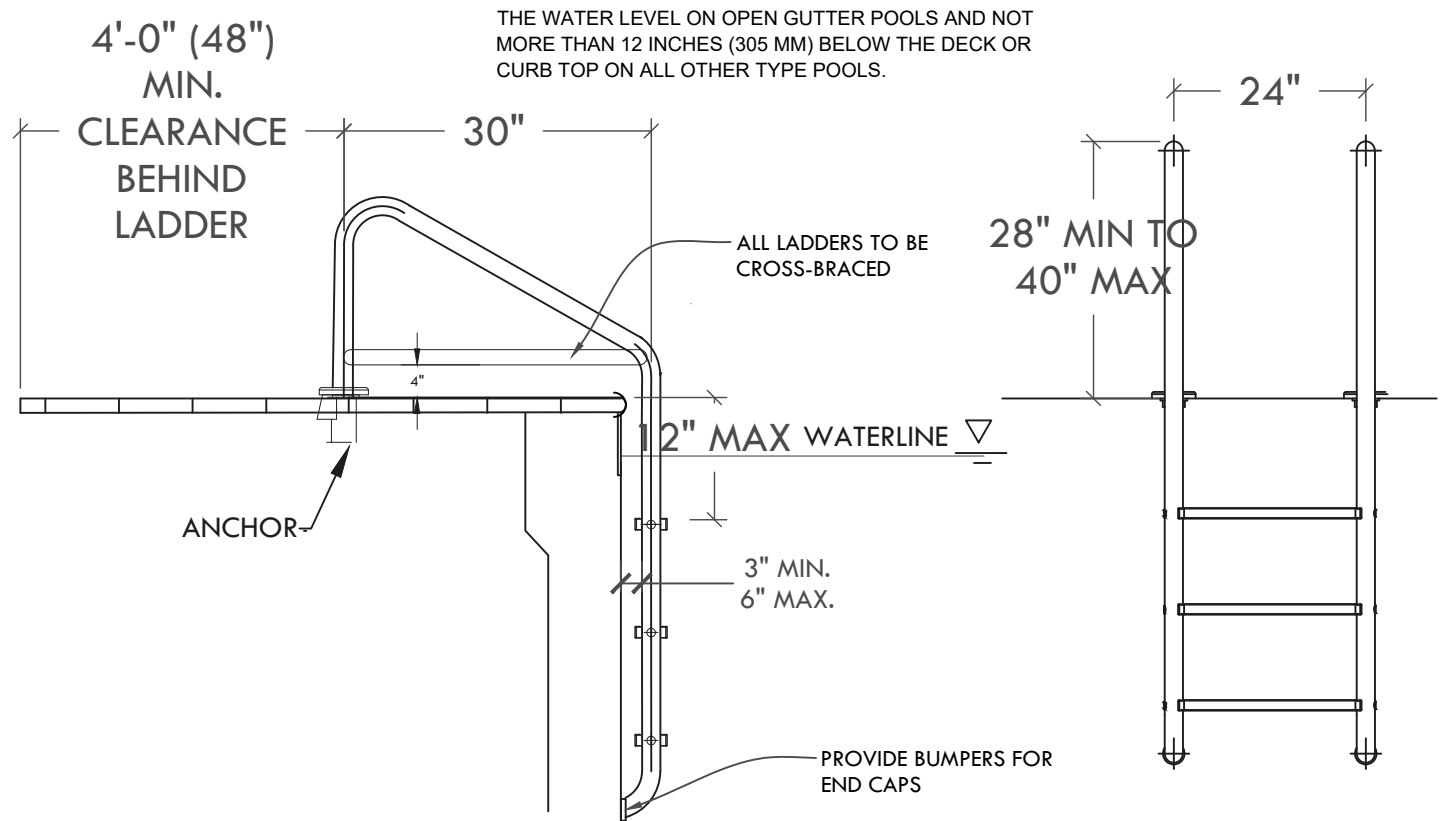
SCALE: N.T.S.



DEPTH MARKER DETAIL

SECTION

SCALE: N.T.S.

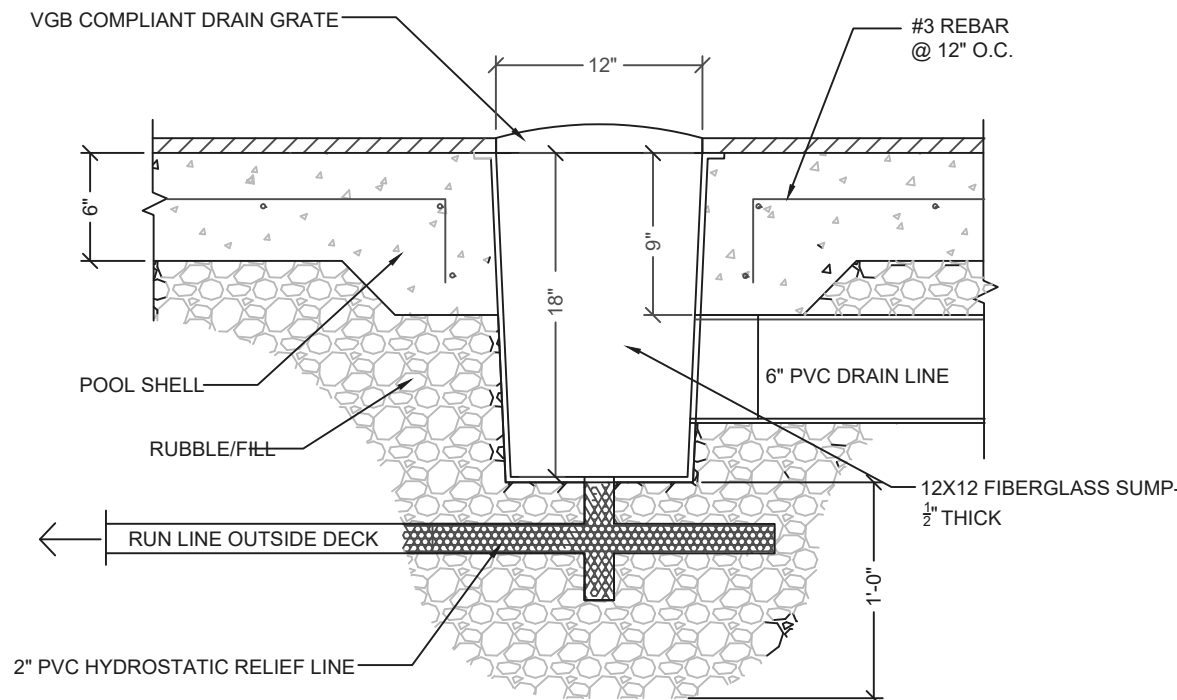


CUSTOM LADDER: SR SMITH CUSTOM, STAINLESS STEEL TREAD: 6" MAX. FROM WALL, 3" MIN. FROM WALL CROSS BRACED, SLIP-RESISTANT TREADS, 28" MIN. 36" MAX. ABOVE DECK. FRAME, 1.90" OD X .065", TYPE 304 STAINLESS STEEL, WITH WHITE RUBBER BUMPERS. STEPS, ACRYLIC PLASTIC AND HAVE SLIP-RESISTANT TOP SURFACE. ESCHUTEON (#EP-100P) STAINLESS STEEL. ANCHOR ASSEMBLY: AS-100B (SEE SPEC SHEET FOR SRS-90B)



SKIMMER STEEL & BEAM DETAIL

SCALE: N.T.S.



LADDER DETAIL

SECTION

SCALE: N.T.S.

PORTABLE VAC SYSTEM

SECTION

SCALE: N.T.S.

MAIN DRAIN DETAIL

SECTION

SCALE: N.T.S.

G.B. COLLINS ENGINEERING P.A.
CERTIFICATE OF AUTHORIZATION 27934

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#55740

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For: QUALITY POOLS

DREAMIN N DRIFTIN RV
AMENITY POOL

POOL DETAILS

REV.	DESCRIPTION	DATE

DRAWN	CHECKED
JP	SAL
DATE	SCALE
4-3-2024	AS SHOWN
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SP - 5	SHEET 5 OF 8



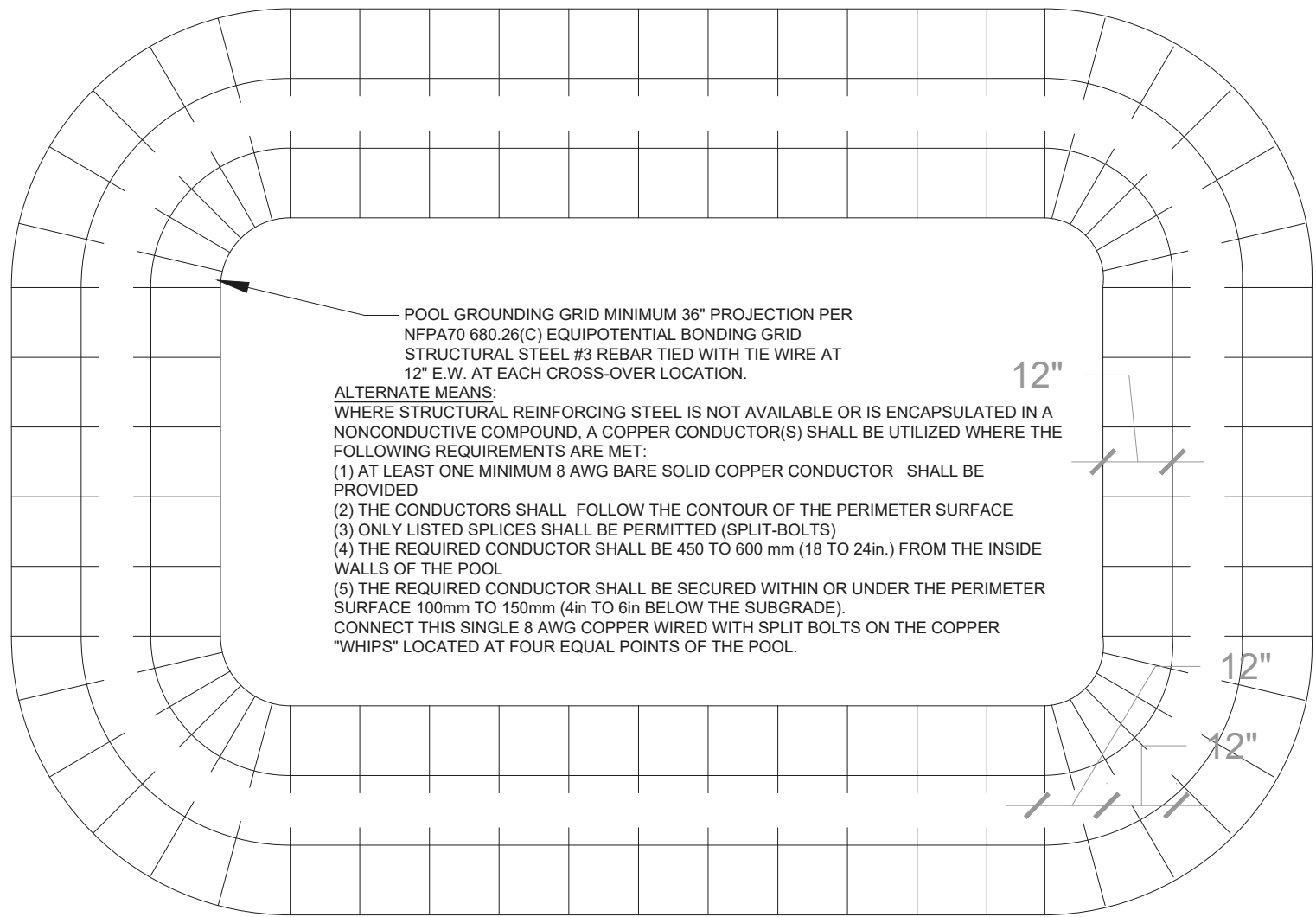
POOL SECTIONS & PROFILES

REV.	DESCRIPTION	DATE

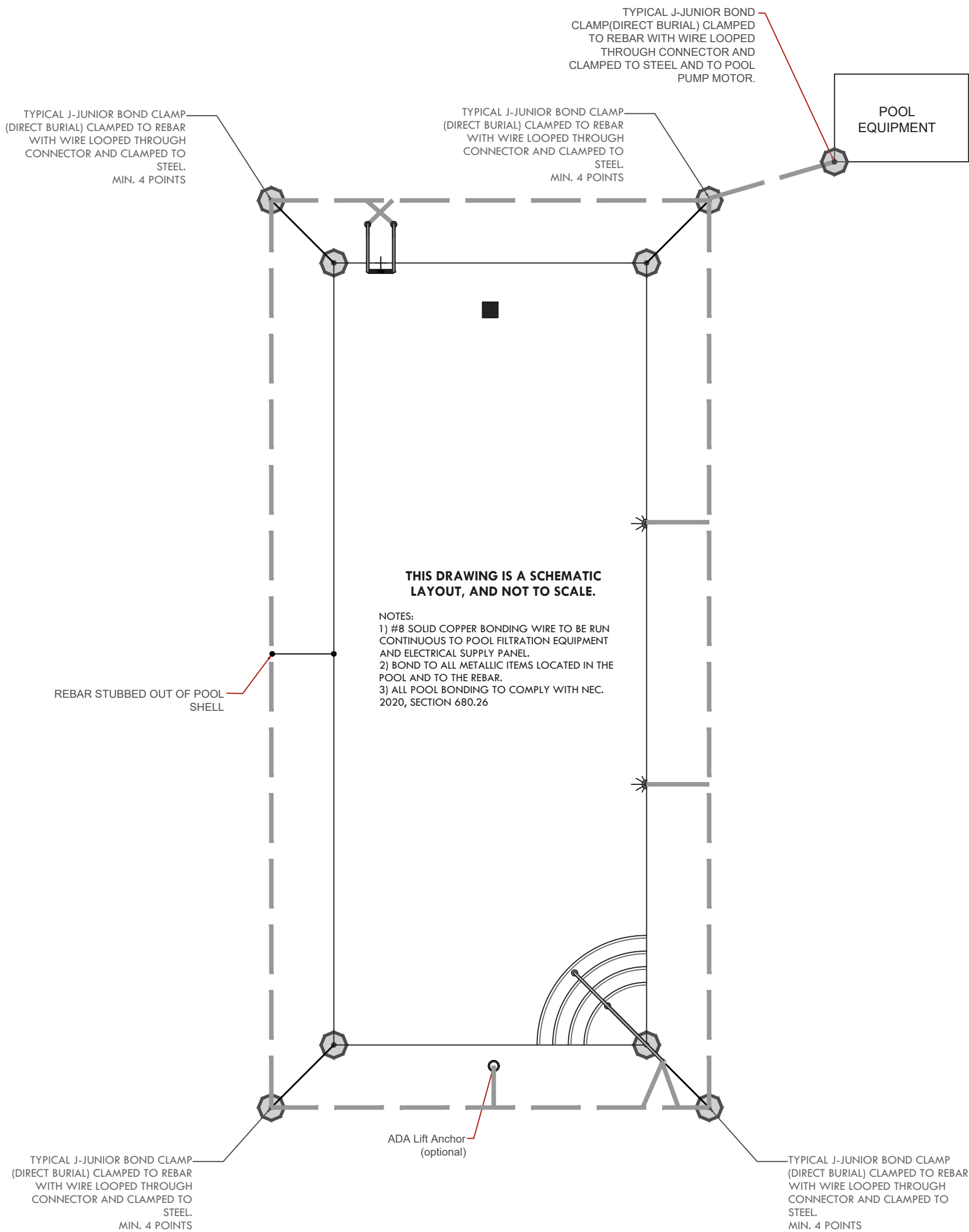
DRAWN	CHECKED
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GCE PROJECT #: 2024-03-0076

SP - 6	SHEET <u>6</u> OF <u>8</u>
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Pool Equipotential Grid Requirement
Scale: Not to scale



Pool Bonding Plan
Scale: Not to scale

SECTION I. Installing light fixture during new pool construction.

A. Preparatory steps which must be completed by the electrician before light fixture is installed.

1. Verify that the pool meets the current requirements of the National Electric Code and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electric Code which the pools electrical system must meet are listed below.

a. The lighting circuit must have a Ground Fault Circuit Interceptor (GFCI), and an appropriately rated circuit breaker.

b. The Junction Box, or for the 12 volt models, the low voltage transformer, must be located at least 8 inches above water level, 4 inches above ground level, and at least 48 inches from the edge of the pool.

c. The light fixture and all metal items within 5 feet of the pool must be properly electrically bonded.

d. The wet niche must be properly installed so that the top edge of the lens on the underwater light is at least 18 inches below the surface of the water in the pool.

e. The wet niche must be properly electrically bonded and grounded via the No. 8 AWG ground connector located at the rear of the nice.

2. To be certain that the pools electrical system meets all applicable requirements, the electrician should also consult the local building department.

3. Use only Pentair Pool Products wet niches to insure proper bonding and grounding connections.

B. Steps to perform after the electrical system requirements are met.

1. Feed cord through conduit to Junction Box, leaving at least 4 feet of cord at the light fixture to coil around the light. This 4 feet of cord around the light allows the light to be serviced after this pool is filled with water.

2. Cut the cord at the Junction Box, leaving at least 6 inches of cord to make connections.

3. Strip 6 inches of the outer cord jacket to expose the three insulated wires. Be careful not to damage the insulation on the three inner wires.

4. Connect all three wires to the corresponding circuit wires in the Junction Box (black wire to power, white wire to common, and green wire to ground) and secure the Junction Box cover in place.

5. Replace the light assembly into niche and tighten special pilot screw.

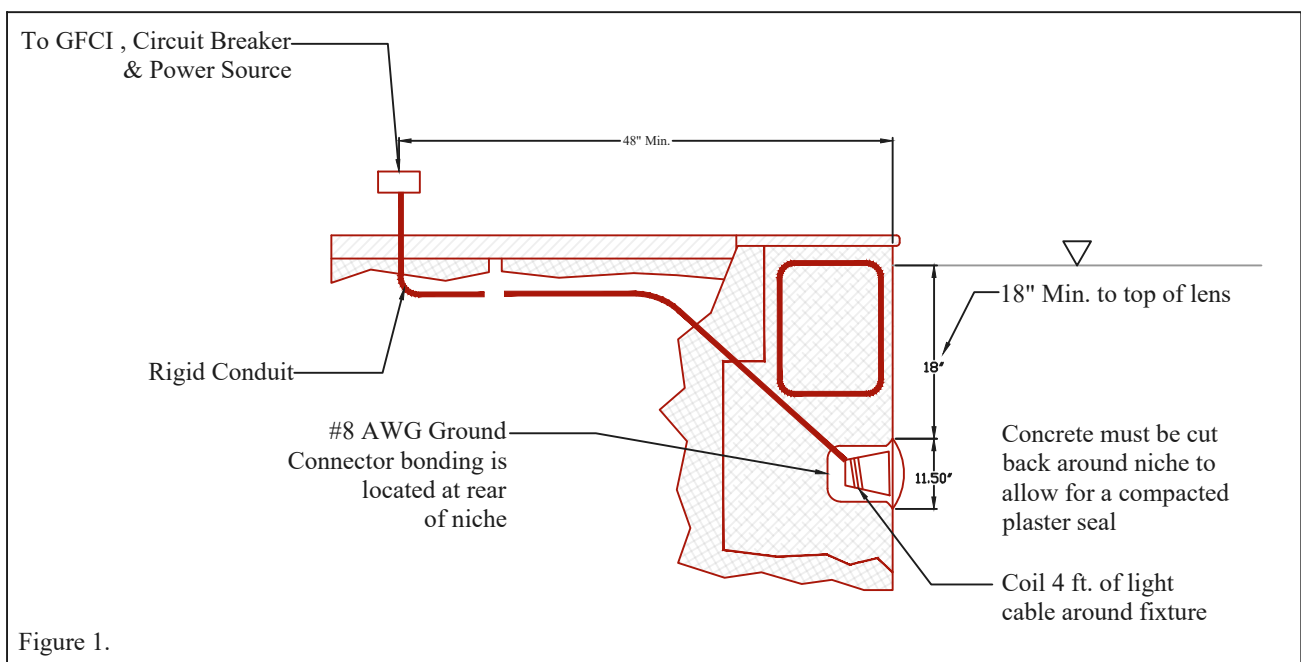


Figure 1.

NOTE:

The pool or spa electrical system can be verified with a Pool and Spa Electrical Qualification Test Kit. The test kit is available from Pentair Pool Products. The electrical system inspection using this kit must be performed by a trained and certified personnel



WARNING:

Never operate this underwater light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious burns or breakage of the lamp or lens. This may result in serious injury to pool users, installers, or bystanders, or in damage to property.

TECHNICAL NOTES

-680.26 Equipotential Bonding* (Summarized)

(A) **Performance.** Equipotential bonding is intended to reduce voltage gradients in the area around permanently installed pools, outdoor spas, or outdoor hot tubs by the use of a common bonding grid in accordance with 680.26(B) and (C).

(B) **Bonded Parts.** The parts of a permanently installed pool, outdoor spa, or outdoor hot tub listed in (B)(1) through (B)(7) shall be bonded together with a solid copper conductor not smaller than 8 AWG with listed pressure connectors, terminal bars, exothermic welding, or other listed means [250.8(A)]. Equipotential bonding is not required to extend to or be attached to any panelboard, service equipment, or grounding electrode.

(1) **Conductive Pool, Outdoor Spa, and Outdoor Hot Tub Shells.**

(a) Structural Reinforcing Steel. Unencapsulated structural reinforcing steel secured together by steel tie wires is considered bonded.

(2) **Perimeter Surfaces.** An equipotential bonding grid shall extend 3 ft horizontally beyond the inside walls of a pool, outdoor spa, or outdoor hot tub, including unpaved, paved, and poured concrete surfaces. The bonding grid shall comply with (a) or (b) and be attached to the conductive pool reinforcing steel at a minimum of four points uniformly spaced around the perimeter of the walls of a pool, outdoor spa, or outdoor hot tub.

(a) Structural Reinforcing Steel. Structural reinforcing steel [680.26(B)(1)(a)]. *Author's Comment:* The 2017 NEC does not provide any guidance on the installation requirements for structural reinforcing steel when used as a perimeter equipotential bonding grid.

(b) Alternate Means. Equipotential bonding conductor meeting the following:

(1) 8 AWG bare solid copper bonding conductor.

(2) The bonding conductor shall follow the contour of the perimeter surface.

(3) Listed splicing devices.

(4) Bonding conductor shall be 18 to 24 in. from the inside walls of the pool.

(5) Bonding conductor shall be secured within or under the perimeter surface 4 to 6 in. below the subgrade.

(3) **Metallic Components.** Metallic parts of the pool, outdoor spa, or outdoor hot tub structure shall be bonded to the equipotential grid.

(4) **Underwater Metal Forming Shells.** Metal forming shells and mounting brackets for luminaires and speakers shall be bonded to the equipotential grid.

(5) **Metal Fittings.** Metal fittings sized 4 in. and larger that penetrate into the pool, outdoor spa, or outdoor hot tub structure, such as ladders and handrails shall be bonded to the equipotential grid.

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DREAMIN N DRIFTIN RV
AMENITY POOL

POOL BONDING PLAN

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SP - 8 SHEET 8 OF 8

Note: All pool bonding to comply with Florida Building Code 2023 8th Edition & NEC 2020, Section 680.26