

**REFER SPECIAL STRUCTURAL NOTES (THIS SHEET) FOR THE ANGLE OF REPOSE CASE AT THE LOCATIONS AS LISTED BELOW:**

1) HORIZONTAL DISTANCE "A" IS LESSER THAN WATER DEPTH (W.D.)  
2) HORIZONTAL DISTANCE "d" IS LESSER THE VERTICAL DEPTH "D".

ENTRAPMENT PROTECTION FOR SUCTION OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/APSP/ICC-7 & FBC R4501.6.6.

BLOCKABLE DUAL OUTLETS (MAIN DRAINS) SHALL BE SEPARATED BY A MINIMUM OF 3 FEET MEASURED FROM CENTER TO CENTER OF THE SUCTION OUTLET FITTING ASSEMBLY (SOFA) OR LOCATED ON TWO (2) DIFFERENT PLANES I.E., ONE (1) ON THE BOTTOM AND ONE (1) ON THE VERTICAL WALL, OR ONE (1) EACH ON TWO (2) SEPARATE VERTICAL WALLS. SUCTION OUTLETS SHALL NOT BE INSTALLED IN SEATING AREAS.

AN UNBLOCKABLE SOFA REQUIRES THAT THE SUCTION OUTLET FITTING ASSEMBLY (SOFA) BE CERTIFIED AS UNBLOCKABLE, AND BE DESIGNED BY THE MANUFACTURER AS UNBLOCKABLE, AND THE MANUFACTURER'S INSTRUCTIONS MUST STATE THE SOFA IS AUTHORIZED FOR USE AS AN UNBLOCKABLE IN ACCORDANCE WITH ANSI/ APSP/ ICC - 16 2017.

ENTRY/ EXIT REQUIRED AT THE SHALLOW END AND DEEP END IF OVER 5 FEET DEEP. ACCEPTABLE ARE STAIRS (10" MINIMUM TREAD WITH 240 SQUARE INCH MINIMUM AREA, 12" RISER (MAX.) WITH INTERMEDIATE TREADS AND RISERS UNIFORM), LADDERS, UNDERWATER SEATS, AND SWIM-OUTS (MAXIMUM 20" BELLOW WATERLINE).

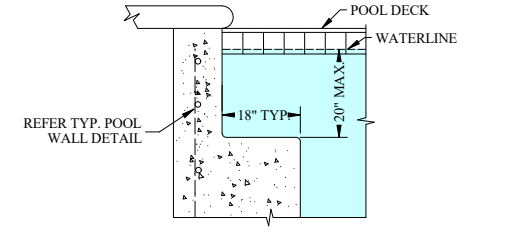
THE NUMBERS OF RETURN INLETS SHALL BE BASED ON A MINIMUM OF (1) RETURN INLET PER 300 SQ. FT. OF POOL SURFACE AREA OR FRACTION THEREOF.

APPROVED SURFACE SKIMMERS ARE REQUIRED AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SKIMMERS SHALL BE INSTALLED ON THE BASIS OF ONE PER 800 SQUARE FEET (74 M2) OF SURFACE AREA OR FRACTION THEREOF, AND SHALL BE DESIGNED FOR A FLOW RATE OF AT LEAST 25 GALLONS PER MINUTE (GPM) (1.6 L/S) PER SKIMMER.

ANY GLAZING WITHIN 5 FT. OF POOL SHALL BE SHALL CONFORM TO FBC R308.4.5.

WHERE A WALL OF DWELLING SERVES AS PART OF THE BARRIER, ONE OF THE FOLLOWING SHALL APPLY:  
1) ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOME/ DWELLING TO THE POOL SHALL BE EQUIPPED W/ AN EXIT ALARM COMPLYING W/ UL 2017.  
2) ALL DOORS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL MUST BE EQUIPPED W/ A SELF-CLOSING, SELF-LATCHING DEVICE W/ POSITIVE MECHANICAL LATCHING/ LOCKING INSTALLED A MIN. OF 54 INCHES ABOVE THE THRESHOLD, WHICH IS APPROVED BY THE AUTHORITY HAVING JURISDICTION.  
3) A SWIMMING POOL ALARM THAT COMPLIES TO ASTM STANDARD F2208.

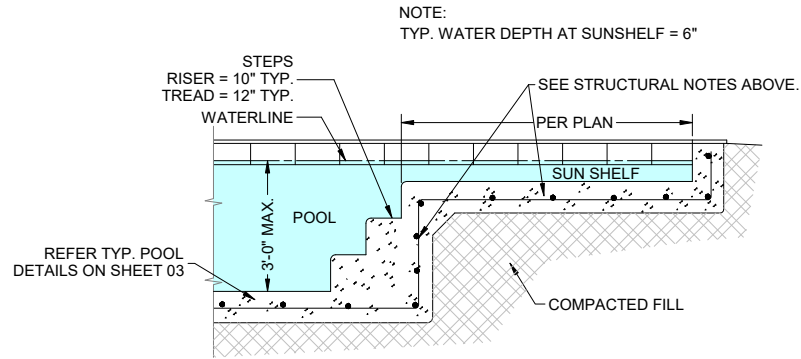
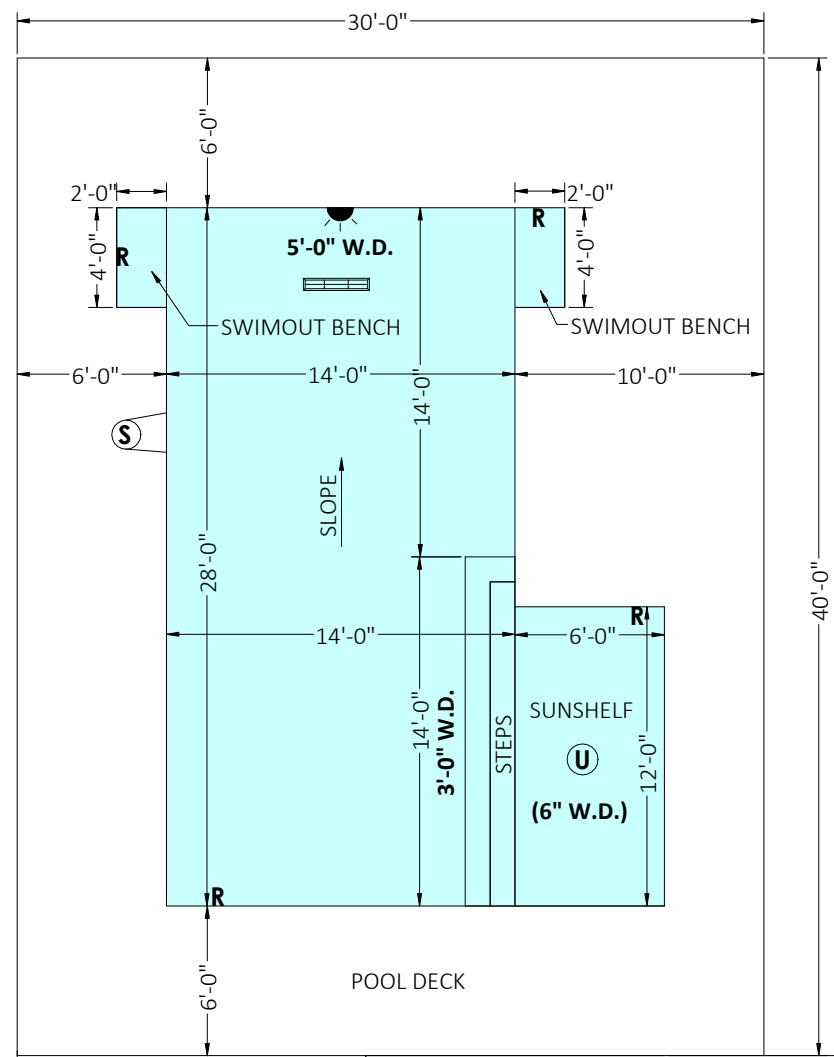
NOTE:  
1) WHEN PROVIDED SHALL BE AT 20" MAX. BELOW THE WATERLINE AS SHOWN, AND SHALL BE VISUALLY SET APART FROM THE POOL.  
2) MIN. UNOBSTRUCTED WALKING SURFACE OF 240 SQ. INCHES.



**SWIMOUT BENCH TYPICAL DETAIL**

**POOL PLAN**

CONTRACTOR SHALL VERIFY THE DECK DIMENSIONS, ELEVATIONS, AND MAY REQUIRE TO PROVIDE A SEPARATE SITE PLAN.



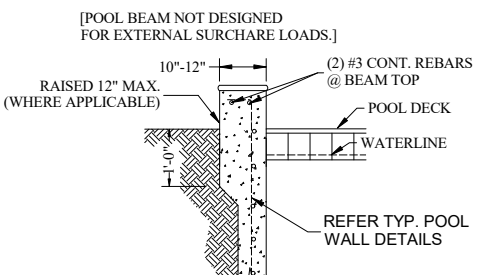
**TYPICAL SUN SHELF W/STEPS DETAIL**  
SCALE: NTS

This item has been digitally signed and sealed by Richard E. Walker, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

**SCOPE OF WORK:**  
RESIDENTIAL SWIMMING POOL ENGINEERING  
(POOL NOT DESIGNED FOR DIVING)

DRAWING LEGENDS  
(ALL MAY NOT APPLY)

SYMBOLS	INDICATES
	MAIN DRAIN
	RETURN
	SKIMMER
	LIGHT
	UMBRELLA HOLE



**TYPICAL POOL BEAM DETAIL**

**POOL/ SPA STRUCTURAL AND SITE NOTE:**  
(CONTRACTOR TO VERIFY, AND CONSULT ENGINEERS OTHERWISE)

**GENERAL SITE NOTES:**  
- BASED ON THE DIGITAL REPRESENTATION OF FEMA FLOOD MAPPING, THIS SITE APPEARS TO BE IN A FEMA FLOOD MAP ZONE "X".

**GENERAL STRUCTURAL NOTES (ALSO SEE SPECIAL NOTE WHERE APPLICABLE):**  
- WALL/ FLOOR CONCRETE, SHORT -CRETE, AND GUNITE SHALL BE 3,000 PSI MINIMUM.  
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60; MINIMUM CONCRETE COVER FOR REBAR SHALL BE 3" MEASURED FROM SOIL FACE, UNLESS OTHERWISE NOTED.  
- WALL AND FLOOR THICKNESS AND REINFORCING SHALL BE PROVIDED AS PER TABLE 1 BELOW.

**TYPICAL WALL/ FLOOR THICKNESS & REINFORCEMENT SCHEDULE U.N.O.**

MAX.WATER DEPTH	WALL/ FLOOR THICKNESS	WALL/ FLOOR REINFORCEMENT SPACING (O.C. EACH WAY)	
		#3 REBAR (18" MIN. SPLICE)	#4 REBAR (24" MIN. SPLICE)
5'-0"	6"	12"	18"

**SPECIAL STRUCTURAL NOTES [ANGLE OF REPOSE NOTE (A.O.R.) - WHEN APPLICABLE]**  
- AT THE LOCATION WHERE POOL IS WITHIN A.O.R. OF EXISTING STRUCTURAL FOUNDATION, PROVIDE 10" THICK MIN. POOL SPA WALL REINF. W/ #3 REBARS @ 6" EA. WAY; PROVIDE 3" TYP. REBAR COVER MEASURED FROM SOIL FACE OF THE WALL. SEE NOTES BELOW.  
A) BEARING PRESSURE AT THE BOTTOM OF THE EX. FOUNDATION SHALL NOT EXCEED 2000 PSF.  
B) CONTRACTOR SHALL PROVIDE REQUIRED SHORING FOR EXCAVATION TO PROTECT THE EX. FOUNDATION AGAINST THE DETRIMENTAL VERTICAL AND LATERAL MOVEMENT, OR BOTH AS PER FBC 1804.1  
C) CONTRACTOR/ HOUSE E.O.R. SHALL VERIFY THE CAPACITY OF EX. FOUNDATION TO BE ABLE TO SUPPORT THE PROPOSED POOL WHEN APPLICABLE.

**DESIGN SOIL STATEMENT:**  
THE STRUCTURAL FOUNDATION HAS BEEN DESIGNED WITH UNIFIED SOIL CLASSIFICATION SW, SP, SM, GM AND GC; AND THE MINIMUM BEARING CAPACITY OF 2000 PSF AND BASED ON THE 2023 FBC, 8TH EDITION - RESIDENTIAL TABLE R401.4.1 PRESUMPTIVE LOAD -BEARING VALUES OF FOUNDATION MATERIALS OTHER SOILS OR CONDITION WILL REQUIRE GEO-TECHNICAL EVALUATION AND ADDITIONAL ENGINEERING.  
PURSUANT TO THE 2023 FBC SECTION R401.4 WHERE THERE IS A REASONABLE INDICATION THAT EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER QUESTIONABLE SOIL CHARACTERISTICS ARE PRESENT AND/OR WHERE SHALLOW FOUNDATION WILL BEAR ON COMPACTED FILL MATERIAL MORE THAN 12" IN DEPTH, THE BUILDING OFFICIAL MAY REQUIRE A GEOTECHNICAL INVESTIGATION REPORT TO CONFIRM SUITABILITY OF THE SOIL FOUNDATION.

OUTDOOR RESIDENTIAL SWIMMING POOLS SHALL BE PROVIDED WITH A BARRIER COMPLYING WITH FBC R4501.17.1.1 THROUGH R4501.17.1.14.

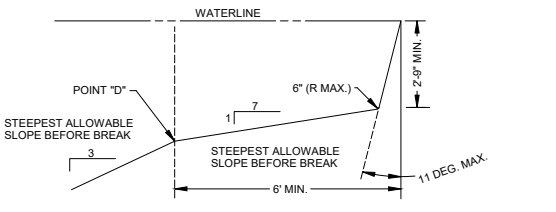
EQUIPOTENTIAL BONDING SHALL CONFORM TO 2020 NEC SECTION 680.26.

FOR ALL WALKING SURFACES LOCATED MORE THAN 30" ABOVE GRADE, GUARDS SHALL BE PROVIDED PER FBC R312.

AN APPROVED HYDROSTATIC RELIEF DEVICE SHALL BE INSTALLED AT THE LOCATION OF HIGH GROUNDWATER TABLE.

POOL EQUIPMENT

**POOL FLOOR SLOPES NOTE (ANSI/ APSP/ ICC -5)**  
- THE SLOPE OF THE FLOOR FROM THE SHALLOW END WALL TOWARDS THE DEEP AREA SHALL NOT EXCEED A 1:7 INCLINE TO THE POINT OF THE FIRST SLOPE CHANGE.  
- CHANGES IN THE SLOPE BETWEEN SHALLOW AND DEEP AREAS SHALL BE AT A MINIMUM WATER DEPTH OF 2 FT. 9 IN. AND BE AT LEAST 6 FT. FROM SHALLOW END, EXCEPT AS SPECIFIED IN PARA. 6.3 ANSI/APSP/ICC-5 "SHALLOW END DETAIL FOR BEACH AND SLOPING ENTRIES".  
- THE SLOPE OF THE FLOOR SHALL NOT EXCEED A 1:3 INCLINE FOR DEEPER AREA AFTER 1:7 INCLINATION.  
**ANSI/ APSP- 5 SECTION 17.2 ROPE AND FLOAT:**  
- IN POOLS WHERE THE POINT OF FIRST SLOPE CHANGE (POINT D, FIGURE BELOW) OCCURS IN WATER DEPTHS LESS THAN 4'-6", A ROPE AND FLOAT ASSEMBLY SHALL BE INSTALLED ACROSS THE WIDTH OF THE POOL GENERALLY PARALLEL TO, AND AT A MIN. OF 1 FT. AND A MAX. OF 2 FT. ON THE SHALLOW SIDE OF THE CHANGE IN FLOOR SLOPE.



**ALLOWABLE POOL FLOOR & WALL GEOMETRY**

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DESIGN DATE: 03/03/2026

REVISION 1: DATE

REVISION 2: DATE

DRAWN BY: GE-RJ

SCALE: NTS

SHEET :  
**02**

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