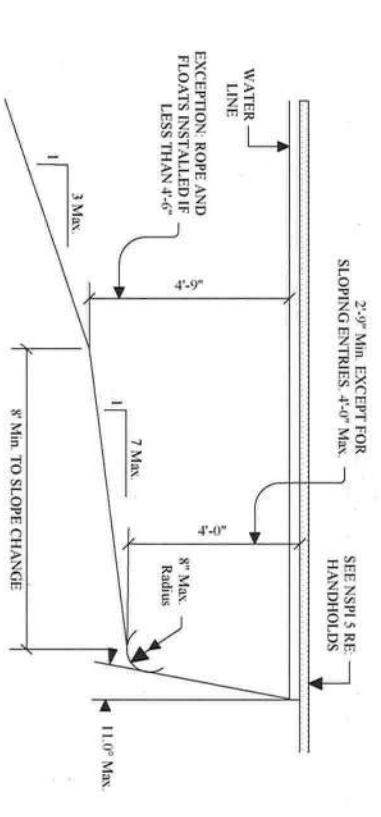
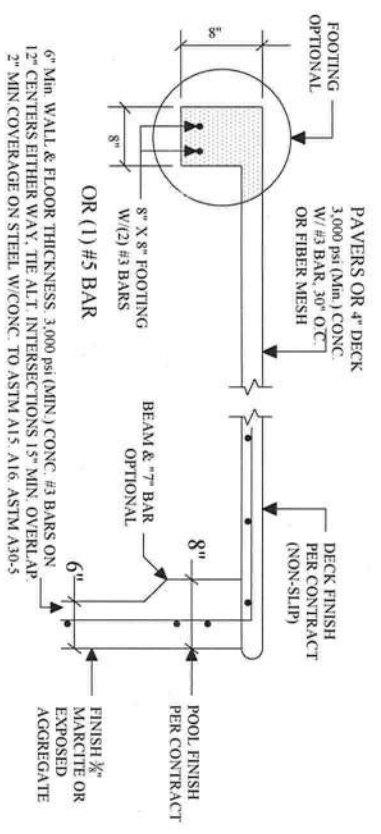


N.T.S.



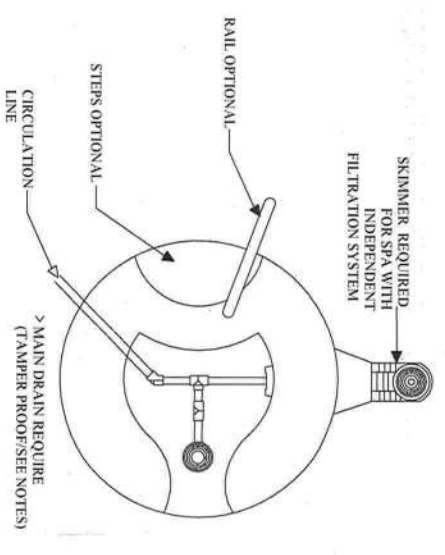
POOL SECTION DETAIL  
N.T.S.

SB836, 6-20-07  
FOR BONDING AND GROUNDING SYSTEMS FOR SWIMMING POOLS, THE USE OF AN UNDERGROUND BONDING CONDUCTOR MADE OF #8 AWG, BARE SOLID COPPER WIRE BURIED TO A MINIMUM DEPTH OF 4 INCHES TO 6 INCHES BELOW SUBGRADE, AND 18 TO 24 INCHES FROM INSIDE WALL OF A SWIMMING POOL OR SPA, IS DEEMED A PERMISSIBLE ALTERNATIVE OR EQUIVALENT TO COMPLIANCE WITH s. 680.26(6) OF THE NATIONAL ELECTRICAL CODE.

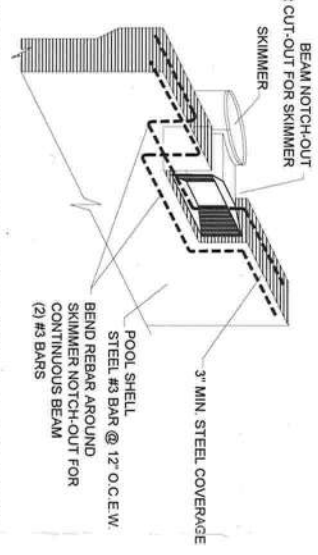


POOL/SPA, DECK, BEAM, WALL, FLOOR  
N.T.S.

Structural subject to suitable soil conditions.



GENERAL SPA PLAN  
N.T.S.



STEEL AT SKIMMER BEAM DETAIL  
N.T.S.

Determine System Flow Rate:  
Minimum Flow Rate Required: 35gpm per skimmer (Required: 1 Skimmer per 800 sq ft)

Pool Volume: 500 sq. ft x 4 ave depth x 7.481 gal/cf = 15,000 gallons  
Turnover Time in Hours: 6 hours x 60 min/hr = 360 minutes  
Flow Rate: 15,000 gallons / 360 minutes = 42 gpm

PIPE SIZING CHART (MAXIMUM)	PIPE SIZING CHART (MAXIMUM)	PIPE SIZING CHART (MAXIMUM)
PIPE	SUCTION	PRESSURE
1 1/2"	35 GPM	65 GPM
2"	60	105
2 1/2"	90	147
3"	135	230
4"	235	396

FOR POOLS WITH VOLUME = 15,000 GALS  
PUMP: STARTE PRE60L OR HAYWARD SUPERBII 1/2 HP 42 GPM 60" TURIN  
TURN-OVER RATE = 6 HOURS = 360 MINS  
FILTER: STARTE PTM 50, 50 GPM OR HAYWARD C751, 75 GPM CAPACITY  
MAIN DRAIN: HAYWARD W61048E  
CLEANER: HAYWARD VAC LOC

MAIN SUCTION PIPE SIZE: 2"  
SKIMMER SUCTION PIPE SIZE: 2"  
CLEANER/VAC PIPE SIZE: 1 1/2"  
RETURN SUCTION PIPE SIZE: 1 1/2"

FLORIDA BUILDING CODE R4501

THE POOL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DETAIL DESIGN REQUIREMENTS FOR EACH INDIVIDUAL POOL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, AND ALL CONSTRUCTION SHALL MEET ALL APPLICABLE CODES INCLUDING PLUMBING, ELECTRICAL, AND GAS. PIPING SHALL BE SCH. 40 PVC, NSFPW, MAX. PRESSURE VELOCITY 10 FPS, SUCTON 6 FPS. THE POOL PLAN SHALL SHOW THE DESIGN PLUMBING AS PER THE SAMPLE WITH THE INFORMATION REQUIRED SHOWN. MAIN DRAIN PLUMBING SHALL BE TWO DRAINS SEPARATED BY 3" WITH APPROVED ANS/ASME A112.19.8.2009 COVERS, AS AN ALTERNATE THE APPROVED DRAINS MAY BE PLACED ON DIFFERENT PLANES. THE TWO DRAINS SHALL HAVE A COMMON SUCTION LINE. SUCTION GRATES MAY BE USED IF APPROVED AT A MAXIMUM OF 1 1/2 FRS AND THE SUCTION PIPING IS RECESSED FROM THE GRATE THE DISTANCE EQUAL TO THE SUCTION PIPE SIZE. SKIMMERS DO NOT REQUIRE PROTECTION AND MUST BE DESIGNED FOR A MINIMUM 25 gpm. THE FOLLOWING SHALL BE LABELED WITH LABEL MARKER TAPE AT THE FILTER LOCATION: PIPES, VALVES, PUMPS) OFF SWITCH.

ELECTRICAL REQUIREMENTS:

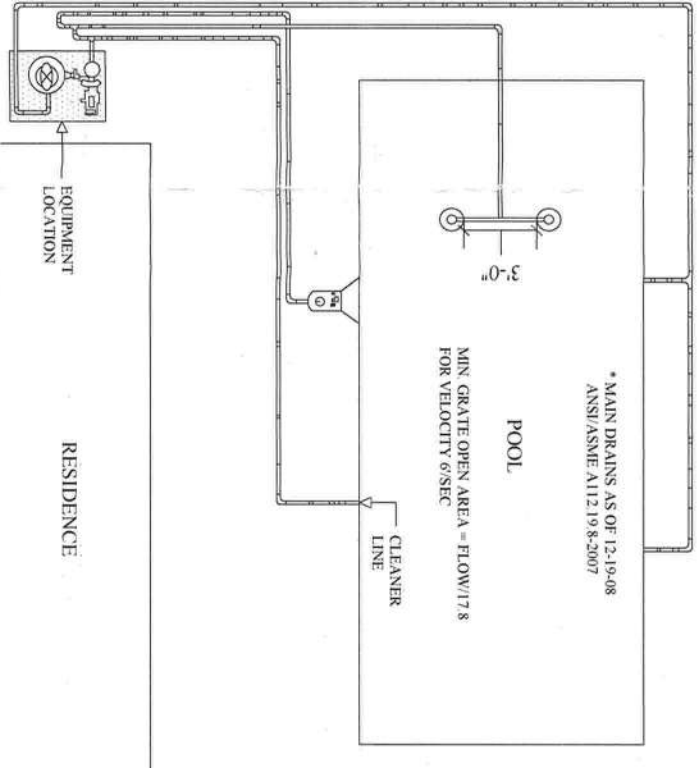
-WIRING AND BONDING AND ALL ELECTRICAL TO COMPLY WITH CHAPTER 27, FLORIDA BUILDING CODE 7TH EDITION-RESIDENTIAL, AND NEC 2017  
-NO OUTLET OR OVERHEAD POWER WITHIN 10' IF WITHIN 15' PROTECT BY GFI, TRANSFORMER MIN. 10' FROM POOL, 8" ABOVE WATER, J BOX, 4" FROM POOL, BRASS TO J BOX OR TRANSFORMER WHICH EVER IS FIRST EXCEPT WHERE PVC IS APPROVED.

SPECIAL SPA REQUIREMENTS:

-MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28" MAX.  
-FLOOR SLOPE 1:12  
-RISER: MIN. TREAD 10" X 12", 7" MIN. RISER, 12" MAX. RISER EXCEPT THE BOTTOM STEP MAY BE 14" IF IT IS THE SEAT. INTERMEDIATE TREADS AND RISERS TO BE UNIFORM. IF THE SPA IS OPERATED INTERMITTENTLY IT SHALL HAVE A ONE HOUR TURN-OVER. IF CONTINUOUS A SIX HOUR TURN-OVER. MAXIMUM TEMPERATURE 104 DEGREES. -MEET ANS/SPICE ARTICLE XVII. SAFETY INSTRUCTION/SAFETY SIGNS. -PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

GENERAL DESIGN REQUIREMENTS

-DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF ASP/ICC 3, ASP/ICC 4, ASP/ICC 5, AND ASP/ICC 6 AND ASP/ICC 7 BASED ON THE POOL TYPE.  
-SEE NSPI FOR DIVING WATER ENVELOPES, SLIDES SHALL MEET THE MANUFACTURERS INSTALLATION REQUIREMENTS.  
-ALL POOLS WHETHER PUBLIC OR PRIVATE SHALL BE PROVIDED WITH A LADDER OR STEPS IN THE SHALLOW END WHERE THE WATER DEPTH EXCEEDS 24 INCHES (610 MM). IN PRIVATE POOLS WHERE WATER DEPTH EXCEEDS 5 FEET (1524 MM) THERE SHALL BE LADDERS, STAIRS OR UNDERWATER BENCHES SWIN-OUTS IN THE DEEP END, WHERE MANUFACTURED DIVING EQUIPMENT IS TO BE USED. BENCHES OR SWIN-OUTS SHALL BE RECESSED OR LOCATED IN A CONNER.  
-CIRCULATION SYSTEMS, COMPONENTS AND EQUIPMENT SHALL COMPLY WITH NSF 50.  
-THE MAXIMUM TURNOVER RATE IS 12 HOURS.  
-FILTERS SHALL HAVE AN AIR RELEASE AND PRESSURE GAGE.  
-PUMPS 3 HP AND LESS SHALL MEET ANS/UL 1081 CORROSION RESISTANT WITH STRAINER AND MEET THE REQUIRED FLOW.  
-SURFACE SKIMMERS SHALL MEET NSF 50 AND THERE SHALL BE ONE FOR EVERY 800 SQUARE FEET OF SURFACE AREA.  
-APPROVED MANUFACTURED INLET FITTINGS FOR THE RETURN OF RECIRCULATED POOL WATER SHALL BE PROVIDED ON THE BASIS OF AT LEAST ONE PER 300 SQUARE FEET (28 m2) OF SURFACE AREA. SUCH INLET FITTINGS SHALL BE DESIGNED AND CONSTRUCTED TO INSURE AN ADEQUATE SEAL TO THE POOL STRUCTURE AND SHALL INCORPORATE A CONVENIENT MEANS OF SEALING FOR PRESSURE TESTING OF THE POOL.  
-CIRCULATION PIPING, WHEN MORE THAN ONE INLET IS REQUIRED, THE SHORTEST DISTANCE BETWEEN ANY TWO REQUIRED INLETS SHALL BE AT LEAST 10 FEET (3048 MM). HEATER SHALL MEET ANS-I-21.56 OR UL 1261 OR UL 559.  
-DISCONNECTANT EQUIPMENT SHALL COMPLY WITH NSF 50.  
-PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.  
-RESIDENTIAL SWIMMING BARRIER REQUIREMENTS TO MEET SECTIONS 4501.17  
-WASTE DISPOSAL TO COMPLY WITH SECTION 454.2.10  
R403.10 (MANDATORY)  
-POOLS & PERMANENT SPA ENERGY CONSUMPTION  
-THE ENERGY CONSUMPTION OF POOLS AND PERMANENT SPAS SHALL BE IN ACCORDANCE WITH SECTIONS R403.10.1 THROUGH R403.10.5



IT HAS BEEN CERTIFIED THAT THESE DESIGN REQUIREMENTS ARE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 7TH EDITION, R4501, ANS/ASP/ICC 3, ANS/ASP/ICC 4, ANS/ASP/ICC 5, AND ANS/ASP/ICC 6 AND ANS/ASP/ICC 7, ANS/ASP/ICC 14, ANS/ASP/ICC 15.

COMPLIES WITH FLORIDA BUILDING CODE, 7TH EDITION (2020)

G.B. COLLINS ENGINEERING P.A.  
CERTIFICATE OF AUTHORIZATION 27934  
AQUATIC ENGINEERING CONSULTANTS  
32707 US HIGHWAY 19 NORTH  
PALM HARBOR, FL 34684

AQUASCAPE POOLS  
Standard Residential Pool and/or Spa Design  
SAMUEL A. LIBERATORE, P.E. #55740  
MARCH 15, 2022