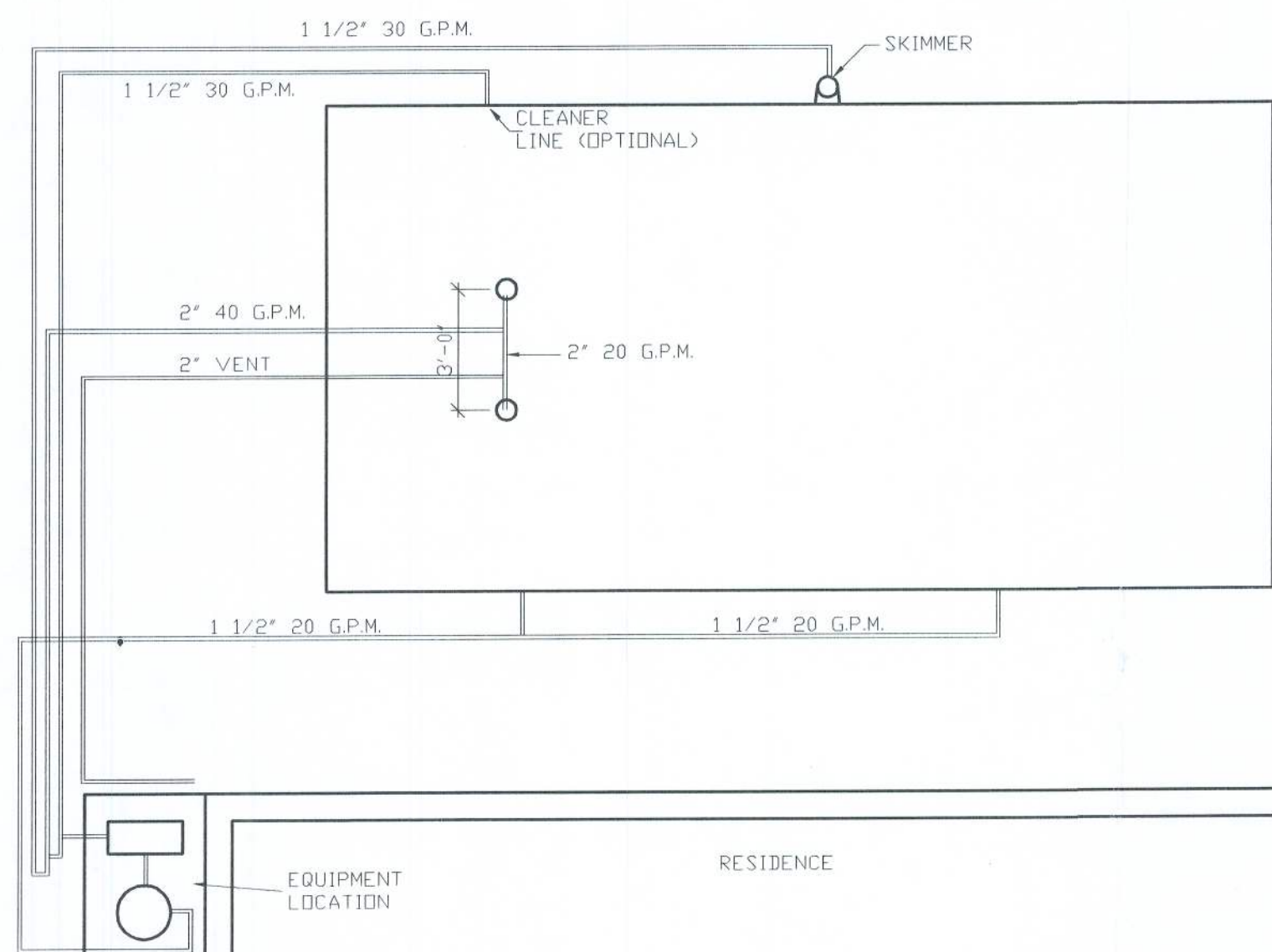


GENERAL POOL PLAN
SCALE: 1/4" = 1'-0"

PIPE	SUCTION	PRESSURE
1 1/2"	35 GPM	60 GPM
2"	60	100
2 1/2"	85	145
3"	135	225
4"	235	375



SAMPLE ONLY. EACH APPLICATION FOR PERMIT SHALL BE BASED ON A TOTAL DYNAMIC HEAD OF 60 Ft.

POOL VOLUME 15,000 GALS.

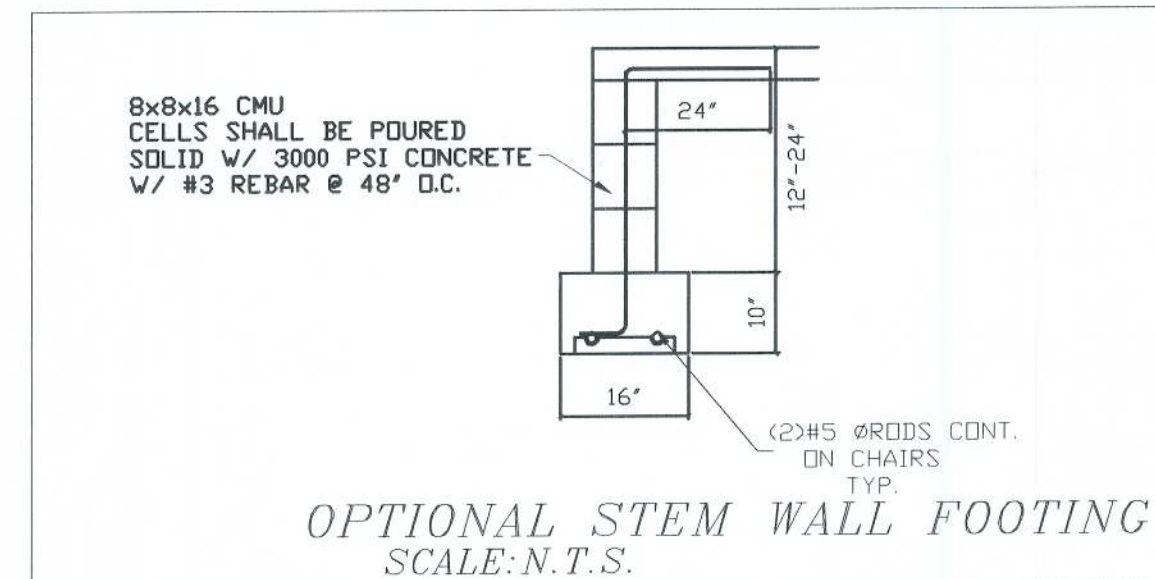
PUMP: STARITE P4EASD, 3/4 HP 40GPM @60" TURN OVER: 40x60=240 15,000/2400= 6.25 HOURS

FILTER: STARITE PTM 50, 50 GPM CAPACITY

MAIN DRAIN: HAYWARD SP1035AVS

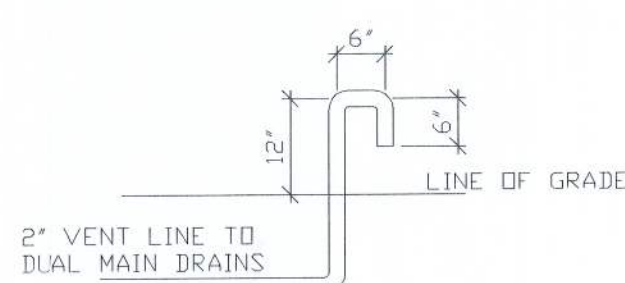
CLEANER: HAYWARD VAC LDC

VENT SCREEN: HAYWARD SP1026

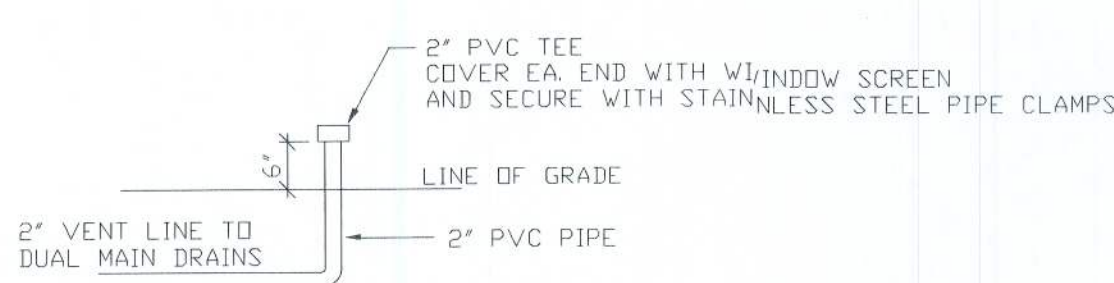


OPTIONAL STEM WALL FOOTING
SCALE: N.T.S.

NOTE: THE VENT LINE SHALL BE TIED TO THE 2" LINE THAT TIES THE DRAINS TOGETHER. THE SUCTION LINE SHALL BE TIED THE SAME WAY AS SHOWN IN THE DIAGRAM. THE VENT SHALL BE AT LEAST 18" LONG AND NO MORE THAN 30" LONG. THIS SYSTEM WILL REACT WITHIN THE "3" SECOND TIME FRAME.



VENT DETAIL
SCALE: 1/2" = 1'-0"

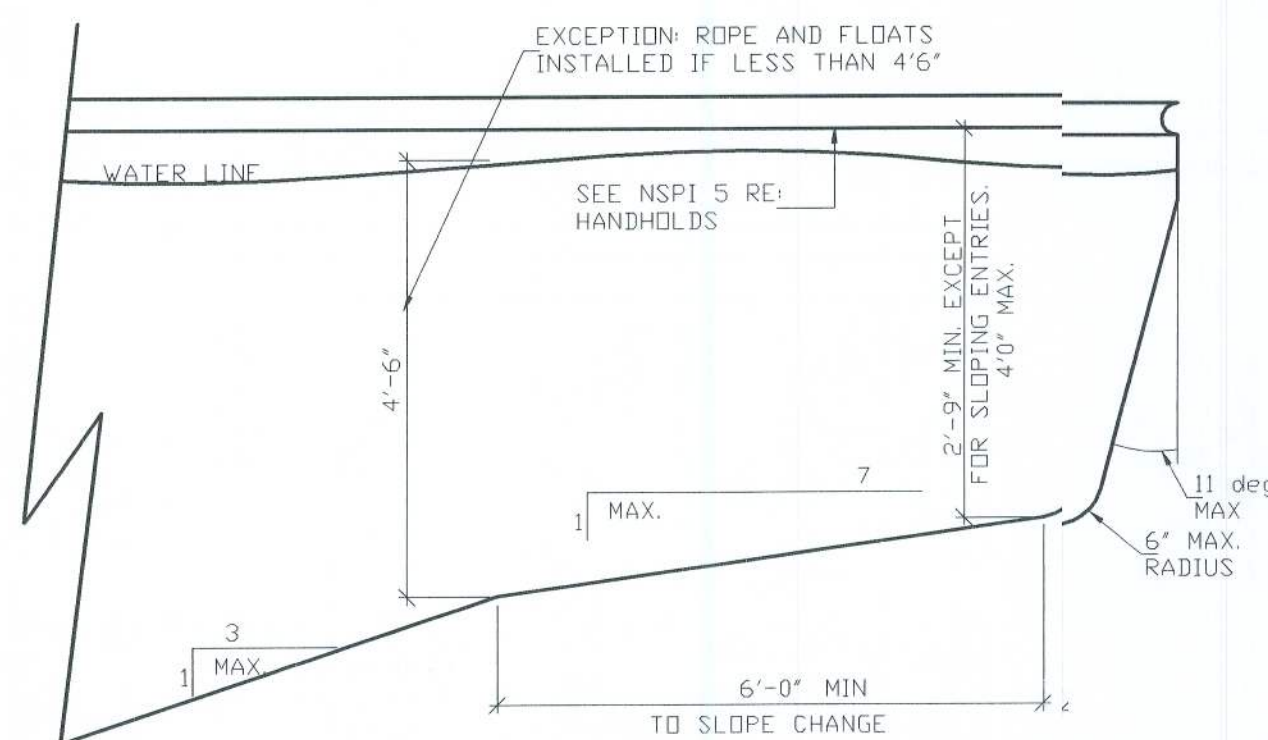


OPT. VENT DETAIL
SCALE: 1/2" = 1'-0"

DUAL MAIN DRAIN REQUIRED (TAMPER PROOF / SEE NOTES)

LIGHTING AND BONDING SAME AS POOL

NO LIMITATION ON SHAPE



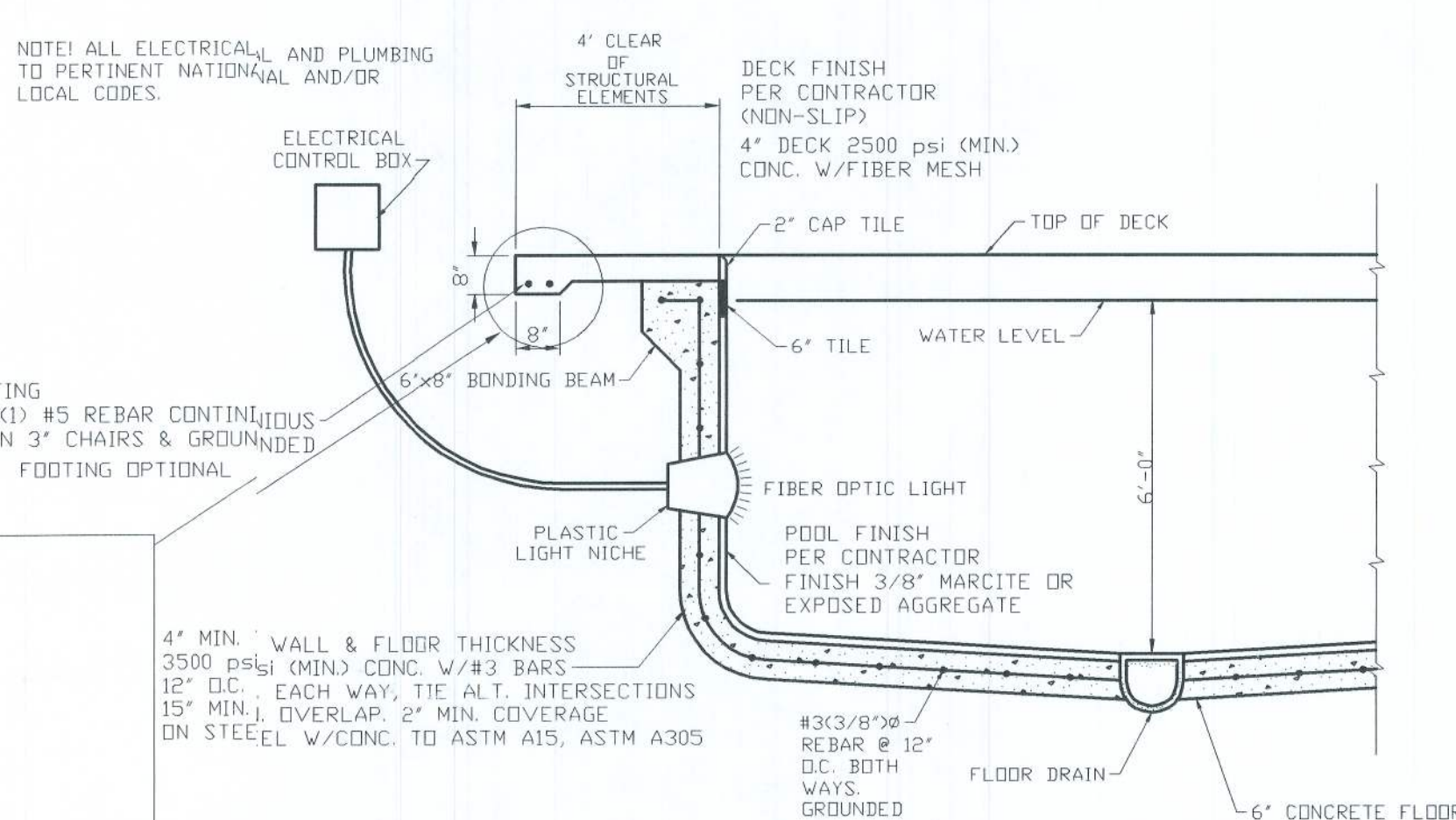
POOL SECTION DETAIL
SCALE: 1/2" = 1'-0"

NOTE: ALL ELECTRICAL AND PLUMBING TO PERTINENT NATIONAL AND/OR LOCAL CODES.

8"x8" FOOTING (2) #3 OR (1) #5 REBAR CONTINUOUS ON 3' CHAIRS & GROUNDING FOOTING OPTIONAL

4" MIN. WALL & FLOOR THICKNESS 3500 PSI (MIN) CONC. W/ #3 BARS 12" O.C. EACH WAY, TIE ALL INTERSECTIONS 15" MIN. OVERLAP, 2" MIN. COVERAGE ON STEEL W/ CONC. TO ASTM A15, ASTM A305

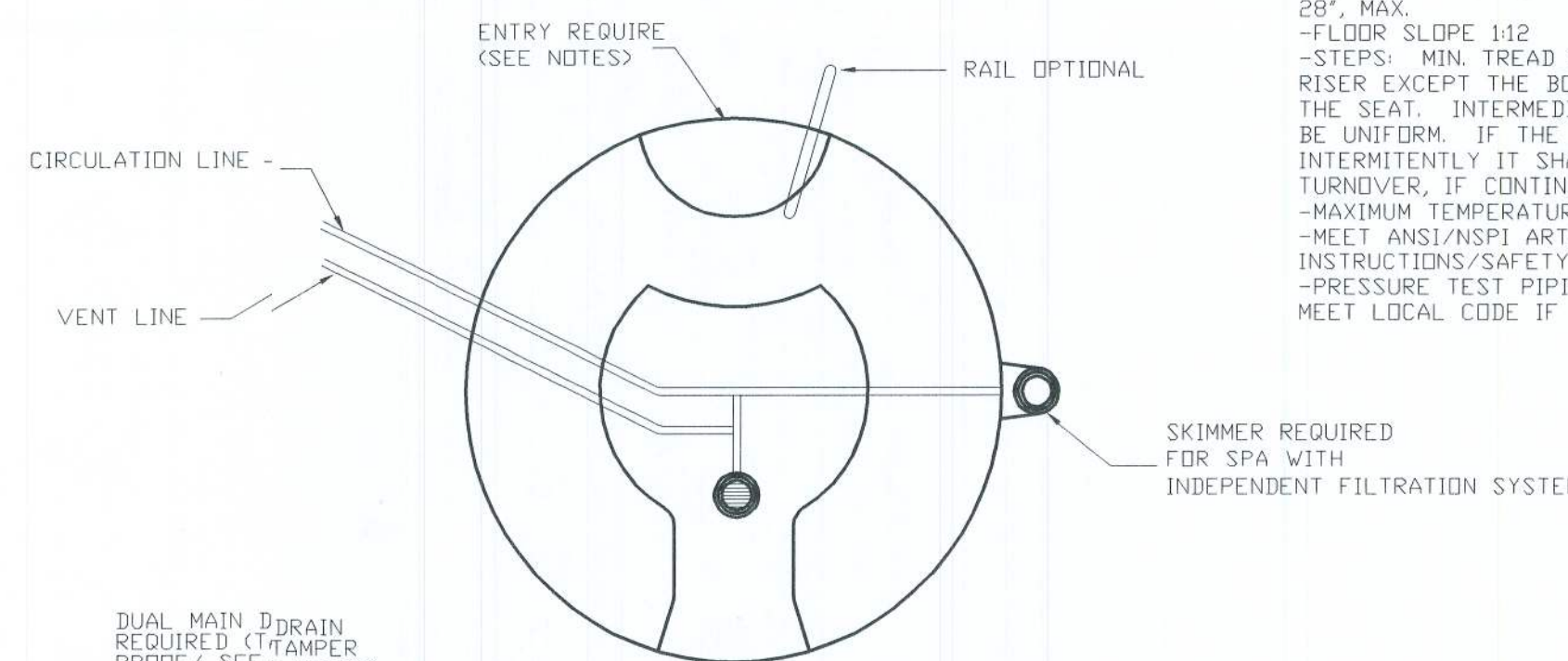
#3(3/8") REBAR @ 12" O.C. BOTH WAYS, GROUNDING



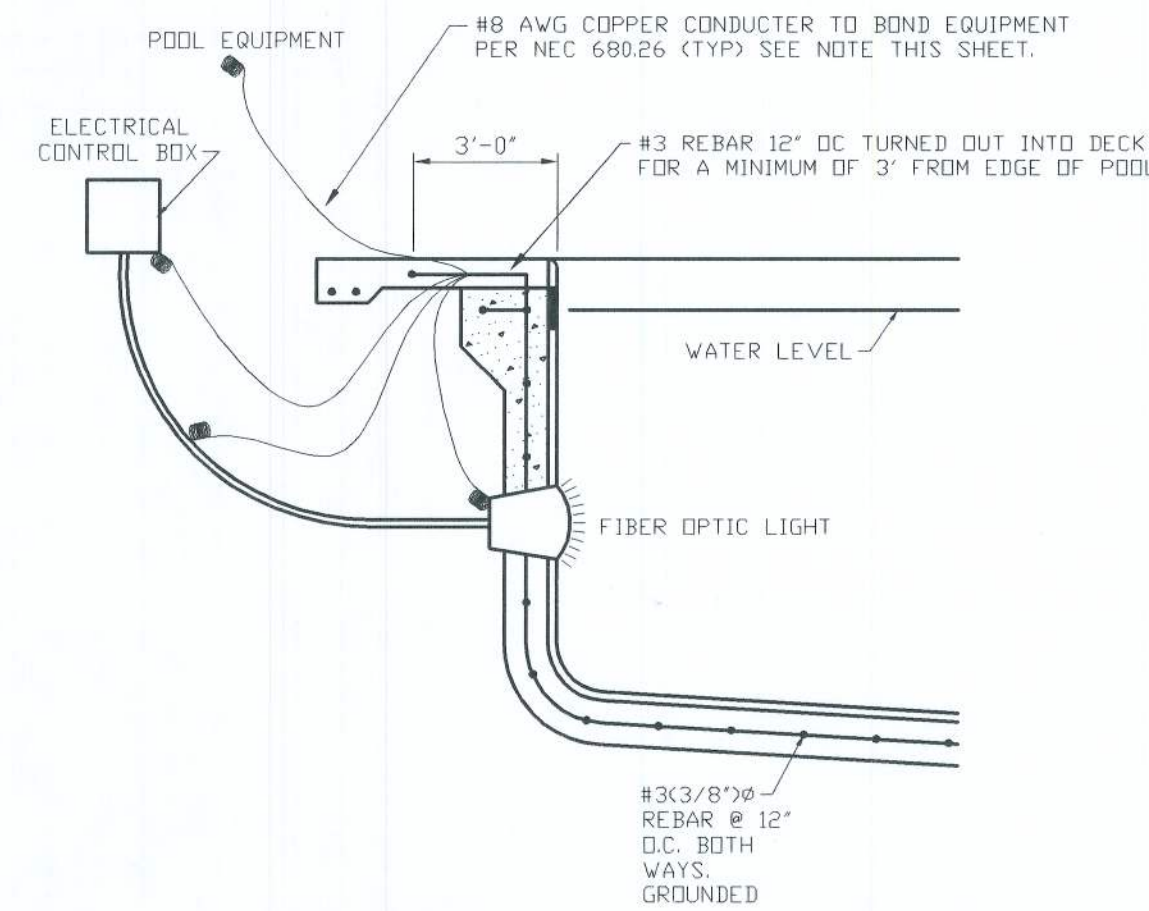
TYPICAL FLOOR AND WALL SECTION
SCALE: N.T.S.

SPECIAL SPA REQUIREMENTS:

MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28" MAX.
-FLOOR SLOPE 1:12
-STEPS: 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 TURNOVER, IF CONTINUOUS A SIX HOUR TURN OVER.
-MAXIMUM TEMPERATURE 104 DEGREES.
-MEET ANSI/NSPI ARTICLE XVII, SAFETY INSTRUCTIONS/SAFETY SIGNS
-PRESSURE TEST PIPING AT 25 PSI FOR 30 MINUTES OR MEET LOCAL CODE IF GREATER.



GENERAL SPA PLAN
SCALE: 1/2" = 1'-0"



ELECTRICAL REQUIREMENTS
SCALE: 1/2" = 1'-0"

GENERAL DESIGN REQUIREMENTS:

DESIGN DIMENSIONS SHALL COMPLY WITH SPECIFICATIONS IN NSPI 5 AND NSPI 3 BASED ON THE POOL TYPE.
-SEE NSPI FOR DIVING WATER ENVELOPES.
-SLIDES SHALL MEET THE MANUFACTURE'S INSTALLATION REQUIREMENTS.
-ENTRY/EXIT REQUIRED AT THE SHALLOW END AND DEEP END IF OVER 5 FEET DEEP. ACCEPTABLE ARE STAIRS (10" MIN TREAD WITH 240 SQUARE INCH MIN. AREA, 12" MAX. RISER WITH INTERMEDIATE TREADS AND RISERS UNIFORM). LADDERS, UNDERWATER SEATS, AND SWIM OUTFITS (MAX. 20" BELOW WATER).
-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 ANSI/UL1001 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.
-RETURN INLETS SHALL BE A MINIMUM OF ONE FOR EVERY 600 SQUARE FEET.
-HEATER SHALL MEET ANSI-Z21.56 OR UL 1261 OR UL559.
-DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF 50.
-PRESSURE TEST PIPING AT 15 PSI FOR 30 MINUTES OR MEET LOCAL CODE IF GREATER.

ELECTRICAL REQUIREMENTS:

-WIRING AND BONDING AND ALL ELECTRICAL TO NEC ART. 680 OR LOCAL CODE.
-NOTES FROM 680.26:
THE FOLLOWING ITEMS SHALL BE CONNECTED TO AN EQUIPOTENTIAL BONDING GRID WITH A SOLID COPPER CONDUCTOR NOT SMALLER THAN 8 AWG.
1. METALLIC STRUCTURAL COMPONENTS, INCLUDING REINFORCING STEEL.
2. UNDERWATER LIGHTING.
3. METAL FITTINGS IN THE POOL THAT ARE EITHER OVER 4" IN ANY DIMENSION OR THAT PENETRATE INTO THE POOL SHELL MORE THAN 1".
4. ELECTRICAL EQUIPMENT ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM.
5. METAL WIRING AND EQUIPMENT THAT ARE WITHIN EITHER 5' HORIZONTAL OR 12' VERTICAL FROM THE HIGHEST WATER LEVEL OF THE POOL.

REINFORCING STEEL MAY BE USED TO CONSTRUCT THE EQUIPOTENTIAL BONDING GRID SO LONG AS THE RODS ARE BONDED TOGETHER BY THE USUAL STEEL WIRES OR EQUIVALENT. THE EQUIPOTENTIAL BONDING GRID SHALL EXTEND UNDER PAVED WALKING SURFACES A MINIMUM OF THREE FEET BEYOND THE EDGE OF THE POOL.

FLORIDA BUILDING CODE 424.2

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 PBC, NSF, MAX. PRESSURE VELOCITY 10 FPS, SUCTION 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 ANSI/ASME A112.19.8M 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 FPS AND THE SUCTION PIPING IS RECESSED FROM THE GRATE THE DISTANCE EQUAL TO THE SUCTION PIPE SIZE. IN ADDITION A SAFETY VACUUM RELEASE SYSTEM MUST BE INSTALLED. THIS MAY CONSIST OF AN AIR RELEASE SYSTEM. THE VENT PIPE SHALL BE TIED TO THE MAIN DRAIN LINES, SIZED THE SAME AS THE MAIN DRAIN SUCTION LINE AND BROUGHT BACK TO THE FILTER LOCATION, ELBOWED UP AND OVER WITH A GRATE FOR PROTECTION AND LABELED "SAFETY VENT". SKIMMERS DO NOT REQUIRE PROTECTION AND MAY BE DESIGNED FOR 30 GPM SUCTION. THE FOLLOWING SHALL BE LABELED WITH RED LABEL MARKER TAPE AT THE FILTER LOCATION: PIPES, VALVES, "SAFETY VENT" OR "SAFETY DEVICE", PUMPS OFF SWITCH.

IT HAS BEEN CERTIFIED THAT THESE DESIGN REQUIREMENTS ARE IN COMPLIANCE WITH THE 2004 FLORIDA BUILDING CODE, ANSI/NSPI-3 1992, STANDARD FOR PERMANENTLY INSTALLED SPAS, AND ANSI/NSPI-5 1995 STANDARD FOR RESIDENTIAL IN-GROUND SWIMMING POOLS.

ENGINEER'S NOTES

- ALL WORK TO BE DONE ACCORDING TO THE 2004 FLORIDA BUILDING CODES.
- MINIMUM DESIGN SOIL BEARING CAPACITY TO BE 2000 PSF. SOIL CAPACITY TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. FOOTINGS TO BE EXCAVATED TO CLEAN SOIL, FREE OF VEGETATION AND DELETERIOUS MATTER. CONCRETE SHALL BE PLACED ON AN UNDISTURBED BASE.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS, OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE VERIFIED AND SHALL CONFORM TO THE ARCHITECTURAL DRAWINGS.
- CONCRETE: MINIMUM COMPRESSIVE CONCRETE STRENGTH TO BE 3000 PSI IN 28 DAYS. ALL CONCRETE SHALL BE "READY MIXED" AND IN ACCORDANCE WITH A.S.T.M. SPECIFICATION C-94. ALL CONCRETE MODULAR UNITS SHALL HAVE A COMPRESSIVE STRENGTH OF 1900 PSI WITH TYPE M OR S MORTAR, 2000 PSI.
- SLAB ON FILL: INTERIOR CONCRETE SLABS POURED ON FILL TO BE POURED OVER WATERPROOF MEMBRANES. ALL SLABS TO BE REINFORCED WITH 6X6 10/10 WELDED WIRE MESH.
- ALL STEEL SHALL BE 40 KSI WITH A MINIMUM CLEAR COVER OF 3" AGAINST SOIL, AND SHALL HAVE A MINIMUM LAP OF 40 TIMES THE DIAMETER OF THE REBAR.
- BASIC LOADING FOR FACTORED LOADING:
 - 1.40
 - 1.20+1.6L+0.5Lr
 - 1.20+1.6Lr+0.5L
 - 1.20+1.6W+0.5L+0.5Lr
 - 1.20+0.5L
 - 0.90+1.6W
 - 1.20+1.6W+2.0Fa+0.5L+0.5Lr
 - 0.90+1.6W+2.0Fa

RICHARD J. MATASSA, P.E.
PE #51431
12 SOUTH MAIN ST
BROOKSVILLE, FL 34601
(352) 796-6319

REVISIONS	BY

STANDARD RESIDENTIAL
POOL AND/ OR SPA DESIGN

THIS MASTER IS GOOD FOR ANY SHAPE POOL INCLUDING CONCAVE AND CONVEX WALLS FROM 3' TO 10' IN DEPTH

Pool For:
Cadet Residence
170 SW Woodstock Court
Columbia County, Florida

To Be Constructed By:
Homeowner



A CIVIL DESIGN GROUP, L.L.C.
CIVIL ENGINEERS & PLANNERS
13009 Spring Hill Drive Spring Hill, FL 34609
WWW.ACDGROUP.COM
Registration # EB-27060

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DATE 01/15/07	SCALE AS SHOWN
JOB NO.	SHEET
OF 1	SHEETS