

DRAWN BY: CPG

#### SOIL BEARING AND FOUNDATION NOTES:

IN ACCORDANCE WITH SECTION 1803.2 OF THE FLORIDA BUILDING CODE 2020 (7<sup>TH</sup> EDITION), THE BUILDING OFFICIAL SHALL BE PERMITTED TO WAVE THE REQUIREMENT FOR A GEOTECHNICAL INVESTIGATION WHERE SATISFACTORY DATA FROM ADJACENT AREAS IS AVAILABLE THAT DEMONSTRATES AN INVESTIGATION IS NOT NECESSARY FOR ANY OF THE CONDITIONS IN SECTIONS 1803.5.1 THROUGH 1803.5.6 AND SECTIONS 1803.5.10 AND 1803.5.11. IN LIEU OF A GEOTECHNICAL EVALUATION, AND IN ACCORDANCE WITH THE STATEMENT ABOVE, THE STRUCTURE'S FOUNDATION HAS BEEN DESIGNED ASSUMING A 2,000 PSF ALLOWABLE SOIL BEARING CAPACITY, SELECTED FROM FBC TABLE R401.4.1. THE PRESUMPTIVE LOAD BEARING VALUE HAS BEEN SELECTED BASED ON RATIONAL ANALYSIS AND KNOWLEDGE OF OTHER PROJECTS N THE VICINITY. IF AT ANY TIME DURING EXCAVATION ANY DELETERIOUS MATERIAL (SUCH AS SILT. PEAT. MUCK. CLAY. ETC.) IS FOUND THAT CANNOT PROVIDE 2.000 PSF. THE ENGINEER OF RECORD SHALL BE CONTACTED TO PROVIDE DIRECTION. STRUCTURE SHALL BE BACKFILLED WITH CLEAN GRANULAR SOIL FREE OF ORGANICS AND COMPACTED IN 8" LIFTS TO 98% MODIFIED PROCTOR DENSITY PER ASTM-D 1557 THIS STATEMENT IS BASED UPON SECTIONS 1802.1, 1803.2, AND 1803.3 AND SECTION R401.2 OF THE FLORIDA BUILDING CODE 2020 (7<sup>TH</sup> EDITION).

#### FLOOD ZONE:

FBC 7TH EDITION RESIDENTIAL R322 FLOOD-RESISTANT CONSTRUCTION STRUCTURES CONSTRUCTED IN WHOLE OR PART IN FLOOD HAZARD AREAS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION ESPECIALLY R322.1.2 STRUCTURAL SYSTEMS, 322.1.3 FLOOD-RESISTANT CONSTRUCTION AND R322.2.5 POOLS IN FLOOD HAZARD AREAS. IF STRUCTURES CONSTRUCTED IN WHOLE OR PART IN FLOODWAYS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ASCE 24 AND THE CONSTRUCTION OF THIS POOL WILL NOT INCREASE THE DESIGN FLOOD ELEVATION AT ANY POINT WITHIN THE JURISDICTION.

#### DECK NOTES:

DECK MATERIAL SHALL BE CERTIFIED SLIP RESISTANT BY THE MANUFACTURER AND BE SLOPED AWAY TO EFFECTIVELY DRAIN AWAY FROM THE POOL OR TOWARDS THE DECK DRAINS AT A MIN. 1/4" PER FOOT. DECK INSTALLER SHALL PROVIDE A CONTINUOUS, FULL-DEPTH EXPANSION JOINT BETWEEN THE POOL BEAM AND DECK MATERIAL. POOL BARRIER SHALL COMPLY WITH FBC, BUILDING SECTIONS 454.2.17.1.1. THROUGH 454.2.17.1.14 AND FBC, RESIDENTIAL SECTIONS R4501.17.1.1 THROUGH R4501.17.1.14

# SWIMMING BARRIER REQUIREMENTS:

FBC 7TH EDITION RESIDENTIAL R4501.17.1.1 THROUGH R4501.1.17.1.14 RESIDENTIAL SWIMMING BARRIER REQUIREMENTS BARRIER SHALL BE A MINIMUM OF 48 INCHES ABOVE GRADE, WITH MAXIMUM OF 2" CLEARANCE AT BOTTOM. NO GAPS GREATER THAN A 4 INCH SPHERE. ACCESS GATES SHALL BE SELF-CLOSING, WITH SELF-LATCHING DEVICE LOCATED MINIMUM OF 54 INCHES ABOVE GRADE ON THE POOL SIDE AND SWING OUTWARD AWAY FROM THE POOL. ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOUSE SHALL BE EQUIPPED WITH AN EXIT ALARM COMPLYING WITH UL 2101. A BABY FENCE AROUND THE PERIMETER OF THE POOL MEETS THIS REQUIREMENT. A SWIMMING BARRIER AROUND THE POOL AREA THAT MEETS THE ABOVE CODE IS REQUIRED PRIOR TO FINAL POOL STRUCTURAL INSPECTION AND FILLING OF THE POOL, BY SEPARATE PERMIT.

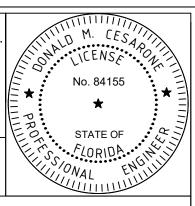
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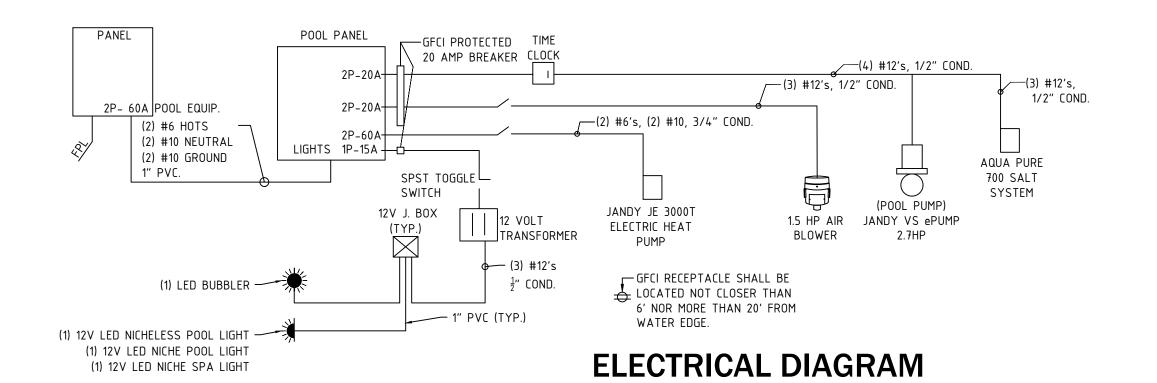
## Donald M. Cesarone, P.E.

FLORIDA REGISTRATION #84155 CIVIL ENGINEER

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**SCALE: N.T.S** 

## **ELECTRICAL CODE, NOTES AND BONDING:**

FBC 7TH EDITION RESIDENTIAL CHAPTER 42 SWIMMING POOLS (ELECTRICAL PROVISIONS) SHALL SPECIFICALLY GOVERN INCLUDING E4202 WIRING METHODS, E4203 EQUIPMENT LOCATIONS AND CLEARANCES, E4204 BONDING, E4205 GROUNDING AND E4206 EQUIPMENT INSTALLATION.

FBC 7TH EDITION RESIDENTIAL E4203.6 OVERHEAD CONDUCTOR CLEARANCES AND FBC 7TH EDITION E4203.6 UNDERGROUND WIRING SHALL SPECIFICALLY GOVERN.

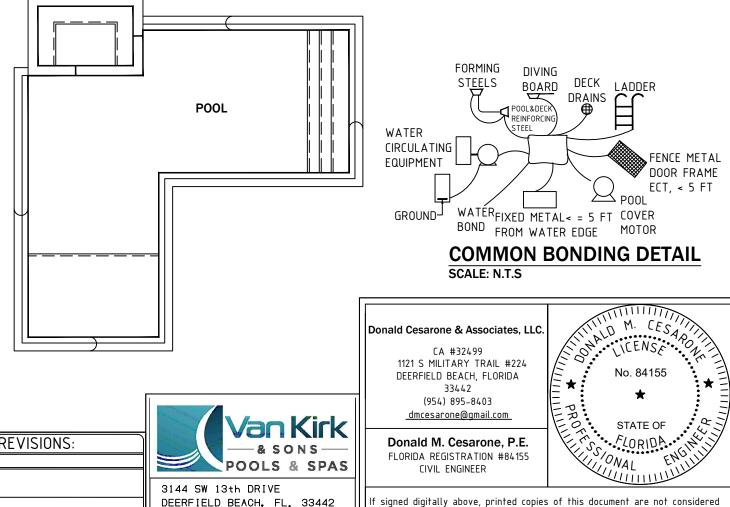
FBC 7TH EDITION RESIDENTIAL E4204 BONDING EQUIPOTENTIAL BONDING SHALL BE REQUIRED. THE PARTS (CONDUCTIVE POOLS SHELLS, PERIMETER SURFACES, METAL COMPONENTS (SUCH AS LIGHT NICHE OR HANDRAIL), UNDERWATER LIGHTING, METAL FITTINGS, ELECTRICAL EQUIPMENT AND ALL FIXED METAL PARTS) SHALL BE BONDED USING A SINGLE SOLID #8 AWG BONDING WIRE, PLACED AROUND THE PERIMETER 18" TO 24" FROM THE POOLS WATER EDGE, PLACED 4" TO 6" BELOW GRADE, FOLLOWING THE CONTOUR OF THE PERIMETER SURFACE, CONNECTED TO THE STRUCTURAL STEEL REINFORCING IN FOUR (4) UNIFORMLY SPACED LOCATIONS BY EXOTHERMIC WELDING OR BY LISTED PRESSURE CONNECTORS OR CLAMPS THAT ARE LABELED AS BEING SUITABLE FOR THIS PURPOSE AND ARE OF STAINLESS STEEL, BRASS, COPPER OR COPPER ALLOY. THIS SINGLE SOLID #8 AWS WIRE WILL EXTEND UNDER CONCRETE, PAVERS AND UNPAVED SURFACES.

FBC 7TH EDITION RESIDENTIAL E4204.3 POOL WATER: WHERE NONE OF THE BONDED PARTS IS IN DIRECT CONNECTION WITH THE POOL WATER, THE POOL WATER SHALL BE IN DIRECT CONTACT WITH AN APPROVED CORROSION-RESISTANT CONDUCTIVE SURFACE THAT EXPOSES NOT LESS THAN 9 IN.2 (5800 MM2) OF SURFACE AREA TO THE POOL WATER AT ALL TIMES. IF 9 SI IS NOT ACCOMPLISHED BY THE BONDED ITEMS ABOVE, A POOLBOND PB-2008 (10.1 SI), OR EQUAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES INSTRUCTIONS IN A RETURN LINE.

FBC 7TH EDITION RESIDENTIAL E4203.1.3 GFCI PROTECTION SHALL BE PROVIDED FOR POOL PUMP MOTORS.

FBC 7TH EDITION RESIDENTIAL R4501.16 ELECTRICAL. ELECTRICAL EQUIPMENT WIRING AND INSTALLATION, INCLUDING THE BONDING AND GROUNDING OF POOL COMPONENTS SHALL COMPLY WITH CHAPTER 27 OF THE FLORIDA BUILDING CODE, BUILDING. OUTLETS SUPPLYING POOL PUMP MOTORS CONNECTED TO SINGLE-PHASE 120-VOLT THROUGH 240-VOLT BRANCH CIRCUITS, WHETHER BY RECEPTACLE OR BY DIRECT CONNECTION, AND OUTLETS SUPPLYING OTHER ELECTRICAL EQUIPMENT AND UNDERWATER LUMINAIRES OPERATING AT VOLTAGES GREATER THAN THE LOW VOLTAGE CONTACT LIMIT, CONNECTED TO SINGLE-PHASE, 120 VOLT THROUGH 240 VOLT BRANCH CIRCUITS, RATED 15 OR 20 AMPERES, WHETHER BY RECEPTACLE OR BY DIRECT CONNECTION, SHALL BE PROVIDED WITH GROUND-FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL.

2017 NATIONAL ELECTRICAL CODE (NEC), NFPA 70 SHALL GOVERN OUTSIDE OF THE PROVISIONS ABOVE.
NEC 430.32 CONTINUOUS-DUTY MOTORS SUCH AS POOL PUMP MOTORS SHALL HAVE OVERLOAD PROTECTION.



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#### SHEET 3

DRAWN DATE: 3/26/2021

ORDER: 785

JOB NO.: ROBI-21-070

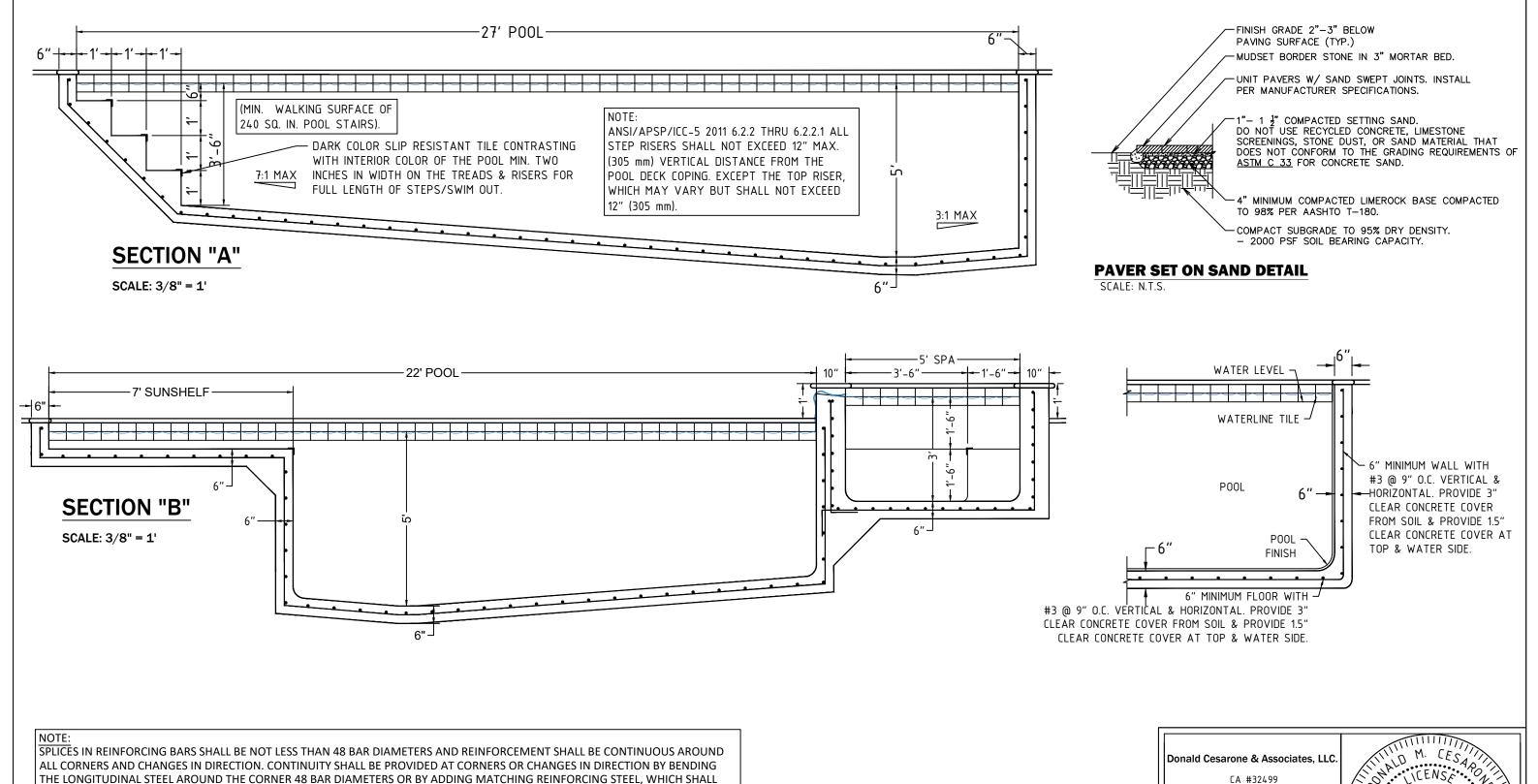
SALESMAN: MANUEL TUVERI

DRAWN BY: CPG

# ROBINSON RESIDENCE

LYONS PARK BLOCK: 9 / LOT: 7 1079 SW 2ND AVE POMPANO BEACH, FL 33060

	BUILDING DEPARTMENT REVISIONS:
DATE	DESCRIPTION



# SHEET 4

DRAWN DATE: 3/26/2021 ROBINSON RESIDENCE LYONS PARK BLOCK: 9 / LOT: 7 IOB NO.: ROBI-21-070 1079 SW 2ND AVE SALESMAN: MANUEL TUVERI POMPANO BEACH, FL 33060 DRAWN BY: CPG

EXTEND 48 BAR DIAMETERS FROM EACH CORNER OR CHANGE IN DIRECTION. WHEN THREE OR MORE BARS ARE REQUIRED, THE BAR

SHALL BE HELD IN PLACE AND ALIGNED BY TRANSVERSE BARS SPACED NOT MORE THAN 4 FEET (1219 MM) APART.

# BUILDING DEPARTMENT REVISIONS:

DESCRIPTION DATE

# **POOLS & SPAS**

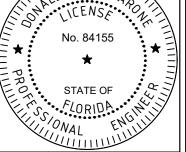
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# (POOL PUMPS & HEATERS COMPLIES WITH FBC E.403.9). POOL PUMP TO BE HIGH ENERGY EFFICIENT AS PER FBC. ELECTRIC FILTER HEATER POOL/SPA PUMP PUMP DESIGN FLOOD ELEV. (BASE FLOOD EL. = 1') VERIFY EL. REQUIREMENT WITH AUTHORITY HOLDING JURISDICTION. GRADE LEVEL

POOL EQUIPMENT ELEVATION SHALL BE AT A MINIMUM OF THE DESIGN FLOOD ELEVATION (FBC 7TH EDITION RESIDENTIAL R322.1.4) PLUS 1 FOOT OR ACCORDING TO THE AUTHORITY HAVING JURISDICTION.

FBC 7TH EDITION BUILDING 1620 HVHZ WIND LOADS AND 1621 HVHZ OVERTURNING MOMENT AND UPLIFT POOL EQUIPMENT SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED TO MEET THE REQUIREMENTS OF ASCE 7. EQUIPMENT TIE DOWN SHALL BE AS FOLLOWS, HEATERS 4. TOTAL (1 PER SIDE OR 2 PER OPPOSITE SIDES), OTHERS 2 TOTAL: 3-1/2" MINIMUM THICK, 3000 PSI CONCRETE SLAB, 3" LARGER THAN ON EACH SIDE THAN THE EQUIPMENT; %" DIAMETER TAPCON® CONCRETE SCREWS (1600# TENSION, 1290# SHEAR, 1-1/2" EMBEDMENT IN 2000 PSI CONCRETE) OR EQUAL WITH STAINLESS STEEL FENDER WASHER INTO FACTORY PROVIDED HOLD DOWNS OR 1" WIDE, 14 GAUGE GALVANIZED STRAPS WITH 2 STAINLESS STEEL, #10 X %" PAN HEAD PHILLIPS SS SCREWS EACH STRAP INTO METAL FRAME OF EQUIPMENT.

FBC 7TH EDITION BUILDING 1907.1 GENERAL THE THICKNESS OF CONCRETE EQUIPMENT SLAB SUPPORTED DIRECTLY ON THE GROUND SHALL NOT BE LESS THAN 3-1/2 INCHES THICK AND SHALL NOT REQUIRE A VAPOR BARRIER.

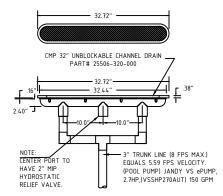
FBC 7TH EDITION RESIDENTIAL M1305.1.4.1 GROUND CLEARANCE EQUIPMENT SUPPORTED FROM THE GROUND SHALL BE LEVEL AND FIRMLY SUPPORTED ON A CONCRETE SLAB EXTENDING NOT LESS THAN 3" ABOVE ADJOINING GROUND.

FBC 7TH EDITION RESIDENTIAL M2006 POOL HEATERS SHALL SPECIFICALLY APPLY, IF A HEATER IS PROVIDED EQUIPMENT LOCATION AND SCREENING: THE EQUIPMENT AND PIPING PHYSICAL LOCATION MAY DIFFER IN THE FIELD DUE TO UNFORESEEN CONDITIONS OR OTHER FACTORS. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND INSTALL ITEMS IN A LOCATION THAT MEETS LOCAL ZONING CODE AND TO PROVIDE CODE COMPLIANT LANDSCAPE OR FENCE SCREENING.

# 2020 FBC 7TH EDITION POOL NOTES GOVERNING CODES AND GENERAL NOTES:

2020 FLORIDA BUILDING CODE (FBC), 7TH EDITION AND ALL OTHER CODES, RULES, REGULATIONS, AND RESTRICTIONS HAVING JURISDICTION ON THE PROJECT SHALL GOVERN INCLUDING 2020 FBC 7TH EDITION BUILDING, RESIDENTIAL, FUEL GAS AND ENERGY CONSERVATION. FBC 7TH EDITION ENERGY CONSERVATION R403.10, ANSI/APSP-14 AND C404, SERVICE WATER HEATING HAS BEEN MET FOR THIS PROJECT. 2020 FBC 7TH EDITION RESIDENTIAL CHAPTER 45: SPA AND BUILDING CHAPTER 4, SECTION 454 POOL AND BATHING PLACES (PUBLIC AND PRIVATE) SHALL SPECIFICALLY GOVERN. 2020 FBC 7TH EDITION R4501.6: ENGINEERING DESIGN HAS BEEN MET FOR THIS PROJECT, INCLUDING CODES AND REFERENCES SPECIFICALLY WITHIN INCLUDING R4501.6.1 CONFORMANCE STANDARD: DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF ANSI/APSP/ICC 3; ANSI/APSP/ICC 4; ANSI/APSP/ICC 5; ANSI/APSP/ICC 6; ANSI/APSP/ICC 7

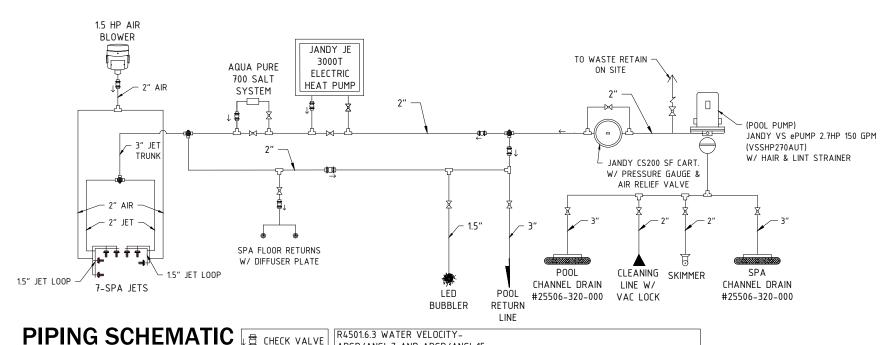
FBC 7TH EDITION BUILDING CHAPTER 4, SECTION 454.1.6.5.10.4 IF THE AREA IS SUBJECT TO HIGH GROUND WATER, THE POOL SHALL BE DESIGNED TO WITHSTAND HYDRAULIC UPLIFT OR SHALL BE PROVIDED WITH HYDROSTATIC RELIEF DEVICES. FBC 7TH EDITION R4501.21.4 HYDROSTATIC RELIEF DEVICE. IN AREAS OF ANTICIPATED WATER TABLE AN APPROVED HYDROSTATIC RELIEF DEVICE SHALL BE INSTALLED. 2020 FBC 7TH EDITION R4501.6.3 WATER VELOCITY. POOL PIPING IS DESIGNED SO THE WATER VELOCITY WILL NOT EXCEED 10 FEET PER SECOND FOR PRESSURE PIPING AND 8 FEET PER SECOND FOR SUCTION PIPING. MAIN SUCTION OUTLET VELOCITY COMPLIES WITH ANSI/APSP/ICC 7. EXCEPTION: JET INLET FITTINGS SHALL NOT BE DEEMED SUBJECT TO THIS REQUIREMENT. CONCRETE SHALL CONFORM TO THE LATEST EDITION OF ACI 301 AND ACI 318, WITH MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. POOL CONCRETE CAN BE APPLIED PNEUMATICALLY AND SHALL CONFORM TO ACI 506.2. REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM A615, GRADE 60 AND HAVE A MINIMUM LAP DISTANCE OF 24" FOR TENSION AND COMPRESSION DEVELOPMENT AND TO MEET THE REQUIREMENTS OF ACI 318. FBC 7TH EDITION BUILDING 1903.3 GLASS FIBER REINFORCED CONCRETE GFRC AND THE MATERIALS USED IN SUCH CONCRETE SHALL BE IN ACCORDANCE WITH THE PCI MNL 128 STANDARD, IF SHOWN ON THE DRAWINGS POOL PIPING SHALL BE N.S.F APPROVED AND SCHEDULE 40 THE ENGINEER IS NOT RESPONSIBLE FOR ANY ENCROACHMENT INTO EASEMENTS OR SETBACKS, EVEN IF APPROVED BY THE AHJ. THESE DRAWINGS ARE THE PROPERTY OF DONALD M. CESARONE, P.E. USE OF THESE DRAWINGS WITHOUT PERMISSION FROM THE ENGINEER IS PROHIBITED AND IN VIOLATION OF 2020 FBC 7TH EDITION USE OF THESE DRAWINGS BY THE CONTRACTOR INDEMNIFIES AND HOLDS HARMLESS THE ENGINEER FOR ALL COSTS AND DAMAGES INCLUDING LEGAL FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION AND CONSTRUCTION PRACTICES BEYOND WHICH IS CALLED FOR LOCAL, STATE AND FEDERAL CODES AND FROM DEVIATIONS OF THESE PLANS EXCEPT AS EXPRESSLY PROVIDED HEREIN EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. TYPICAL FIELD CONDITIONS ARE ASSUMED IN THE DESIGN. SHOULD ANYTHING DIFFER FROM THAT SPECIFIED HEREIN OR STANDARD FIELD CONDITIONS, ADDITIONAL ENGINEERING MAY BE REQUIRED AND THE ENGINEER SHALL BE CONTACTED TO PROVIDE DIRECTION. CARE SHALL BE TAKEN BY CONTRACTOR IN ALL APPLICATIONS OF THESE DRAWINGS. THE EQUIPMENT AND PIPING PHYSICAL LOCATION MAY DIFFER IN THE FIELD DUE TO UNFORESEEN CONDITIONS OR OTHER FACTORS. THESE DRAWINGS SHALL NOT BE SCALED, WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND INSTALL ITEMS IN A LOCATION THAT MEETS LOCAL CODES, NDPES: A SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION SURROUNDING THE WORK AREA MEETING THE REQUIREMENTS OF THE AHJ CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AND PROTECT ALL MATERIAL BROUGHT ON SITE, SHALL RESTORE ALL AREAS IMPACTED BY THE CONSTRUCTION WORK TO THE PREEXISTING CONDITION OR BETTER AND SHALL NOT IMPACT DRAINAGE/LAKE OR ANY OTHER EASEMENTS WITHOUT EASEMENT OWNER CONSENT.



NOTE: SECTION CONFORMS TO F.B.C. 2020 COMPLIES WITH ANSI-15 & 7.

(POOL PUMP) CMP 32" UNBLOCKABLE CHANNEL DRAIN DETAIL

SCALE: N.T.S.



# SCALE: N.T.S

POOL EQUIPMENT AND ANCHORING

↓ □ CHECK VALVE
□ □ TEE
□ □ 3 WAY VALVE
□ VALVE

APSP/ANSI-7 AND APSP/ANSI-15.
PER FBC-2014 APSP 15 ENERGY CODE.

POOL PIPING SHALL BE DESIGNED SO THE WATER VELOCITY WILL NOT EXCEED 10 FPS (3048 MM/S) FOR PRESSURE PIPING AND 8FPS (2438 MM/S) FOR SUCTION PIPING, EXCEPT THAT THE WATER VELOCITY SHALL NOT EXCEED 8 FPS (2438 MM/S) IN COPPER TUBING. MAIN SUCTION OUTLET VELOCITY MUST COMPLY WITH APSP/ANSI-7.

#### SHEET 5

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LYONS PARK BLOCK: 9 / LOT: 7 1079 SW 2ND AVE POMPANO BEACH, FL 33060

# BUILDING DEPARTMENT REVISIONS: DATE DESCRIPTION



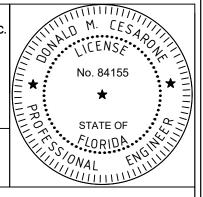
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