

### GOVERNING CODES AND GENERAL NOTES

FLORIDA BUILDING CODE (FBC), 5TH EDITION (2014) AND ALL OTHER CODES, RULES, REGULATIONS AND RESTRICTIONS HAVING JURISDICTION ON THE PROJECT SHALL GOVERN INCLUDING FBC 5TH EDITION BUILDING, RESIDENTIAL, FUEL GAS AND ENERGY CONSERVATION

FBC 5TH EDITION ENERGY CONSERVATION R403,9 AND WITH ANSI/APSP-14 HAS BEEN MET FOR THIS PROJECT.

FBC 5TH EDITION ENERGY CONSERVATION C404.7, POOLS AND IN GROUND PERMANENTLY INSTALLED SPAS HAS BEEN MET FOR THIS PROJECT (EXCEPTION) HEAT PUMP IS BEING INSTALLED

FBC 5TH EDITION RESIDENTIAL CHAPTER 45: SWIMMING POOLS SHALL SPECIFICALLY GOVERN

FBC 5TH EDITION R45016 ENGINEERING DEGIGN HAS BEEN MET FOR THIS PROJECT, INCLUDING CODES AND REFERENCES SPECIFICALLY WITHIN

CONCRETE: CONCRETE SHALL CONFORM TO THE LATEST EDITION OF **ACI 30I 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

FBC 5TH EDITION BUILDING 1903.2 GLASS FIBER REINFORCED CONCRETE GFOR 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 AUTHORITY HAVING

THESE DRAWINGS SHALL NOT BE SCALED, WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE.

THESE DRAWINGS ARE THE PROPERTY OF WAYNE MARKHAM BENNETT, P.E. USE OF THESE DRAWINGS WITHOUT PERMISSION FROM THE ENGINEER IS PROHIBITED AND A VIOLATION OF THE FBC 5TH 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, NO ADDITIONAL

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

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 CODES

NDPES REQUIREMENTS: A SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION SURROUNDING THE ENTIRE WORK AREA MEETING THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION

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

### SWIMMING POOL BARRIER REQUIREMENTS

FBC 5TH EDITION RESIDENTIAL R4501.17.1.1 THROUGH R4501.17.1.14 RESIDENTIAL SWIMMING BARRIER REQUIREMENTS BARRIER SHALL BE A MINIMUM OF 48 INCHES ABOVE GRADE, WITH A MINIMUM OF 2" CLEARANCE AT BOTTOM. NO GAPS GREAT THAN A 4 INCH SPHERE. ACCESS GATES SHALL BE SELF CLOSING, WITH SELF LATCHING DEVICE LOCATED A 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 UL2107. RESIDENTIAL SWIMMING BARRIER BY SEPARATE PERMIT

OWNER RESPONSIBILITY, IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO PROVIDE A SWIMMING BARRIER AROUND THE POOL THAT MEETS THE ABOVE CODE PRIOR TO FINAL POOL STRUCTURAL INSPECTION AND FILLING OF THE POOL, BY SEPARATE PERMIT

### SOIL BEARING AND FOUNDATION NOTES

FBC 5TH EDITION BUILDING 1803 GEOTECHNICAL INVESTIGATIONS. THE BUILDING OFFICIAL SHALL BE PERMITTED TO WAIVE THE REQUIREMENT WHERE SATISFACTORY DATA FROM ADJACENT AREAS IS AVAILABLE THAT DEMONSTRATES AN INVESTIGATION IS NOT NECESSARY AND FBC 5TH EDISTION R401.4.1 IN LIEU OF A COMPLETE GEOTECHNICAL EVALUATION, THE LOAD BEARING VALVES IN TABLE R401.4.1 SHALL BE USED.

**ALLOWABLE BEARING CAPACITY**, BASED ON RATIONAL ANALYSIS THROUGH KNOWLEDGE OF OTHER PROJECTS IN THE VICINITY AND A VISUAL EXAMINATION OF THE SURFACE SOIL, FINDING SAND AND ROCK, THE POOL FOUNDATION HAS BEEN DESIGNED ASSUMING A 2000 PSF SOIL BEARING CAPACITY PER FBC 5TH EDITION TABLE R401.4.1 A LETTER REPEATING THE ABOVE CAN BE SUBMITTED TO THE BUILDING OFFICIA REQUESTED. IF DURING EXCAVATION DELETERIOUS MATERIAL (SUCH AS SILT, PEAT, MUCK, CLAY, ECT) IS FOUND THAT CANNOT PROVIDE 2000 PSF, THIS MATERIAL SHALL BE REMOVED IN ITS ENTIRETY AND REPLACED WITH COMPACTED STRUCTURAL FILL. IF THIS CANNOT BE ACCOMPLISHED, ALL CONSTRUCTION SHALL BE STOP AND THE ENGINEER SHALL BE CONTACTED TO PROVIDE DIRECTION AND TO POTENTIALLY REQUEST A GEOTECHNICAL INVESTIGATION

# ELECTRICAL CODE, NOTES AND BONDING

FBC 5TH EDITION RESIDENTIAL CHAPTER 42 SMIMMING POOLS (ELECTRICAL PROVISIONS) SHALL SPECIFICALLY GOVERN INCLUDING E4202 WIRING METHODS, E4203 EQUIPMENT LOCATIONS, E4204 BONDING, E4205 GROUNDING AND EQUIPMENT INSTALLATION

FBC 5TH EDITION RESIDENTIAL APPENDIX & PROVIDES A CROSS REFERENCE TO 2011 NATIONAL ELECTRICAL CODE, NFPA 70

FBC 5TH EDITION RESIDENTIAL E42036 OVERHEAD CONDUCTOR CLEARANCES AND FBC 5TH EDITION E42036 UNDERGROUND WIRING SHALL SPECIFICALLY GOVERN

FBC 5TH EDITION RESIDENTIAL E4204 BONDING: EQUIPOTENTIAL BONDING SHALL BE REQUIRED. THE PARTS (CONDUCTIVE POOL SHELLS, PERIMETER SURFACES, METAL COMPONENTS, 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 POOL WATERS 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 \* 8 AMG WIRE WILL EXTEND UNDER CONCRETE, PAVERS AND UNPAVED SURFACES

FBC 5TH EDITION RESIDENTIAL E4204.3 POOL WATER: THE POOL WATER SHALL BE INTENTIONALLY BONDED BY MEANS OF A CONDUCTIVE SURFACE AREA NOT LESS THAN 9 SQUARE INCHES (SI) INSTALLED IN CONTACT WITH THE POOL WATER, IF 9 (SI) IS NOT ACCOMPLISHED BY THE BONDED ITEMS ABOVE A POOLBOND PB-2008 (IO.I SI) OR APPROVED EQUAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES

FBC 5TH EDITION RESIDENTIAL E4205.1.3 GFCI PROTECTION SHALL BE PROVIDED FOR POOL PUMP MOTORS

2011 NATIONAL ELECTRIC CODE (N.E.C.), NFPA TO SHALL GOVERN OUTSIDE IF THE PROVISIONS ABOVE

N.E.C. 430.32 CONTINUIOUS-DUTY MOTORS SUCH AS POOL PUMP MOTORS SHALL HAVE OVERLOAD PROTECTION

# POOL EQUIPMENT AND ANCHORING

POOL EQUIPMENT ELEVATION SHALL BE AT A MINIMUM OF THE DESIGN FLOOD ELEVATION (FBC 5TH EDITION RESIDENTIAL R322.1.4) PLUS I FOOT OR ACCORDING TO THE AUTHORITY HAVING JURISDICTION

FBC 5TH 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 (I PER SIDE OR 2 PER OPPOSITE SIDES) OTHERS 2 TOTAL: 3 ½" MINIMUM THICK, 3000 PSI CONCRETE SLAB, 3"
LARGER THAN ON EACH SIDE THAN THE EQUIPMENT. ½" DIAMETER TAPCON CONCRETE SCREWS (1600# TENSION, 1290# SHEER, 1 ½" EMBEDMENT IN
2000 PSI CONCRETE) OR EQUAL WITH STAINLESS STEEL FENDER WASHER INTO FACTORY PROVIDED HOLD DOWNS OR I WIDE, 14 GAUGE GALVANIZED STRAPS WITH 2 STAINLESS STEEL, # 10 X 3," PAN HEAD PHILLIPS SS SCREWS EACH STRAP INTO METAL FRAME OF EQUIPMENT

FBC 5TH EDITION BUILDING 1907.1 GENERAL: THE THICKNESS OF CONCRETE FLOOR SLABS SUPPORTED DIRECTLY ON THE GROUND SHALL NOT BE LESS THAN 3 1/2 INCHES THICK AND SHALL NOT REQUIRE A VAPOR BARRIER.

FBC 5TH EDITION RESIDENTIAL MI305.1.4.1 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 5TH EDITION RESIDENTIAL M2006 POOL HEATERS SHALL SPECIFICALLY APPLY, IF HEATER IS PROVIDED

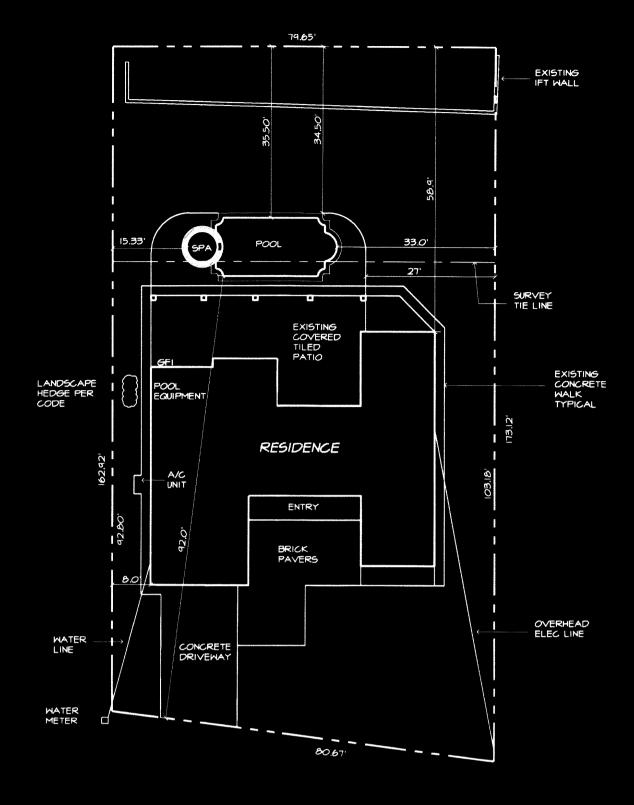
FBC 5TH EDITION ENERGY CONSERVATION R403.9.1.1 SHALL SPECIFICALLY APPLY WITH A MINIMAL THERMAL EFFICIENCY OF 83% IF A GAS HEATER IS PROVIDED AND FBC 5TH EDITION ENERGY CONSERVATION 403.9.1.2 SHALL SPECIFICALLY APPLY WITH A COEFFICIENT OF PERFORMANCE OF GREATER THAN 4, IF A HEAT PUMP IS PROVIDED

EGUIPMENT 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

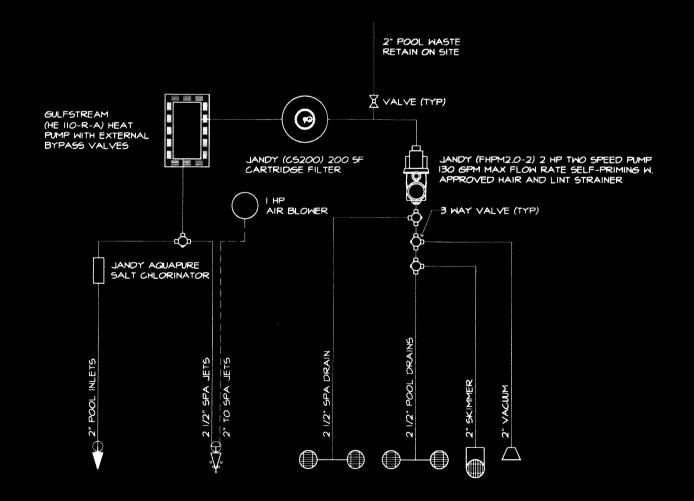
# FLOOD ZONE

FBC 5TH 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 R322.1.3 FLOOD-RESISTANT CONSTRUCTION AND R322.2.4 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

#### LAKE PATRICIA

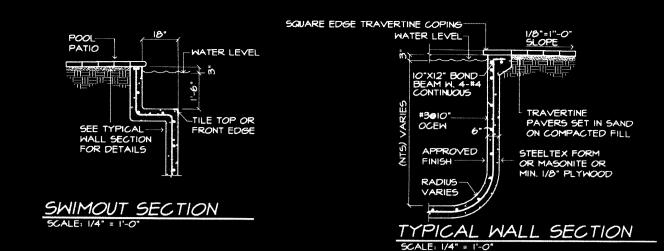


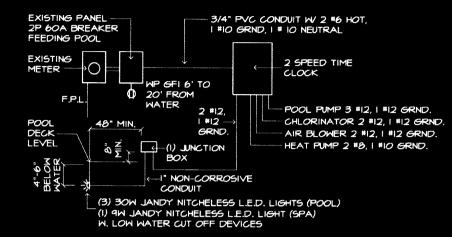
LAKE PATRICIA DRIVE



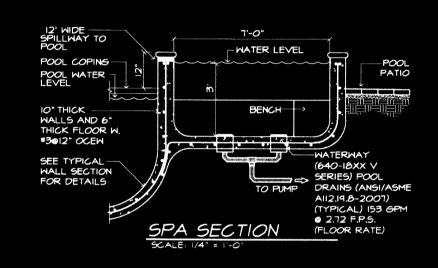
PIPING SCHEMATIC SCALE: NOT TO SCALE

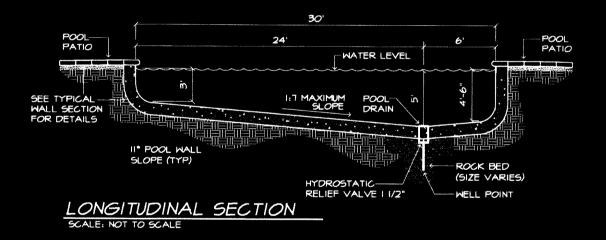
REVISIONS





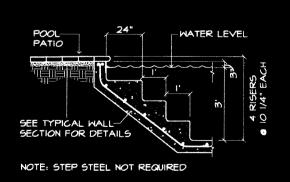
ELECTRICAL RISER DIAGRAM





7/18/2017

WAYNEOWMB-PE.COM



ENTRY STEP SECTION

MARKHAM WAYNE MARKHAM BENNETT P.E.# 57216 / (954) 818-3825 265 S. FEDERAL HMY. # 109 DEERFIELD BEACH, FL 33441 ONAL

NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

DEERFIELD BEACH, FL

806 S MILITARY TRAIL LOT: 46 PHONE: 954-637-0707

JOB SITE SPECIFICATIONS

COUNTY: MIAMI-DADE

BLOCK: 2 SUBDIVISION: MIAMI LAKES SECTION I PLAT BOOK: 75 PAGE: 35

RUBEN ARGUELLES 6421 LAKE PATRICIA ROAD MIAMI LAKES, FLORIDA 33014

SWIMMING POOL PLAN FOR:

DATE: 6-18-17 ORDER # 249 DRAWN BY: NAS. PLAN # 17999-20

DRAWING ITEMS

SHEET: 2 OF 2

IF SIGNED DIGITALLY ABOVE, PRINTED COPIES OF THIS DOCUMENT ARE