GENERAL DESIGN REQUIREMENTS

DESIGN DIMENSIONS SHALL COMPLY WITH SPECIFICATIONS IN ANSIMSPI 5 RESIDENTIAL IN-GROUND SWIMMING POOLS BASED ON THE POOL TYPE AND NSPI 3 PERMANENTLY INSTALLED RESIDENTIAL SPAS. SEE ANSI/NSPI 5 FOR DIVING WATER ENVELOPES SLIDES SHALL MEET THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

CIRCULATION SYSTEMS, COMPONENTS AND EQUIPMENT SHALL COMPLY WITH NSF 50. NTRY/EXIT: SHALL COMPLY WITH ANSI/NSFI 5 AND NSFI 3
ADDERS, UNDERWATER SEATS, AND SWIM OUTS (MAX 20" BELOW

THE MAXIMUM TURNOVER RATE IS 12 HOURS.
FILTERS SHALL HAVE AN AIR RELIEF AND PRESSURE GAGE.
PUMPS 3 HP AND LESS SHALL MEET ANSI/UL1081, 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 INLET'S SHALL BE A MINIMUM OF ONE FOR EVERY HEATERS SHALL MEET ANSI-221.56 OR UI1261 OR UI559 DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF 50. PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

PIPING SIZING CHART (MAXIMUM)

FLORIDA BUILDING CODE - BUILDING 2001
FLORIDA BUILDING CODE - MECHANICAL 2001
FLORIDA BUILDING CODE - FLUMBING 2001
FLORIDA BUILDING CODE - FULE GAS 2001

1 1/2" 2" PIPE 35 GPM 60 GPM PRESSURE 60 GPM 100 GPM

SUCTION PIPEWORK DIAGRAM FOR SKIMMER MAIN RETURN SYSTEM

PENTAIR BERMUDA

I-1/2" PVC
LINE TO
PUMP ———

PUMP: 3/4 HP (MIN.)

RETURN THROUGH
FILTER TO POOL

REQUIRED.

TOOd

1-1/2" FLEX PIPE

FILTER TO POOL

SPECIAL SPA REQUIREMENTS

STEPS: MIN IREAT $10^{\circ\circ} \times 12^{\circ\circ}$, $7^{\circ\circ}$ MIN. RISER. $12^{\circ\circ}$ MAX. RISER EXCEPT THE BOTTOM STEP MAY BE $14^{\circ\circ}$ IF IT IS THE SEAT. MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28", MAX FLOOR SLOPE 1:12.

ELECTRICAL REQUIREMENTS

WIRING AND BONDING AND ALL ELECTRICAL TO NEC ART. 680 OR LOCAL CODE. NO OUTLET OR OVERHEAD POWER WITHIN 10'. IF WITHIN 15' PROTECT BY GET 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.

ACCORDANCE WITH THE FLORIDA BUILDING CODE AND ALL CONSTRUCTION SHALL MEET THE FOLLOWING CODES THE POOL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DESIGN REQUIREMENTS FOR EACH INDIVIDUAL POOL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE FLORIDA BUILDING CODE 424 - 2

MAIN DRAINS ARE NOT REQUIRED. POOL MAY BE DRAINED

USING VACUUM LINE WITH SKIMMER. HOWEVER IF ONE MAIN DRAIN IS TO BE EMPLOYED A SECOND DRAIN IS

INTERMEDIATE TREADS AND RISERS TO BE UNIFORM.

IF THE SPA IS OPERATED INTERMITENTLY IT SHALL HAVE A ONE HOUR TURNOVER. IF CONTINUOUS A SIX HOUR TURNOVER.

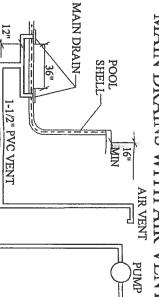
MAXIMUM TEMPERATURE 104 DEGREES.

MEET ANSINISPI ARTICLE XVII SAFETY INSTRUCTION'S AFETY SIGNS. PRESSURE TEST PIPING AT 35PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

2" PVC MAIN TO PUMP

DESIGNED IS IN COMPLIANCE WITH THE FBC 424-2 ANSI/NSFI-3 1992, STANDARD FOR PERMANENTLY INSTALLED SPAS AND ANSI/NSFI-5 1995 STANDARD FOR RESIDENTIAL IN-GROUND SWIMMING POOLS.

MAIN DRAINS WITH AIR VENT



- 1. MAIN SUCTION LINE IS TO BE 2"

 2. VENT LINE IS TO BE 1-1/2"

 3. VENT LINE IS TO HAVE SCREENED CAP TO PREVENT CLOGGING WITH DEBRIS OR BUGS.

 4. LABEL VENT: HANDS OFF, POOL SAFETY DEVICE.

 5. MAXIMUM UNDERWATER LENGTH OF VENT PIPE IS 30 FEET, (MIN. 10 FT.). 90 DEGREE BENDS SHOULD BE COUNTED AS 3 FT OF PIPE, 45 DEGREE BENDS AS 2 FT.

 6. MINIMUM PUMP FLOW REQUIRED IS 42 gm; TEST FLOW RATE OF 60 gm CLEARED VENT LINE IN LESS THAN 3 SEC.

 7. THE ABOVE SYSTEM HAS BEEN APPROVED AS COMPLIANT WITH SECTION 424.2.6.6 OF THE FLORIDA BUILDING CODE 8. MAIN DRAINS MAY BE ON SIDE OF POOL SHELL.

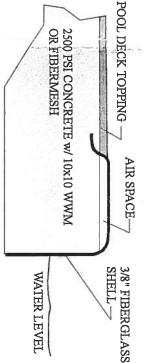
 9. DRAINS ARE TO BE IN COMPLIANCE WITH ANSIVASME A112.19.8M.

ADDITIONAL NOTES

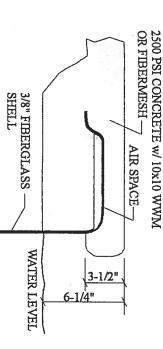
- BY LOCAL BUILDING DEPARTMENT) POOL CON SHALL CONFORM TO ALL LOCAL BUILDING CO CODES, RULES, INSPECTIONS, WORKMANSHE) I 2. TYPICAL PROPERTIES OF A REINFORCED FIBE BARCOL HARDNESS OF 30 MIL GEL COAT GLASS CONTENT BY WEIGHT POOL INSTALLATION SHALL BE BY A QUALIF! BERGLASS POOL: 40 - 50 TED AND LICENSED (APPROVED NTRACTOR, THE INSTALLATION DDES, IE. PERMITS, SPECIFICATIONS, ETC.
- FLEXURAL STRENGTH, PSI AT 77° F
 FLEXURAL MODULUS, PSI X 10 AT 77° F
 1200 IMPACT FT-LBS INCH OF NOTCH
 COMPRESSIVE STRENGTH, PSI
 TYPICAL TOTAL TENSILE STRENGTH, PSI AT 77°F TENSILE BLONGATION 19,500 1 - 2% 13,800 -27,600 0.72 - 0.77 5.9 25000 - 38000 3/8
- 3. POOL SHELL SHALL BEAR ON UNDISTURBED SOIL, FREE OF PEAT, MUCK, OR OTHER DELETERIOUS MATERIAL OF ANY SIGNIFICANT AMOUNT.
- 4. BACKFILL MATERIAL MUST NOT CONTAIN ROCKS OR OTHER MATERIALS THAT COULD DAMAGE POOL WALLS.
- 5. POOL TURNOVER SHALL BE 12 HOURS, MAXIMUM WITH CARTRIDGE FILTER . APPROVED PUMP (MIN. 14 H.P. W/ 29 GPM 60 TDH).
- 6. STEPS SHALL BE PROVIDED AT THE SHALLOW END OF THE POOL. CONVENIENCE GRAB BAR SHALL BE PROVIDED FER INSTALLATION FLAN
- 7. LADDERS ARE TO BE PROVIDED IN POOLS WITH GREATER THAN 5' DEPTH WITOUT SWIM OUTS.
- 8. INSTALL LOW VOLTAGE LIGHT AS PER N.E.C. 680.
- 9. DIVING PLATFORMS OR DIVING BOARDS ARE NOT TO BE INSTALLED ON THESE POOLS EXCEPT FOR THE ST. CROIX POOL PLAN.
 THIS POOL MEETS THE ANSI/NSPI-5 2002 DIVING POOL REQUIREMENTS FOR TYPE 1 & TYPE 2 POOLS.
- 10. DURING A HURRICANE WARNING OR ALERT, THIS POOL SHALL BE FILLED WITH WATER.
- 1. THESE POOL PLANS MEET OR EXCEED THE INGROUND SWIMMING POOL AND ANSINSPI 3 INSTALLED RESIDENTIAL SPA STANDARDS. ANSI/NSPI 5 2002 RESIDENTIAL 1992 PERMANENTLY

The following codes are to be met where required:

98-76 Building Construction Administrative Code 1997 Standard Swimming Pool Code 2002 National Electric Code



PERIMETER DECK AT POOLSIDE



OPTIONAL CANTILEVER DECK AT POOLSIDE

MAY

4

2004

FLOW CONTROL

1-1/2" PVC SCH 40 ALL PLUMBING LINES VACUUM LINE

SKIMMER

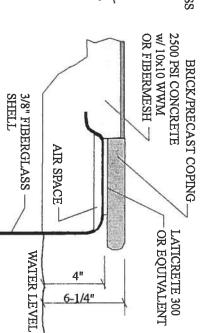
COMPACTED EARTH

(1) #3 or #8 REBAR

THICKENED EDGE OF SLAB

TYPICAL POOL OR SPA

3.5" CONCRETE SLAB



McCALL CONSTRUCTION PH: (386) 364-5924 PO BOX 1571 LIVE OAK, FL 32064

POOLSIDE

TIONAL BRICK/PRECAST

FAX: (386) 362-1672

LILDON ENGINEERING 548 B HWY 27 CLERMONT, FL 34711

Donald P. Block Wayne A. Block, P.E., PhD (352) 394 2590

DESIGN DIMENSIONS SHALL COMPLY WITH SPECIFICATIONS IN ANSI/NSFI 5 RESIDENTIAL IN-GROUND SWIMMING POOLS BASED ON THE POOL TYPE AND NSPI 3 PERMANENTLY INSTALLED RESIDENTIAL SPAS. GENERAL DESIGN REQUIREMENTS

SEE ANSI/NSPI 5 FOR DIVING WATER ENVELOPES SLIDES SHALL MEET THE MANUFACTURER'S INSTALLATION NTRY/EXIT: sHALL COMPLY WITH ANSI/NSPI 5 AND NSPI 3 ADDERS, UNDERWATER SEATS, AND SWIM OUTS (MAX 20" BELOW ATION SYSTEMS, COMPONENTS AND EQUIPMENT SHALL

COMPLY WITH NSF 50
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THE MAXIMUM TURNOVER RATE IS 12 HOURS.
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PUMPS 3 HP AND LESS SHALL MEET ANSJUL 1081, CORROSION
RESISTANT WITH STRAINER AND MEET THE REQUIRED FLOW.
SURRACE SKIMMERS SHALL MEET INST 50 AND THERE SHALL BE
ONE FOR EVERY 800 SQUARE FEET OF SURFACE AREA.
RETURN INLET'S SHALL BE A MINIMUM OF ONE FOR EVERY HEATERS SHALL MEET ANSI-Z21.56 OR UI1261 OR UI559
DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF 50.
PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

PIPING SIZING CHART (MAXIMUM)

1 1/2" 2" 35 GPM 60 GPM PRESSURE 60 GPM 100 GPM

SUCTION PIPEWORK DIAGRAM

FOR SKIMMER MAIN RETURN SYSTEM

SHELL

1-1/2" PVC

RETURN THROUGH FILTER TO POOL

REQUIRED.

USING VACUUM LINE WITH SKIMMER. HOWEVER IF ONE MAIN DRAIN IS TO BE EMPLOYED A SECOND DRAIN IS MAIN DRAINS ARE NOT REQUIRED. POOL MAY BE DRAINED

PUMP: 3/4 HP (MIN.)

1-1/2" FLEX PIPE FILTER TO POOL

SPECIAL SPA REQUIREMENTS

MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28", MAX FLOOR SLOPE 1:12.

STEPS: MIN TREAT 10" x12", 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 TURNOVER. MAXIMUM TEMPERATURE 104 DEGREES.

MEET ANSUNSPI ARTICLE XVII SAFETY INSTRUCTION/SAFETY SIGNS. PRESSURE TEST PIPING AT 35PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

ELECTRICAL REQUIREMENTS

WIRING AND BONDING AND ALL ELECTRICAL TO NEC ART 680 OR LOCAL CODE, NO OUTLET OR OVERHEAD POWER WITHIN 10°. TROTTEOT BY GET ITRANSFORMER MIN. 10° FROM POOL. 8° ABOVE WATER J BOX 4° FROM POOL. BRASS TO J BOX OF TRANSFORMER WHICH EVER IS FIRST EXCEPT WHERE

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 THE FOLLOWING CODES:

FLORIDA BUILDING CODE - BUILDING 2001 FLORIDA BUILDING CODE - MECHANICAL 2001 FLORIDA BUILDING CODE - FLUMBING 2001 FLORIDA BUILDING CODE - FULE GAS 2001

DESIGNED IS IN COMPLIANCE WITH THE FBC 424-2 ANSI/NSPI-3 1992, STANDARD FOR PERMANENTLY INSTALLED SPAS AND ANSI/NSPI-5 1995 STANDARD FOR RESIDENTIAL

9. DIVING PLATFORMS OR DIVING BOARDS ARE NOT TO BE INSTALLED ON THESE POOLS EXCEPT FOR THE ST. CROIX POOL PLAN.
THIS POOL MEETS THE ANSI/NSPI-5 2002 DIVING POOL REQUIREMENTS

INSTALL LOW VOLTAGE LIGHT AS PER N.E.C.

880.

- PIPE IS 30 FEET, (MIN. 10 FT.). 90 DEGREE BENDS SHOULD BE COUNTED AS 3 FT OF PIPE, 45 DEGREE BENDS AS 2 FT.
 6. MINIMUM PUMP FLOW REQUIRED IS 42 gpm;
 TEST FLOW RATE OF 60 gpm CLEARED VENT
- LINE IN LESS THAN 3 SEC.
 7. THE ABOVE SYSTEM HAS BEEN APPROVED AS COMPLIANT WITH SECTION 424.2.6.6 OF THE FLORIDA BUILDING CODE 8. MAIN DRAINS MAY BE ON SIDE OF POOL SHELL.
 9. DRAINS ARE TO BE IN COMPLIANCE WITH ANSI/ASME A112.19.8M.

MAIN DRAIN-12 2" PVC MAIN TO PUMP 1-1/2" PVC VENT MIN 16"

6. STEPS SHALL BE PROVIDED AT THE SHALLOW END OF THE POOL. CONVENIENCE GRAB BAR SHALL BE PROVIDED PER INSTALLATION PLAN

5. POOL TURNOVER SHALL BE 12 HOURS, MAXIMUM WITH CARTRIDGE FILTER. APPROVED PUMP (MIN. » H.P. W/ 29 GPM 60 TDH).

4. BACKFILL MATERIAL MUST NOT CONTAIN ROCKS OR OTHER MATERIALS THAT COULD DAMAGE POOL WALLS.

3. POOL SHELL SHALL BEAR ON UNDISTURBED SOIL, FREE OF PEAT, MUCK OR OTHER DELETERIOUS MATERIAL OF ANY SIGNIFICANT AMOUNT.

7. LADDERS ARE TO BE PROVIDED IN POOLS WITH GREATER THAN 5' DEPTH WITOUT SWIM OUTS..

- MAIN SUCTION LINE IS TO BE 2"
 VENT LINE IS TO BE 1-1/2"
 VENT LINE IS TO HAVE SCREENED CAP TO PREVENT
- CLOGGING WITH DEBRIS OR BUGS.
 4. LABEL VENT: HANDS OFF, POOL SAFETY DEVICE.
 5. MAXIMUM UNDERWATER LENGTH OF VENT

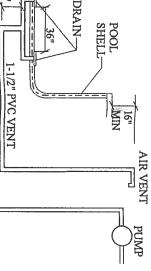
MAIN DRAINS WITH AIR VENT

SHALL CONFORM TO ALL LOCAL BUILDING CODE
CODES, RULES, INSPECTIONS, WORKMANSHP, ETC
2. TYPICAL PROPERTIES OF A SELENFORCED FIBERG
BARCOL HARDNESS OF 30 ML GEL COAT
40
GLASS CONTENT BY WEIGHT
TENSILE STRENGTH, PSI AT 77° F
TENSILE STRENGTH, PSI AT 77° F
TENSILE SUONGATION
1

1. POOL INSTALLATION SHALL BE BY A QUALIFIED AND LICENSED (APPROVED BY LOCAL BUILDING DEPARTMENT) POOL CONTRACTOR, THE INSTALLATION SHALL CONFORM TO ALL LOCAL BUILDING CODES, IE, PERMITS, SPECIFICATIONS, CODES, RULES, INSPECTIONS, WORKMANSHIP, ETC.

2. TYPICAL PROPERTIES OF A REINFORCED FIBERGIASS POOL.

ADDITIONAL NOTES.

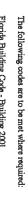


FLEXURAL STRENGTH, PSI AT 77° F FLEXURAL MODULUS, PSI X 10 AT 77° F 1200 IMPACT FT-LBS' INCH OF NOTCH COMPRESSIVE STRENGTH, PSI TYPICAL THICKNESS, INCHES

19,500 1 - 2% 23,800 -27,600 0.72 - 0.77 5.9 25000 - 38000 3/8

Florida Building Code - Plumbing 2001
Florida Building Code - Fuel Gas 2001

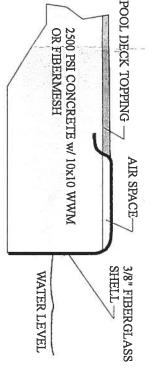
98-76 Building Construction Administrative Code Standard Swimming Pool Code National Electric Code



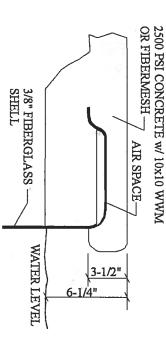
11. THESE POOL PLANS MEET OR EXCEED THE ANSI/NSPI 5 2002 RESIDENTIAL INGROUND SWIMMING POOL AND ANSI/NSPI 3 1992 PERMANENTLY INSTALLED RESIDENTIAL SPA STANDARDS.

10. DURING A HURRICANE WARNING OR ALERT, THIS POOL SHALL BE FILLED WITH WATER.

FOR TYPE 1 & TYPE 2 POOLS.



PERIMETER DECK AT POOLSIDE



OPTIONAL CANTILEVER DECK AT POOLSIDE

MAY

•

2004

FLOW CONTROL VARLABLE

AWIN

1-1/2" PVC SCH 40 ALL PLUMBING LINES VACUUM LINE

SKIMMER

COMPACTED EARTH

(1) #3 or #5 REBAR

THICKENED EDGE OF SLAB

TYPICAL POOL OR SPA

2500 PSI CONCRETE w/ 10x10 WWM OR FIBERMESH BRICK/PRECAST COPING 3/8" FIBERGLASS SHELL AIR SPACE LATICRETE 300 OR EQUIVALENT WATER LEVEL 4" 6-1/4"

McCALL CONSTRUCTION PH: (386) 364-5924 PO BOX 1571 LIVE OAK, FL 32064

OP.

TIONAL BRICK/PRECAST

POOLSIDE

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