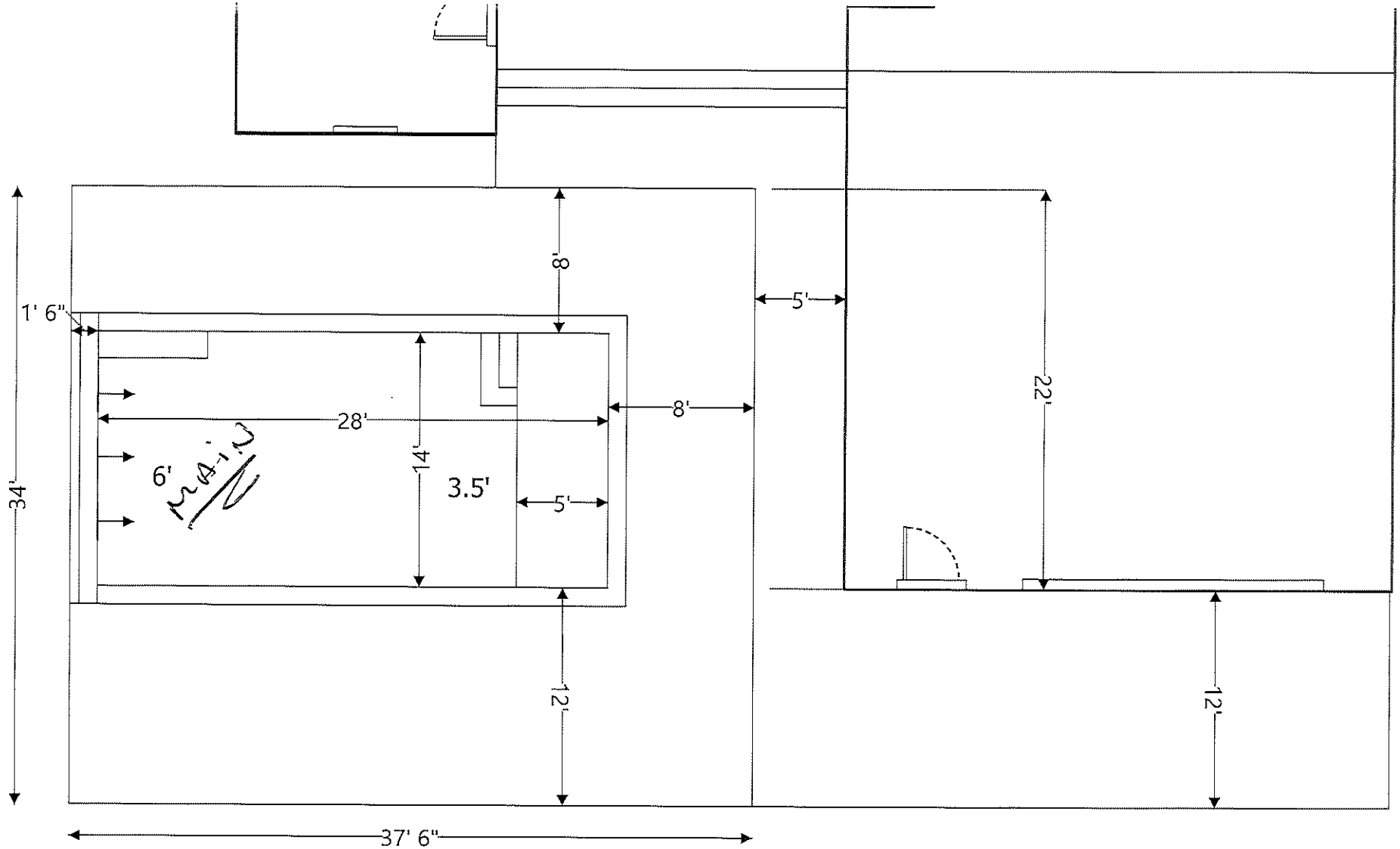

(1) 14' x 28' pool - $55,000.00

(2) No footer

(3) Perimeter fence + alarm

Lewis Walker
11394 SE CR 345
Lulu FL 32601

Scale: 1/8" = 1 ft

ENGINEERING REPORT INDEX SHEET

pursuant to Rule 61G15-23.001(4)(b), F.A.C.

SUPPLEMENTAL INFORMATION TO THE SUBJECT RESIDENTIAL POOL/SPA PERMIT APPLICATION meeting 2020 FBC 7th Ed, Section 454.2 Private Swimming Pools

SPECIFICALLY:

- WORKSHEET SHOWING COMPLIANCE WITH ANSI 15
- SITE SPECIFIC INFORMATION SHOWING COMPLIANCE WITH ANSI 7
- TDH CALCULATION SUPPORTING ANSI 7 SUCTION OUTLET INFORMATION
- ATTACHED PRODUCT SHEETS WITH INFORMATION SUPPORTING ANSI 7 AND 15 WORK SHEETS

PROJECT INFORMATION

PROJECT CLIENT: SOUTHERN ESCAPES
PROJECT NAME: LEWIS WALKER
PROJECT ADDRESS: 11394 SE CR 245
LOT:
AREA:

Columbia County Building Department
Plans Reviewed for Code Compliance
State of Florida

Jeffrey Wanko, PE, #79935
Professional Engineer

SKS

JEFFREY WANKO LICENSE No. 79935 STATE OF FLORIDA PROFESSIONAL ENGINEER

This document has been electronically signed & sealed by Jeffrey Wanko, PE employed by Kimes Engineering on the date & time stamp shown using a digital signature. Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

Digitally signed by Jeffrey Wanko
Reason: I am approving this document
Date: 2023.05.17 14:39:23 -04'00'

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KIMES ENGINEERING

CLIENT SOUTHERN ESCAPES
NAME LEWIS WALKER
ADDRESS 11394 SE CR 245
LOT:
AREA:

WORKSHEET SHOWING DATA FOR COMPLIANCE WITH ANSI/APSP- 15

ANSI 15 Filtration -

Volume of Pool Area 392 *SF x Avg Depth* 4.75 *FT = Vol* 1,862 *CF*

Vol in CF x 7.48 gal/CF = 13,929 *GALLONS*

Calculate Maximum Filtration Flow Rate: Pool Volume/ 360 = 39 *GPM [if <13,000 MAY use 36 gpm]*

ANSI 15 Auxiliary Flow *MAY USE LESS THAN THIS MAXIMUM*

Calculate Maximum Auxiliary Load Design Flow Rate: *IF AT LEAST ANSI 5 12 HR TURNOVER*

Number of Spa Jets 0 *@ 10 gpm ea.=* 0 *GPM*

Or Water Feature Flow: 60 *GPM* SHEER

ANSI 15 Flow:

[maximum ANSI 15 Filtration Flow, minimum 12 hour turnover] 39 *GPM*

Actual Turnover at ANSI 15 Flow 6.0 *HR*

PUMP FROM APSP LISTING

Select a pump with Curve A (pools <17,000 gal) or Curve C (pools >17,000 gal) flow equal to or less than ***ANSI 15 Filtration Flow****. May select a multi speed pump with flows acceptable for the* ***ANSI 15 Auxiliary Flow****, with acceptable Curve A or C listed flows. Curve A or C flows listed have no relationship or requirement related to* ***ANSI 15 Auxiliary Flow****.*

Pump Make & Model: PENTAIR INTELLIFLO VS 3HP

Pump Flow Rate(s) from Listing: @ Low/Single speed 17 *GPM, & @ High Speed* 74 GPM

Pump Control: Filtration Pump has no auxiliary load: X *, time clock to be installed.*

Filtration Pump with auxiliary load: Control for low speed default w/in 24 hrs: SELF CONTAINED
Make/model

Size filter on "FILTRATION Flow"

Filter Rates: Cartridge= 0.375 gpm/sf; Sand= 15 gpm/sf; DE= 2 gpm/sf

Filter size: ***ANSI 15 Flow*** 39 *GPM /* 0.375 *gpm/sf =* 103.2 *SF Min Filter Size*

See pool plan for filter model or show here: PENTAIR CCRP150, 150SF

ANSI 7 Flow: ***See Site Specific Information Sheet***

ANSI 5 Flow: *Depending on the pipe, use any of the ANSI 15 Filtration, or ANSI 15 flows or the flow at 60 ft TDH on the*
See flow vs velocity vs pipe size on Standard Engineering.
See summary of pipe sizes on ANSI 7 Site Specific Information Sheet

HEATER MODEL: N/A

GAS HEATER EFFICIENCY RATING: *with no pilot light [min 82%]*

HEAT PUMP EFFICIENCY C.O.P.: *[min 4.0]*

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CLIENT SOUTHERN ESCAPES
NAME LEWIS WALKER
ADDRESS 11394 SE CR 245
Lot:
Area:

SITE SPECIFIC INFORMATION FOR COMPLIANCE WITH ANSI/APSP-7

METHOD OF DETERMINING ANSI 7 PUMP FLOW — Detailed TDH Curve & Calc: X

SUCTION OUTLET FOR:	FILTRATION PUMP
Manufacturer & Model:	PENTAIR INTELLIFLO VS 3HP
Pump Flow from Pump Curve with method indicated:	114 *GPM*

ANSI/APSP/ICC-7 2013 ADOPTED IN 2020 FBC 7TH ED NO LONGER SIZES BRANCH OR TRUNK SUCTION BASED ON ANSI 7 FLOW

LISTED SUCTION OUTLET COVER/GRATE- POOL OUTLET

DRAIN INFO: CMP CHANNEL DRAIN

APPROVED Maximum Outlet Flow (GPM) — Floor: 182 *GPM* Wall: 144 *GPM*

BRANCH DRAIN: NA

TRUNK SUCTION 6 FPS @ ANSI 15 FLOW: 2 *(in)* -- USE: 2.5 *(in)*

SUCTION OUTLET FOR:	NOT USED
Manufacturer & Model	
Pump Flow from Pump Curve with method indicated:	*GPM*

ANSI/APSP/ICC-7 2013 ADOPTED IN 2020 FBC 7TH ED NO LONGER SIZES BRANCH OR TRUNK SUCTION BASED ON ANSI 7 FLOW

LISTED SUCTION OUTLET COVER/GRATE- SPA OUTLETS

DRAIN INFO:

APPROVED Maximum Outlet Flow (GPM) — Floor: *GPM* Wall: *GPM*

BRANCH DRAIN:

TRUNK SUCTION 6 FPS @ ANSI 15 FLOW: *(in)* -- USE: *(in)*

ANSI 15 FLOW= 39 *GPM*

MINIMUM CIRCULATION LINES SIZED ON ANSI 15 FLOW PIPE SIZE SUMMARY

TRUNK/SKIMMER SUCTION:	2	*(in) ANSI 15 Flow @ 6 FPS*
FILTRATION RETURNS:	1.5	*(in) ANSI 15 Flow @ 8 FPS*
SPA AUXILIARY RETURN:		*(in) ANSI 5 Flow @ 8 FPS*
2ND AUXILIARY RETURNS:	2	*(in) ANSI 5 Flow @ 8 FPS*
OPTIONAL VACUUM OR SWEEP LINE:	1.5	*(in) ANSI 5 Flow @ 8 FPS*

SPA AUX. FLOW 0 *GPM*

2ND AUX. FLOW 60 *GPM*

NOTES: SUCTION OULET COVER/GRATE AND BRANCH SIZE MEETS ANSI 7 FLOW
FOR POOL USE CMP CHANNEL DRAIN - NO BRANCH REQUIRED

USE 2.5" SUCTION TO PUMP
NO CHANGE TO ENGINEERING WITHOUT APPROVAL OF THE ENGINEER

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CLIENT SOUTHERN ESCAPES
NAME LEWIS WALKER
ADDRESS 11394 SE CR 245
LOT:
AREA:

	POOL ONLY		
	Suction	*Pressure*	*Equipment*
Pipe Size (in.)	*2.5"*	*2"*	*2"*
Pipe Length (100% flow)	*37*	*27*	*15*
#EL fittings	*5*	*5*	*5*
#T Run fittings	*2*	*2*	*1*
#T Branch fittings	*1*	*1*	*1*
Gate Valves	*0*	*0*	*0*
# 3 Way valves	*1*	*1*	*1*

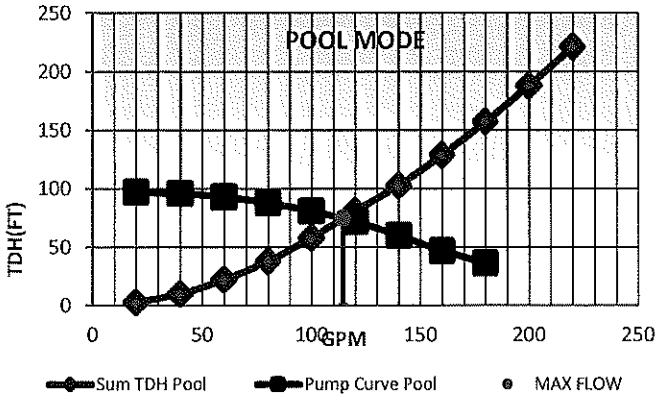
This calculation assumes worst case with 100% suction from drain and none from skimmer.

This calculation is conservative in that it omits the velocity head on the pressure side beyond the first split of return lines.

Pump Curve PENTAIR INTELLIFLO VS 3HP
Filter: PENTAIR CCRP150, 150SF
Heater: NA
Return Fittings 3

Head loss based on Hazen-Williams equation, where c=150
*Head Loss per 100 ft =0.2083 (100/c)$^{1.852}$ *q$^{1.852}$ /d$_h$$^{4.8655}$*

	DETAILED TDH POOL MODE										
Sum of Pipe Friction	2.1	7.5	15.9	27.0	40.9	57.3	76.2	97.6	121.4	147.6	176.1
Filter(s)	0.0	0.4	1.7	3.7	6.5	9.3	10.3	12.2	14.1	16.0	17.9
Return Fitting(s)	0.8	1.5	3.3	5.0	7.4	10.0	11.2	13.1	14.9	16.8	18.7
Salt System	0.0	0.7	1.4	2.3	3.3	4.3	5.0	5.9	6.7	7.6	8.5
Heater(s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum TDH (FT H_2O)	**2.9**	**10.1**	**22.3**	**38.0**	**58.1**	**80.9**	**102.7**	**128.8**	**157.2**	**188.0**	**221.1**
Flow (GPM)	20	40	60	80	100	120	140	160	180	200	220



	POOL MODE	
MAXIMUM:	114 GPM @ 75' TDH	
REQUIRED BRANCH SUCTION	NA	*(in)*
RECOMMENDED MIN. TRUNK SUCTION TO EQUIP:	2.5	*(in)*

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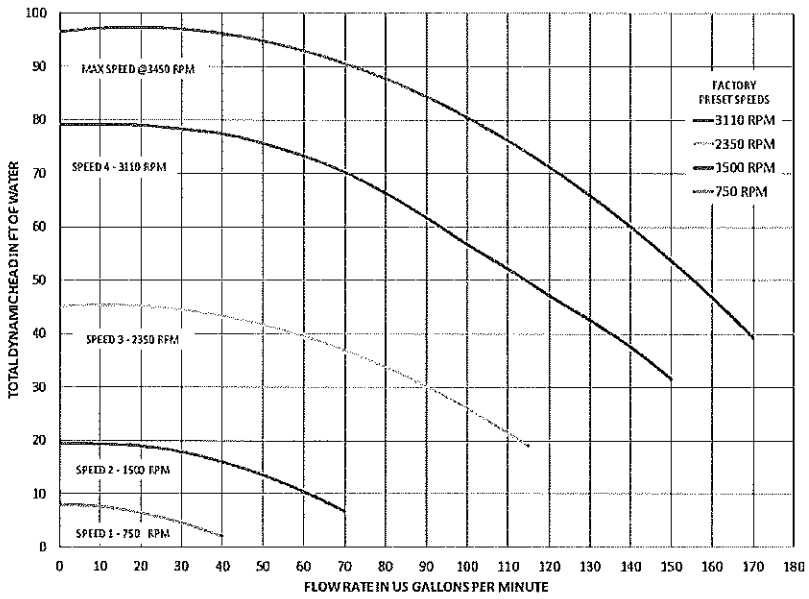
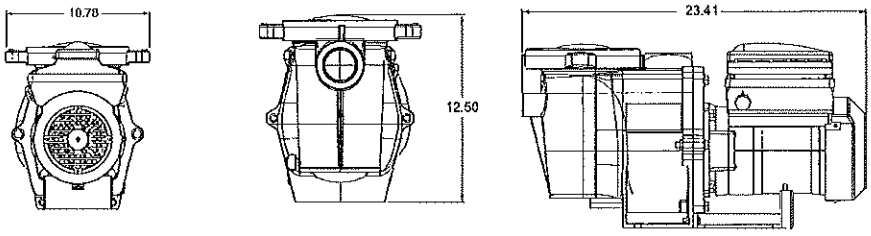
INTELLIFLO® VARIABLE SPEED

HIGH PERFORMANCE PUMP (CONT'D)

Dimensions and Performance



Note: IntelliFlo VS+SVRS minimum speed is 1100 RPM



See page 510 for replacement parts.

B. SIZING & SPECIFICATION REFERENCE

- Suction fitting-configuration specific flow ratings NOT be exceeded at any time the pool is open to bathers.
- A system must install a suction fitting, or combination of multiple suctions, such that the resulting individual suction system flow rating is greater than the pumping system's maximum system flow rate.
- To reduce the risk of drowning from hair and body entrapment, install suction fittings with a marked flow rate in gallons per minute that exceeds the flow rate of your system by at least 25%. Increasing size of the pump may increase flow rate of suction beyond rated safety limits causing entrapment or death.
- Any modification that increases the flow rate of the circulation system shall require reevaluation of the cover/grate and sump to ensure that the flow rating of the Suction Outlet Fitting Assembly is not exceeded.
- The flow rating for pools with single, or multiple unblockable SOFAs shall be determined by combining the flow rating of all SOFAs piped together in one body of water.
- NOTICE: No modification shall be made to a SOFA structure or flow path unless the new configuration has been certified as new SOFA.

TABLE 1: IAPMO LISTED MAX FLOW RATES

PLUMBING SIZE	PORTS	WALL FLOW RATE		FLOOR FLOW RATE	
2.5"	OUTER	212 GPM	159	299 GPM	224
2.5"	CENTER	168 GPM	126	200 GPM	150
2"	OUTER	192 GPM	144	242 GPM	182
2"	CENTER	168 GPM	126	184 GPM	138

** INSTALL ONLY WITH MIN 16" BEFORE CHANGE IN PIPE SIZE

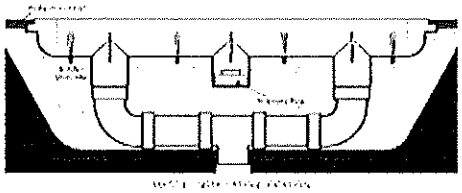


TABLE 2: SPECIFICATIONS

PIPE SIZE	2.5" SPIGOT / 2" SOCKET DO NOT adapt suction fitting to any pipe size smaller than ASTM 2" SCH 40 PVC.
OPEN AREA	38.79in²
DRAIN COVER LIFE	7 Years Replace drain cover and screws every seven years
SUMP BODY LIFE	30 Years

- Single or multiple drain use
- Floor or wall installation
- PVC Sump Body. Use PVC glue to attach plumbing fittings

** VGBA TESTED & CERTIFIED

USPC

** All Custom Molded Products main drains are listed and tested in strict accordance to the requirements of ANSI/APSP-16 2017, the current standard of reference for the Virginia Graeme Baker Act, and compliant to the latest Consumer Product Safety Commission (CPSC) requirements.

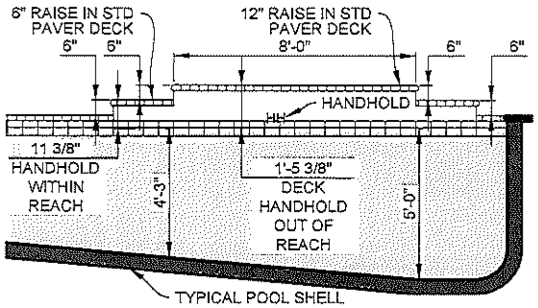
**ANNOTATION BY KIMES ENGINEERING

** IAPMO Listed VGB Suction: Compliant to ANSI/APSP-16 2017 & CPSC Requirements

RESIDENTIAL POOL AND SPA PLAN REVIEW CHECKLIST FOR CRITICAL SAFETY CODE REQMTS

HANDHOLDS REQUIRED

HANDHOLD(S) PROVIDED WHEN REQUIRED AT RAISED DECK AREAS MORE THAN 12 INCH FROM WATER LINE AND WATER DEPTH MORE THAN 4 FEET FOR LENGTH OF 8 FEET. [2011 ANSI/APSP-5, 17.1]



ON PAVER COPING A 6" RISE STILL HAS HANDHOLD

ON CONCRETE OVER POUR MORE THAN 5" RISE IS OUT OF REACH FOR HANDHOLD.

HANDHOLDS REQUIRED
SCALE: N.T.S.

WHEN POOL WATER CLOSER THAN 5 FT

WINDOWS, DOORS OR OTHER GLASS WITHIN 5 FT OF WATER'S EDGE: MUST HAVE MANUFACTURER'S DESIGNATION OF SAFETY GLAZING AND BE VISIBLY MARKED

ALL FIXED METAL PARTS WITHIN 5 FT HORIZONTAL OR 12 FT VERTICAL- DOOR AND WINDOW FRAMES, CAGE AND FENCE STRUCTURES, STATIONARY EQUIPMENT, METAL AWNINGS- SHALL BE BONDED UNLESS PERMANENT BARRIER

ENERGY CODE REQUIREMENTS RESTATED:

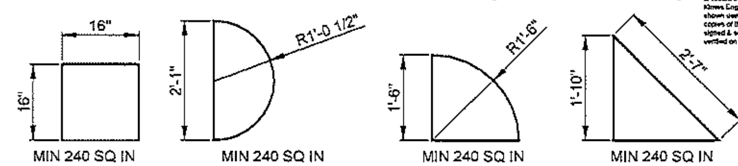
1. GAS HEATER ELECTRICAL FEED SHALL BE THROUGH GFCI.
2. 4X PIPE DIAMETER STRAIGHT PIPE REQUIRED STRAIGHT INTO PUMP, 8" FOR 2" FITTING, 10" FOR 2.5" FITTING.
3. MIN 18" STRAIGHT PIPE REQUIRED AFTER FILTER AN BEFORE HEATER, IF HEATER PROVIDED.

PLAN REVIEWER AND INSPECTOR MUST VERIFY SUCTION OUTLET COVER RATED FLOW GREATER THAN DETAILED TDH CALCULATION AT MAXIMUM PUMP SPEED OR AT LEAST EXCEEDS MAXIMUM FLOW OF PUMP CURVE AND PARTICULARLY VERIFIED FOR SPA SIDEWALL SUCTIONS AND RATED "WALL" FLOWS

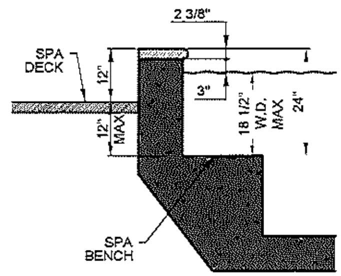
(1) "Plans shall meet the mandatory energy consumption requirements of Section R403.10, FBC 7th Edition (2020) – Ene Conservation Code" (2)"Plans shall meet the Residential Swimming Barrier Requirements, in conformance with Section R4501.17, FBC 7th Edition (2020) – Residential (3) Plans shall comply with Sect R4501,FBC 7th Ed 2020-Residential

SPA STEP REQUIRED

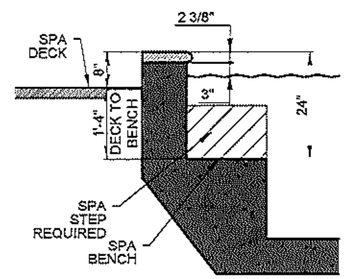
UNLESS A SPA IS RAISED 12" OR MORE FROM DECK, A SPA STEP IS REQUIRED ON THE BENCH FOR THE MAXIMUM 12" FROM DECK TO ENTRY.[2014 ANSI/APSP-3, 5.6.1]



EXAMPLE 240 SQ IN STEP DIMENSIONS
SCALE: N.T.S.

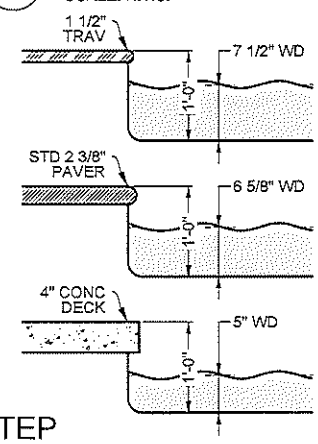


12" RAISED SPA NO STEP
SCALE: N.T.S.



8" RAISED SPA STEP REQD.
SCALE: N.T.S.

DIGITAL SIGNATURE INDEX SHEET FOR SHEETS S1 S2 S3 PER RULE 61G15-23.001(4)(b),F.A.C.



SUN SHELF AS FIRST STEP

MAXIMUM 12" DECK TO SUN SHELF AS 1ST STEP, LIMITS WATER DEPTH UNLESS ADDED STEP ON SHELF. [2011 ANSI/APSP-5, 6.2.2]

SUN SHELF AS 1ST STEP
SCALE: N.T.S.

JEFFREY WANKO LICENSE No. 79935 STATE OF FLORIDA PROFESSIONAL ENGINEER

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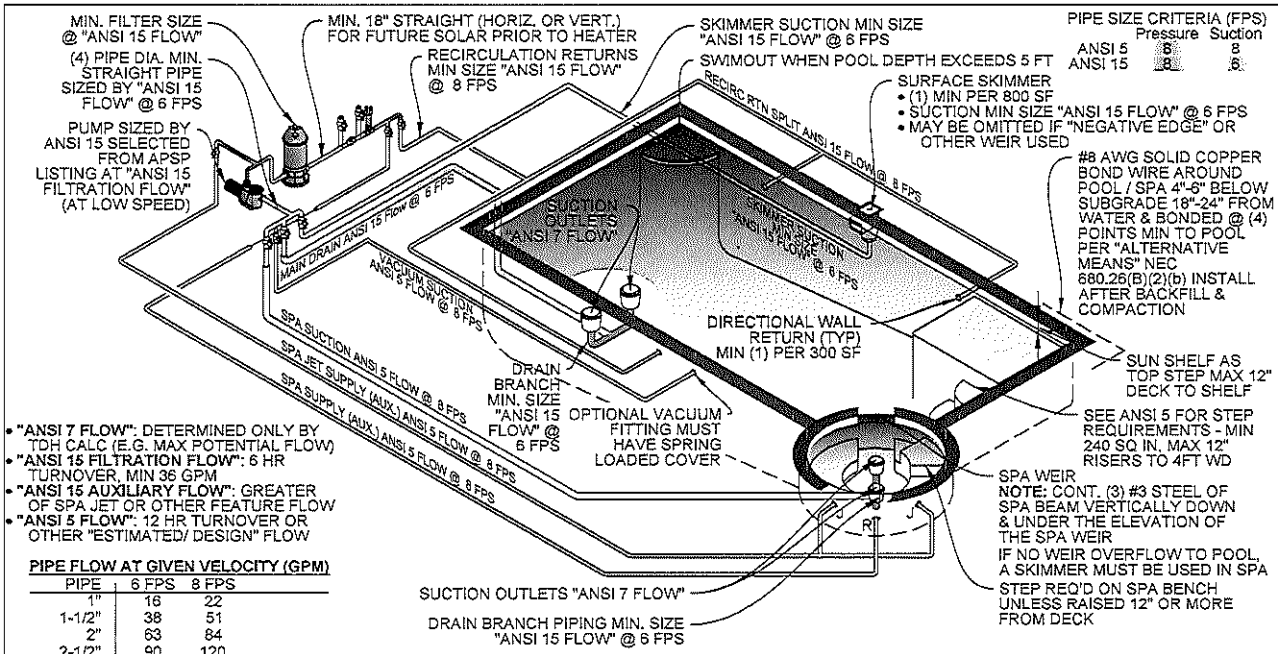
REV.	DATE	DESCRIPTION	DRAWING:	VERSION:
PROJ NO.: KE_RSTD	DWG BY: MCM	CKD BY: JKK	01-Jan-21	3-Feb-22

11394 SE CR 245
SOUTHERN ESCAPES

TYPICAL PLAN & SECTIONS FOR RESIDENTIAL POOL/SPA

SHEET
S1
SHEET 1 OF 3



PIPE SIZE CRITERIA (FPS)

	Pressure	Suction
ANSI 5	8	8
ANSI 15	8	6

- **"ANSI 7 FLOW"**: DETERMINED ONLY BY TDH CALC (E.G. MAX POTENTIAL FLOW)
- **"ANSI 15 FILTRATION FLOW"**: 6 HR TURNOVER, MIN 36 GPM
- **"ANSI 15 AUXILIARY FLOW"**: GREATER OF SPA JET OR OTHER FEATURE FLOW
- **"ANSI 5 FLOW"**: 12 HR TURNOVER OR OTHER "ESTIMATED/ DESIGN" FLOW

PIPE FLOW AT GIVEN VELOCITY (GPM)

PIPE	6 FPS	8 FPS
1"	16	22
1-1/2"	38	51
2"	63	84
2-1/2"	90	120
3"	138	185
4"	238	318
6"	541	721

1 TYPICAL RESIDENTIAL POOL / SPA SCHEMATIC PLAN

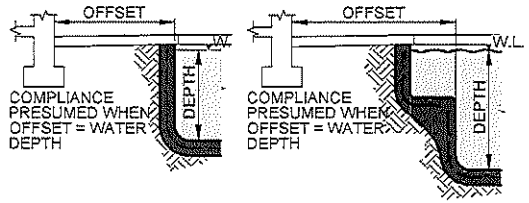
SCALE: N.T.S.

NOTES:

- THIS PLAN IS SCHEMATIC & PIPING SHALL BE CONNECTED TO PROVIDE A FUNCTIONING SYSTEM.
- POOL PIPING SHALL HOLD A STATIC WATER OR AIR PRESSURE NOT LESS THAN 35 PSI FOR 15 MINUTES, PER R4501.12.1
- POOLS SHALL HAVE PUMPS SELECTED TO PROVIDE MINIMUM 12 HR. TURNOVER & MAXIMUM 6 HOUR TURNOVER.
- DETERMINE PIPE SIZING FROM ATTACHED ANSI WORK SHEETS.
- SPA PIPING DETERMINED FROM ATTACHED WORK SHEETS.
- DUAL MAIN DRAINS SHALL HAVE A MINIMUM SEPARATION OF 3 FT, UNLESS ONE IS LOCATED ON A VERTICAL WALL OR A SINGLE UNBLOCKABLE DRAIN IS USED.
- ALL SUCTION COVERS SHALL MEET ANSI/APSP/ICC-16 2017
- ALL PIPING SHALL BE NSF-PW APPROVED & MEET THE REQUIREMENTS OF 7TH ED. (2020) FBC.
- ELECTRICAL EQUIPMENT, WIRING, & INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE 2017 EDITION.
- BONDING OF POOL STEEL & LIGHT TO FOOTING STEEL SHALL BE CONTINUED TO & INCLUDE ALL PUMPS & HEATERS.
- TEMPORARY FENCING SHALL BE INSTALLED & MAINTAINED UNTIL PERMANENT CHILD SAFETY FEATURES ARE INSTALLED.
- THERE SHALL BE A PASSING ELECTRICAL & CHILD SAFETY FINAL INSPECTION PRIOR TO FILLING THE POOL OR SPA WITH WATER.
- POOL SHALL MEET THE APPLICABLE CRITERIA IN ANSI/APSP 3,4,5,6, 7 & 15 STANDARDS ADOPTED IN 7TH ED. (2020) FBC
- REGARDLESS OF THE CRITERIA HERE, THE PROJECT SHALL COMPLY WITH ALL SECTIONS OF THE 7TH ED. (2020) FBC - RESIDENTIAL, BUILDING, MECHANICAL, PLUMBING & GAS CODES, AS APPLICABLE RESPECTIVELY & AMENDED.

SEE INFORMATION ATTACHED TO THIS PERMIT PACKAGE FOR SITE SPECIFIC DETAILS SHOWING ANSI 7 & 15 AND FBC COMPLIANCE

FBC NO LONGER REQUIRES EXCAVATIONS OUT OF THE "ANGLE OF REPOSE PLUS 1 FT". THE CURRENT REQUIREMENT IN 7TH ED (2020) FBC, SECTION 1804.1 STATES THAT "EXCAVATIONS SHALL NOT REMOVE VERTICAL OR LATERAL SUPPORT FROM ANY FOUNDATION." THEREFORE THE FOLLOWING IS REQUIRED:



"ANGLE OF REPOSE" OR SEE CONTRACTOR PLAN

1. WHEN THE POOL DECK DISTANCE IS EQUAL TO OR GREATER THAN WATER DEPTH, NO MITIGATION OF THE SHELL STRUCTURE IS REQUIRED , AND NO SHORING OR FOUNDATION SUPPORT INITIALLY REQUIRED.
2. WHEN THE POOL DECK DISTANCE IS LESS THAN THE WATER DEPTH, THE ENGINEER SHALL PROVIDE A MITIGATION SPECIFICATION, EITHER TO PROTECT THE FOUNDATION DURING EXCAVATION OR STRENGTHEN THE SHELL FROM STRUCTURE LOADS.
3. IF DURING EXCAVATION, SOIL CONDITIONS APPEAR TO LEAD TO LOSS OF FOUNDATION SUPPORT, THE CONTRACTOR SHALL CEASE EXCAVATION AND CONTACT THE ENGINEER FOR MITIGATION SPECIFICATIONS.
4. IF AFTER EXCAVATION THE CONTRACTOR FINDS A LOSS OR THREATENED LOSS OF SOIL SUPPORT AT THE FOUNDATION, CONTACT THE ENGINEER FOR A MITIGATION SPECIFICATION.

2 PROXIMITY TO STRUCTURE

SCALE: N.T.S.

NOTE TO REVIEWER:
DETAILED TDH CALCULATIONS ARE REQUIRED TO DETERMINE ANSI 7-SUCTION ENTRAPMENT COMPLIANCE

COMPLIES WITH 7TH ED. (2020) FBC, ALL VOLUMES

SEE DIGITAL SIGNATURE ON INDEX SHEET S1

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REV.	DATE	DESCRIPTION	
	2-3-2022	REVISION	
PROJ. NO.:	DWG BY:	CKD BY:	DRAWING:
KE_RSTD	MCM	JKK	01-Jan-21

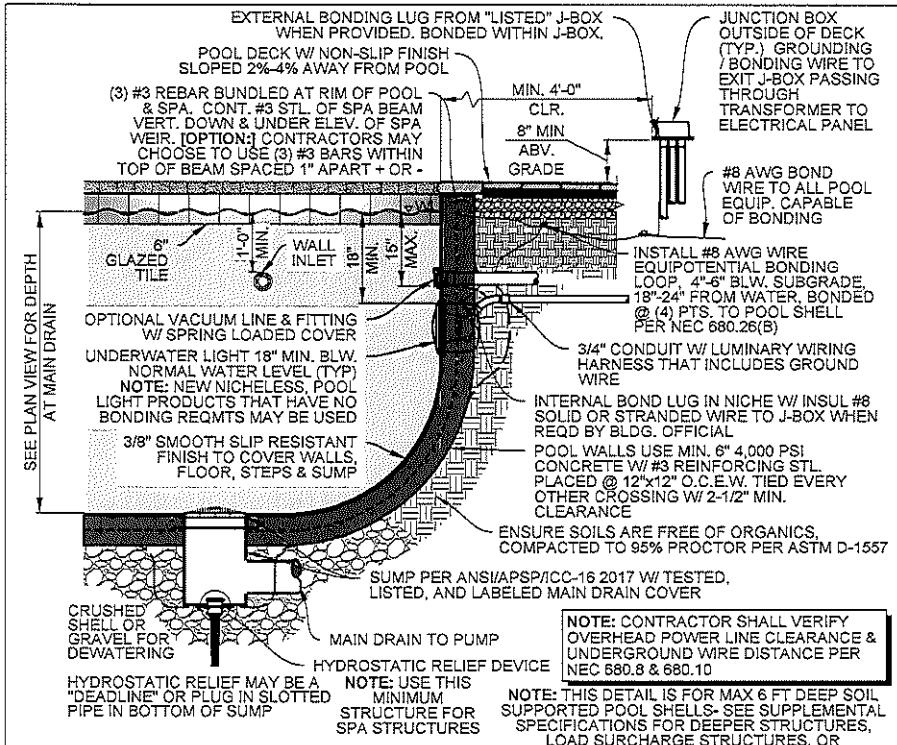
VERSION: 3-Feb-22

11394 SE CR 245
SOUTHERN ESCAPES

TYPICAL PLAN & SECTIONS FOR RESIDENTIAL POOL/SPA

SHEET
S2
SHEET 2 OF 3

\\KIMESSRVR\D-Drive\COMPANY SHARED TWO\2020 FBC 7TH ED 2020 FBC KE Std Eng - r5.dwg

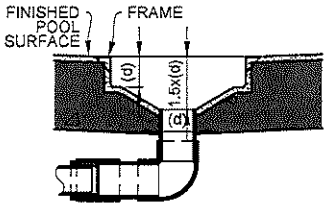


NOTE: CONTRACTOR SHALL VERIFY OVERHEAD POWER LINE CLEARANCE & UNDERGROUND WIRE DISTANCE PER NEC 680.8 & 680.10

NOTE: THIS DETAIL IS FOR MAX 6 FT DEEP SOIL SUPPORTED POOL SHELLS- SEE SUPPLEMENTAL SPECIFICATIONS FOR DEEPER STRUCTURES, LOAD SURCHARGE STRUCTURES, OR APPURTENANT STRUCTURES

1 POOL DEEP END SECTION

SCALE: N.T.S.



SPECIFIED PVC PIPE SIZE	(d)
MIN. SUMP DEPTH	1.5x(d)
MIN. LEDGE DEPTH	(d)

- OR -

FOR FIELD BUILT SUMPS SEE PRODUCT INSTALLATION INSTRUCTIONS

DRAIN COVERS & SUMPS a.k.a. SUCTION OUTLET FITTING ASSEMBLIES (SOFA)
ANSI/APSP/ICC-16 2017

- FOLLOW THE PRODUCT SPECIFICATIONS AND/OR INSTALLATION INSTRUCTIONS FOR MIN./MAX. SUMP DIMENSIONS, DRAIN COVER/GRATE, AND FRAME FASTENING MEETING MFGR'S SOFA CERTIFICATION.
- ***DO NOT USE POWER TOOLS TO INSTALL FASTENERS***
- FIELD MODIFICATIONS TO ANY SOFA NOT AUTHORIZED BY MFGR INSTALLATION INSTRUCTIONS SHALL VOID THE SOFA CERTIFICATION
- HAND CHECK COVER/GRATE SNUGNESS TO SUMP/FRAME AFTER INSTALLATION
- SOFA COMPONENTS HELD IN PLACE BY INTERIOR FINISH OF THE POOL SHALL BE FREE OF DETERIORATION AND VOIDS

2 FIELD BUILT SUMP

SCALE: N.T.S.

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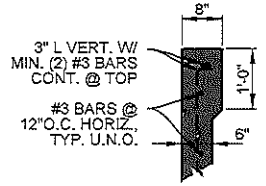
NOTES:
- APPROVED PRODUCT SPECIFICATION MAY DIFFER FROM FIELD BUILT SUMPS SHOWN ON THIS PAGE

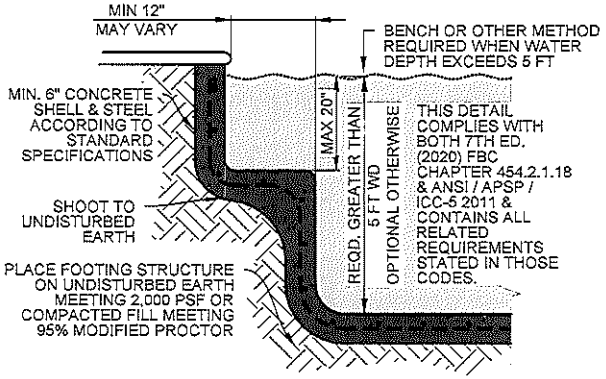
ADDITIONAL STRUCTURAL NOTES:
- USE MINIMUM ASTM A815 GRADE 40 STEEL
- LAP #3 BARS MINIMUM 15"
- LAP #5 BARS MINIMUM 25"
- 6" SHELL THICKNESS AND 2-1/2" CONCRETE COVERAGE ARE MINIMUMS
- USE 4,000 PSI CONCRETE
- CONTRACTOR / OWNER REQUIRED TO:
  - CONTACT ENGINEER IF POOL NOT PLACED ON UNDISTURBED AND DE-WATERED EARTH THAT CAN MEET 2,000 PSF BEARING CAPACITY.
  - WHEN BURIED DEBRIS IS ENCOUNTERED OR QUESTIONABLE CONDITIONS ARE INDICATED AT THE WORK SITE PRIOR / DURING CONSTRUCTION, A SUBSURFACE CONSULTANT SHALL CONDUCT BORING(S) IN THE AREA OF THE POOL TO CONFIRM SOIL BEARING CAPACITY, CLEAR OF BURIED DEBRIS, & VERIFYING GROUND WATER LEVEL
  - ALL MODIFIED SOILS & EARTH FILL UNDER PERSPECTIVE POOL AREA SHALL MEET A SOIL DENSITY AND COMPACTION MINIMUM OF 95% MODIFIED PROCTOR WITHOUT SETTLEMENT.



POOL BEAM 8"x12" OPTION 5

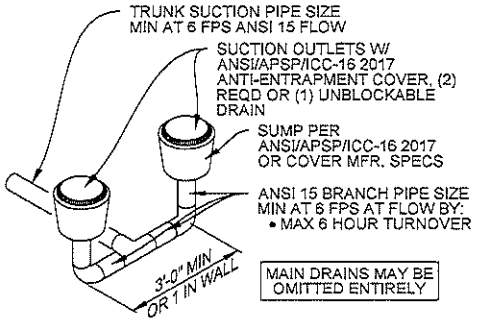
SCALE: N.T.S.

NOTE: THIS DETAIL IS FOR MAX 6 FT DEEP SOIL SUPPORTED POOL SHELLS- SEE SUPPLEMENTAL SPECIFICATIONS FOR DEEPER STRUCTURES, LOAD SURCHARGE STRUCTURES, OR APPURTENANT STRUCTURES



3 BENCH SECTION

SCALE: N.T.S.



MAIN DRAINS MAY BE OMITTED ENTIRELY

4 BRANCH PIPING

SCALE: N.T.S.

COMPLIES WITH 7TH ED. (2020) FBC, ALL VOLUMES

SEE DIGITAL SIGNATURE ON INDEX SHEET S1

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	2-3-2022	REVISED	
PROJ.NO.: KE_RSTD	DWG BY: MCM	CKD BY: JKK	DRAWING: 01-Jan-21

11394 SE CR 245
SOUTHERN ESCAPES

TYPICAL SECTIONS
FOR RESIDENTIAL POOL/SPA

SHEET
S3
SHEET 3 OF 3

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