LINE LEGEND	
—— PL ——	PROPERTY LINE
——— C/E ———	CONSTRUCTION EASEMENT
—□——□—	YARD FENCE
—o—o—o—o—	MESH BARRIER
— — — — —	CAGE FOOTPRINT

SITE INFORMATION FROM SURVEY

PROVIDED BY: ***CLEMENTS SURVEYING.***
DATED: **07/22/20**
PROJECT NO. **2020-234**
NOTE: ALL LOCATIONS, ELEVATIONS, UTILITIES, OR OTHER WISE MARKED DATA POINTS SHOULD REFERENCE AN ORIGINAL SIGNED & SEALED SURVEY FOR CLARIFICATIONS AND ACCURACY. KIMES ENGINEERING AND MANAGEMENT SERVICES, INC. DOES NOT TAKE ANY RESPONSIBILITY AS FOR THE ACCURACY OF EXISTING INFORMATION AND IS USING THE REFERENCED SURVEY FOR LOCATION PURPOSES AND DRAINAGE OF NEW WORK ONLY.

LOT CALCULATION		
TOTAL LOT SIZE	15,785	SF
BUILDING COVERAGE		
EXIST. HOUSE	1,780	SF
EXIST. LANAI & ENT	274	SF
PROP. POOL & DECK	1,579	SF
BUILDING. COVERAGE	23.0	%
NON-OPEN SPACE		
EXIST. CONCRETE	2,443	SF
NON-OPEN SPACE / TOTAL COVERAGE	38.5	%

APPROVED FOR ZONING COMPLIANCE
1/8/2026, 3:51:36 PM
BR-POOL-25-0052
Tate Taylor

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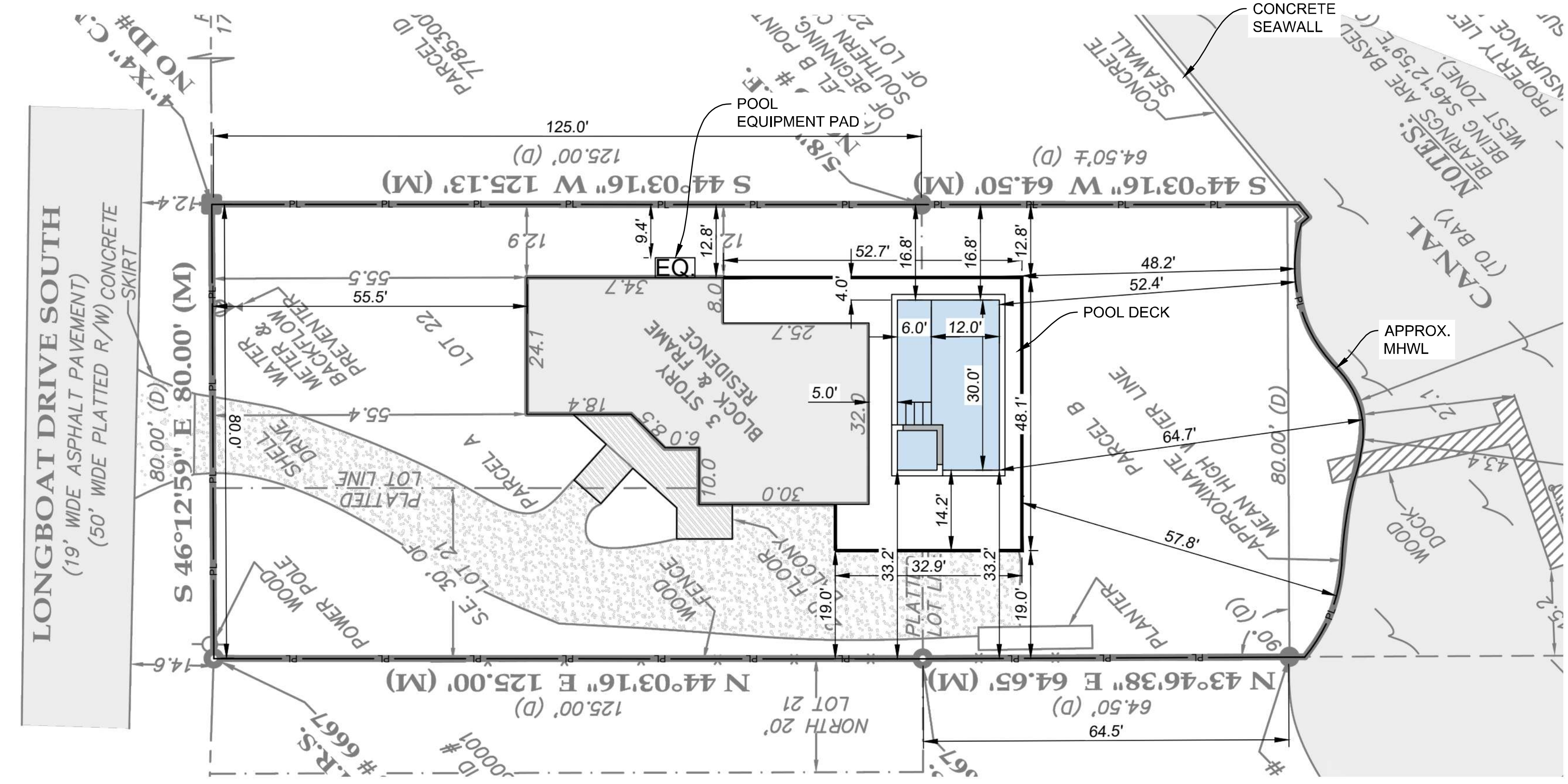
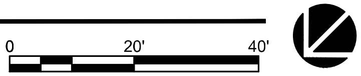
Digitally signed by James K Kimes
DN: c=US, o=KIMES ENGINEERING AND MANAGEMENT SERVICES INC, dnQualifier=A01410C000001877C95694C00059AC5, cn=James K Kimes
Date: 2026.01.03 15:52:42 -05'00'

No. 33678



1 SITE PLAN

SCALE 1"= 20'



\\KIMESSRV\D-Drive\CLIENT FILES POOL CONTRACTOR\2 Misc Clients\TESTED WATERS LLC\6821 LONGBOAT DR S\6821 LONGBOAT DR S.dwg

ORIG. DWG: 17"x11" (ANSI B)

KIMES ENGINEERING
1925 Worth Ct
Bradenton, FL 34211
Office: 941-749-0311
C.A. 27189

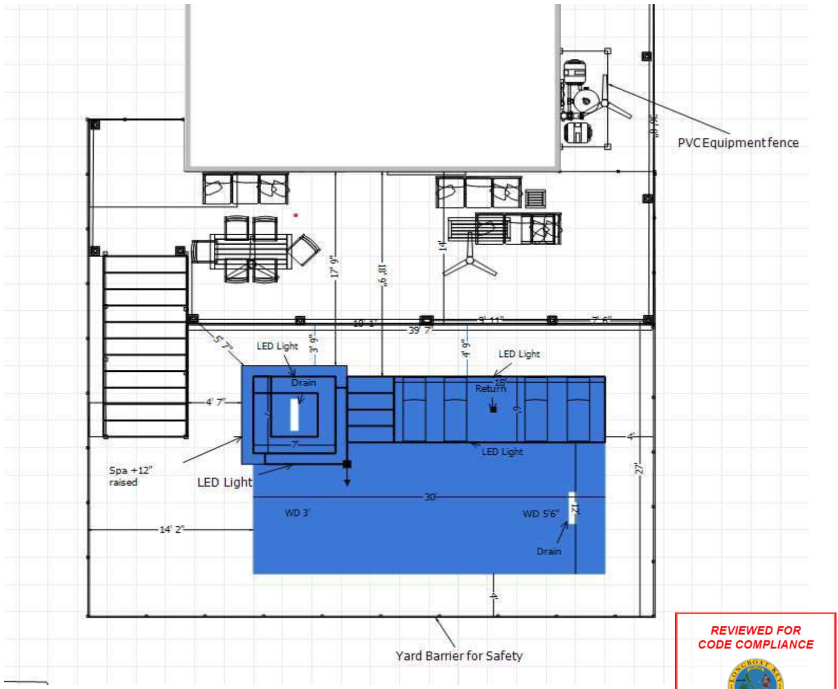
REV.	DATE	DESCRIPTION	
PROJ. NO.:	DWG BY: KC	CKD BY: JKK	DRAWING: 1-Dec-25	PRINTED: 2-Jan-26

6821 LONGBOAT DR S
TOWN OF LONGBOAT KEY
RESIDENTIAL POOL

SITE PLAN

TESTED WATERS

SHEET
1
SHEET 1 OF 1



REVIEWED FOR CODE COMPLIANCE

APPROVED

2/4/2026, 5:50:29 PM

BR-POOL-25-0052

Debra Klahr

Customer Information

Name:	Steve/Lisa Dalkert		
Address:	6821 Longboat Dr S Longboat Key, FL 34228		
Project:	New Build		

Pool

Dimension:	30' x 18'	**Chlorinator:**	Jandy Tru-Clear
Perimeter:	96'	**Cleaner:**	N/A
Area:	540 sq ft	**Lights:**	3
Internal Area:	833 sq ft	**Spillover:**	N/A
Depth:	3'-5' 6"	**Interior Finish:**	Selection TBD
Autofill:	Yes	**Tile Material:**	Selection TBD
Pump:	Jandy VS	**Coping Material:**	Travertine
Filter:	CS 150	**Steps/Benches:**	1
Heater:	Gulfstream Heat/Chill	**Skimmer:**	1
Automation:	Jandy 904 w/ i-AquaLink	**Returns:**	3
Elevation	Per Plan	**Volleyball Anchor:**	N/A
Safety Feature	Pool Alarm/Yard Fencing	**Sidewall Drain:**	N/A
Additional Items:			

Spa

Shape:	Square	**Dimension:**	7' x 7'
Inside Perimeter:	49 sq ft	**Depth:**	3'
Heater:	Gulfstream Heat/Chill	**Filter:**	CS 150
		Spillover:	Yes
Chlorinator:	Jandy Tru-Clear	**Tile Material:**	Selection TBD
Interior Finish:	Selection TBD	**Steps/Benches:**	
Blower:	Yes	**Jets:**	6
Return:	1	**Lights:**	1
Pump:	Jandy VS	**Elevation:**	
Safety Feature	N/A		
Additional Items:	N/A		

Decking

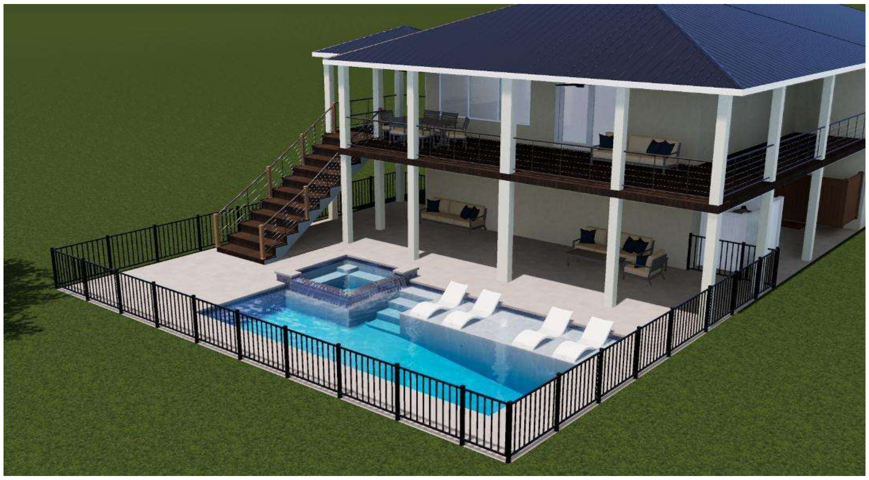
Deck Type:	N/A (Decking done by GC)

Additional Notes

All Dimensions 5% Tolerance

TESTED WATERS

DESIGN. BUILD. REMODEL.



Customer Information

Name:	Steve/Lisa Dalkert		
Address:	6821 Longboat Dr S Longboat Key, FL 34228		
Project:	New Build		

Pool

Dimension:	31' x 15'	**Chlorinator:**	Jandy Tru-Clear
Perimeter:	92'	**Cleaner:**	N/A
Area:	465 sq ft	**Lights:**	3
Internal Surface Are	833 sq ft	**Spillover:**	N/A
Depth:	3'-5' 6"	**Interior Finish:**	Selection TBD
Autofill:	Yes	**Tile Material:**	Selection TBD
Pump:	Jandy VS	**Coping Material:**	Travertine
Filter:	CS 150	**Steps/Benches:**	1
Heater:	Gulfstream Heat/Chill	**Skimmer:**	1
Automation:	Jandy 904 w/ i-AquaLink	**Returns:**	3
Elevation	Per Plan	**Volleyball Anchor:**	N/A
Safety Feature	Pool Alarm/Yard Fencing	**Sidewall Drain:**	N/A
Additional Items:			

Spa

Shape:	Square	**Dimension:**	7' x 7'
Inside Perimeter:	49 sq ft	**Depth:**	3'
Heater:	Gulfstream Heat/Chill	**Filter:**	CS 150
		Spillover:	Yes
Chlorinator:	Jandy Tru-Clear	**Tile Material:**	Selection TBD
Interior Finish:	Selection TBD	**Steps/Benches:**	
Blower:	Yes	**Jets:**	6
Return:	1	**Lights:**	1
Pump:	Jandy VS	**Elevation:**	
Safety Feature	N/A		
Additional Items:	N/A		

Decking

Deck Type:	N/A (Decking done by GC)

Additional Notes

All Dimensions 5% Tolerance

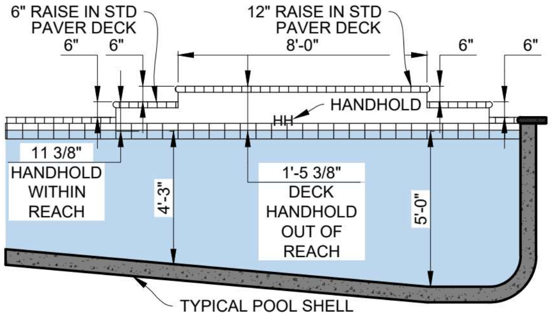
TESTED WATERS

DESIGN. BUILD. REMODEL.

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]



6" RAISE IN STD PAVER DECK
6"
6"
12" RAISE IN STD PAVER DECK
8'-0"
6"
6"
HH
HANDHOLD
11 3/8" HANDHOLD WITHIN REACH
4'-3"
1'-5 3/8" DECK HANDHOLD OUT OF REACH
5'-0"
TYPICAL POOL SHELL

ON PAVER COPING A 6" RISE STILL HAS HANDHOLD

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

1 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

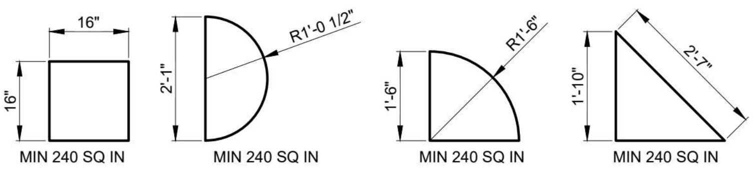
REVIEWED FOR CODE COMPLIANCE
APPROVED
12/5/2025, 2:26:16 PM
BR-POOL-25-0052
Debra Klahr

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 AND BEFORE HEATER, IF HEATER PROVIDED.

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]



2 EXAMPLE 240 SQ IN STEP DIMENSIONS

SCALE: N.T.S.

SUN SHELF AS FIRST STEP

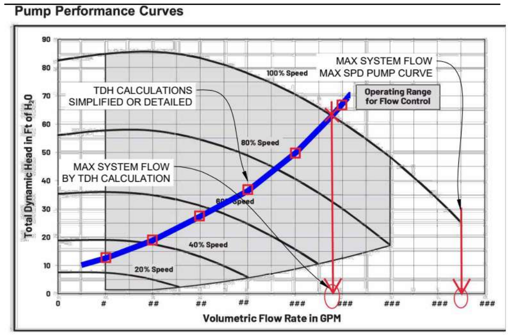
MAXIMUM 12" DECK TO SUN SHELF AS 1ST STEP, LIMITS WATER DEPTH UNLESS ADDED STEP ON SHELF. [2011 ANSI/APSP-5, 6.2.2]

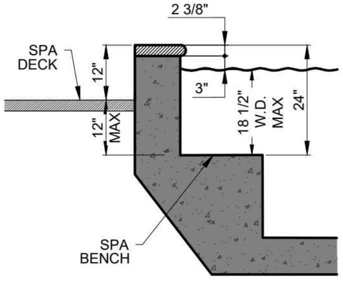
ANSI 7 SUCTION ENTRAPMENT SAFETY

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 VERIFY SIDEWALL SUCTIONS AND RATED "WALL" FLOWS

IF TDH USED TO SHOW SOFA COMPLIANCE, FLOW VERIFICATION REQUIRED AT FINAL.

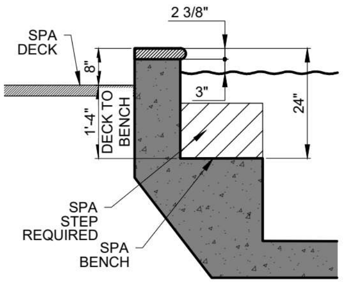
EXAMPLE SIMPLE OR DETAILED TDH





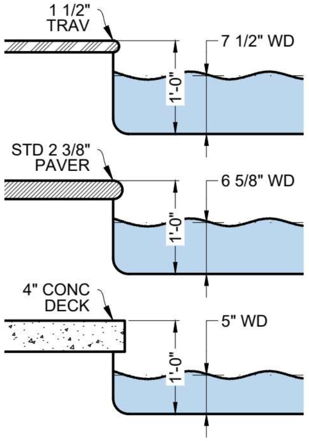
3 12" RAISED SPA NO STEP

SCALE: N.T.S.



4 8" RAISED SPA STEP REQD.

SCALE: N.T.S.



5 SUN SHELF AS 1ST STEP

SCALE: N.T.S.

COMPLIES WITH
2023 8TH ED. FBC,
ALL VOLUMES

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Digitally signed by James K Kimes
DN: c=US, o=KIMES ENGINEERING AND MANAGEMENT SERVICES INC, dnQualifier=A01410C000001877C95694C00059AC5, cn=James K Kimes
Date: 2025.11.17 11:31:18 -05'00'

JAMES KENT KIMES
No. 33678

KIMES ENGINEERING
1925 Worth Ct.
Bradenton, FL 34211
Office: 941-749-0311
C.A. 27189

REV.	DATE	DESCRIPTION		
PROJ. NO.:	DWG BY:	CKD BY:	DRAWING:	VERSION:
2023 FBC	JW	JKK	01-Jan-24	01-Jan-24

6821 LONGBOAT DR S
TESTED WATERS

TYPICAL PLAN & SECTIONS FOR RESIDENTIAL POOL/SPA

ORIG. DWG: 17"x11" (ANSI B)

SHEET
S1
SHEET 1 OF 3

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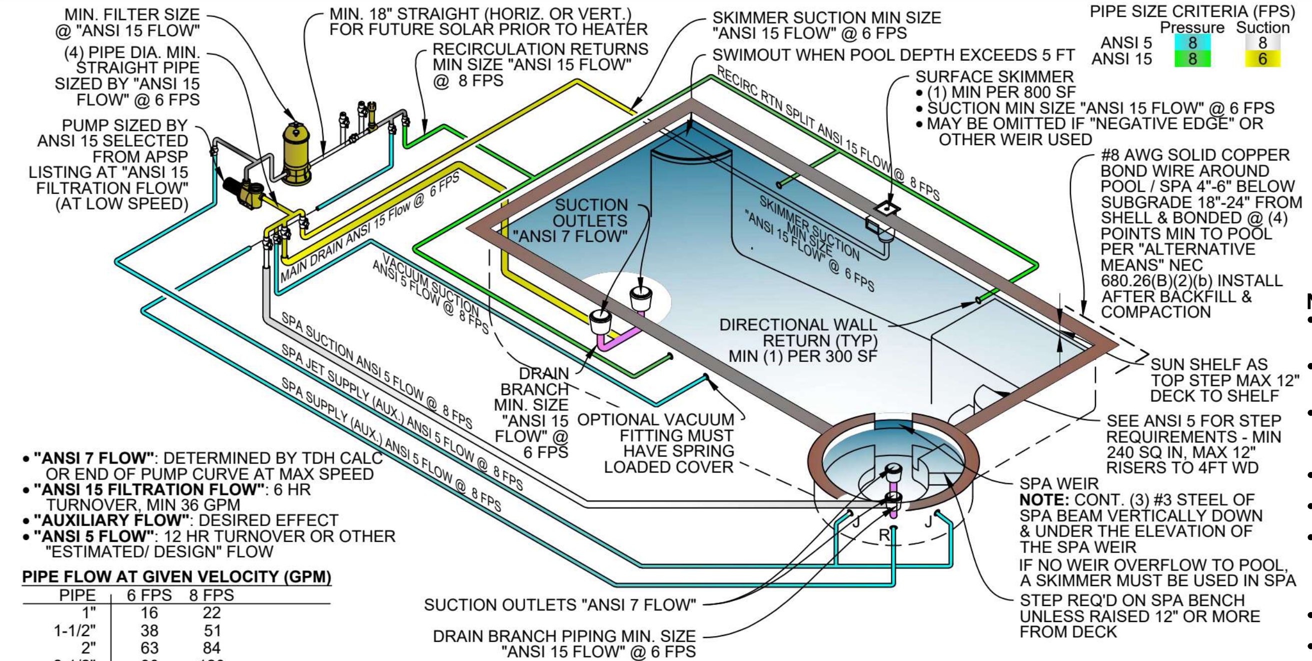
MIN. FILTER SIZE @ "ANSI 15 FLOW"
(4) PIPE DIA. MIN. STRAIGHT PIPE SIZED BY "ANSI 15 FLOW" @ 6 FPS
PUMP SIZED BY ANSI 15 SELECTED FROM APSP LISTING AT "ANSI 15 FILTRATION FLOW" (AT LOW SPEED)
MIN. 18" STRAIGHT (HORIZ. OR VERT.) FOR FUTURE SOLAR PRIOR TO HEATER
RECIRCULATION RETURNS MIN SIZE "ANSI 15 FLOW" @ 8 FPS
SKIMMER SUCTION MIN SIZE "ANSI 15 FLOW" @ 6 FPS
SWIMOUT WHEN POOL DEPTH EXCEEDS 5 FT
RECIRC RTN SPLIT ANSI 15 FLOW @ 8 FPS
SURFACE SKIMMER
• (1) MIN PER 800 SF
• SUCTION MIN SIZE "ANSI 15 FLOW" @ 6 FPS
• MAY BE OMITTED IF "NEGATIVE EDGE" OR OTHER WEIR USED
#8 AWG SOLID COPPER BOND WIRE AROUND POOL / SPA 4"-6" BELOW SUBGRADE 18"-24" FROM SHELL & BONDED @ (4) POINTS MIN TO POOL PER "ALTERNATIVE MEANS" NEC 680.26(B)(2)(b) INSTALL AFTER BACKFILL & COMPACTION
SUCTION OUTLETS "ANSI 7 FLOW"
SKIMMER SUCTION MIN SIZE "ANSI 15 FLOW" @ 6 FPS
MAIN DRAIN ANSI 15 Flow @ 6 FPS
VACUUM SUCTION ANSI 5 FLOW @ 8 FPS
DIRECTIONAL WALL RETURN (TYP) MIN (1) PER 300 SF
SUN SHELF AS TOP STEP MAX 12" DECK TO SHELF
SPA SUCTION ANSI 5 FLOW @ 8 FPS
SPA JET SUPPLY (AUX.) ANSI 5 FLOW @ 8 FPS
SPA SUPPLY (AUX.) ANSI 5 FLOW @ 8 FPS
DRAIN BRANCH MIN. SIZE "ANSI 15 FLOW" @ 6 FPS
OPTIONAL VACUUM FITTING MUST HAVE SPRING LOADED COVER
SEE ANSI 5 FOR STEP REQUIREMENTS - MIN 240 SQ IN, MAX 12" RISERS TO 4FT WD
SPA WEIR
NOTE: CONT. (3) #3 STEEL OF SPA BEAM VERTICALLY DOWN & UNDER THE ELEVATION OF THE SPA WEIR
IF NO WEIR OVERFLOW TO POOL, A SKIMMER MUST BE USED IN SPA
J
R
J
SUCTION OUTLETS "ANSI 7 FLOW"
DRAIN BRANCH PIPING MIN. SIZE "ANSI 15 FLOW" @ 6 FPS
STEP REQ'D ON SPA BENCH UNLESS RAISED 12" OR MORE FROM DECK

PIPE SIZE CRITERIA (FPS)

	Pressure	Suction
ANSI 5	8	8
ANSI 15	8	6

- **"ANSI 7 FLOW"**: DETERMINED BY TDH CALC OR END OF PUMP CURVE AT MAX SPEED
- **"ANSI 15 FILTRATION FLOW"**: 6 HR TURNOVER, MIN 36 GPM
- **"AUXILIARY FLOW"**: DESIRED EFFECT
- **"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.

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JAMES KENT KIMES LICENSE No. 33678 STATE OF FLORIDA PROFESSIONAL ENGINEER

NOTES:

- THIS PLAN IS SCHEMATIC & PIPING SHALL BE CONNECTED TO PROVIDE A FUNCTIONING SYSTEM.
- POOL PIPING SHALL HOLD STATIC WATER OR AIR PRESSURE NOT LESS THAN 35 PSI FOR 15 MINUTES, PER R4501.12.1
- POOLS SHALL HAVE FILTRATION 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 8TH ED. (2023) FBC.
- ELECTRICAL EQUIPMENT, WIRING, & INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE 2020 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 8TH ED. (2023) FBC
- REGARDLESS OF THE CRITERIA HERE, THE PROJECT SHALL COMPLY WITH ALL SECTIONS OF THE 8TH ED. (2023) FBC - RESIDENTIAL, BUILDING, MECHANICAL, PLUMBING & GAS CODES, AS APPLICABLE RESPECTIVELY & AMENDED.

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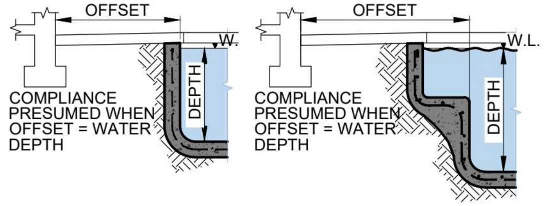
APPROVED
12/5/2025, 2:26:16 PM
BR-POOL-25-0052
Debra Klahr

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 8TH ED (2023) FBC, SECTION 1804.1 STATES THAT "EXCAVATIONS SHALL NOT REMOVE VERTICAL OR LATERAL SUPPORT FROM ANY FOUNDATION." THEREFORE THE FOLLOWING IS REQUIRED:


OFFSET
W.L.
DEPTH
COMPLIANCE PRESUMED WHEN OFFSET = WATER DEPTH
OFFSET
W.L.
DEPTH
COMPLIANCE PRESUMED WHEN OFFSET = WATER DEPTH

"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 OR INSPECTOR FIND 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.

COMPLIES WITH
2023 8TH ED. FBC,
ALL VOLUMES

THIS DOCUMENT VALID ONLY 12 MONTHS FROM DATE SIGNED

KIMES ENGINEERING
1925 Worth Ct.
Bradenton, FL 34211
Office: 941-749-0311
C.A. 27189

REV.	DATE	DESCRIPTION

PROJ. NO.:	DWG BY:	CKD BY:	DRAWING:	VERSION:
2023 FBC	JW	JKK	01-Jan-24	01-Jan-24

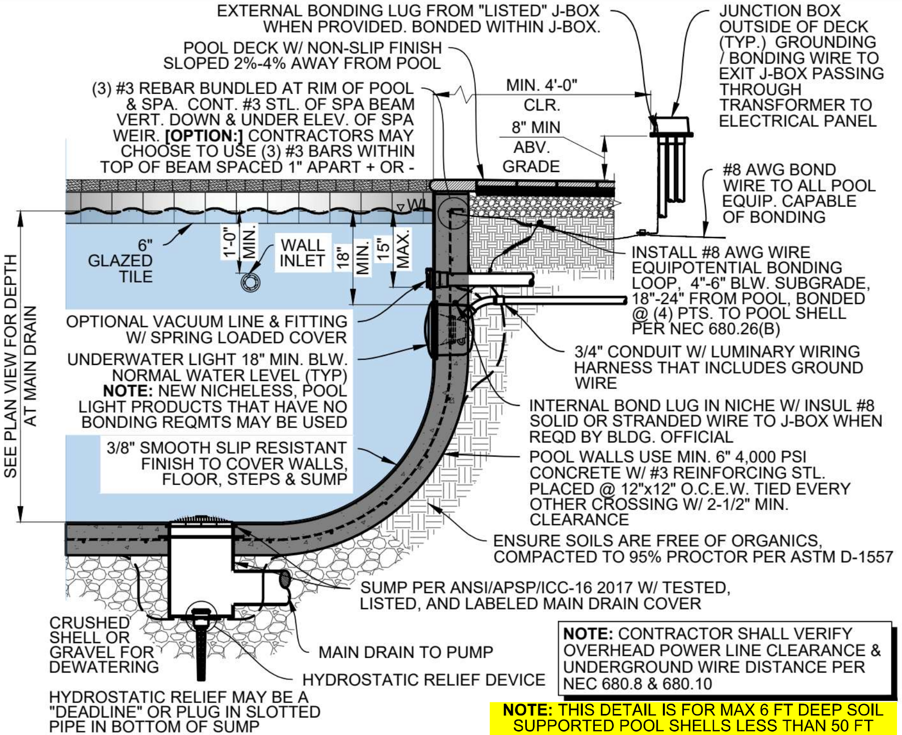
6821 LONGBOAT DR S
TESTED WATERS

TYPICAL PLAN & SECTIONS
FOR RESIDENTIAL POOL/SPA

SHEET
S2
SHEET 2 OF 3

ORIG. DWG: 17"x11" (ANSI B)

\\KIMESSRV\D-Drive\COMPANY SHARED TWO\00 MASTER RESIDENTIAL PROJECT TOOLS\2023 FBC Frequently used CADs\2023 FBC KE S1 S2 S3 r2.dwg

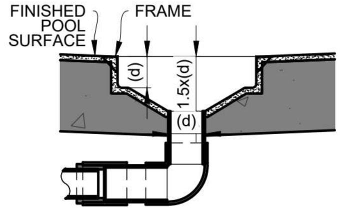

EXTERNAL BONDING LUG FROM "LISTED" J-BOX WHEN PROVIDED. BONDED WITHIN J-BOX.
JUNCTION BOX OUTSIDE OF DECK (TYP.) GROUNDING / BONDING WIRE TO EXIT J-BOX PASSING THROUGH TRANSFORMER TO ELECTRICAL PANEL
POOL DECK W/ NON-SLIP FINISH SLOPED 2%-4% AWAY FROM POOL
(3) #3 REBAR BUNDLED AT RIM OF POOL & SPA. CONT. #3 STL. OF SPA BEAM VERT. DOWN & UNDER ELEV. OF SPA WEIR. [OPTION:] CONTRACTORS MAY CHOOSE TO USE (3) #3 BARS WITHIN TOP OF BEAM SPACED 1" APART + OR -
MIN. 4'-0"
CLR.
8" MIN
ABV.
GRADE
#8 AWG BOND WIRE TO ALL POOL EQUIP. CAPABLE OF BONDING
WL
6" GLAZED TILE
1'-0" MIN.
WALL INLET
18" MIN.
15" MAX.
INSTALL #8 AWG WIRE EQUIPOTENTIAL BONDING LOOP, 4"-6" BLW. SUBGRADE, 18"-24" FROM POOL, BONDED @ (4) PTS. TO POOL SHELL PER NEC 680.26(B)
OPTIONAL VACUUM LINE & FITTING W/ SPRING LOADED COVER
3/4" CONDUIT W/ LUMINARY WIRING HARNESS THAT INCLUDES GROUND WIRE
UNDERWATER LIGHT 18" MIN. BLW. NORMAL WATER LEVEL (TYP)
NOTE: NEW NICHELESS, POOL LIGHT PRODUCTS THAT HAVE NO BONDING REQMTS MAY BE USED
INTERNAL BOND LUG IN NICHE W/ INSUL #8 SOLID OR STRANDED WIRE TO J-BOX WHEN REQD BY BLDG. OFFICIAL
SEE PLAN VIEW FOR DEPTH AT MAIN DRAIN
3/8" SMOOTH SLIP RESISTANT FINISH TO COVER WALLS, FLOOR, STEPS & SUMP
POOL WALLS USE MIN. 6" 4,000 PSI CONCRETE W/ #3 REINFORCING STL. PLACED @ 12"x12" O.C.E.W. TIED EVERY OTHER CROSSING W/ 2-1/2" MIN. CLEARANCE
ENSURE SOILS ARE FREE OF ORGANICS, COMPACTED TO 95% PROCTOR PER ASTM D-1557
SUMP PER ANSI/APSP/ICC-16 2017 W/ TESTED, LISTED, AND LABELED MAIN DRAIN COVER
CRUSHED SHELL OR GRAVEL FOR DEWATERING
MAIN DRAIN TO PUMP
HYDROSTATIC RELIEF DEVICE
HYDROSTATIC RELIEF MAY BE A "DEADLINE" OR PLUG IN SLOTTED PIPE IN BOTTOM OF SUMP

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 LESS THAN 50 FT LONG- 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.

This item has been digitally signed and sealed by J. Kent Kimes, PE on date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

JAMES KENT KIMES
No. 33678

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REVIEWED FOR CODE COMPLIANCE
APPROVED
12/5/2025, 2:26:16 PM
BR-POOL-25-0052
Debra Klahr

NOTES:

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

ADDITIONAL STRUCTURAL NOTES:

- USE MINIMUM ASTM A615 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.

THIS DOCUMENT VALID ONLY 12 MONTHS FROM DATE SIGNED

KIMES ENGINEERING

1925 Worth Ct.
Bradenton, FL 34211
Office: 941-749-0311
C.A. 27189

REV.	DATE	DESCRIPTION		
PROJ. NO.:	DWG BY:	CKD BY:	DRAWING:	VERSION:
2023 FBC	JW	JKK	01-Jan-24	01-Jan-24

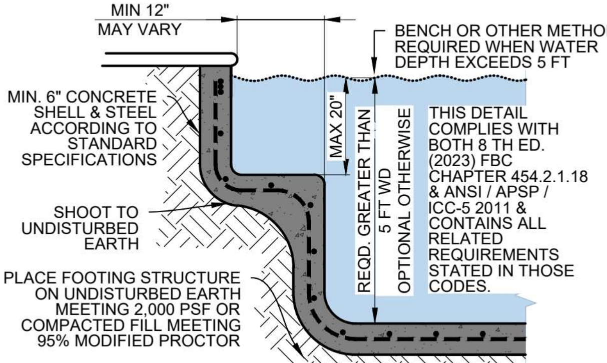
6821 LONGBOAT DR S
TESTED WATERS

TYPICAL SECTIONS
FOR RESIDENTIAL POOL/SPA

SHEET
S3
SHEET 3 OF 3

ORIG. DWG: 17"x11" (ANSI B)

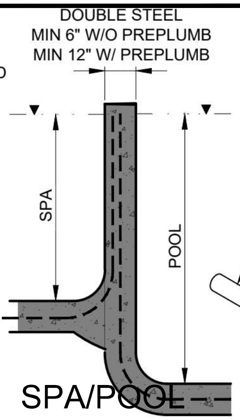
\\KIMESSRV\D-Drive\COMPANY SHARED TWO\00 MASTER RESIDENTIAL PROJECT TOOLS\2023 FBC Frequently used CADs\2023 FBC KE S1 S2 S3 r2.dwg


MIN 12"
MAY VARY
BENCH OR OTHER METHOD REQUIRED WHEN WATER DEPTH EXCEEDS 5 FT
MIN. 6" CONCRETE SHELL & STEEL ACCORDING TO STANDARD SPECIFICATIONS
MAX 20"
REQD. GREATER THAN 5 FT WD
OPTIONAL OTHERWISE
SHOOT TO UNDISTURBED EARTH
PLACE FOOTING STRUCTURE ON UNDISTURBED EARTH MEETING 2,000 PSF OR COMPACTED FILL MEETING 95% MODIFIED PROCTOR

THIS DETAIL COMPLIES WITH BOTH 8 TH ED. (2023) FBC CHAPTER 454.2.1.18 & ANSI / APSP / ICC-5 2011 & CONTAINS ALL RELATED REQUIREMENTS STATED IN THOSE CODES.

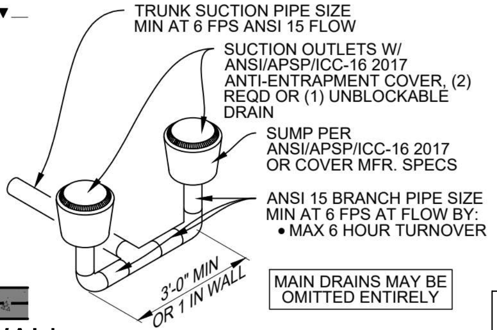
3 BENCH SECTION

SCALE: N.T.S.



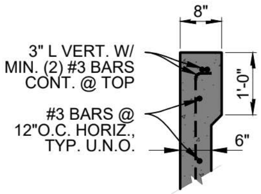
6 SPA/POOL COMMON WALL

SCALE: N.T.S.


TRUNK SUCTION PIPE SIZE MIN AT 6 FPS ANSI 15 FLOW
SUCTION OUTLETS W/ ANSI/APSP/ICC-16 2017 ANTI-ENTRAPMENT COVER, (2) REQD OR (1) UNBLOCKABLE DRAIN
SUMP PER ANSI/APSP/ICC-16 2017 OR COVER MFR. SPECS
ANSI 15 BRANCH PIPE SIZE MIN AT 6 FPS AT FLOW BY:
• MAX 6 HOUR TURNOVER
3'-0" MIN OR 1 IN WALL
MAIN DRAINS MAY BE OMITTED ENTIRELY

4 BRANCH PIPING

SCALE: N.T.S.


8"
3" L VERT. W/ MIN. (2) #3 BARS CONT. @ TOP
1'-0"
#3 BARS @ 12"O.C. HORIZ., TYP. U.N.O.
6"

5 POOL BEAM 8"x12" OPTION

SCALE: N.T.S.

COMPLIES WITH
2023 8TH ED. FBC,
ALL VOLUMES