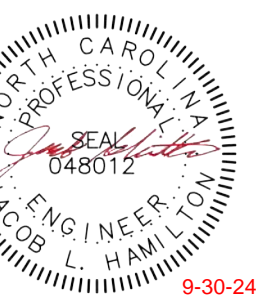




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DATE	
REVISION	
NO.	

SHEET DISCUSSION

POOL DIMENSIONS

PROJECT #: 2023015

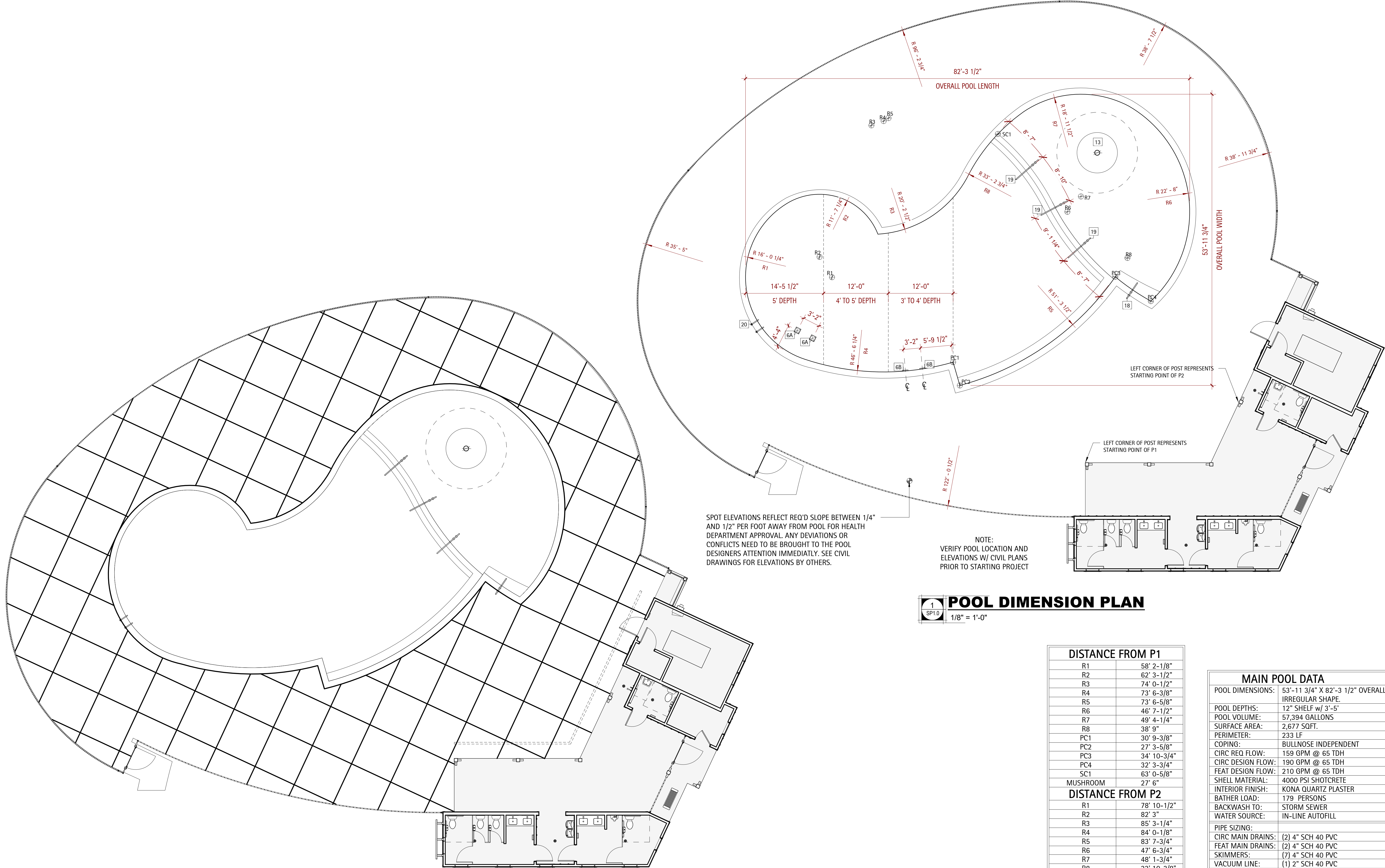
DATE ISSUED: 01/22/2024

DRAWING BY: JVD

CHECKED BY: DSC/JLH

POWELL AMENITY GREENHAWK BATHHOUSE AMENITY LILLINGTON, NC

SP1.0



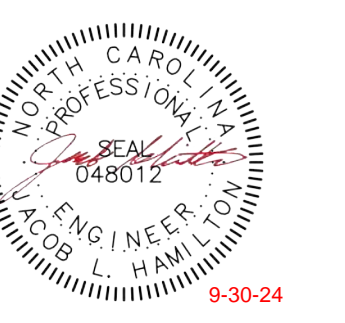
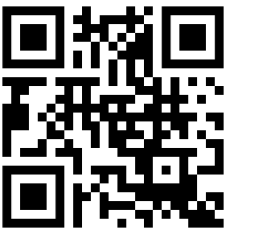
**1 POOL DIMENSION PLAN**  
1/8" = 1'-0"

DISTANCE FROM P1	
R1	58' 2-1/8"
R2	62' 3-1/2"
R3	74' 0-1/2"
R4	73' 6-3/8"
R5	73' 6-5/8"
R6	46' 7-1/2"
R7	49' 4-1/4"
R8	38' 9"
PC1	30' 9-3/8"
PC2	27' 3-5/8"
PC3	34' 10-3/4"
PC4	32' 3-3/4"
SC1	63' 0-5/8"
MUSHROOM	27' 6"

DISTANCE FROM P2	
R1	78' 10-1/2"
R2	82' 3"
R3	85' 3-1/4"
R4	84' 0-1/8"
R5	83' 7-3/4"
R6	47' 6-3/4"
R7	48' 1-3/4"
R8	33' 10-3/8"
PC1	53' 5-5/8"
PC2	51' 9-1/2"
PC3	32' 8-1/4"
PC4	24' 11"
SC1	66' 10-3/4"
MUSHROOM	53' 3-1/8"

MAIN POOL DATA	
POOL DIMENSIONS:	53'-11 3/4" X 82'-3 1/2" OVERALL IRREGULAR SHAPE.
POOL DEPTHS:	12" SHELF w/ 3'-5"
POOL VOLUME:	57,394 GALLONS
SURFACE AREA:	2,677 SQFT.
PERIMETER:	233 LF
COPING:	BULLNOSE INDEPENDENT
CIRC REQ FLOW:	159 GPM @ 65 TDH
CIRC DESIGN FLOW:	190 GPM @ 65 TDH
FEAT DESIGN FLOW:	210 GPM @ 65 TDH
SHELL MATERIAL:	4000 PSI SHOTCRETE
INTERIOR FINISH:	KONA QUARTZ PLASTER
BATHER LOAD:	179 PERSONS
BACKWASH TO:	STORM SEWER
WATER SOURCE:	IN-LINE AUTOFILL
PIPE SIZING:	
CIRC MAIN DRAINS:	(2) 4" SCH 40 PVC
FEAT MAIN DRAINS:	(2) 4" SCH 40 PVC
SKIMMERS:	(7) 4" SCH 40 PVC
VACUUM LINE:	(1) 2" SCH 40 PVC
INLETS:	(11) 3" SCH 40 PVC
FILTER TYPE:	HIGH RATE SAND
SIZE PROVIDED:	2 @ 7.06 SF [EA] = 14.12
SIZE REQUIRED:	14.00 SF TOTAL
MEDIA CIRC. RATE:	15 GPM/SF
BACKWASH RATE:	15 GPM/SF
TURNOVER RATE:	6 HOURS

**2 POOL CONTROL JOINT PLAN**  
1/8" = 1'-0"



DATE	REVISION	NO.	HEALTH
07/30/24		2	

SHEET DISCUSSION  
**OVERALL POOL LAYOUT**

PROJECT #:	2023015
DATE ISSUED:	01/22/2024
DRAWING BY:	JVD
CHECKED BY:	DSC/JLH

**POWELL AMENITY GREENHAWK BATHHOUSE AMENITY LILLINGTON, NC**

POOL EQUIPMENT SCHEDULE				
TAG	COUNT	MANUFACTURER	MODEL	COMMENTS
1A	1	PENTAIR	XFET-20	5 HP SELF-PRIMING PUMP W/ STRAINER BASKET + EXTRA STRAINER
1B	1	PENTAIR	WHISPERFLOX VS	5 HP SELF-PRIMING PUMP W/ STRAINER BASKET + EXTRA STRAINER
2	2	PENTAIR	147402	TANDEM FILTER PIPING KITS FOR 2 & 3 IN FILTERS
3	2	PENTAIR	TR-140 C3	36 INCH DIA HIGH RATE SAND FILTER W/ 7.06 SF OF MEDIA
4	2	PENTAIR	HC-3315	COMMERCIAL HIGH COMPACTY CHLORINE FEEDER
5	2	FLOW VIS	FV-4-40	4 INCH INLINE COMMERCIAL FLOW METER
6A	2	AQUASTAR	1216101 W/ FBS-50-812-4	12" x 12" VGB SUCTION OUTLET COVER W/ A.S.A. MFG FIBERGLASS SUMP
6B	2	AQUASTAR	1216101 W/ FBS-50-812-18-6	12" x 12" VGB SUCTION OUTLET COVER W/ A.S.A. MFG FIBERGLASS SUMP
7	1	AQUASTAR	HVC101	SELF-CONTAINED HYDROSTATIC RELIEF VALVE
8	7	AQUASTAR	SKR101	WHITE COMMERCIAL GRADE SKIMMER
9	1	AQUASTAR	ES1022SI2001 W/ VLK15T01	VACUUM LINE FITTING W/ LOCK CAP
10	1	AQUASTAR	GDD101	COMMERCIAL OVERFLOW DRAIN
11	9	AQUASTAR	ES1022SI2001 W/ 8101	WALL RETURN INLET - DIRECTIONAL
12	2	AQUASTAR	ES1022SI2001 W/ BP101	FLOOR RETURN INLET W/ BUBBLER PLATE
13	1	NAT. STRUCT.	1800-17-96	7' 6" DIA MUSHROOM FEATURE (200 GPM @ 3" DIA) - CAP COLOR TBD
14	1	AQUASTAR	AFB101	FILLSTAR - AUTOFILL LINE - WHITE
15	3	PENTAIR	LIGHT - 602104	190W EQUIVALENCY GLOBRITE WHITE LED LIGHTS
16	2	PENTAIR	LIGHT - 601108	400W EQUIVALENCY INTELLIBRITE WHITE LED LIGHTS
17	2	INTERMATIC	PJB4175	4 LIGHT CONNECTION POOL & SPA JUNCTION BOX
18	1	SR SMITH	DMS-101B - MG	MARINE GRADE DECK MOUNTED HANDRAIL - SHORT
19	3	SR SMITH	DMS-102B - MG	MARINE GRADE DECK MOUNTED HANDRAIL - STANDARD
20	1	SR SMITH	10054 - MG	MARINE GRADE DECK MOUNTED COMMERCIAL LADDER
21	1	PENTAIR	RCS1 (OR EQ)	COMPOOL REMOTE SWITCH WALL GANG PLATE - TIMER FOR PUSH BUTTON FOR FEATURE
22	1	INTERMATIC	ET90115CR (OR EQ)	ELECTRIC TIMER FOR FEATURE PUMP
HC	1	SR SMITH	MULTI-LIFT	ADA COMPLIANT HANDICAP LIFT

BUILDING FIXTURE DATA	
TOTAL BATHER LOAD = 2,677 /15 = 179	(50% - 50% SPLIT) = 90
CLUBHOUSE & PUMP HOUSE REQUIREMENTS:	MINIMUM FIXTURE REQUIREMENTS ARE:
90 MEN	- 1 LAVATORIES
	- 1 WATER CLOSET(S)
	- 1 URINAL(S)
90 WOMEN	- 2 LAVATORIES
	- 2 WATER CLOSET(S)
	1 SHOWERS IS REQUIRED
SEE ARCHITECTURAL PLANS BY OTHERS FOR RESTROOM LOCATION & LAYOUTS	

POOL DECK EXIT REQUIREMENTS	
POOL DECK AREA - 6,104 SF @ 15 SF PER PERSON	DECK OCCUPANT LOAD IS 407 PERSONS.
POOL AREA IS 2,677 SF @ 50 SF PER PERSON,	POOL OCCUPANT LOAD IS 54 PERSONS.
TOTAL POOL & POOL DECK OCCUPANT LOAD IS 461 PERSONS.	
SEE LIFE SAFETY PLANS FOR BUILDING OCCUPANCY & EXIT REQUIREMENTS.	

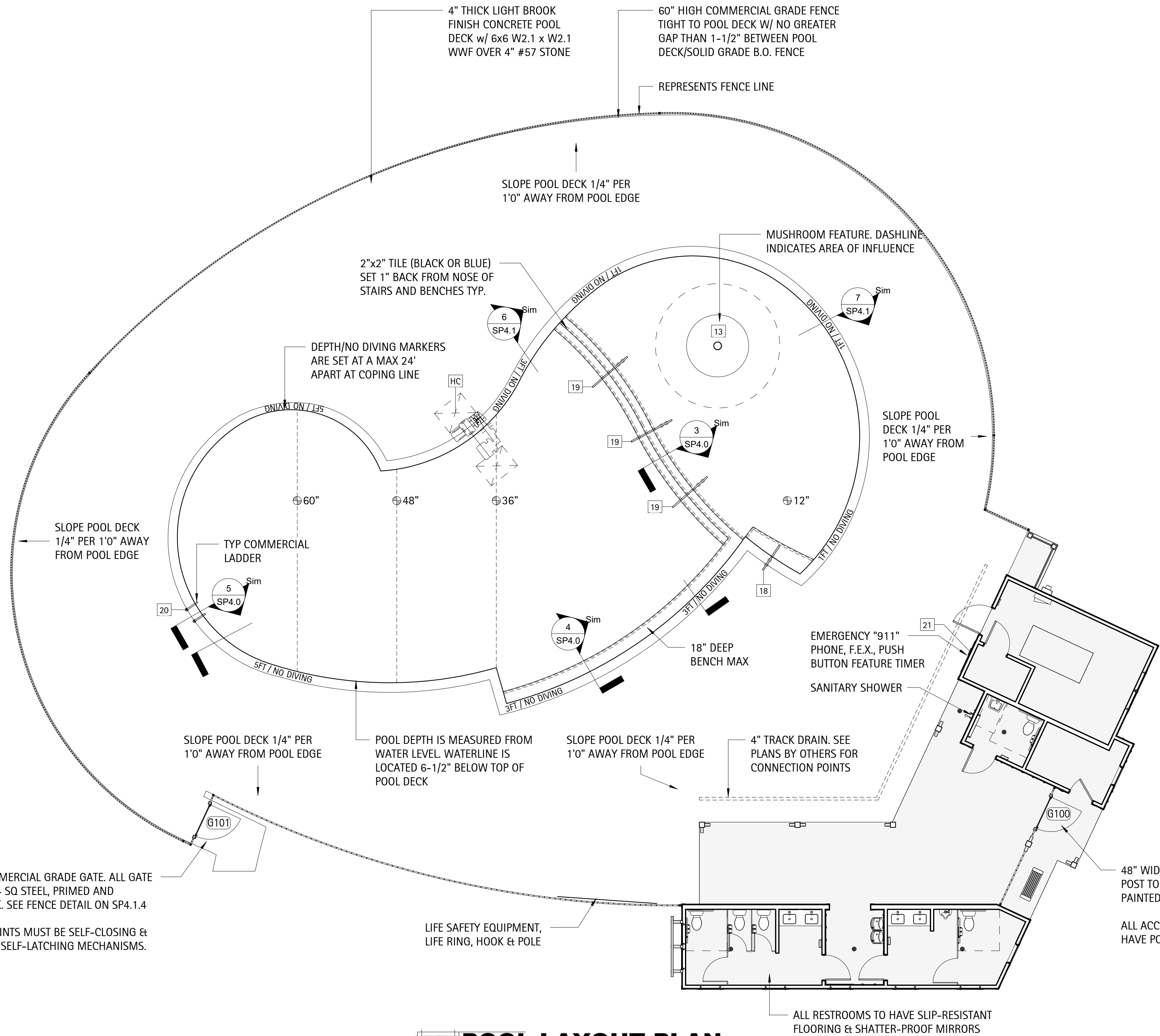
POOL DECK SIGNAGE REQUIREMENTS	
POOL SIGNAGE TO BE POSTED IN THE MAIN POOL AREA:	
SIGN "A" - 4" TALL LETTERS	WARNING - NO LIFE GUARD ON DUTY
SIGN "B" - 1" TALL LETTERS - A MIN. OF (2) THIS PROJECT	
POOL SAFETY RULES	
1.	CHILDREN SHOULD NOT USE THE SWIMMING POOL WITHOUT ADULT SUPERVISION.
2.	ADULTS SHOULD NOT SWIM ALONE.
3.	PETS ARE PROHIBITED IN THE POOL AREA.
4.	GLASS CONTAINERS ARE PROHIBITED IN THE POOL AREA.
5.	NO DIVING IS ALLOWED IN POOL AREA
SIGN "C" - PROVIDE A SIGN VISIBLE UPON ENTERING THE POOL ENCLOSURE DIRECTING POOL USERS TO SHOWER BEFORE ENTERING THE POOL.	
SIGN "D" - PROVIDE A SIGN STATING "POOL CLOSED" FOR EVERY POOL ENTRANCE. VERIFY WITH FINAL POOL ENCLOSURE DESIGN FOR FINAL NUMBER OF ENTRANCES.	

POOL SAFETY REQUIREMENTS	
PROVIDE SAFETY PROVISIONS PER SECTION 2530. THE MINIMUM BEING:	
A.	12' LONG (MINIMUM) METAL POLE WITH A BODY HOOK SECURELY ATTACHED. THE POLE SHALL BE NON-TELESCOPING, NON-ADJUSTABLE & NON-COLLAPSIBLE. MINIMUM 1/4" DIA THROWING ROPE AS LONG AS 1-1/2 TIMES THE MAX WIDTH OF THE POOL OR 50', WHICHEVER IS LESS, ATTACHED TO A U.S. COAST GUARD APPROVED RING BUOY.
C.	TWO UNITS OF LIFESAIVING EQUIPMENT MUST BE PROVIDED FOR ANY POOL THAT EXCEEDS 3,000 SQ FT (186 SQ M) OF TOTAL SURFACE AREA.
EMERGENCY TELEPHONE SERVICE:	
A.	TELEPHONE CAPABLE OF DIRECTLY DIALING 911 OR OTHER EMERGENCY NOTIFICATION SYSTEM SHALL BE PROVIDED AND ACCESSIBLE TO ALL POOL USERS.
B.	THE TELEPHONE SHALL BE PERMANENTLY AFFIXED TO A LOCATION INSIDE THE POOL ENCLOSURE OR OUTSIDE THE ENCLOSURE WITHIN 75' OF THE BATHER ENTRANCE.
C.	THE TELEPHONE SHALL BE VISIBLE FROM WITHIN THE POOL ENCLOSURE OR A VISIBLE SIGN SHALL BE POSTED INDICATING THE LOCATION OF THE EMERGENCY PHONE.
D.	AT THE TELEPHONE - PROVIDE A SIGN WITH LEGIBLE LETTERS PROVIDING THE FOLLOWING INFORMATION. <ul style="list-style-type: none"> <li>a. - DIALING INSTRUCTIONS</li> <li>b. - ADDRESS OF THE POOL LOCATION</li> <li>c. - TELEPHONE NUMBER OF THE POOL LOCATION.</li> </ul>
SEE POOL HOUSE PLANS BY OTHERS FOR EXACT LOCATION OF THE TELEPHONE SERVICE.	

POOL DECK MARKINGS	
DEPTH MARKINGS: IN LOCATIONS AS SHOWN ON THE DRAWINGS AND ADHERING TO THE FOLLOWING:	
1.	LOCATED ON TOP OF POOL DECK AND AT OR ABOVE THE WATER SURFACE ON THE VERTICAL WALL.
2.	SHALL BE IN ARABIC NUMERALS AT LEAST 4" HIGH AND OF A COLOR CONTRASTING W/ THE BACKGROUND.
3.	MARKINGS SHALL INDICATE THE DEPTH OF THE POOL IN FEET AND SHALL INCLUDE THE WORD "FEET" OR THE SYMBOL "FT" TO INDICATE THE UNIT OF MEASUREMENT. MARKINGS IN POOL DECK SHALL PROVIDE A SLIP RESISTANT WALKING SURFACE.
5.	NOT TO EXCEED 25'-0" IN SPACING ALONG THE PERIMETER OF THE POOL.
"NO DIVING" MARKINGS: IN LOCATIONS AS SHOWN ON THE DRAWINGS AND ADHERING TO THE FOLLOWING:	
1.	NOT TO EXCEED 25'-0" IN SPACING ALONG COPING EDGE.
2.	DENOTED IN ONE OF THE FOLLOWING MANNERS: <ul style="list-style-type: none"> <li>A. CONSISTING OF THE WORDS "NO DIVING" IN LETTERS AT LEAST 4" HIGH AND OF A COLOR CONTRASTING WITH THE BACKGROUND.</li> <li>B. AT LEAST A 6"x6" IN SIZE INTERNATIONAL SYMBOL FOR NO DIVING IN RED AND BLACK ON A WHITE BACKGROUND. (VERIFY WITH MANICPALITY)</li> </ul>

POOL DESIGN NOTES	
A.	SEE PLANS BY OTHERS FOR CONSTRUCTION OF BATHHOUSE, PUMP & CHEMICAL STORAGE ROOMS, SITE WORK, ETC.
B.	POOL IS DESIGNED FOR DAWN TO DUSK SWIMMING ONLY

MAIN POOL DATA	
POOL DIMENSIONS:	53'-11 3/4" X 82'-3 1/2" OVERALL IRREGULAR SHAPE.
POOL VOLUME:	57,394 GALLONS
SURFACE AREA:	2,677 SQFT.
PERIMETER:	233 LF
COPING:	BULLNOSE INDEPENDENT
CIRC REQ FLOW:	159 GPM @ 65 TDH
CIRC DESIGN FLOW:	190 GPM @ 65 TDH
FEAT DESIGN FLOW:	210 GPM @ 65 TDH
SHELL MATERIAL:	4000 PSI SHOTCRETE
INTERIOR FINISH:	KONA QUARTZ PLASTER
BATHER LOAD:	179 PERSONS
BACKWASH TO:	STORM SEWER
WATER SOURCE:	IN-LINE AUTOFILL
PIPE SIZING:	
CIRC MAIN DRAINS:	(2) 4" SCH 40 PVC
FEAT MAIN DRAINS:	(2) 4" SCH 40 PVC
SKIMMERS:	(7) 4" SCH 40 PVC
VACUUM LINE:	(1) 2" SCH 40 PVC
INLETS:	(11) 3" SCH 40 PVC
FILTER TYPE:	HIGH RATE SAND
SIZE PROVIDED:	2 @ 7.06 SF (EA) = 14.12
SIZE REQUIRED:	14.00 SF TOTAL
MEDIA CIRC. RATE:	15 GPM/SF
BACKWASH RATE:	15 GPM/SF
TURNOVER RATE:	6 HOURS



**POOL LAYOUT PLAN**  
 1/8" = 1'-0"



DATE	REVISION	NO.	HEALTH
09/30/24		2	

SHEET DISCUPTION  
**PIPING & ELECTRICAL PLAN**

PROJECT #: 2023015  
 DATE ISSUED: 01/22/2024  
 DRAWING BY: JVD  
 CHECKED BY: DSC/JLH

**POWELL AMENITY  
 GREENHAWK  
 BATHHOUSE AMENITY  
 LILLINGTON, NC**

**POOL EQUIPMENT SCHEDULE**

TAG	COUNT	MANUFACTURER	MODEL	COMMENTS
1A	1	PENTAIR	XFET-20	5 HP SELF-PRIMING PUMP W/ STRAINER BASKET + EXTRA STRAINER
1B	1	PENTAIR	WHISPERFLOX VS	5 HP SELF-PRIMING PUMP W/ STRAINER BASKET + EXTRA STRAINER
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3	2	PENTAIR	TR-140 C3	36 INCH DIA HIGH RATE SAND FILTER W/ 7.06 SF OF MEDIA
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5	2	FLOW VIS	FV-4-40	4 INCH INLINE COMMERCIAL FLOW METER
6A	2	AQUASTAR	1216101 W/ FBS-50-812-4	12" x 12" VGB SUCTION OUTLET COVER W/ A.S.A. MFG FIBERGLASS SUMP
6B	2	AQUASTAR	1216101 W/ FBS-50-812-18-6	12" x 12" VGB SUCTION OUTLET COVER W/ A.S.A. MFG FIBERGLASS SUMP
7	1	AQUASTAR	HVC101	SELF-CONTAINED HYDROSTATIC RELIEF VALVE
8	7	AQUASTAR	SKR101	WHITE COMMERCIAL GRADE SKIMMER
9	1	AQUASTAR	ES1022SI2001 W/ VLK15T01	VACUUM LINE FITTING W/ LOCK CAP
10	1	AQUASTAR	GDD101	COMMERCIAL OVERFLOW DRAIN
11	9	AQUASTAR	ES1022SI2001 W/ 8101	WALL RETURN INLET - DIRECTIONAL
12	2	AQUASTAR	ES1022SI2001 W/ BP101	FLOOR RETURN INLET W/ BUBBLER PLATE
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14	1	AQUASTAR	AFB101	FILLSTAR - AUTOFILL LINE - WHITE
15	3	PENTAIR	LIGHT - 602104	190W EQUIVALENCY GLOBRITE WHITE LED LIGHTS
16	2	PENTAIR	LIGHT - 601108	400W EQUIVALENCY INTELLIBRITE WHITE LED LIGHTS
17	2	INTERMATIC	PJB4175	4 LIGHT CONNECTION POOL & SPA JUNCTION BOX
18	1	SR SMITH	DMS-101B - MG	MARINE GRADE DECK MOUNTED HANDRAIL - SHORT
19	3	SR SMITH	DMS-102B - MG	MARINE GRADE DECK MOUNTED HANDRAIL - STANDARD
20	1	SR SMITH	10054 - MG	MARINE GRADE DECK MOUNTED COMMERCIAL LADDER
21	1	PENTAIR	RCS1 (OR EQ)	COMPOOL REMOTE SWITCH WALL GANG PLATE - TIMER FOR PUSH BUTTON FOR FEATURE
22	1	INTERMATIC	ET90115CR (OR EQ)	ELECTRIC TIMER FOR FEATURE PUMP
HC	1	SR SMITH	MULTI-LIFT	ADA COMPLIANT HANDICAP LIFT

**UNDERWATER LIGHTING DATA**

MAIN POOL AREA: 2,677 SQFT.  
 2,677 SF x 0.5 WATTS = 1,338.5 WATTS

LIGHTING PROVIDED (12V LED EQ.)  
 3 GLOBRITE @ 190 WATTS EQ  
 2 INTELLIBRITE @ 400 WATTS

TOTAL PROVIDED: 1,370 WATTS

**PUMP FLOW PIPE SIZING**

CIRCULATION:  
 WHISPERFLOX VS PUMP FLOW AT 65 FT OF WATER IS 190 GPM, WITH SPECIFIED:  
 4" MAIN DRAIN PIPING VELOCITY IS 4.79 FPS.  
 4" SKIMMER PIPING VELOCITY IS 4.79 FPS.  
 3" RETURN PIPING VELOCITY IS 8.25 FPS.

FEATURE:  
 XFET-20 PUMP FLOW AT 65 FT OF WATER IS 210 GPM, WITH SPECIFIED:  
 4" MAIN DRAIN PIPING VELOCITY IS 5.29 FPS.  
 4" SKIMMER PIPING VELOCITY IS 5.29 FPS.  
 3" RETURN PIPING VELOCITY IS 9.12 FPS.

**CHEMICAL STORAGE DATA**

CHEMICAL STORAGE REQUIREMENTS FOR A 57,394 GALLON POOL ARE:

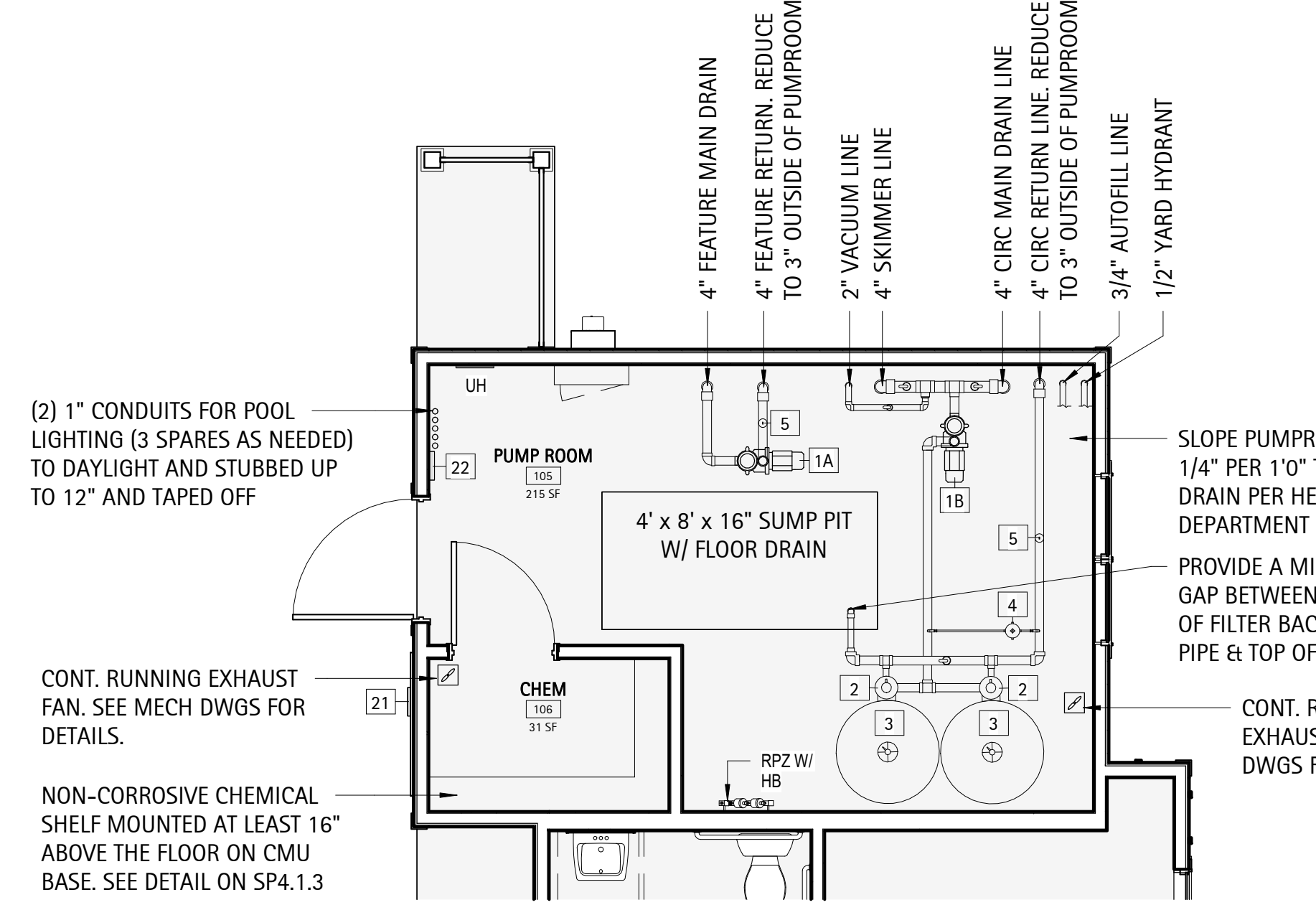
5 SF FOR FIRST 10,000 GALLONS OF POOL +  
 +1 SF FOR EACH ADDITIONAL 3,000 GALLONS OF POOL UP TO  
 100 SF OF STORAGE

+16 SF (1 SF PER 3,000)(47,394/3,000 = 15.798)

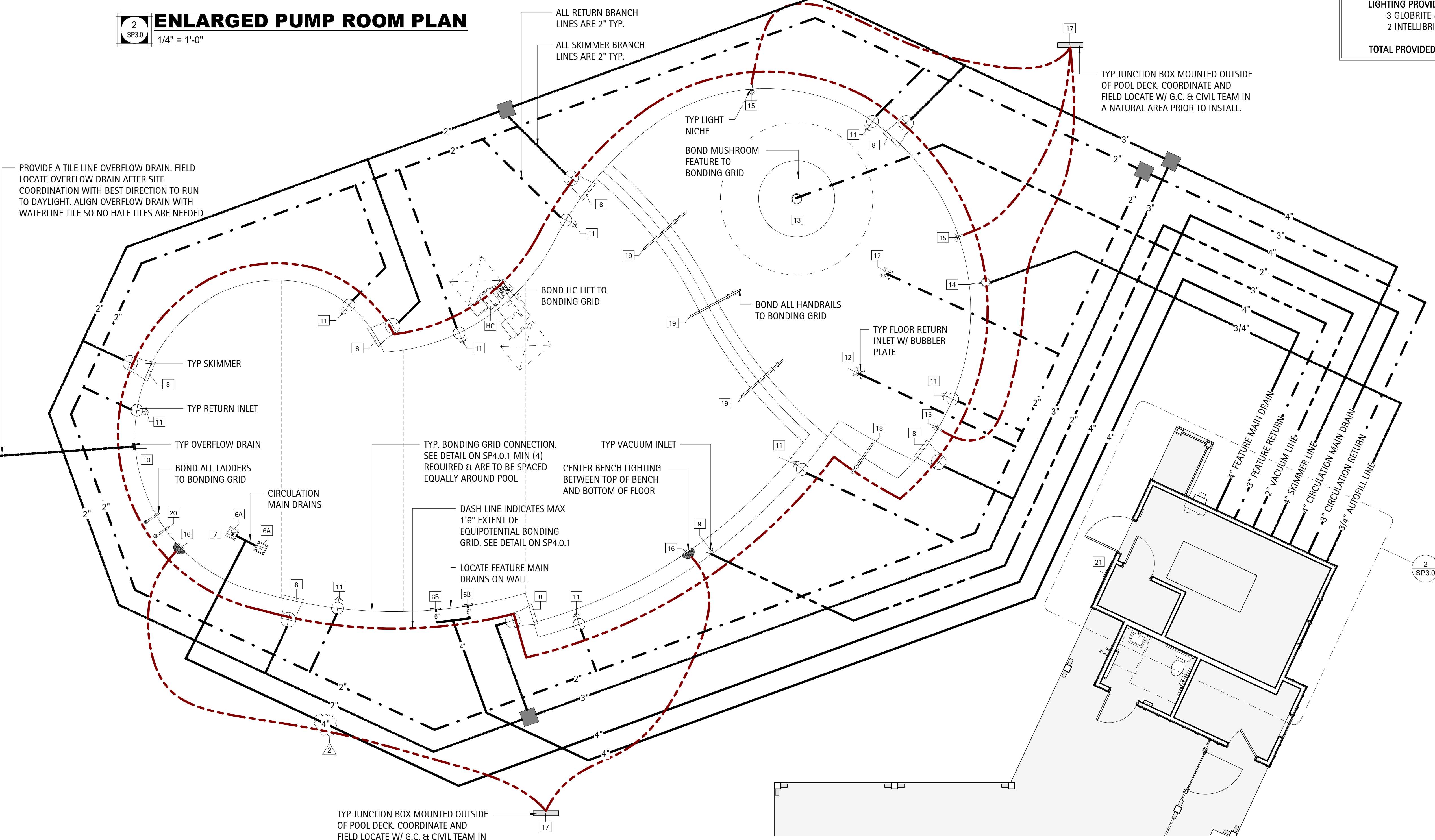
POOL REQUIRES A MIN OF 21 SF FOR CHEMICAL STORAGE.  
 -SEE BUILDING PLANS BY OTHERS FOR EXACT LAYOUT. 31 SF PROV.  
 -SEE SP4.1.3 FOR TYP CHEMICAL ROOM SHELVING W/ QUANTITIES

**PUMP ROOM & CHEMICAL ROOM NOTES**

- ALL PUMPS, CHEMICAL FEEDING APPARATUS AND OTHER MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE ENCLOSED IN A WEATHERPROOF STRUCTURE WITH A MINIMUM CEILING HEIGHT OF SEVEN FEET.
- THE EQUIPMENT ROOM SHALL BE PROVIDED WITH A DOOR WITH A PERMANENT LOCK THAT MUST BE KEPT LOCKED WHEN NOT IN USE BY THE POOL OPERATOR.
- VALVES AND CONTROL DEVICES SHALL BE ACCESSIBLE AND VISIBLE TO THE POOL OPERATOR. AT LEAST THREE FEET OF CLEAR WALKWAY SHALL BE PROVIDED TO ALLOW ACCESS TO EQUIPMENT.
- DRAINAGE IN AND AROUND THE EQUIPMENT ROOM SHALL PRECLUDE THE POSSIBILITY OF WATER ENTERING OR ACCUMULATING ON ANY INTERIOR SURFACE OF THE ENCLOSURE. EQUIPMENT ROOM FLOORS SHALL BE SLOPED NOT LESS THAN 1/4" PER FOOT TOWARD THE DRAINS.
- NATURAL CROSS DRAFT OR CONTINUOUS FORCED VENTILATION IS REQUIRED.
- A PERMANENT MEANS OF ACCESS SHALL BE PROVIDED TO ALL EQUIPMENT ROOMS.
- A HOSE BIB WITH AN APPROVED BACKFLOW PREVENTION DEVICE SHALL BE PROVIDED WITHIN 50 FEET OF THE EQUIPMENT ROOM.



**2 ENLARGED PUMP ROOM PLAN**  
 1/4" = 1'-0"



**1 POOL PIPING PLAN**  
 3/16" = 1'-0"

**POOL SYMBOLS LEGEND**

- SAND FILTER
  - PUSH/PULL VALVE
  - FLOWMETER
  - CHLORINATOR w/ FLOWMETER
  - POOL PUMP
  - POOL LADDER
  - AUTOFILL
  - MAIN DRAINS
  - OVERFLOW
  - VACUUM INLET
  - FLOOR INLET
  - DIRECTIONAL WALL INLET
  - LIGHT NICHE
  - SKIMMER
- REFER TO POOL PLUMBING SCHEDULE FOR SPECS.

**MAIN POOL DATA**

POOL DIMENSIONS:	53'-11 3/4" X 82'-3 1/2" OVERALL IRREGULAR SHAPE.
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INTERIOR FINISH:	KONA QUARTZ PLASTER
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BACKWASH TO:	STORM SEWER
WATER SOURCE:	IN-LINE AUTOFILL
PIPE SIZING:	
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FEAT MAIN DRAINS:	(2) 4" SCH 40 PVC
SKIMMERS:	(7) 4" SCH 40 PVC
VACUUM LINE:	(1) 2" SCH 40 PVC
INLETS:	(1) 3" SCH 40 PVC
FILTER TYPE:	HIGH RATE SAND
SIZE PROVIDED:	2 @ 7.06 SF (EA) = 14.12
SIZE REQUIRED:	14.00 SF TOTAL
MEDIA CIRC. RATE:	15 GPM/SF
BACKWASH RATE:	15 GPM/SF
TURNOVER RATE:	6 HOURS



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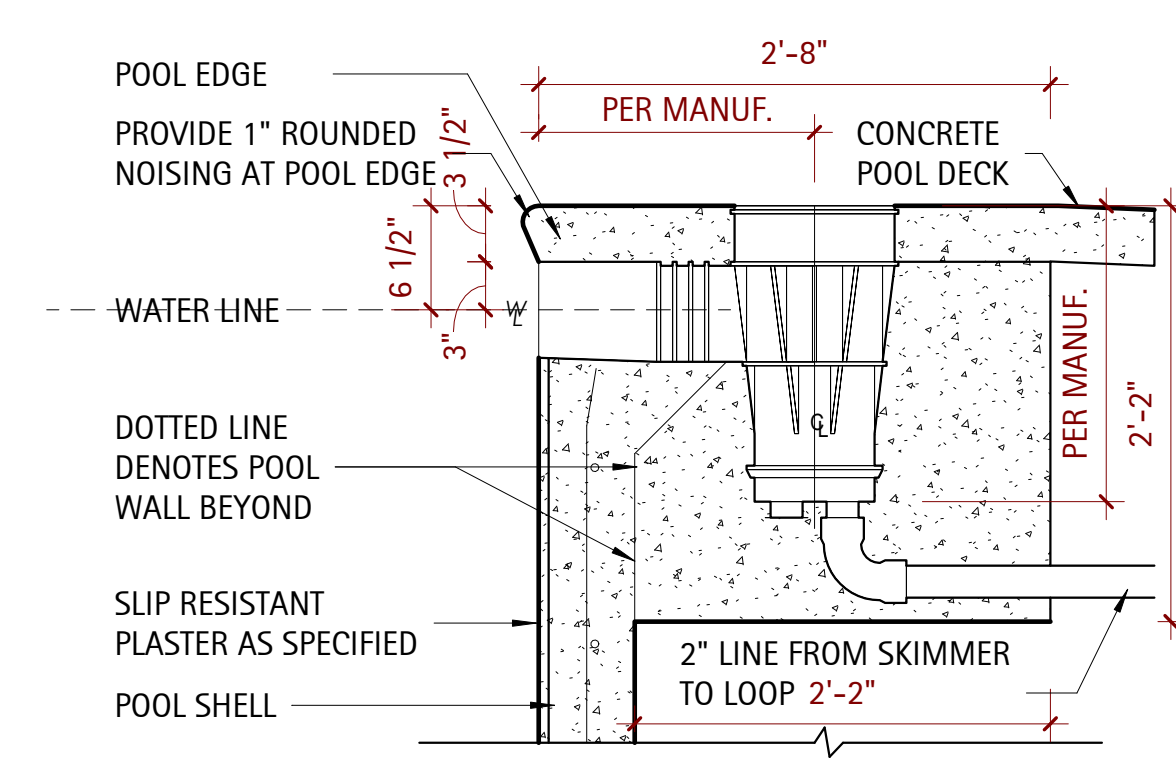
DATE	
REVISION	
NO.	

SHEET DISCUSSION  
SECTIONS & DETAILS

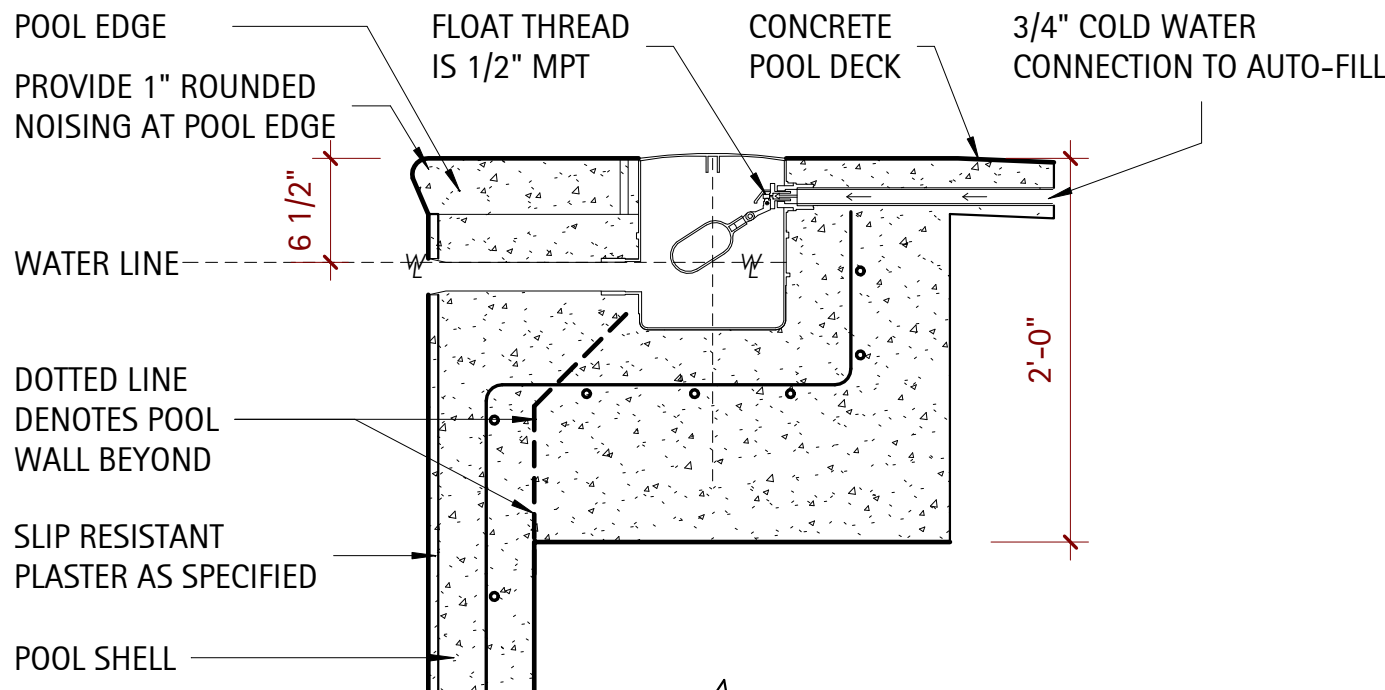
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POWELL AMENITY  
GREENHAWK  
BATHHOUSE AMENITY  
LILLINGTON, NC

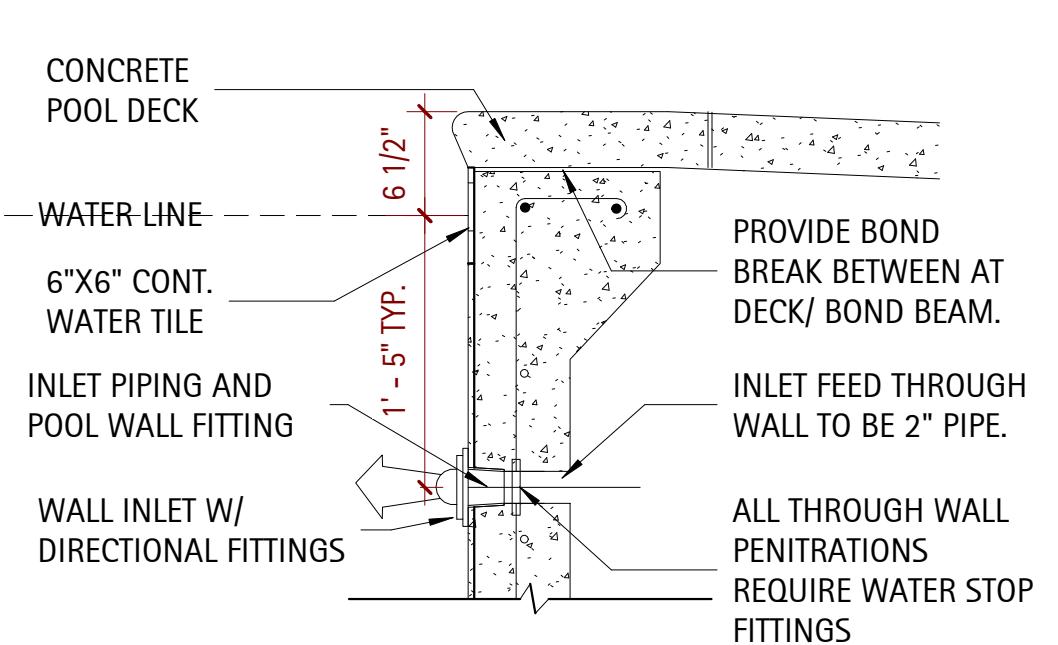
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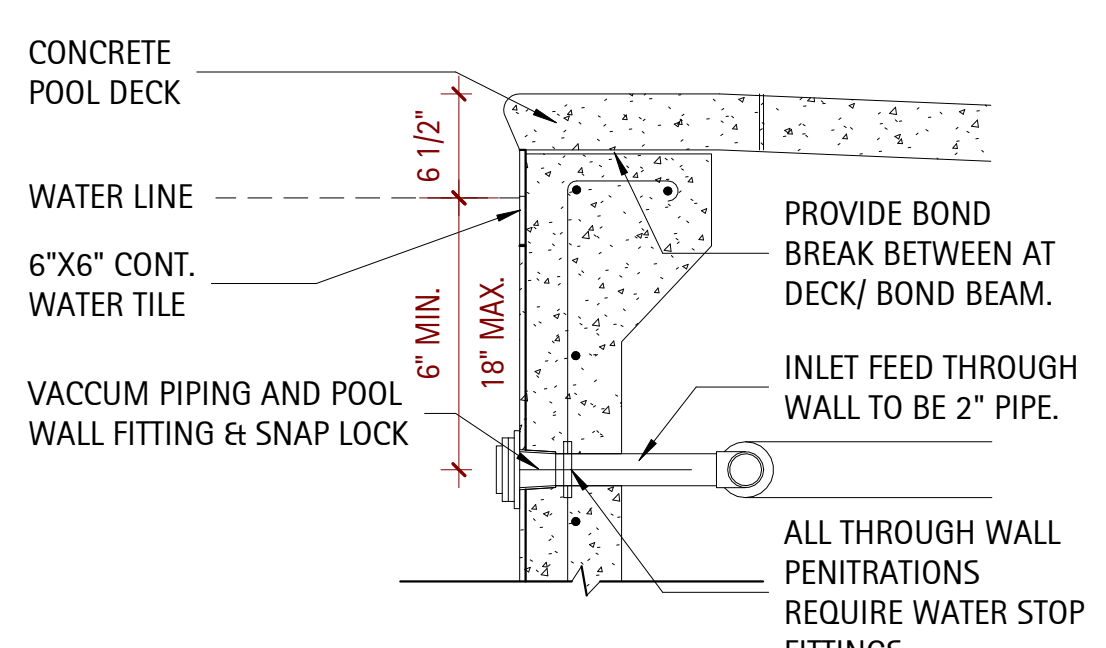
7 Detail - Pool Skimmer  
1" = 1'-0"



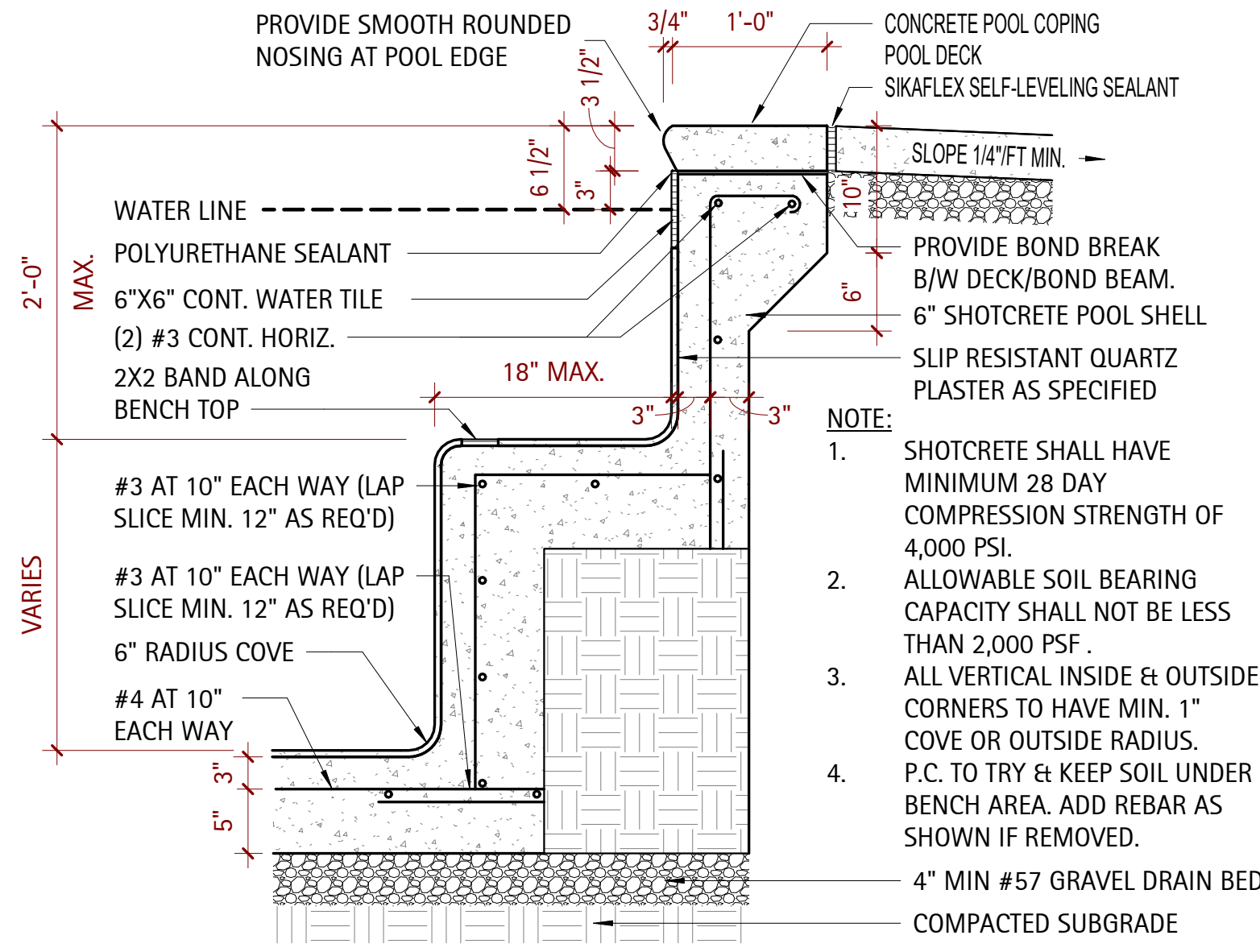
8 Detail - Pool Autofill  
1" = 1'-0"



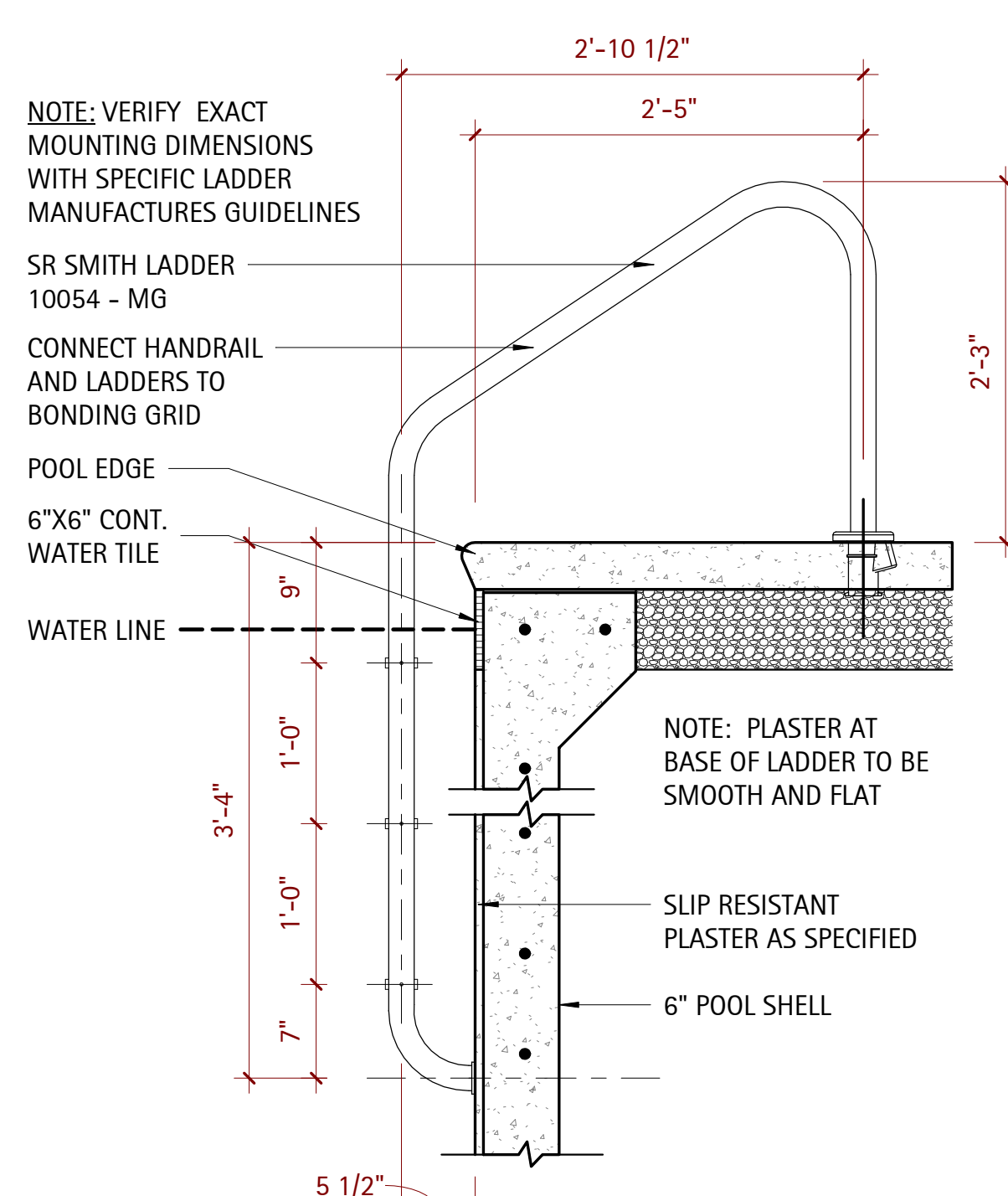
9 Detail - Return Inlet Detail  
1" = 1'-0"



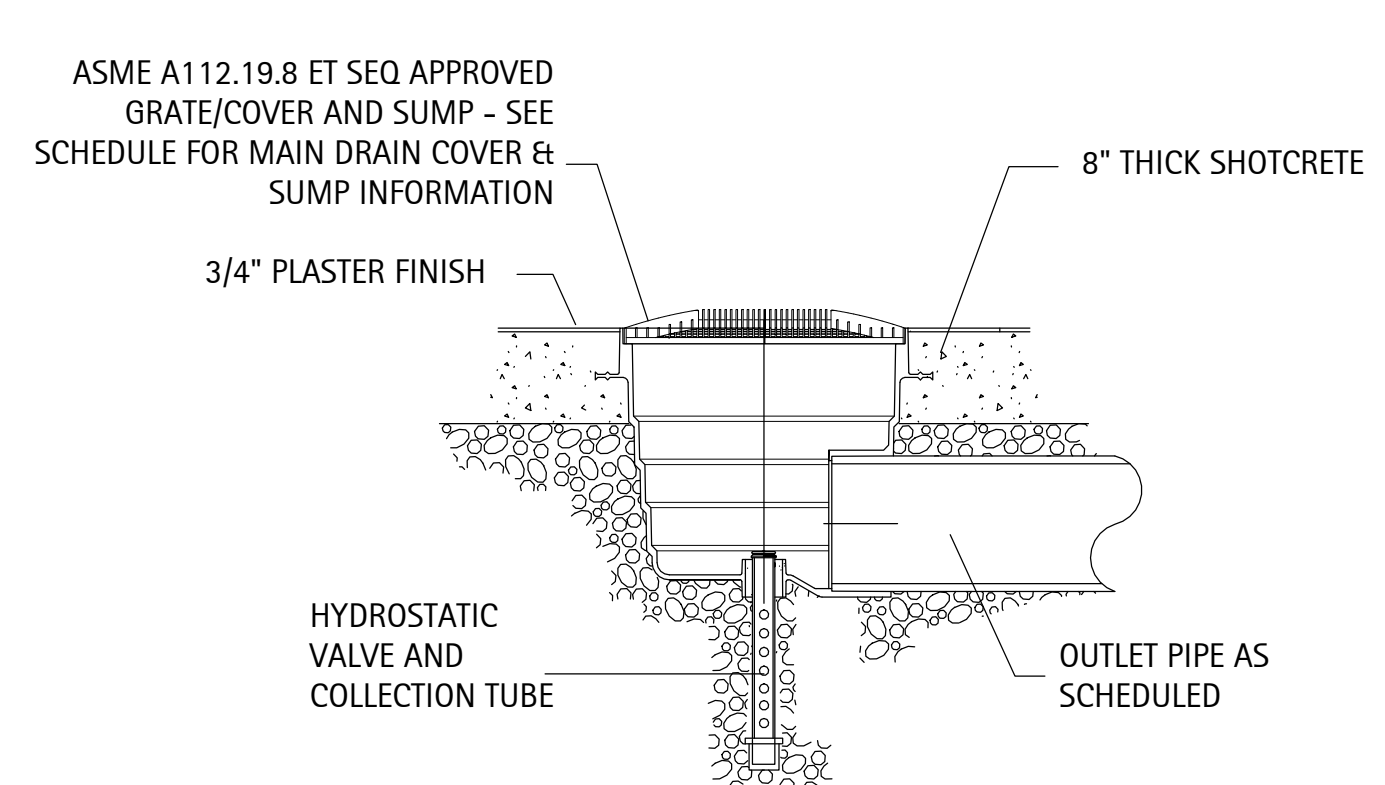
10 Detail - Vacuum Inlet Detail  
1" = 1'-0"



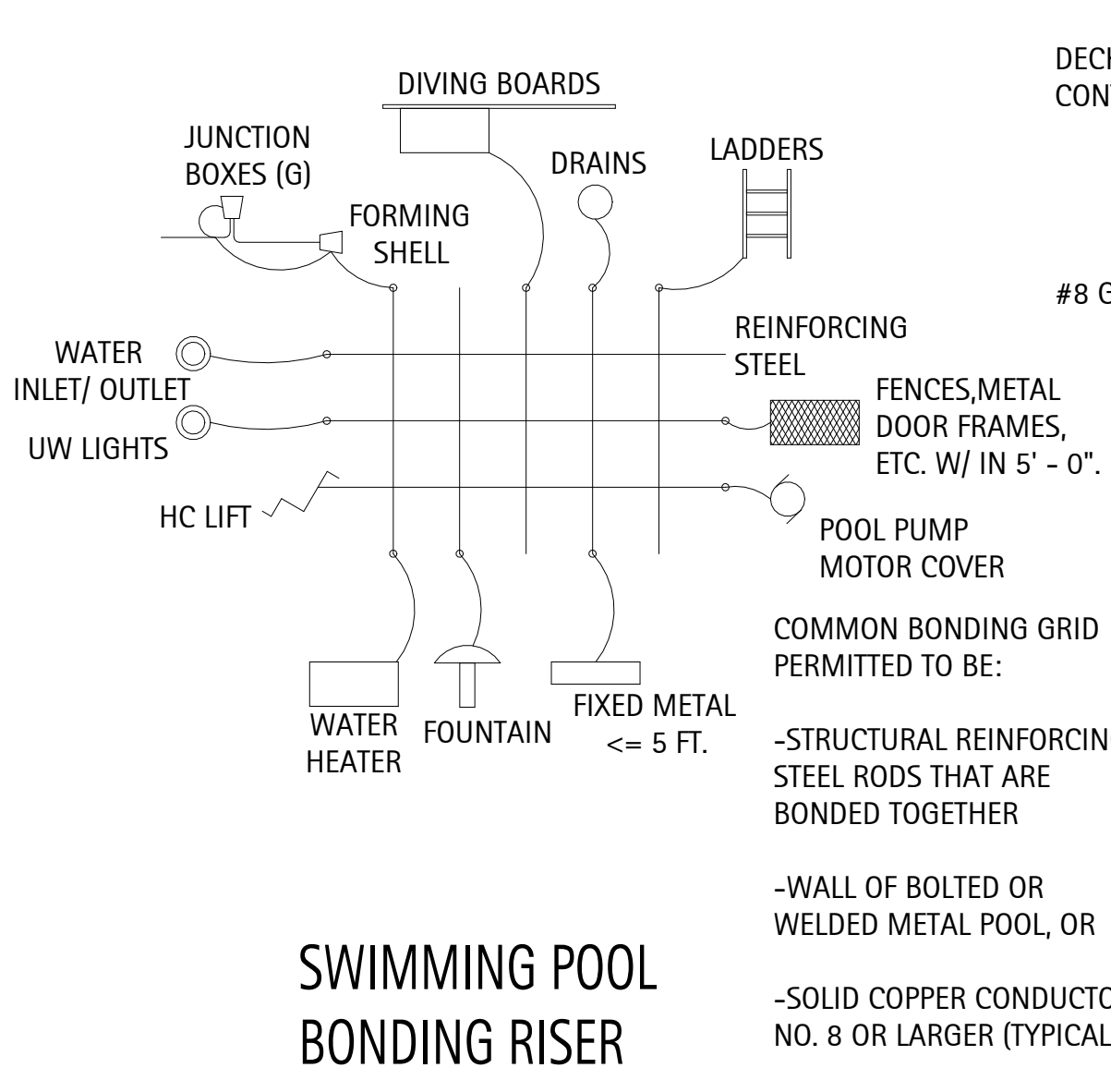
4 Detail - Pool Bench  
1" = 1'-0"



5 Detail - Commercial Ladder  
1" = 1'-0"

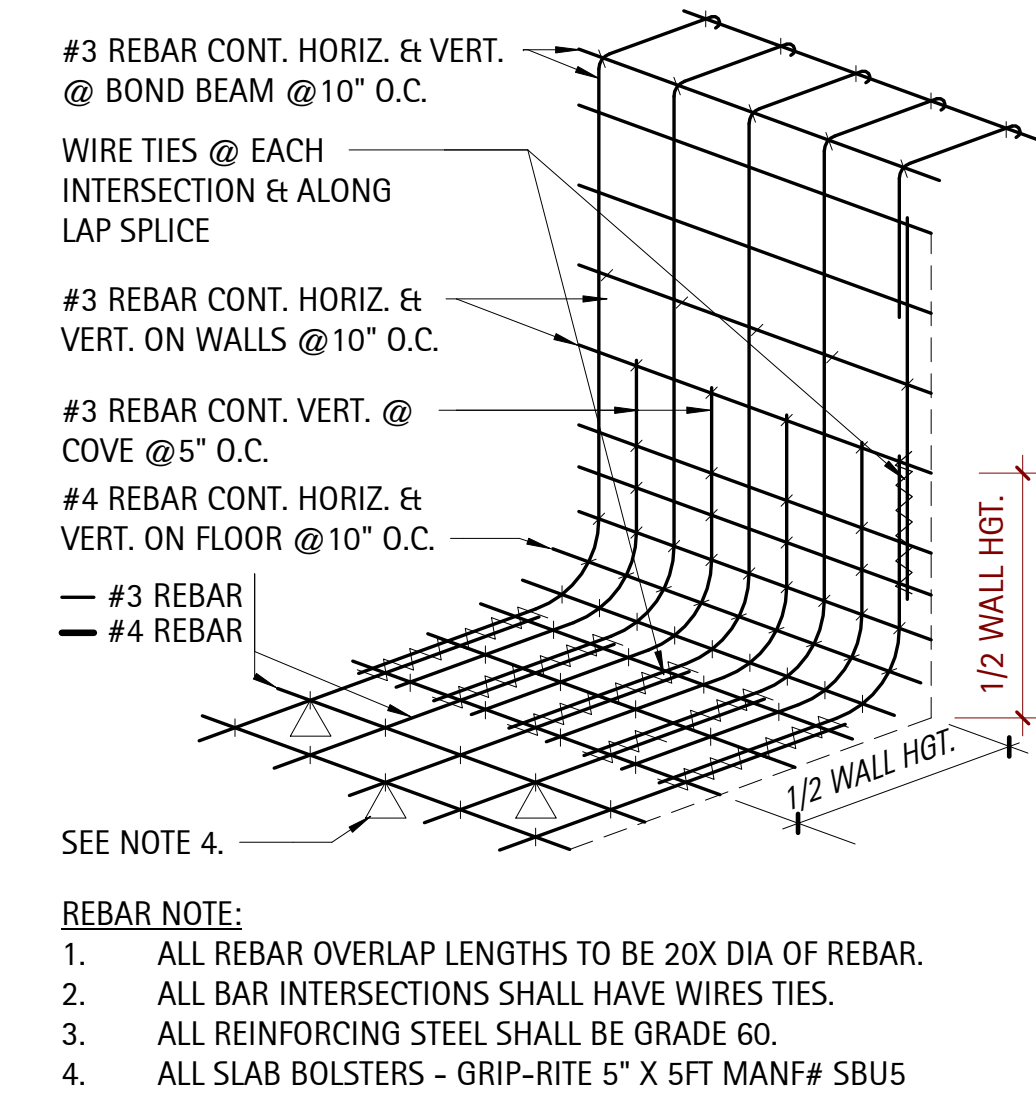


6 Detail - Main Drain  
1" = 1'-0"

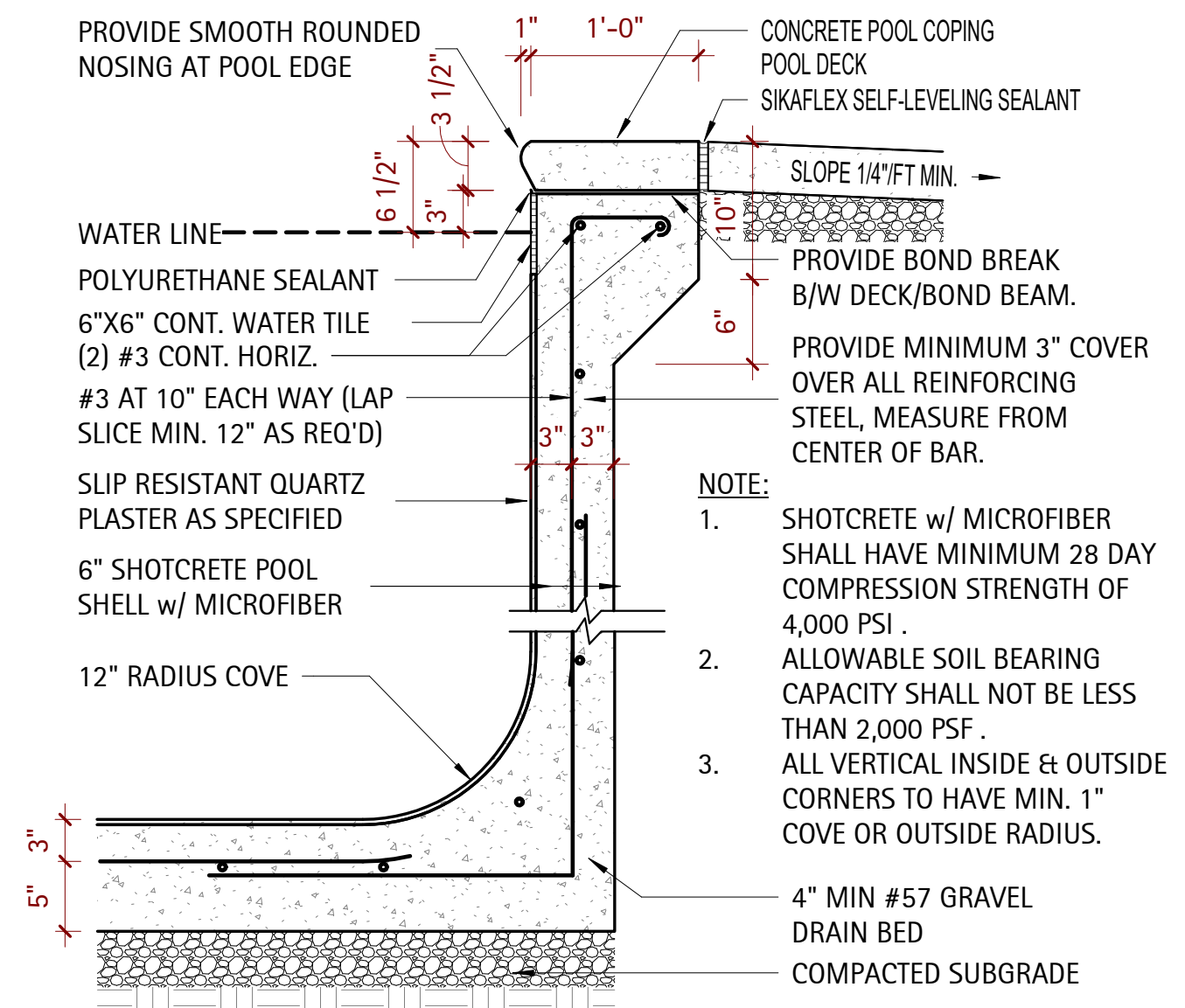


SWIMMING POOL BONDING RISER

1 Detail - Pool Bonding  
1" = 1'-0"



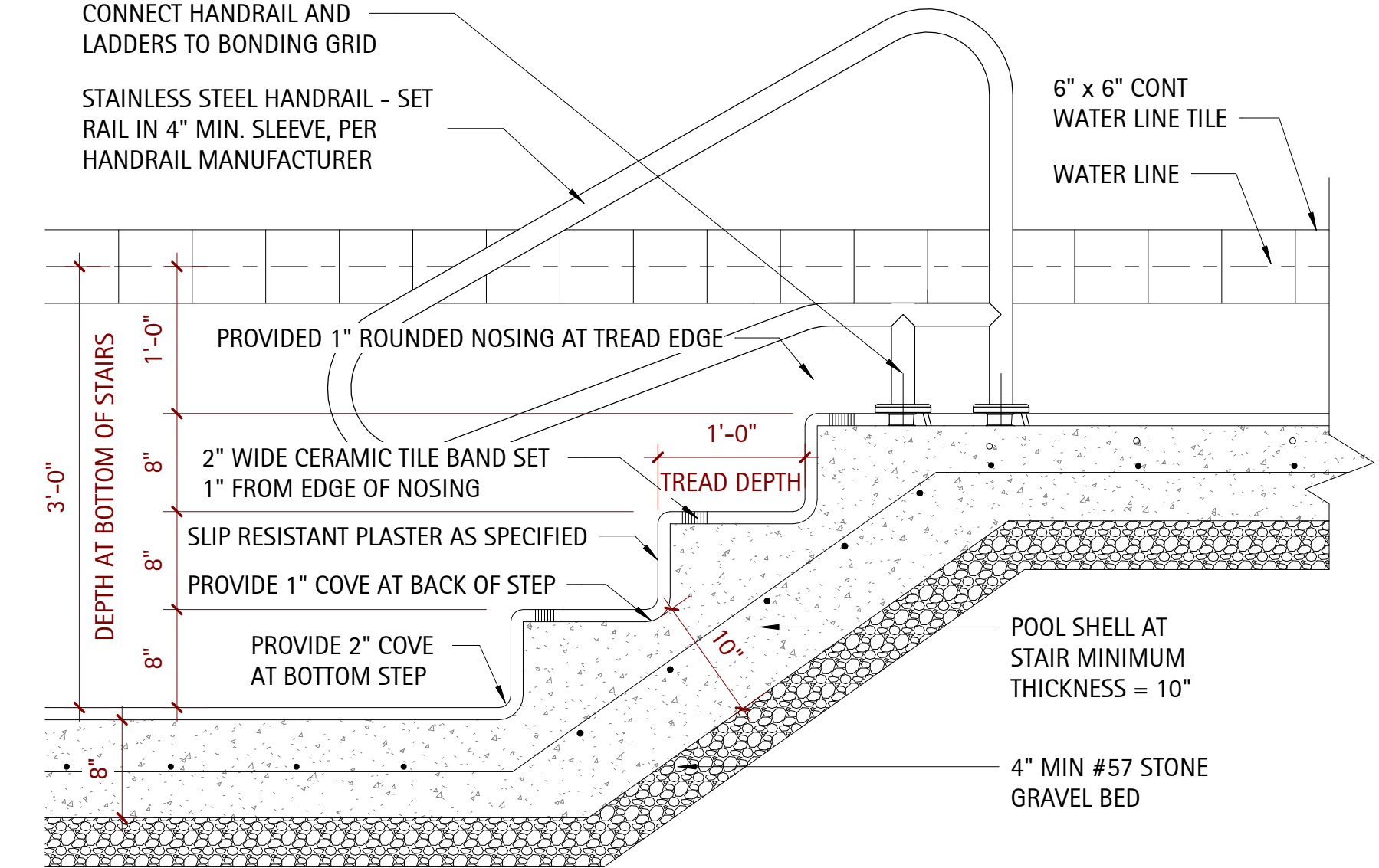
2 Detail - Pool Wall  
1" = 1'-0"



EQUIPOTENTIAL BONDING GRID DETAIL

THE INTENT OF THESE PLANS IS THAT THE BONDING GRID EXTEND THROUGHOUT THE POOL DECK, BUT IN NO CASE SHALL IT EXTEND MORE THAN ONE FEET SIX INCHES FROM THE POOL PERIMETER.

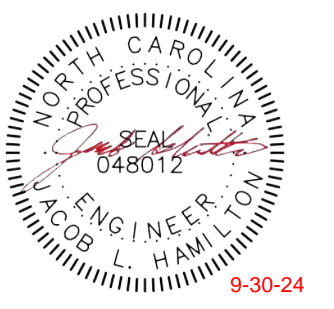
GENERAL STAIR NOTE: EACH STAIR TREAD TO HAVE MINIMUM OF 240 SQ. IN OF AREA



3 Detail - Pool Stairs  
1" = 1'-0"

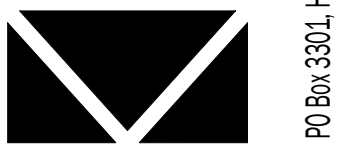


D. CLUGSTON



9-30-24

Kilian Engineering, Inc.



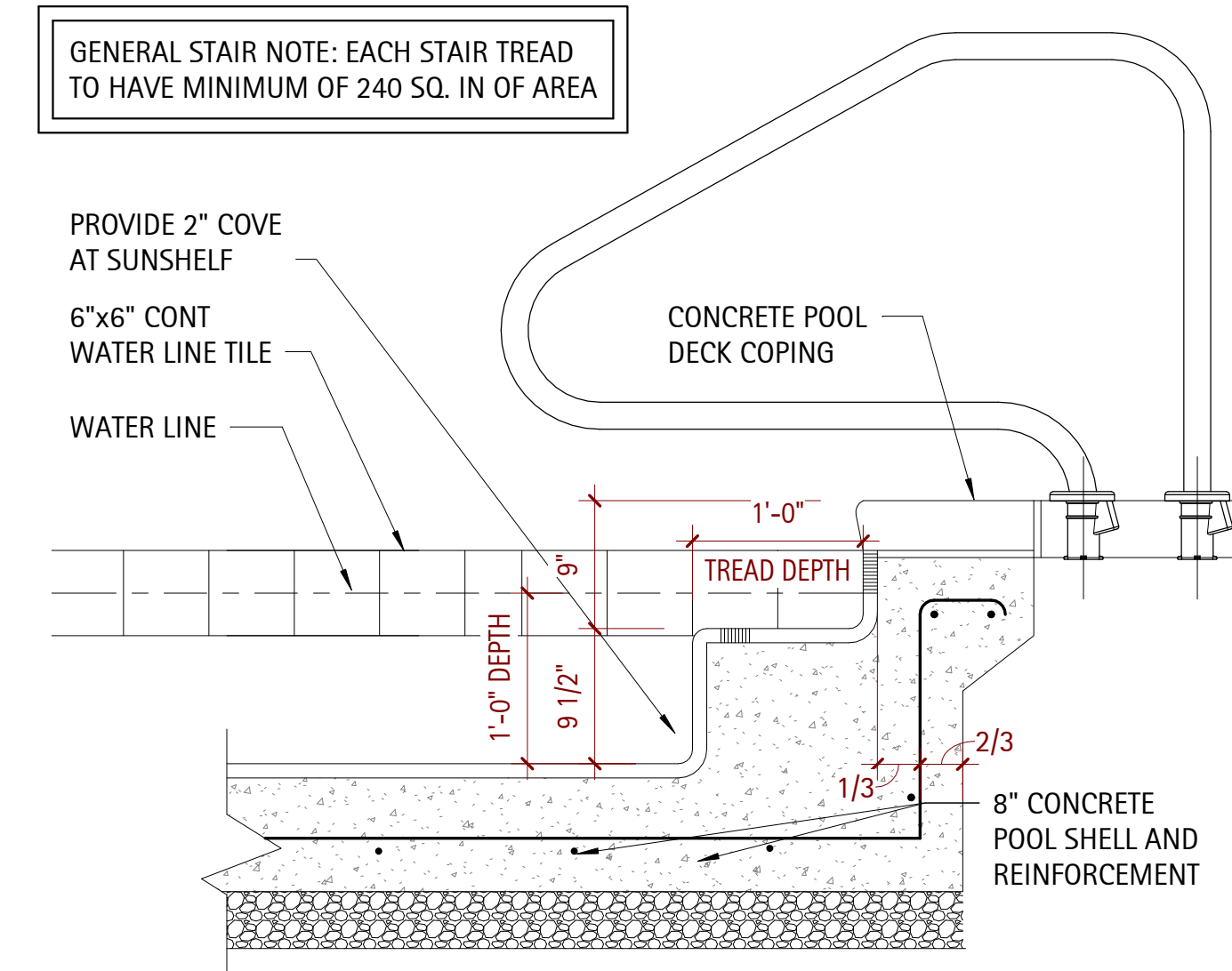
PO Box 3301, Healdston, NC 27536 | www.kilianengineering.com  
(919) 524-4388/8778 | CORPORATE LICENSE C-2277

DATE	
REVISION	
NO.	

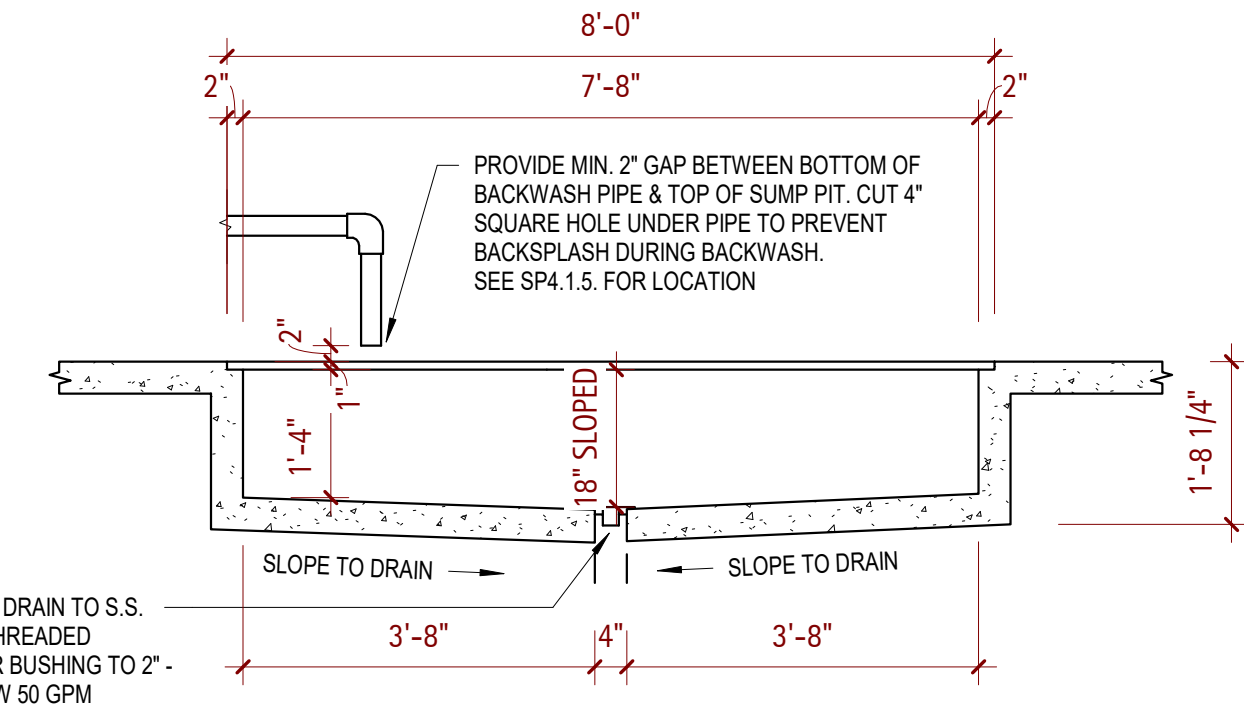
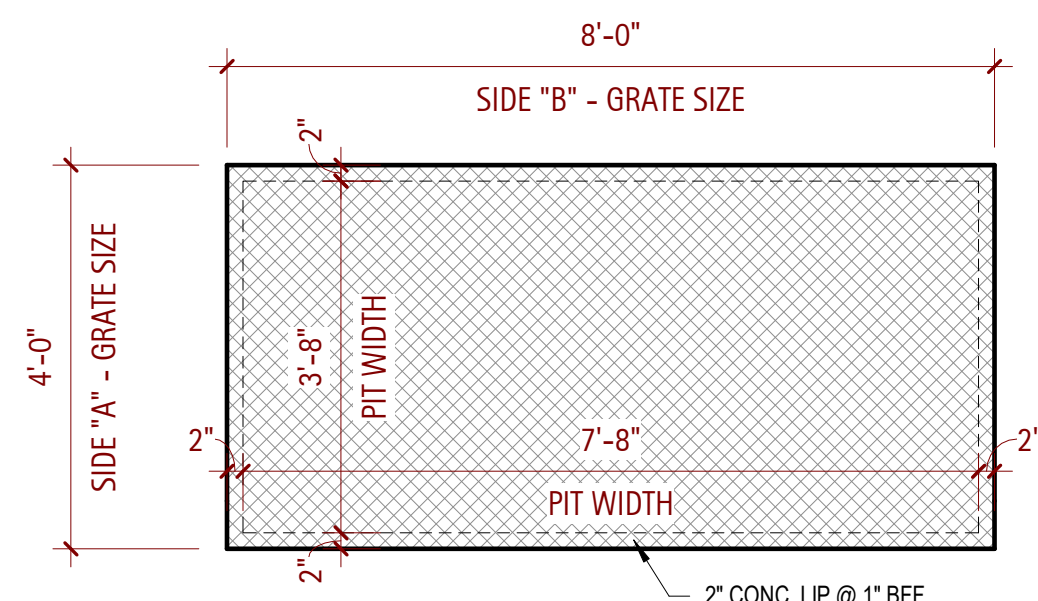
SHEET DISCUSSION	
SECTIONS & DETAILS	
PROJECT #:	2023015
DATE ISSUED:	01/22/2024
DRAWING BY:	JVD
CHECKED BY:	DSC/JLH

POWELL AMENITY  
GREENHAWK  
BATHHOUSE AMENITY  
LILLINGTON, NC

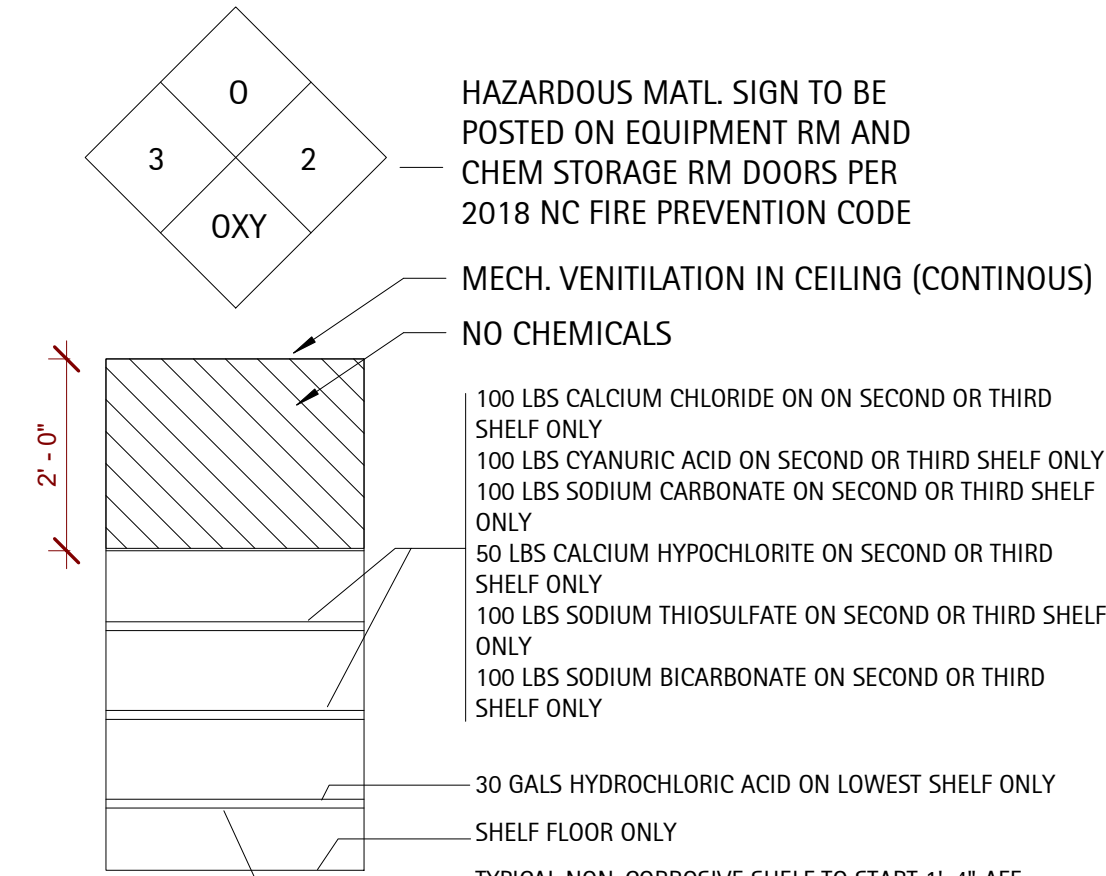
SP4.1



**Detail - Step Into Pool Shelf**  
1" = 1'-0"

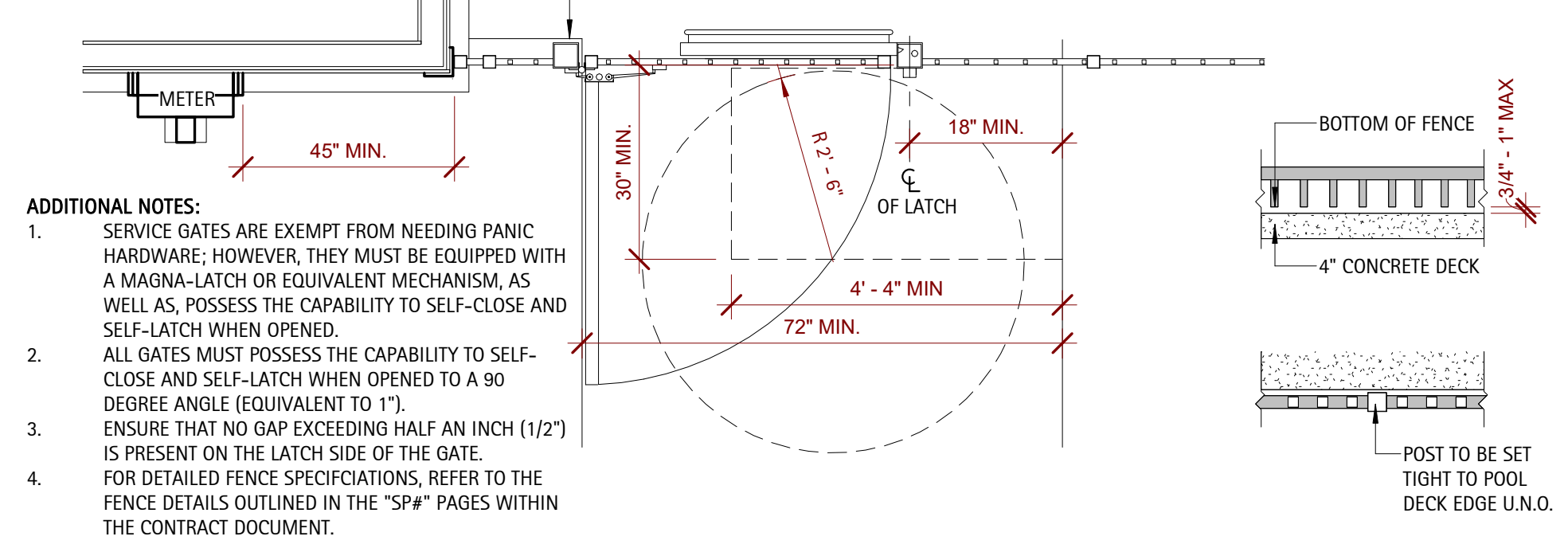
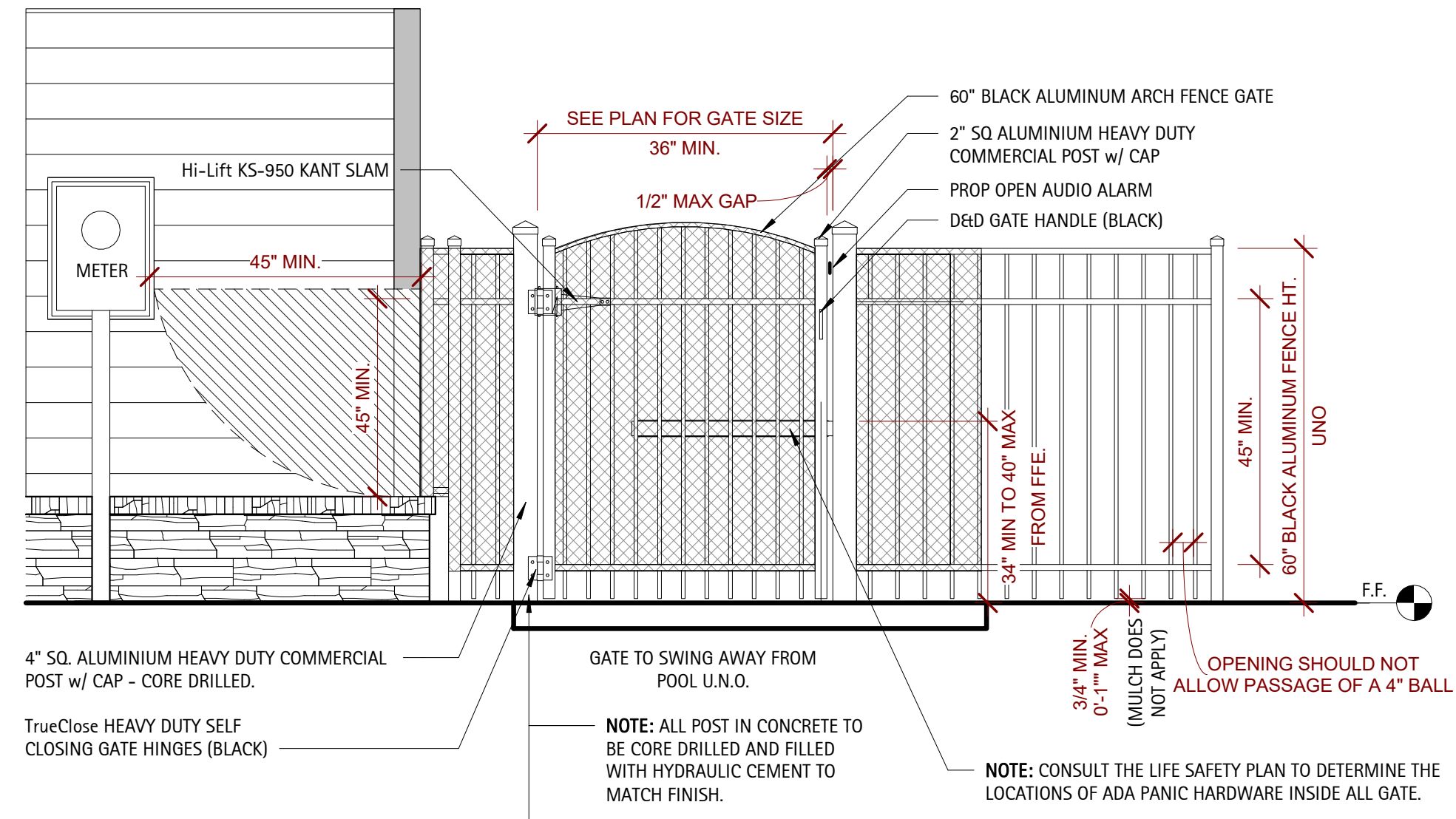


**Detail - Sump Pit**  
1/2" = 1'-0"

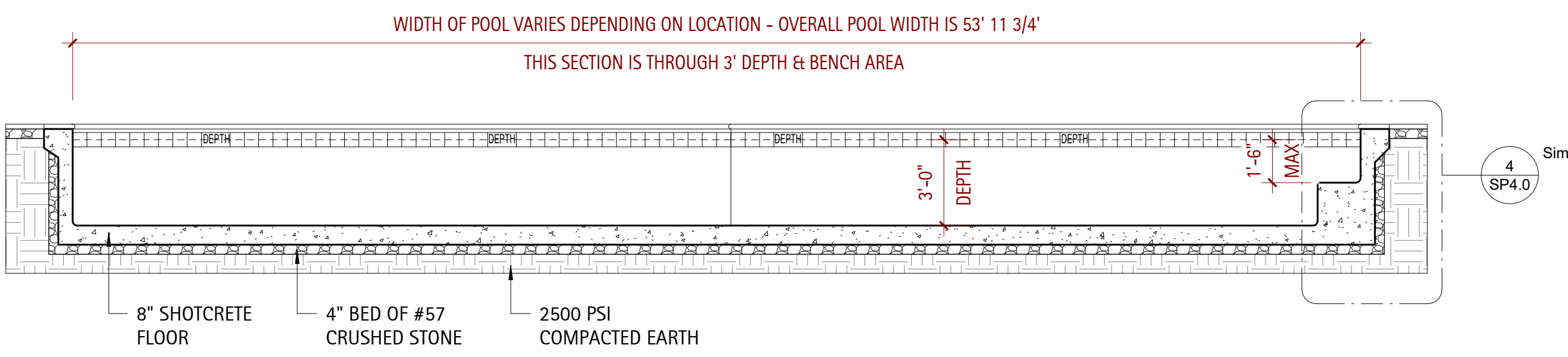


**TYPICAL CHEMICAL ROOM SHELVING w/ QUANTITIES**  
A. Unless otherwise stated, all code references are to the 2018 North Carolina State Building Codes (NCSBC).  
B. North Carolina Building Code (NCSBC) applicable portions include but are not limited to:  
1. Chapter 3, Section 307 and Tables 307.7(1), 307.1(2)  
2. Chapter 4, Section 414, 415 and Tables 414.2.2, 414.2.5, 415.8.2.1.1  
C. North Carolina Fire Code (NCFC) applicable portions include but are not limited to:  
1. NCFC, Chapter 18, Tables 1804.2.2.1, 1805.2.2  
2. NCFC, Chapters 27 through 44.  
3. Appendices E and F

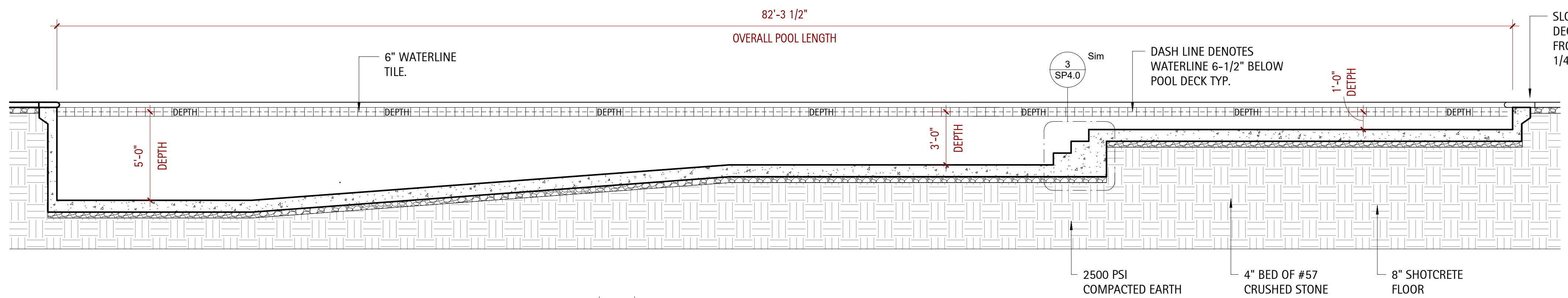
**Detail - Chemical Storage**  
1/2" = 1'-0"



**Detail - Fence**  
1/2" = 1'-0"



**North-South Pool Section**  
1/4" = 1'-0"



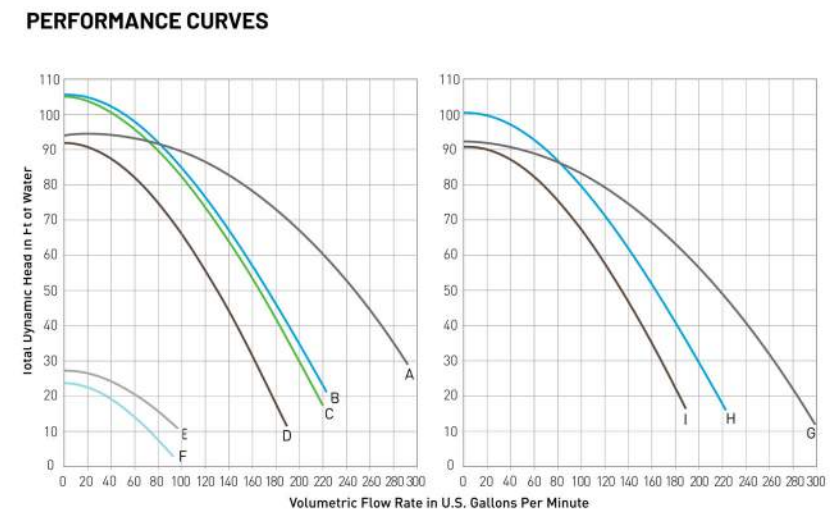
**Detail - Main Pool Section**  
1/4" = 1'-0"

# WHISPERFLOXF<sup>®</sup>

## HIGH PERFORMANCE PUMP



- KEY FEATURES**
- Cam and Ramp™ Lid**  
Makes inspection and cleaning simple and quick.
  - Built-in handle**  
For easy installation.
  - Union connectors**  
2.5" or 3" union connectors included.
  - Oversized strainer basket**  
Extends time between cleanings.
  - TEFC/Super-Duty motor options**  
Provide superior performance and longevity.

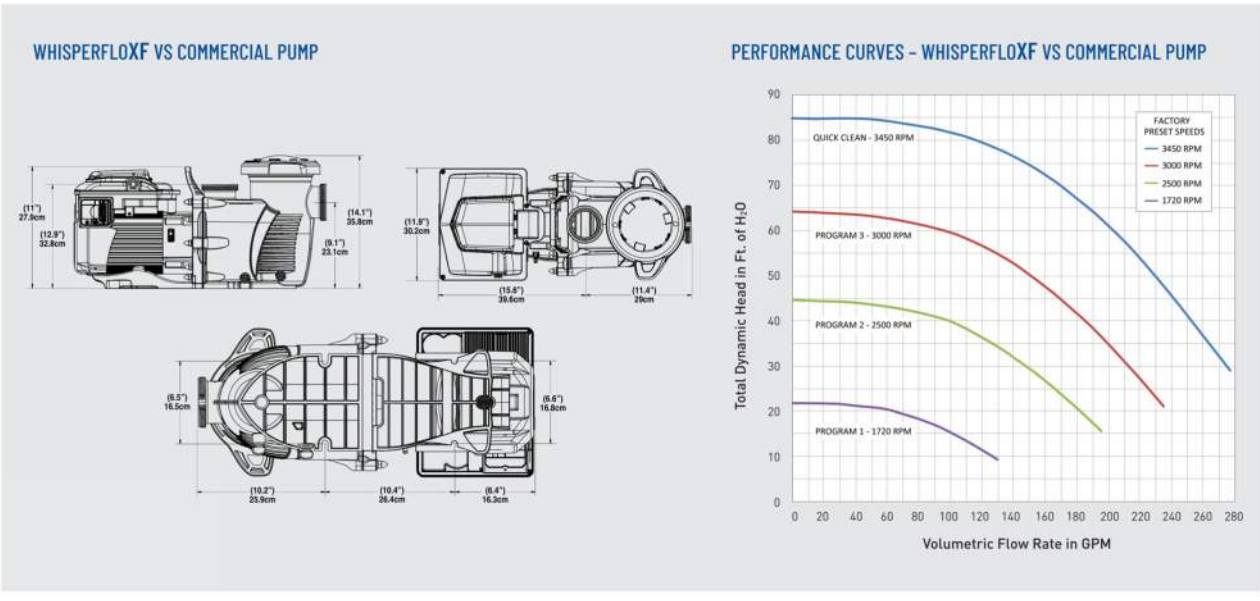


Performance Curve	Model	Description
A	XFE-10	1.5 HP, Single Speed Full Rated
A	XFE-20	5 HP, TEFC Super-Duty Single Speed
B	XFK-20	5 HP, 3-Phase, Super-Duty Motor
B	XFE-12	1.5 HP, Single Speed Full Rated
B, E	XFD-12	1.5 HP, 2-Speed Full Rated
B	XFE-12	1.5 HP, TEFC Super-Duty Single Speed
B	XFK-12	1.5 HP, 3-Phase, Super-Duty Motor
C	XFE-12	1.5 HP, Single Speed Full Rated
D	XFE-8	2 HP, Single Speed Full Rated
D	XFE-8	2 HP, TEFC Super-Duty Single Speed
D	XFK-8	2 HP, 3-Phase, Super-Duty Motor
D, F	XFD-8	2 HP, 2-Speed Full Rated
D	XFE-30	2.5 HP, Single Speed Up Rated
D	XFK-30	2.5 HP, 2-Speed, Up Rated
D, F	XFD-30	2.5 HP, 2-Speed, Up Rated
I	XFK-6	2 HP, 3-Phase, Super-Duty Motor

Pumps and replacement motors that are single speed and one (1) Total HP or greater cannot be sold, offered for sale or installed in a residential pool for filtration use in California, Title 20 CCR sections 1801-1809.



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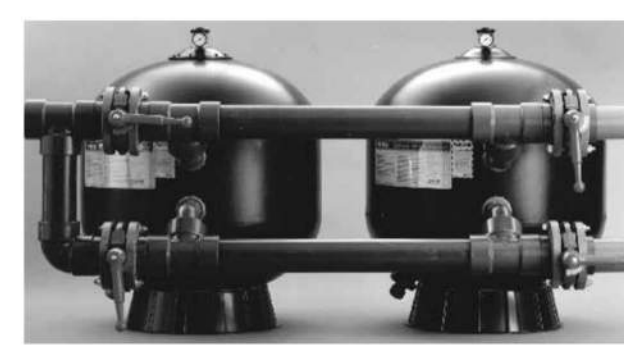
- MATERIALS AND DESIGN**
- Pump Body**  
Volute type back pull out design for ease of working on impeller, diffuser and seal.
- Port Size
    - Inlet (suction): 2.5" union can be adapted to 3 inches.
    - Outlet (discharge): 2.5" union can be adapted to 3 inches.
  - Material
    - 30% glass filled polypropylene materials.
    - NPT thermoplastic drain plug of thumbscrew (no tool required) design on the strainer for winterizing.
  - Impeller
    - Nylon glass filled PPO resin enclosed design for corrosion prevention and maximum flow efficiency.
    - Threaded brass with stainless steel locking screws.
  - Diffuser
    - Glass filled noryl thermoplastic material with bronze impeller wear ring.
    - Hydraulic isolator design for maximum efficiency.
  - Seal plate
    - Fiberglass reinforced modified PPE thermoplastic material.
  - Mechanical Seal
    - Ceramic and carbon seal.
    - Stainless steel and EPDM materials.
  - Base
    - Fiberglass reinforced modified PPE thermoplastic with slotted holes for easy mounting.
  - Gaskets
    - Buna N rubber compression resistant.
  - Bolts, Nuts, and Washers
    - Stainless steel and brass with nickel plating.
  - Corrosion Prevention
    - All thermoplastic pump body for maximum hydraulic performance, noise reduction and corrosion prevention.
- Hair and Lint Strainer**
- Basket
    - HPE (polyethylene) basket colored white for easy debris removal.
    - Securely positioned below the suction inlet of the trap, with access for inspection and cleaning through the removable lid.
  - Lid
    - Clear polycarbonate thermoplastic lid for easy view into the basket area.
    - Lid Locking Ring - Cam and Ramp™ Lid and Locking Ring allow for quick and easy access to the basket.
    - O-ring seal.
- Motor**
- Frame and Type
    - NEEA Rated 56 Frame totally enclosed fan-cooled construction.
    - Variable speed induction motor.
  - Shaft
    - 303 series stainless steel construction.
  - Thermal Overload Protection
    - Thermal overload protection provided by the integral motor control.
  - Sealed Bearings
    - Lubricated, double sealed, stainless steel, single row ball bearings.
- Electrical**
- 208-230/227-460V single-phase.
  - 208-460V three-phase.
  - 50/60Hz.
  - WEP 5.0 THP S.D.
  - Single part number to cover all voltage ranges.
- Pump Maximum Thermal Limits**
- Ambient air temperature: 122° F (50° C).
  - Liquid temperature: 104° F (40° C).

# FILTERS - COMMERCIAL

## SCH 40 & 80 FOR TR100C, TR140C, TR100C-3 & TR140C-3 TANDEM FILTER PIPING KITS FOR 2 & 3 IN. FILTERS

These Tandem Filter Piping Kits are designed specifically for use with the Triton™ TR100C, TR140C, Triton TR100C-3 and TR140C-3 Sand Filters to make the best even better.

We are providing this additional service for your convenient one-stop shopping. Pipe and filters are all you need.



Pipe is not included in kits.

Tandem Filter Piping Kits for Triton TR100C, TR140C, TR100C-3 and TR140C-3 Sand Filters.

**Ordering Information**

Product	Model	Product	Model
<b>For Plumbing Two TR100C or TR140C Filters</b>			
146400	3 in. Two filter kit, SCH 40 (200 GPM)	146406	4 in. Single filter kit, SCH 40
146402	4 in. Two filter kit, SCH 40 (300 GPM)	146408	6 in. Single filter kit, SCH 40
146404	6 in. Two filter kit, SCH 40 (700 GPM)	146407	4 in. Single filter kit, SCH 80
146403	4 in. Two filter kit, SCH 80 (300 GPM)	146409	6 in. Single filter kit, SCH 80
146405	6 in. Two filter kit, SCH 80 (700 GPM)	<b>Adder Kits for TR100C-3 and TR140C-3 Filters</b>	
<b>For Plumbing Two TR100C-3 or TR140C-3 Filters</b>			
147400	3 in. Two filter kit, SCH 40 (200 GPM)	147408	6 in. Single filter kit, SCH 40
147402	4 in. Two filter kit, SCH 40 (300 GPM)	147407	4 in. Single filter kit, SCH 80
147404	6 in. Two filter kit, SCH 40 (700 GPM)	147409	6 in. Single filter kit, SCH 80
147401	3 in. Two filter kit, SCH 80 (200 GPM)	<b>Adder Kits for TR100C and TR140C Filters</b>	
147403	4 in. Two filter kit, SCH 80 (300 GPM)	146406	4 in. Single filter kit, SCH 40
147405	6 in. Two filter kit, SCH 80 (700 GPM)	146407	4 in. Single filter kit, SCH 80

Note: All kits include hardware, fittings, gaskets, and butterfly valves.

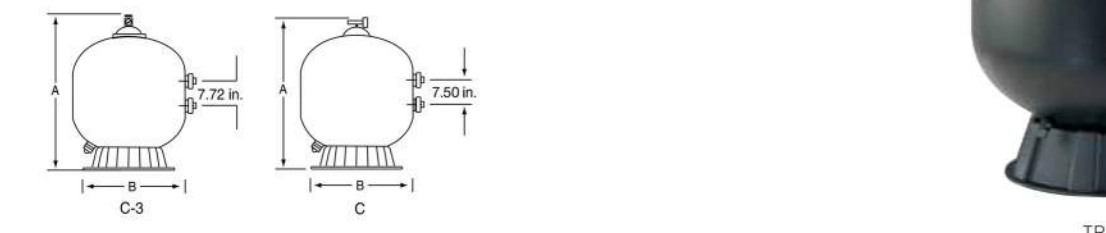
**TANDEM TRITON 140C FILTER INSTALLATION**

Filters	Filter Area Sq. Ft.	Manifold Pipe Dia.	Filter Rate Sq. Ft. 15 GPM	20 GPM	Turnover Capacity 6 Hours	8 Hours	10 Hours
6 TR 140's	42.36	6 in.	635	—	228,600	304,800	381,000
		8 in.	—	847	304,920	406,560	508,200
7 TR 140's	49.42	6 in.	741	—	266,760	355,680	444,600
		8 in.	—	988	355,680	474,240	592,800
8 TR 140's	56.48	6 in.	847	—	304,920	406,560	508,200
		8 in.	—	1130	406,800	542,400	678,000

# TRITON™ C SERIES COMMERCIAL SAND FILTERS

**TRITON HD FILTER**

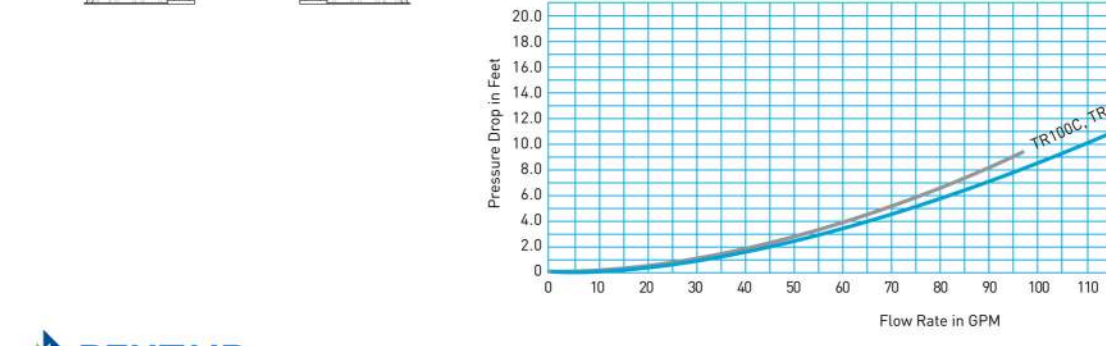
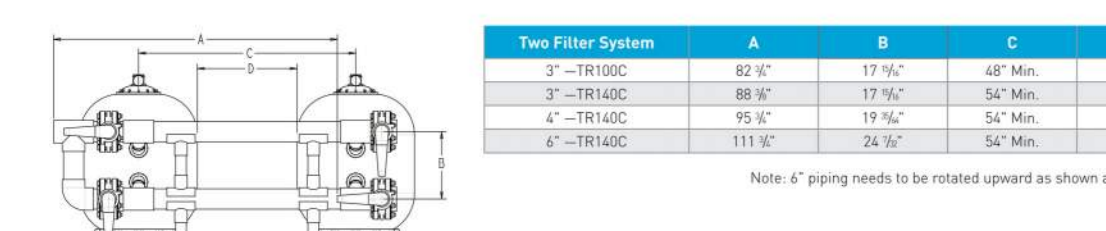
The Triton heavy duty (HD) filter is a thirty-inch fiberglass filter that offers a maximum operating pressure of 75 PSI. This filter is specifically designed for special high-pressure commercial applications that require up to 98 gpm, and is ideal for all heavy-duty commercial applications.



**Triton Commercial Series Sand Filter Specifications**

Model Number	Filter Area Sq. Ft.	Flow Rate 15 GPM/Sq. Ft.	Turnover Capacity Gallons 6 Hours	8 Hours	10 Hours	Dimension A	B	C	D	Media Required
TR100C	4.91	75	24,440	31,530	39,475	30 1/2"	30 1/2"	400	400	400 lbs./275 lbs.
TR140C	7.06	106	38,140	50,880	63,770	36 1/2"	36 1/2"	492	492	492 lbs./275 lbs.
TR100C-3	4.91	75	24,440	31,530	39,475	30 1/2"	30 1/2"	400	400	400 lbs./275 lbs.
TR140C-3	7.06	106	38,140	50,880	63,770	36 1/2"	36 1/2"	492	492	492 lbs./275 lbs.

\*15 GPM/Sq. Ft. typical commercial flow rate.



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## TAG 1A - CIRCULATION PUMP - XFE-20 - 5 HP HIGH EFFICIENCY PUMP

## TAG 1B - FEATURE PUMP - WHISPERFLOXF VS - 5 HP HIGH EFFICIENCY PUMP

## TAG 2 - BACKWASH KIT - 147402 - TANDEM FILTER PIPING KITS FOR 2 & 3 IN FILTERS

## TAG 3 - FILTER - TR-140 C3 - 36" DIA HIGH RATE SAND FILTER W/ 7.06 SF OF MEDIA

### RAINBOW™ HIGH CAPACITY CHLORINE/BROMINE FEEDERS

- Designed for ease of use and simple maintenance.
- Drain valve allows easier draining for safer recharging or winterizing.
- Standard threaded inlet and outlet fittings included for easy installation.

HC-3310 40 lb. capacity  
HC-3320 30 lb. capacity  
HC-3315 15 lb. capacity

### WHEN ACCURACY IS CRITICAL, DON'T JUST TAKE OUR WORD FOR IT!

FlowVis® was the first - and is now the most - NSF 50 certified flow meter in the world! Because when accuracy matters, you should put your trust in the experts.

NSF 50 CERTIFIED L1

**FLOWVIS® MODELS**

Feature	FV15	FV15-U	FV2	FV2-U	FV2S	FV3	FV3-40	FV4	FV6	FV8
NSF 50 Certified	/	/	/	/	/	/	/	/	/	/
Pipe Size	1.5"	1.5"	2"	2"	2.5"	3"	3"	4"	6"	8"
Operating Range (GPM)	10-80	10-90	10-100	10-100	10-100	70-240	70-240	150-460	300-1000	600-1800
Average Accuracy	98.7%	98.7%	99.4%	99.0%	99.0%	98.9%	98.9%	99.2%	99.6%	N/A*
NSF 50 Level	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1

\*FlowVis® model FV-8 is available only with FlowVis® Digital upgrade included. For accuracy of this model, refer to the FV-8 information in the FlowVis Digital table below.

**FLOWVIS® DIGITAL MODELS**

Feature	FV15	FV15-U	FV2	FV2-U	FV2S	FV3	FV3-40	FV4	FV6	FV8
NSF 50 Certified	/	/	/	/	/	/	/	/	/	/
Pipe Size	1.5"	1.5"	2"	2"	2.5"	3"	3"	4"	6"	8"
Operating Range (GPM)	10-80	10-90	10-100	10-100	10-100	70-240	70-240	150-460	300-1000	600-1800
Average Accuracy	98.6%	99.0%	98.8%	98.5%	98.3%	98.4%	98.0%	98.3%	98.9%	98.9%
NSF 50 Level	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1

NOTE: FlowVis is the only NSF 50 certified Level 1 flow meter in the world today.

### THE PERFORMANCE LEADER IN AUTOMATIC SANITIZATION FOR LARGE RESIDENTIAL AND COMMERCIAL POOLS

THE INLET control valve side of the feeder connects to the plumbing on the discharge side of the pump, before the filter. THE OUTLET side of the feeder connects to the pool return line after the filter and/or heater, pool cleaner, diverter valves, or any other installed equipment. Installation of a corrosion-resistant check valve such as HR172289 by Pentair between the feeder inlet and outlet and the equipment is strongly recommended to check backflow of chemicals. This helps ensure equipment longevity.

**AVAILABLE FROM:**

Model	HC-3318	HC-3330	HC-3340
Part Number	8172125	8172120	8172130
Height	21.5"	39.125"	49.75"
Width	8"	8"	8"
Depth	15"	15"	15"
Maintenance Clearance	22.75"	48.375"	51"
Capacity (lbs.)	15	30	40
Flow rate (GPM)	36	34	11.5
Maximum Output Rate, Chlorine™ (lbs./hr.) @ 15' at listed flow rate	2.8	4.4	3.0
Maximum Output Rate, Bromine™ (lbs./hr.) @ 15' at listed flow rate	4.8	7.9	5.7
Maximum Output Rate, Bromine™ (lbs./hr.) @ 15' at listed flow rate	0.6	1.1	1.7
Flow rate (GPM)	17.6	17.6	9.2
Output Rate, Chlorine™ (lbs./hr.) @ 15' at listed flow rate	2.1	3.4	2.4
Output Rate, Bromine™ (lbs./hr.) @ 15' at listed flow rate	1.8	3.0	5.4
Output Rate, Bromine™ (lbs./hr.) @ 15' at listed flow rate	0.3	0.6	0.9
Maximum Pool Size @ 34 GPM (Chlorine-Dial)	224,000	349,000	458,500
Maximum Pool Size @ 34 GPM (Bromine-Dial)	99,200	164,000	292,400

Maximum working pressure - 50 psi  
\*Returns based on use of 1" restrictor valves.

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pumps • heaters • heat pumps • automation • lighting • cleaners • sanitizers • water features • maintenance products

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### AQUASTAR VGBA-2017 PRODUCT SPECIFICATIONS

#### Suction Outlet Fitting Assembly (SOFA)

VGBA-2017 Flow Ratings, Sump Dimensions, and Sump Flow Path Zone

NSF 50 CERTIFIED 50 ANS/APSP/ICC-16-2017

**DIRECTIONS:** Read and follow the instructions provided with the product. Never exceed a SOFA Model flow rating when the pool is in use. SOFA Covers shall only be installed over sumps that meet or exceed the minimum flow path zone defined by: minimum pipe size and sump exit orientation, and the minimum pipe depth. Please see page 2 of 2 for help determining the proper flow rating for any pipe size changes within 16 inches of the pool interior finish. AquaStar SOFA covers are authorized for use over any compatible manufactured or field-built sump (§ 3.5.1). Scan the QR code or visit: [www.aquastarpoolproducts.com/flowcode](http://www.aquastarpoolproducts.com/flowcode) for the most current version of these specifications, instructions, and product information.

**Cover Model Number:** 1216xxx

**FIGURE 1:** SOFA Model Number Key

**FIGURE 2:** Flow Path Zone

SOFA Model No.	(A) Pipe Size (Nominal)	(B) Pipe Depth (Minimum)	Orientation (Wall / Floor)	Flow Rating (GPM)	Head Loss Curve
1216-12f-A-1-5b, B3, C0.3, D0.7, E3.5, F16	1.5" (b)	3"	Floor (f)	126	A
1216-8f-A-2b, B1.6, C0.4, D0.5, E2.4, F16	2" (b)	1.6"	Floor (f)	150	B
1216-8f-A-2b, B3, C1.6, D0.5, E2.8, F16	2" (b)	3"	Floor (f)	200	C
1216-8f-A-2-5b, B3, C0.4, D0.4, E2.3, F16	2.5" (b)	3"	Floor (f)	250	D
1216-8f-A-3b, C1.6, D0.5, E2.5, F16	3" (b)	3"	Floor (f)	320	E
1216-12f-A-3b, B5.6, C0.3, D0.7, E3, F16 [Sump P/N 12-358]	3" (b)	5.6"	Floor (f)	380	F
1216-12f-A-4b, B3, C1.2, D0.625, E3.75, F16	4" (b)	3"	Floor (f)	380	G
1216-8f-A-4b, B9.8, C1.6, D0.5, E1.8, F16 [Sump P/N 12-458]	4" (b)	9.8"	Floor (f)	584	H
1216-12f-A-4b, B6, C0.3, D0.7, E3, F16 [Sump P/N 12-358]	4" (b)	6"	Floor (f)	500	I
1216-12f-A-4b-2.5b, B6, C0.3, D0.7, E3, F16 [Sump P/N 12-358]	4" (b)	2.5" (b)	6"	626	J
1216-12f-A-6b, B3, C0.3, D0.7, E3, F16	6" (b)	3"	Floor (f)	385	K
1216-12f-A-6b, B10.5, C0.3, D0.7, E3, F16 [Sump P/N 12-658]	6" (b)	10.5"	Floor (f)	720	L
1216-12w-A-1-5b, B3, C0.3, D0.7, E3.5, F16	1.5" (b)	3"	Wall (w)	126	M
1216-12w-A-2b, B3, C0.3, D0.7, E3.5, F16	2" (b)	3"	Wall (w)	150	N
1216-12w-A-2-5b, B3, C0.3, D0.7, E4.7, F16	2.5" (b)	3"	Wall (w)	250	O
1216-12w-A-3b, B3, C0.3, D0.7, E4.2, F16	3" (b)	3"	Wall (w)	320	P
1216-12w-A-4b, B3, C1.2, D0.7, E3.75, F16	4" (b)	3"	Wall (w)	320	Q
1216-8w-A-4b, B9.8, C1.6, D0.5, E1.8, F16 [Sump P/N 12-458]	4" (b)	9.8"	Wall (w)	400	R
1216-12w-A-6b, B10.5, C0.3, D0.7, E3, F16 [Sump P/N 12-658]	6" (b)	10.5"	Wall (w)	540	S

Note 1: "SOFA Model No" nomenclature: bottom pipe = (b), side pipe = (s). See Fig 1 for capital letters A through E.  
Note 2: Head loss inHg is measured 16 to 24 inches from the finish surface of the pool. Reference Fig 1 dimension F.  
Note 3: [Sump P/N 12x58] are the part numbers marked inside these manufactured Sump Buckets. Use of these sumps is not required. Installing 1216xxx covers on field-built sumps is permitted. To order 1216xxx product with these sumps, please see the catalog or visit [www.aquastarpoolproducts.com](http://www.aquastarpoolproducts.com).

Revision Date: 04/02/2024 Sump specifications defined in conformance with ANS/APSP/ICC-16 2017 (§ 3.5.1.1)

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### AQUASTAR VGBA-2017 PRODUCT SPECIFICATIONS

#### Suction Outlet Fitting Assembly (SOFA)

VGBA-2017 Flow Ratings, Sump Dimensions, and Sump Flow Path Zone

NSF 50 CERTIFIED 50 ANS/APSP/ICC-16-2017

**DIRECTIONS:** Read and follow the instructions provided with the product. Never exceed a SOFA Model flow rating when the pool is in use. SOFA Covers shall only be installed over sumps that meet or exceed the minimum flow path zone defined by: minimum pipe size and sump exit orientation, and the minimum pipe depth. Please see page 2 of 2 for help determining the proper flow rating for any pipe size changes within 16 inches of the pool interior finish. AquaStar SOFA covers are authorized for use over any compatible manufactured or field-built sump (§ 3.5.1). Scan the QR code or visit: [www.aquastarpoolproducts.com/flowcode](http://www.aquastarpoolproducts.com/flowcode) for the most current version of these specifications, instructions, and product information.

**Cover Model Number:** 1216xxx

**FIGURE 1:** SOFA Model Number Key

**FIGURE 2:** Flow Path Zone

SOFA Model No.	(A) Pipe Size (Nominal)	(B) Pipe Depth (Minimum)	Orientation (Wall / Floor)	Flow Rating (GPM)	Head Loss Curve
1216-12f-A-1-5b, B3, C0.3, D0.7, E3.5, F16	1.5" (b)	3"	Floor (f)	126	A
1216-8f-A-2b, B1.6, C0.4, D0.5, E2.4, F16	2" (b)	1.6"	Floor (f)	150	B
1216-8f-A-2b, B3, C1.6, D0.5, E2.8, F16	2" (b)	3"	Floor (f)	200	C
1216-8f-A-2-5b, B3, C0.4, D0.4, E2.3, F16	2.5" (b)	3"	Floor (f)	250	D
1216-8f-A-3b, C1.6, D0.5, E2.5, F16	3" (b)	3"	Floor (f)	320	E



**AQUASTAR** pool products  
A Safe Drain is No Accident™

### FillStar™ Water Level Control System for Pools and Spas

**Durable and reliable**

**FEATURES**  
Can be installed alone or with drain/vacuum pool or spa at all times  
Easy to install  
Overflow protection and adjustable presets  
Uses the same size lid and collar as AquaStar skimmers  
Includes a 2" to 1½" adapter  
¾" plug included if overflow is not needed  
¾" water supply inlet  
Valve is made of high-strength engineered resin  
Float is injection-molded; thread is pre-molded  
All fittings are made of PVC  
No transition glue needed  
Float thread is ½" MPT  
1 per case

**NEW**

Part # AFBxxx Also available float only part # AFBV

**STANDARD COLORS**  
AFB101 - White  
AFB102 - Black  
AFB103 - Light Gray  
AFB104 - Blue  
AFB105 - Dark Gray  
AFB108 - Tan

Also available without lid and collar p/n AFBNxxx  
Also available cover only p/n SKRTxx

P 877-768-2717 F 877-276-POOL Outside the US: P +1-805-620-5060 F +1-949-336-1940  
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**GLOBRITE®**  
POOL AND SPA LED LIGHTS

**AMAZING, BRILLIANT WHITE LIGHT THAT MAKES POOL DESIGNS COME ALIVE**  
Add the magic and vibrancy of GloBrite White LED Lights to see your pool take possession of the night. These brilliant white lights are engineered with the most efficient LED lighting technology on the market today, and they can take your pool far beyond the ordinary. GloBrite White LED Lights highlight your pool's form and finishes, such as colored glass, aggregate, pebbles, ceramics, stone tile and glass tile. Natural colors and textures are enhanced and spring to life. Plus, you can choose from three adjustable brightness levels to set the perfect mood.

**Key Features**  
**LED array**  
Creates powerful illumination with remarkable energy efficiency.  
**TS W usage**  
Delivers the equivalent of 190 W of incandescent light.

**Optimized brightness**  
GloBrite White models offer three levels of control. Choose from 300%, 70% or 50% brightness.  
**Added savings**  
With extended service life and energy efficiency.

**Multiple niches**  
Available for concrete vinyl and fiberglass. Compact design allows for innovative placement near steps, water features, swim-outs and more. Install in water as shallow as 5 inches.

**Design flexibility**  
Compact design allows for innovative placement near steps, water features, swim-outs and more. Install in water as shallow as 5 inches.

**eco select**  
GloBrite Pool and Spa LED Lights have earned the eco select award for their energy efficiency and low environmental impact.

**TRADEGRADE**  
The TradeGrade line of products is recognized as the industry standard for quality and performance.

Item #: **602104**  
Description: GloBrite White LED Light  
Voltage: 12  
Wattage: 15W  
Cord Length (Ft.): 100  
Carton Qty.: 1  
Carton Wt. (Lbs.): 9

**INTELLIBRITE® 5G WHITE LED**  
UNDERWATER LED LIGHTS FOR SWIMMING POOLS AND SPAS

**Featured Highlights**

- The brightest most energy efficient white LED pool light on the market
- Energy efficient utilizing up to 58% less energy than comparable incandescent lights
- Superior lens geometry and innovative reflector design combine to create a wider beam and more uniform light distribution
- Pool lens can be rotated to 180 degrees to provide wide beam pattern (standard) or narrow beam pattern
- Compatible with Pentair Stainless steel and plastic niches
- Available in 120V and 12V versions
- Available in 300W, 400W, and 500W incandescent equivalencies

**IntelliBrite 5g White LED Pool Light**  
IntelliBrite 5g White LED light offers a brighter, more energy efficient alternative to incandescent white lighting. Utilizing its array of LEDs, it is also ideal for commercial applications.

**Ordering Information for Pool Lights**

Product	Voltage	Cord Length (Ft.)	Incandescent Equivalency	Carton Qty.	Carton Wt. (Lbs.)
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 300 WATT EQUIVALENT, 120 VOLT</b>					
401109	120V	30 ft.	300W Equivalency	1	
401101	120V	50 ft.	300W Equivalency	1	
401102	120V	100 ft.	300W Equivalency	1	
401103	120V	150 ft.	300W Equivalency	1	
401104	120V	250 ft.	300W Equivalency	1	
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 300 WATT EQUIVALENT, 12 VOLT</b>					
401105	12V	30 ft.	300W Equivalency	1	
401106	12V	50 ft.	300W Equivalency	1	
401107	12V	100 ft.	300W Equivalency	1	
401108	12V	150 ft.	300W Equivalency	1	
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 400 WATT EQUIVALENT, 120 VOLT</b>					
401200	120V	30 ft.	400W Equivalency	1	
401201	120V	50 ft.	400W Equivalency	1	
401202	120V	100 ft.	400W Equivalency	1	
401203	120V	150 ft.	400W Equivalency	1	
401204	120V	250 ft.	400W Equivalency	1	
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 400 WATT EQUIVALENT, 12 VOLT</b>					
401205	12V	30 ft.	400W Equivalency	1	
401206	12V	50 ft.	400W Equivalency	1	
401207	12V	100 ft.	400W Equivalency	1	
401208	12V	150 ft.	400W Equivalency	1	
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 500 WATT EQUIVALENT, 120 VOLT</b>					
401300	120V	30 ft.	500W Equivalency	1	
401301	120V	50 ft.	500W Equivalency	1	
401302	120V	100 ft.	500W Equivalency	1	
401303	120V	150 ft.	500W Equivalency	1	
401304	120V	250 ft.	500W Equivalency	1	
<b>INTELLIBRITE 5g WHITE POOL LIGHTS - 500 WATT EQUIVALENT, 12 VOLT</b>					
401305	12V	30 ft.	500W Equivalency	1	
401306	12V	50 ft.	500W Equivalency	1	
401307	12V	100 ft.	500W Equivalency	1	
401308	12V	150 ft.	500W Equivalency	1	

Please refer to page 117 for CSA listed IntelliBrite Pool Lights.

UL LISTED

Junction Box - PJB4175

**INTERMATIC**

Junction Box - 4 Light Connection Pool & Spa Junction Box  
Item PJB4175

**PRODUCT DESCRIPTION**  
These polymeric junction boxes are code compliant and provide safe, reliable connections for low-voltage lights. Specially designed for pools, pool-spa combinations, and landscape applications. Junction boxes are for outdoor use only.

**FEATURES**

- Accommodates flexible cords and non-metallic conduits from ½" to 1"
- Watertight, multi-lure enclosure
- Easy access ground bar
- PA114 Weather Mounting Bracket (sold separately)
- Complies with NEC Code 690.24 requirements for junction boxes
- 1-year warranty

**APPLICATIONS**

- Landscape Lighting
- Underwater Lighting

**TECHNICAL DATA**

**General**  
Model Number: PJB4175  
Description: 4 Light Connection Pool & Spa Junction Box  
UPC Code: 07827994048  
Brand: Intermatic  
Country of Origin (Intermatic): RMA  
Warranty Period: 1-Year limited

**Control Specifications**  
Number of Light Connections: 4

**Mechanical Specifications**  
Mounting Options: Bracket, Post, Rod, Wall

**Dimensions**  
Product Dimensions (H x W x D) in: 8.75 x 5 x 4.625 in  
Non-Metallic Conduit Size: 1/2" - 1"

**Material Specifications**  
Body Material: Plastic

**Electrical Specifications**  
Number of Receptacle Knockouts: 5

**Packaging**  
Unit Carton Dimensions (H x W x L) in: 5.25 x 5 x 9 in

**Standards and Certifications**

Technical specifications and other information are subject to change without notice. Images can vary from original. © 12/22/2022 13

**D. CLUGSTON**

PROFESSIONAL ENGINEER  
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PO Box 43301, Henderson, NC 27536 | www.kilianengineering.com  
(919) 524-4388/8778 | CORPORATE LICENSE C-2277

TAG 14 - AUTOFILL - AFB101 - FILLSTAR - AUTOFILL LINE - WHITE

**Hand & Stair Rails**

DMS-101

- Tubing: 1.90" OD
- Wall Thickness\*: .049" or .065"
- Stainless Steel: 304 or 316L Marine Grade\*\* (add -MG to part number)
- Bends: 6" Radius
- Options: Powder-coating and SealedSteel Salt Friendly
- Recommended Anchors: AS-100P or AS-100B (order separately)
- Recommended Escutcheons: EP-100F (order separately)
- Sold as a single rail
- \* Minimum rail thickness is .065 for Commercial
- \*\* Minimum requirement for salt pools is 316L Marine Grade

DMS-101

Model No.	Description	Weight	Shipping Length	Width	Height
DMS-101A	48" Center Grab Rail, .049"	13 lbs - 16 lbs	59"	39"	2"
DMS-101B	48" Center Grab Rail, .065"	6 - 7kg	150cm	99cm	5cm
DMS-101C	48" Center Grab Rail, .049"	13 lbs - 16 lbs	59"	39"	2"
DMS-101D	48" Center Grab Rail, .065"	6 - 7kg	150cm	99cm	5cm

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TAG 15 - LIGHT - 602104 - 190W EQUIVALENCY GLOBRITE WHITE LED LIGHTS

**Hand & Stair Rails**

DMS-102

- Tubing: 1.90" OD
- Wall Thickness\*: .049" or .065"
- Stainless Steel: 304 or 316L Marine Grade\*\* (add -MG to part number)
- Bends: 6" Radius
- Options: Powder-coating and SealedSteel Salt Friendly
- Recommended Anchors: AS-100P or AS-100B (order separately)
- Recommended Escutcheons: EP-100F (order separately)
- Sold as a single rail
- \* Minimum rail thickness is .065 for Commercial
- \*\* Minimum requirement for salt pools is 316L Marine Grade

DMS-102

Model No.	Description	Weight	Shipping Length	Width	Height
DMS-102A	54" Center Grab Rail, .049"	15 lbs - 19 lbs	59"	39"	2"
DMS-102B	54" Center Grab Rail, .065"	7 - 9kg	150cm	99cm	5cm
DMS-102C	54" Center Grab Rail, .049"	15 lbs - 19 lbs	59"	39"	2"
DMS-102D	54" Center Grab Rail, .065"	7 - 9kg	150cm	99cm	5cm

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TAG 16 - LIGHT - 601108 - 400W EQUIVALENCY INTELLIBRITE WHITE LED LIGHTS

**Standard Plus Ladder**

**Stainless Steel Tread Ladder**

- Tubing: 1.90" OD
- Wall Thickness\*: .065", .109" or .145"
- Stainless Steel: 304
- Treads: LTDF-103 (Stainless Steel)
- Bends: 4" Radius
- Options: Powder-coating and SealedSteel Salt Friendly (rails only)
- Recommended anchors: AS-200B for 1.50" and AS-100B for 1.90" (order separately)
- Recommended escutcheons: EP-150 for 1.50" and EP-100F for 1.90" (order separately)
- \* Call Customer Service at 800.824.4387 for availability of ladders of 1.50"OD tubing

Model No.	Description	Weight	Shipping Length	Width	Height
10037 to 10039	23' 2-Step Ladder with .065", 109", 145" tubing	30, 42, 54 lbs	61"	29"	2"
10040 to 10042	23' 3-Step Ladder with .065", 109", 145" tubing	14, 20, 24kg	155cm	74cm	5cm
10043 to 10045	23' 4-Step Ladder with .065", 109", 145" tubing	38, 50, 62 lbs	70"	28"	2"
10046 to 10048	23' 5-Step Ladder with .065", 109", 145" tubing	16, 23, 29kg	173cm	71cm	5cm
10049 to 10051	29' 2-Step Ladder with .085", 109", 145" tubing	46, 64, 78 lbs	90"	28"	2"
10052 to 10054	29' 3-Step Ladder with .085", 109", 145" tubing	21, 29, 39kg	223cm	71cm	5cm
10055 to 10057	29' 4-Step Ladder with .085", 109", 145" tubing	42, 58, 72 lbs	85"	39"	2"
10058 to 10060	29' 5-Step Ladder with .085", 109", 145" tubing	14, 20, 25kg	190cm	99cm	5cm
10061 to 10063	35' 2-Step Ladder with .085", 109", 145" tubing	48, 66, 80 lbs	85"	39"	2"
10064 to 10066	35' 3-Step Ladder with .085", 109", 145" tubing	22, 30, 39kg	216cm	99cm	5cm
10067 to 10069	35' 4-Step Ladder with .085", 109", 145" tubing	34, 46, 60 lbs	85"	39"	2"
10070 to 10072	35' 5-Step Ladder with .085", 109", 145" tubing	15, 22, 28kg	190cm	99cm	5cm
10073 to 10075	35' 6-Step Ladder with .085", 109", 145" tubing	38, 56, 70 lbs	70"	40"	2"
10076 to 10078	35' 7-Step Ladder with .085", 109", 145" tubing	17, 25, 33kg	193cm	102cm	5cm
10079 to 10081	35' 8-Step Ladder with .085", 109", 145" tubing	44, 64, 78 lbs	85"	40"	2"
10082 to 10084	35' 9-Step Ladder with .085", 109", 145" tubing	20, 28, 35kg	193cm	102cm	5cm
10085 to 10087	35' 10-Step Ladder with .085", 109", 145" tubing	50, 70, 86 lbs	70"	40"	2"
10088 to 10090	35' 11-Step Ladder with .085", 109", 145" tubing	23, 32, 40kg	193cm	102cm	5cm

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TAG 17 - JUNCTION BOX - PJB4175 - 4 LIGHT CONNECTION POOL & SPA JUNCTION BOX

**pool access equipment**

**multilift™**

**Lift Color**

Due to printing technology actual color may differ.

New Construction Jig with Anchors 500-5000A

Wheel-A-Way mobility option provides flexibility to transport the lift if needed.

Optional folding seat assembly

A flanged pool lift, with left or right side mounting and optional folding seat version.  
Third-party tested & verified ADA compliant.  
Integrated armrests  
State of California compliant  
350 lb/159kg lifting capacity  
Retrofit anchor jig is standard  
Optional folding seat assembly  
LiftOperator® Intelligent Controller  
Powder-coated stainless steel and aluminum construction

**ABA COMPLIANT**

Model No.	Description	Shipping - Class 150
575-0000	multilift with armrests	Weight: 200 lbs/90kg Length: 59" Width: 28" Height: 120cm 71cm 69cm
575-0000A	multilift, no anchor	

**Parts & Accessories**

- 100-495 Battery
- 500-5200T Cover
- 500-5500 Wheel-A-Way
- 900-1000 Seat Belt
- 300-6700A Anchors, set of 4
- 300-6900 Retrofit Anchor Jig
- 300-6800A Anchor Bolts, set of 4
- 970-5000T Seat Saver Cover
- 900-6000 Stability Strap
- 170-3000A Armrest Replacement (pair)

**multilift with Folding Seat**

Model No.	Description	Shipping - Class 17.5
575-0100	multilift with folding seat	Weight: 225 lbs/103kg Length: 61" Width: 24" Height: 123cm 61cm 71cm
575-0100N	multilift with folding seat, no anchor	
575-0105	multilift with armrests and folding seat	Weight: 230 lbs/104kg Length: 61cm 61cm 71cm
575-0105N	multilift with armrests and folding seat, no anchor	

**Parts & Accessories**

- 100-495 Battery
- 500-5100CT Folding Seat Cover
- 160-4000T Folding Seat
- 900-2000 Stability Vest
- 900-4000 Seat Pad
- 970-0000T Seat Saver Cover
- 970-2320 Armrest Assembly, gray, left & right

**New Construction Guidelines**

Scenario	Pool Lift	Anchor Jig
Order pool lift and new construction jig at same time	575-3000	500-5000 (no anchors)
Order new construction jig ahead of pool lift	575-3000N	500-5000A (comes with anchors)

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DATE: \_\_\_\_\_

NO.: \_\_\_\_\_

REVISION: \_\_\_\_\_

SHEET DISCUSSION  
**SPECIFICATIONS**

PROJECT #: 2023015  
DATE ISSUED: 01/22/2024  
DRAWING BY: JVD  
CHECKED BY: DSC/JLH

**POWELL AMENITY GREENHAWK BATHHOUSE AMENITY LILLINGTON, NC**

**SP5.2**