



## CODE REQUIREMENTS

### CODE REQUIREMENTS

- ALL CONSTRUCTION RELATED TO THE POOL AND SURROUNDING POOL AREA SHALL BE IN FULL ACCORDANCE WITH THE LAC TITLE 51 XXIV CODE, AND ALL OTHER APPLICABLE CODES, AND STANDARDS.
- THIS POOL IS AN EXISTING OUTDOOR POOL WHICH IS BEING REFURBISHED.

**NOTE: GOING FORWARD WITHIN THIS DOCUMENT: ALL SUBSECTIONS REFERENCED FROM THE LAC TITLE XXIV CODE SHALL EXCLUDE "LAC TITLE 51 XXIV CODE" AND LIST ONLY THE SPECIFIC SUBSECTION BEING REFERENCED. IT IS UNDERSTOOD THAT ALL SUBSECTIONS BEING REFERENCED WITHIN THIS DOCUMENT ARE UNDER LAC TITLE 51 XXIV CODE.**

### DESIGN REQUIREMENTS

- PER 301.B - ALL INTERIOR SURFACES OF THE POOL SHALL RECEIVE A LIGHT COLORED PLASTER ON ALL SURFACES NOT TILED. PLASTER TO BE WHITE.
- PER 305.A - ALL POOL WALLS SHALL BE VERTICAL AND PLUMB.
- PER 311.A - THE MINIMUM WATER DEPTH IS 3'-8".
- PER 311.C - THIS POOL IS DESIGNED NOT TO EXCEED THE 4'-6" WATER DEPTH, THEREFORE NOT REQUIRING A 4" MINIMUM CONTRASTING BAND. DEEPEST WATER DEPTH ON THIS POOL IS 4'-4".
- PER 311.E - DUE TO THE ESTABLISHED WATER DEPTHS, THERE WILL BE NO DIVING ALLOWED IN THIS POOL. ALL WATER DEPTH TILE MARKER LOCATIONS SHALL ALSO INCLUDE A 6"x6" INTERNATIONAL NO DIVING SYMBOL.
- PER 315.A - THE POOL TURNOVER RATE SHALL BE SIZED AT 2 HOURS.
- PER 317.D - THIS POOL WILL HAVE AN UNDERWATER SEAT BENCH THAT IS IN FULL COMPLIANCE WITH THE DOCUMENT ENTITLED "VARIANCE CRITERIA FOR UNDERWATER SEAT BENCHES" (SEE UNDERWATER SEAT BENCH REQUIREMENTS).
- PER 323.B - POOL DECK SHALL BE CONSTRUCTED OF PAVERS WHICH ARE SLIP RESISTANT AND EASILY CLEANABLE.
- PER 323.F.3 - THE MINIMUM CONTINUOUS UNOBSTRUCTED DECK WIDTH SHALL BE 4 FEET.
- PER 323.G - THE POOL DECK SHALL BE ¼" PER 1 FOOT. (SEE PLAN SHEET PL-1.0 FOR SLOPE DIRECTION). NOTE THAT WATER SHALL SHED OFF OF THE POOL DECK, AND INTO EXISTING LANDSCAPED PLANS WHICH EXHIBIT DRAINAGE TO CATCH STORM WATER.
- PER 323.J - CONTROL JOINTS AROUND THE COPING AND THROUGHOUT THE DECK SHALL BE CONSTRUCTED TO A MINIMUM WIDTH OF ¼", AND SHALL BE WATER TIGHT IN FULL COMPLIANCE WITH THE LAC.51 CODE".
- PER 323.O - POOL DECK SHALL BE SLOPED AS INDICATED ON SHEET PL-1.0.
- PER 323.P - SITE DRAINAGE SHALL BE INSTALLED TO EFFECTIVELY SHED WATER FROM POOL DECK AND POOL, AND PREVENT FLOODING OR EROSION OF LANDSCAPING ONTO POOL DECK OR POOL.
- PER 323.Q - ALL POOL CIRCULATION SYSTEM PIPING SHALL BE TESTED WITH AN INDUCED STATIC HYDRAULIC PRESSURE TEST AT 25 PSI FOR 30 MINUTES, AND SHALL BE PERFORMED BEFORE ANY OF THE PIPING IS COVERED UP. PIPING WILL REMAIN UNDER PRESSURE THROUGHOUT THE ENTIRE DURATION OF THE CONSTRUCTION PROCESS AS MUCH AS FEASIBLY POSSIBLE.
- PER 323.S - A HOSE BIB AND VACUUM BREAKER SHALL BE PROVIDED FOR WASHING DOWN THE ENTIRE POOL DECK AREA.
- PER 325 - TWO MEANS OF EXIT/EGRESS IS PROVIDED ON THIS POOL BY MEANS OF STAIRS EACH WITH A HANDRAIL.
- PER 327 - ALL STAIR TREADS ARE 12", ALL RISERS ARE UNIFORMLY 12", WITH THE BOTTOM RISER VARYING NO MORE THAN PLUS OR MINUS 2". ONE HANDRAIL SHALL BE PROVIDED, AND SHALL BE NO MORE THAN 18 INCHES HORIZONTAL DISTANCE FROM THE FACE OF BOTTOM RISER. THE OUTSIDE DIAMETER OF THE HANDRAIL IS 1.90" O.D..
- PER 329 - THIS POOL DOES NOT REQUIRE A POOL LADDER, AS THE EXIT/EGRESS REQUIREMENTS ARE MEET WITH TWO SETS OF STAIRS WITH HANDRAILS RESPECTIVELY PER CODE.

### CIRCULATION SYSTEMS

- PER 501 - ALL POOL EQUIPMENT IS SIZED FOR A 2 HOUR TURNOVER, AND ALL POOL EQUIPMENT SHALL MEET NSF 50 PER.
- PER 503.A - WATER VELOCITY FOR RETURN PIPING SHALL NOT EXCEED 8FPS, AND VELOCITY FOR THE SUCTION PIPING SHALL NOT EXCEED 6 FPS. (SEE ATTACHED VELOCITY CHART AS SHOWN ON PLAN SHEET PL-1.1)
- PER 503.C.1 - THIS POOL SHALL BE PROVIDED WITH A FLOW METER SHOWING FLOW RATE THROUGH THE FILTER SYSTEM IN GALLONS PER MINUTE.
- PER 505 - PROPERLY SIZED SAND FILTER SHALL BE PROVIDED WITH A SIGHT GLASS TO DETERMINE WATER CLARITY.
- PER 507 - A RECIRCULATION PUMP SHALL BE PROVIDED WHICH MEETS OR EXCEEDS THE MAXIMUM FLOW RATE FOR THE POOL RECIRCULATION SYSTEM.
- PER 509 - THIS POOL SHALL HAVE A TOTAL OF 4 RETURN INLETS (2 DIRECTIONAL EYEBALL INLETS, AND 2 ADJUSTABLE FLOOR RETURN INLET ON THE TOP LANDINGS OF THE STEPS AS SHOWN PER PLAN PL-1.0 AND PL-1.1. TWO MAIN DRAINS ARE TO BE LOCATED AS SHOWN ON PLANS, AND EACH TO ACCOMMODATE THE MAXIMUM FLOW RATE FOR THIS POOL. ALL RETURN INLETS PROVIDED MEET THE MINIMUM OF TWO INLETS PER 600 SQUARE FEET OF WATER SURFACE AREA.
- PER 511 - ALL WALL RETURN INLETS AND FLOOR RETURN INLET SHALL BE ADJUSTABLE. THE WALL RETURN INLETS ARE ALL LOCATED BETWEEN 10 INCHES AND 15 INCHES BELOW POOL OVERFLOW LEVEL.
- PER 513 - ALL SUCTION OUTLETS SHALL HAVE ANTI-VORTEX COVERS (THIS INCLUDES THE MAIN DRAINS, AND ALL SUCTION COVERS FOR THE EQUALIZER LINES ON EACH SKIMMER. EACH 8" MAIN DRAIN IS SPACED AT 6'-0" FROM CENTER TO CENTER.
- PER 515 - A SURFACE SKIMMER SHALL BE PROVIDED FOR EVERY 500 SQ. FT. OF WATER SURFACE AREA.

### GENERAL STANDARDS

- PER 701 - ALL DEPTH MARKER REQUIREMENTS FOR THIS CODE SECTION ARE IDENTIFIED ON PLAN SHEET PL-1.2, DETAIL 03, AND ALL REFERENCED ON PLANS PL-1.0 AND PL-1.1.
- PER 703 - THIS CLASS C POOL SHALL UTILIZE THE EXISTING 12FT. LONG STRONG POLE WITH SHEPARD'S HOOK (LIFESAIVING HOOK), 60 FT. THROWING ROPE AND RING BUOY, AND TELEPHONE WITH POSTED EMERGENCY NAMES AND NUMBERS.
- PER 707.A - ALL FRESH WATER SUPPLY LINES, AND BACKWASH LINES SHALL BE SEPARATED BY A 6" MINIMUM AIR GAP, PREVENTING A PHYSICAL CONNECTION OF THE THE FRESH WATER SUPPLY LINE, OR THE BACKWASH LINE TO THE POOL WATER BODY.
- PER 711 - BACKWASH WATER SHALL BE DISCHARGED INTO A SANITARY SEWER LINE THROUGH A 6" MINIMUM AIR GAP.
- PER 713.A - POOL CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE LATEST NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION AGENCY SHALL BE

COMPLIED WITH.

- PER 715.A - THIS POOL WILL NOT BE OPEN FOR USE DURING NON-DAYLIGHT HOURS, AND THEREFORE REQUIRES NO UNDERWATER POOL LIGHTING.
- PER 717 - THE EXISTING POOL EQUIPMENT PAD IS OUTDOORS, NOT REQUIRING VENTILATION.
- PER 733.A - EXISTING POLE HOOKS, ROPES, BUOYS, FIRST AID KIT, AND OTHER LIFESAIVING EQUIPMENT ARE TO BE PROVIDED IN COMPLIANCE WITH CODE.

### DISINFECTION & BACTERIOLOGICAL QUALITY

- PER 901.A - ALL DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF STANDARD 50.
- PER 901.A.2 - THE CHLORINATOR PROVIDING DISINFECTANT TO THE POOL WATER IS TO BE ADJUSTED PENDING FIELD TESTING MEASURES THAT ARE SIMPLE AND ACCURATE.
- PER 901.C - THE POOL SHALL BE SUPPLIED WITH A CHEMICAL TEST KIT WHICH TESTS ALLOWS FOR TESTING OF ALL LEVELS MENTIONED IN NOTE 66 WITHIN THIS DOCUMENT VIA THE DPD METHOD OF DETECTING CHLORINE RESIDUAL. (TAYLOR TEST KIT K-2006 OR BETTER WILL BE PROVIDED).
- THE TESTING RESULTS FOR RESIDUALS SHALL MEET THE FOLLOWING....
  - TESTING FOR DETERMINATION OF pH, CHLORINE (TOTAL AND FREE), TOTAL ALKALINITY, AND CALCIUM HARDNESS.
  - DISINFECTANT LEVELS AND pH SHALL BE MEASURED TWICE PER DAY, AND HOURLY WHEN POOL IS IN HEAVY USE.
  - TOTAL ALKALINITY TO BE MEASURED WEEKLY
  - CALCIUM HARDNESS TO BE MEASURED MONTHLY.

LEVEL REQUIREMENTS ARE....

CHLORINE	1.0 ppm MINIMUM
FAC	3.0 ppm MAXIMUM 10 MG/L MAXIMUM
TOTAL ALKALINITY	60 - 180 ppm (MG/l)
CALCIUM HARDNESS	1000 ppm (MG/L) MAXIMUM

## UNDERWATER SEAT BENCH

- UNDERWATER SEAT BENCH ON THIS POOL IS WITHIN LESS THAN 5'-0" WATER DEPTH.
- THERE ARE NO SWIM LANES WITHIN THIS POOL.
- THE WATER DEPTH ABOVE THE UNDERWATER SEAT BENCH IS 17 INCHES.
- THE SEAT DEPTH OF THE UNDERWATER SEAT BENCH FROM FACE OF POOL WALL TO THE VERTICAL FACE OF THE BENCH IS 17 INCHES.
- A PERMANENT COLORED BAND OF DARK, CONTRASTING AND SLIP-RESISTANT TILE SHALL BE INSTALLED AT THE FRONT EDGE OF THE SEAT EXTENDING TWO INCHES ON THE HORIZONTAL AND VERTICAL SURFACE, AND SHALL BE SLIP RESISTANT (SEE SHEET PL-1.2, DETAIL 04).
- THE FRONT EDGE OF THE UNDERWATER SEAT BENCH SHALL HAVE A 1 INCH ROUNDED EDGE.
- THE UNDERWATER SEAT BENCH IS NOT UTILIZED AS AN ENTRY/EXIT. THE BENCH IS TIED INTO ONE OF THE STEPS WHICH SERVE AS AN ENTRY/EXIT.
- A HANDRAIL WILL BE INSTALLED IN FULL COMPLIANCE WITH THE REQUIREMENTS IN THE LAC TITLE 51 PART XXIV.

## GENERAL CONSTRUCTION NOTES

- REFERENCE HARDSCAPE & DRAINAGE PLANS FOR FINISHED GRADES, AND DRAINAGE.
- FOR ALL FINISHES ON THE POOL AND POOL DECK, REFERENCE THE HARDSCAPE PLANS.
- ALL POOL DECK DEPTH MARKERS (BOTH DECK MOUNTED AND WALL MOUNTED) ARE IDENTIFIED IN THE POOL PLAN VIEWS AND SECTIONS, AND SPECIFICALLY ON SHEET PL-1.2, DETAIL 03.
- ALL 2"x2" DARK CONTRASTING EDGE TILE WITHIN THE POOL IS IDENTIFIED THROUGHOUT ALL POOL PLAN VIEWS AND SECTION VIEWS. COLORS ARE IDENTIFIED IN THE HARDSCAPE PLANS.
- DIMENSIONAL LAYOUT PLAN FOR POOL ON SHEET PL-1.0 IDENTIFIES THE LOCATIONS OF ALL SKIMMERS, INLETS, DRAINS, DEPTH CHANGES, DEPTH MARKERS, HAND RAIL, LADDER, AND ADA LIFT MOUNTING LOCATION.
- ALL SKIMMERS ARE TO HAVE EQUALIZER LINES WITH SUCTION COVERS.

## POOL CALCULATIONS

### POOL VOLUME CALCULATIONS

6' DEPTH = 50 SQ. FT. * .5 FT = 25 CU FT. * 7.48 GAL = 187 GALLONS
1'-6" DEPTH = 59 SQ. FT. * 1.5 FT = 88.5 CU FT * 7.48 GAL = 662 GALLONS
2'-6" DEPTH = 24 SQ. FT. * 2.5 FT = 60 CU FT * 7.48 GAL = 45 GALLONS
3'-8" DEPTH = 293 SQ. FT. * 3.67 FT = 1076 CU FT * 7.48 GAL = 8,049 GALLONS
6' ADD TO 3'-8" (4'-2" DEPTH) = 147 SQ. FT. * .5 FT = 73.5 CU FT. * 7.48 GAL = 550 GALLONS
2' ADD TO 4'-2" (4'-4" DEPTH) = 52 SQ. FT. * .17 FT = 52.17 CU FT * 7.48 GAL = 391 GALLONS
<b>TOTAL GALLONS = 9,884</b>

POOL COPING (OUTER PERIMETER) = 109 LN. FT.

POOL COPING (INNER PERIMETER) = 101 LN. FT.

WATER SURFACE AREA = 476 SQ. FT.

TURNOVER CALCULATIONS - 9884 GAL / 60 MIN = 164.74  
TURNOVER = 164.74/105GPM = 1.57 HR TURNOVER

TOTAL SYSTEM DESIGN FLOW RATE = 105  
POOL FLOW RATE = 105 X 0.80 = 84 GPM  
WATER FEATURE FLOW RATE (SCONCES & SHEER DESCENT) = 105 X 0.20 = 21 GPM

20 BATHERS MAX LOAD CAPACITY

SHEER DESCENT WATER FEATURE REQUIRES 12 GPM

2 SCONCES EACH AT 4.5 GPM

TR140 FILTER TURNOVER CAPACITY AT 8,460 GPH = 141 GPM (RATED AT 106 GPM)

2 HP WHISPERFLO XF PUMP (MODEL XF-8)

### HEAD LOSS CALCULATIONS

#### RETURN HEADLOSS

QTY	UNIT	LISTING DESCRIPTION
2.0	FT	2" FLOW METER
4.06	FT	ADJUSTABLE FLOOR INLET (2 EACH AT 2.03 FT)
4.74	FT	¾" DIRECTIONAL EYEBALL FITTING (2 EACH AT 2.37 FT)
12.0	FT.	TR140 SAND FILTER
6.0	FT.	2" HI-FLO VALVE
4.98	FT.	1.5" PIPE (115 LN. FT.)
2.48	FT.	1.0" PIPE (45 LN. FT.)
3.42	FT.	2.5" PIPE (145 LN. FT.)
1.24	FT.	2.5" TEE FITTING (7 EACH)
1.69	FT.	2" 90 DEGREE ELBOW FITTING (4 EACH)
.35	FT.	1.5" TEE FITTING (1 EACH)
3.70	FT.	1.5" 90 DEGREE ELBOW FITTING (10 EACH)
.96	FT.	2.5" 90 DEGREE ELBOW FITTING (5 EACH)
1.79	FT.	90 DEGREE ELBOW FITTING (4 EACH)
1.66	FT.	2.5" BALL VALVE (2 EACH)
1.89	FT.	1.5" BALL VALVE (2 EACH)
2.88	FT.	2.5" BALL CHECK VALVE (1 EACH)
55.84	FT.	TOTAL

#### SUCTION HEADLOSS

QTY	UNIT	LISTING DESCRIPTION
1.66	FT.	2.5" BALL VALVE (2 EACH)
7.0	FT.	SKIMMER (2 EACH)
4.0	FT.	MAIN DRAIN INLETS (2 EACH)
4.53	FT.	2.0" PIPE (70 LN. FT.)
3.60	FT.	2.5" PIPE (140 LN. FT.)
1.69	FT.	2" 90 DEGREE ELBOW FITTING (4 EACH)
.65	FT.	2.5" TEE FITTING (2 EACH)
1.73	FT.	2.5" 90 DEGREE ELBOW FITTING (9 EACH)
24.86	FT.	TOTAL

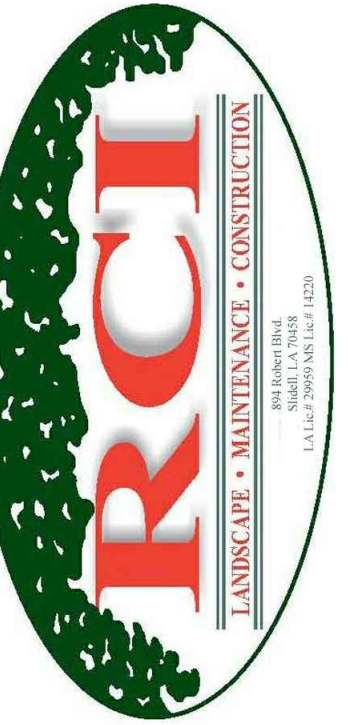
GRAND TOTAL HEAD LOSS = 80.70 FT

## PIPE SCHEDULE

PIPE ID	DESCRIPTION	SIZE	TYPE	FLOW RATE	VELOCITY
A	MAIN DRAIN SUCTION	3.0 INCH	SCH 40 PVC	105 GPM	4.77 FPS
B	SKIMMER SUCTION	3.0 INCH	SCH 40 PVC	105 GPM	4.77 FPS
C	SKIMMER SUCTION	2.0 INCH	SCH 40 PVC	52.5 GPM	5.36 FPS
D	RETURN LINE	2.5 INCH	SCH 40 PVC	42.00 GPM	2.75 FPS
E	RETURN LINE	2.0 INCH	SCH 40 PVC	21.00 GPM	2.14 FPS
F	SUPPLY TO WTR FTR	1.0 INCH	SCH 40 PVC	12 GPM	4.90 FPS
G	SUPPLY TO SCONCES	1.0 INCH	SCH 40 PVC	9.00 GPM	3.68 FPS
H	SUPPLY TO SCONCES	1.0 INCH	SCH 40 PVC	4.50 GPM	1.84 FPS
I	RETURN LINE	2.5 INCH	SCH 40 PVC	105 GPM	6.86 FPS
J	FILL LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
K	OVERFLOW LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
L	FILL LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
M	OVERFLOW LINE	2.0 INCH	SCH 40 PVC	N/A	N/A

### POOL DESIGN DATA

WATER VOLUME =	9,884 GALLONS
POOL TURNOVER RATE @ 84 GPM =	1.96 HOURS
TOTAL TURN OVER RATE @ 105 GPM =	1.57 HOURS
TOTAL DESIGN FLOW RATE =	105 GPM
WATER SURFACE AREA =	476 SQ. FT.
POOL PERIMETER =	109 LN. FT.
TOTAL HEAD LOSS =	80.70 FT.
MAXIMUM BATHER LOAD =	20 PERSONS



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APARTMENT HOMES BY TONTI

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SPECIFICATIONS,  
NOTES, &  
CALCULATIONS

Drawing No.

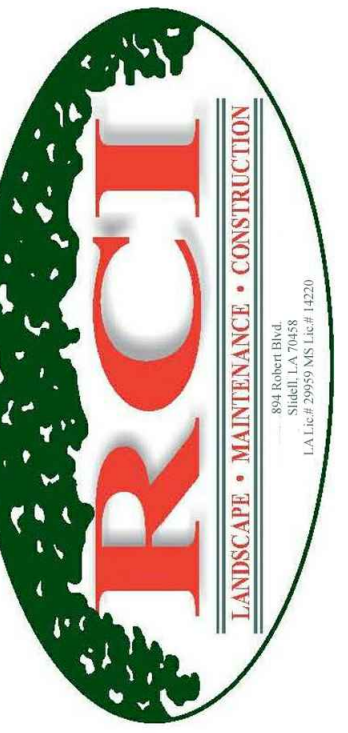
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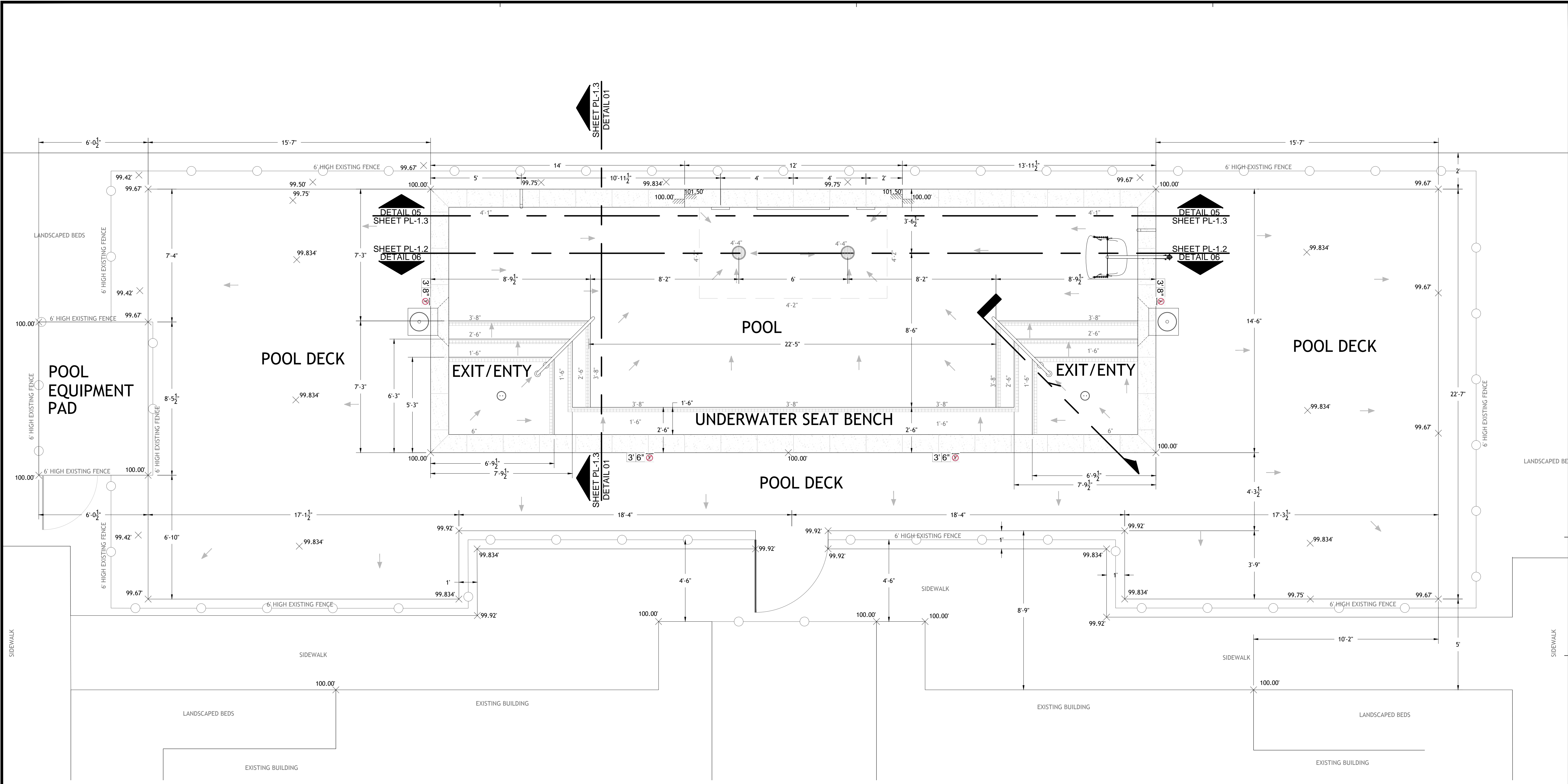
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**POOL, & POOL DECK LAYOUT & GRADING PLAN**

Drawing No.

**PL-1.0**

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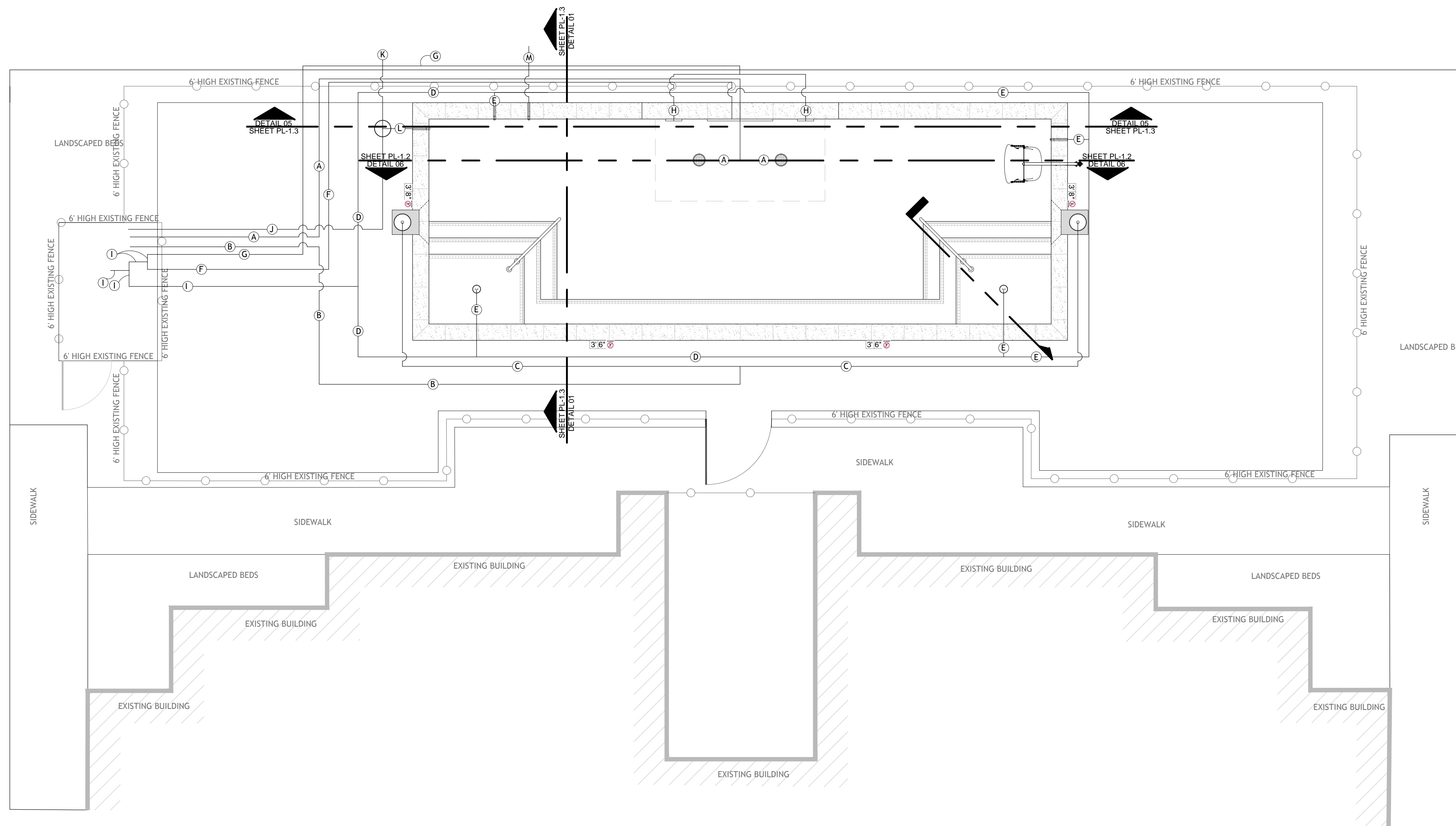


**01 POOL AND POOL DECK LAYOUT & GRADING PLAN**  
SCALE: 3/8" = 1'-0"

**SYMBOL IDENTIFICATION LEGEND**

- ADA POOL LIFT PER CODE
- SKIMMER (NSF CERTIFIED - VGB COMPLIANT)
- WALL INLET FITTING FOR SENSOR
- ADJUSTABLE EYEBALL WALL INLET
- MAIN DRAIN (VGB AND NSF COMPLIANT)
- SHEER DESCENT WATER FEATURE
- SCIONCE WATER FEATURE
- 1.90" O.D. S.S. HANDRAIL PER CODE
- ADJUSTABLE FLOOR INLET

- NOTES**
- ALL ARROWS SHOWN ON THIS PLAN VIEW INDICATE SLOPE DIRECTION.
  - ALL SLOPES WITHIN THE POOL SHALL NOT EXCEED 1:12, AND SHALL AT LEAST BE 1/8" PER FOOT MINIMUM.
  - ALL SLOPES ON THE POOL DECK SHALL BE A MINIMUM OF 1/8" PER FOOT, AND A MAXIMUM OF 1/4" PER FOOT.
  - A SHEPARD'S HOOK (LIFE SAVING HOOK) ALONG WITH ONE 1/2" MINIMUM FIXED POLE SHALL BE PLACED ON THE FENCE WITH HOOKS, ALLOWING FOR EASY ACCESS. THE POLE AND HOOK SHALL BE LOCATED AS CLOSE TO THE CENTER OF THE POOL AS POSSIBLE ON THE POOL FENCE.
  - EXISTING 6 FOOT FENCE AROUND POOL DECK AND EXISTING 6' PRIVACY FENCE AROUND EXISTING POOL EQUIPMENT PAD TO REMAIN.
  - ALL FINISHED GRADES SHOWN ON PLACE REPRESENT TOP OF FINISHED SURFACE.
  - DRAINAGE SHALL RUN OFF OF CONCRETE PAVED SURFACES AS INDICATED, AND INTO SURROUNDING LANDSCAPING.



**01** POOL PLUMBING LAYOUT PLAN  
 PL-1.1 SCALE: 1/4" = 1'-0"

PIPE SCHEDULE					
PIPE ID	DESCRIPTION	SIZE	TYPE	FLOW RATE	VELOCITY
A	MAIN DRAIN SUCTION	3.0 INCH	SCH 40 PVC	105 GPM	4.77 FPS
B	SKIMMER SUCTION	3.0 INCH	SCH 40 PVC	105 GPM	4.77 FPS
C	SKIMMER SUCTION	2.0 INCH	SCH 40 PVC	52.5 GPM	5.36 FPS
D	RETURN LINE	2.5 INCH	SCH 40 PVC	42.00 GPM	2.75 FPS
E	RETURN LINE	2.0 INCH	SCH 40 PVC	21.00 GPM	2.14 FPS
F	SUPPLY TO WTR FTR	1.0 INCH	SCH 40 PVC	12 GPM	4.90 FPS
G	SUPPLY TO SCNCES	1.0 INCH	SCH 40 PVC	9.00 GPM	3.68 FPS
H	SUPPLY TO SCNCES	1.0 INCH	SCH 40 PVC	4.50 GPM	1.84 FPS
I	RETURN LINE	2.5 INCH	SCH 40 PVC	105 GPM	6.86 FPS
J	FILL LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
K	OVERFLOW LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
L	FILL LINE	2.0 INCH	SCH 40 PVC	N/A	N/A
M	OVERFLOW LINE	2.0 INCH	SCH 40 PVC	N/A	N/A

**SYMBOL IDENTIFICATION LEGEND**

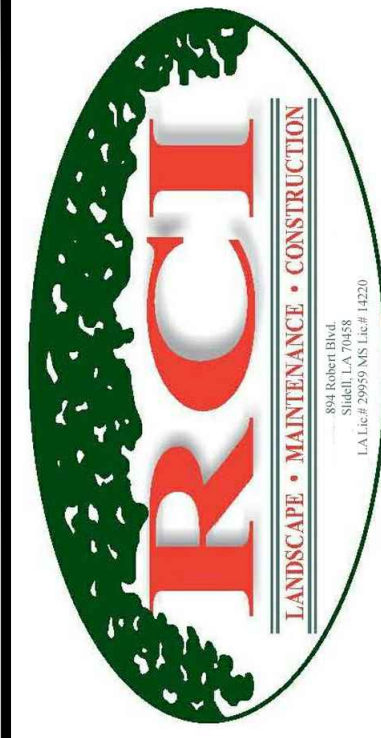
- ADA POOL LIFT PER CODE
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- WALL INLET FITTING FOR SENSOR
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- MAIN DRAIN (VGB AND NSF COMPLIANT)
- SHEER DESCENT WATER FEATURE
- SCNCE WATER FEATURE
- 1.90" O.D. S.S. HANDRAIL PER CODE
- ADJUSTABLE FLOOR INLET

**POOL DESIGN DATA**

WATER VOLUME =	9,884 GALLONS
POOL TURNOVER RATE @ 84 GPM =	1.96 HOURS
TOTAL TURN OVER RATE @ 105 GPM =	1.57 HOURS
TOTAL DESIGN FLOW RATE =	105 GPM
WATER SURFACE AREA =	476 SQ. FT.
POOL PERIMETER =	109 LN. FT.
TOTAL HEAD LOSS =	80.70 FT.
MAXIMUM BATHER LOAD =	20 PERSONS

**NOTES**

- ALL EXISTING POOL PIPING TO BE PRESSURE TESTED IN FULL ACCORDANCE WITH LAC TITLE 51 SWIMMING POOL CODE WHEN WHEN DETERMINING SUITABILITY TO BE USED, OR IF PLUMBING NEEDS TO BE REPLACED.
- UPON INSTALLATION OF ALL PLUMBING, ALL PIPING SHALL BE PRESSURIZED IN ACCORDANCE WITH LAC TITLE 51 CODE REQUIREMENTS, AND REMAIN SO FOR THE DURATION OF THE CONSTRUCTION PROJECT.
- ALL PLUMBING LINES ARE SHOWN ON PLAN FOR CLARITY, AND SHALL BE FIELD LOCATED AS NEEDED.



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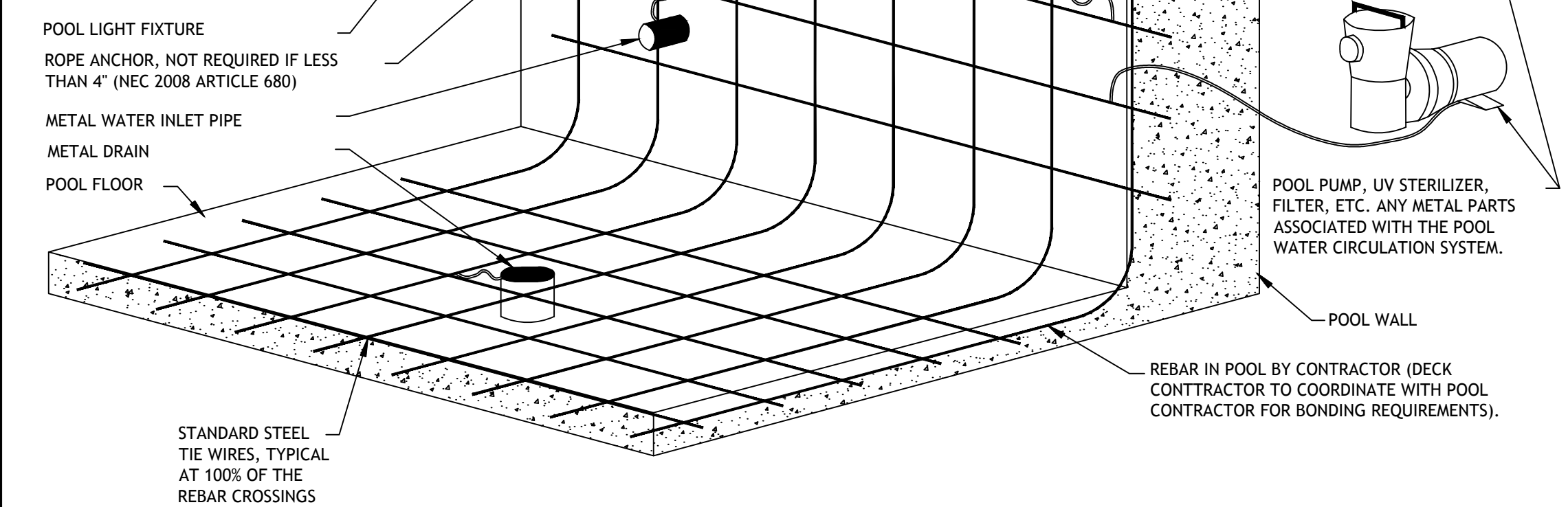
**POOL PLUMBING LAYOUT PLAN**

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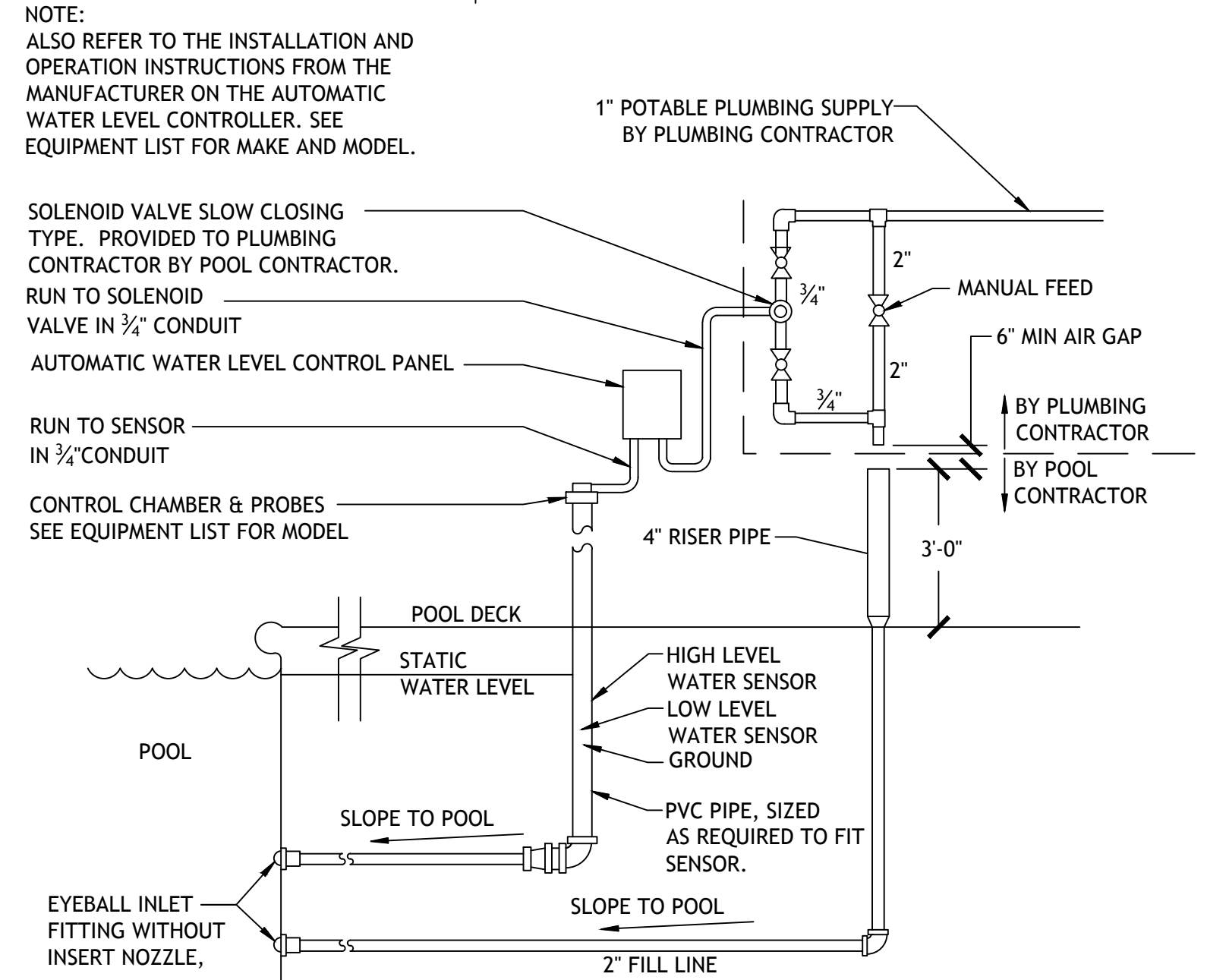
**PL-1.1**

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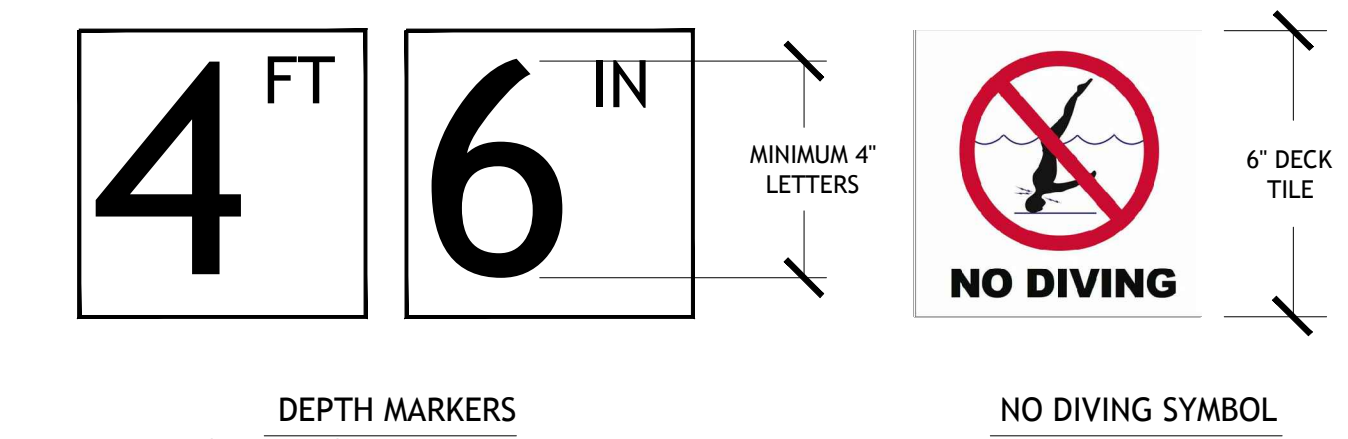
1. ANY AND ALL METAL PARTS ASSOCIATED WITH THE POOL WATER CIRCULATION SYSTEM (I.E. PUMPS) SHALL BE BONDED PER NEC 2008 ARTICLE 680.
2. ALL METAL PARTS WITHIN 5 FT. OF THE INSIDE WALL OF THE POOL AND NOT SEPARATED BY A PERMANENT BARRIER ARE REQUIRED TO BE BONDED PER NEC 2008 ARTICLE 680.  
THIS LIST INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: ALL METAL PARTS OF THE POOL STRUCTURE, CONDUIT AND PIPING, METAL DOOR FRAMES, METAL WINDOW FRAMES, DIVING BOARDS, HANDRAILS, LADDERS, DRAINS, OUTLET PIPES, SLIDE SUPPORTS, WATER FEATURES, ETC...  
THE BONDED OF THESE PARTS DOES NOT MEAN THEY ARE REQUIRED TO BE CONNECTED TO EACH OTHER; RATHER, IT MEANS THEY ARE REQUIRED TO BE CONNECTED TO A COMMON EQUIPOTENTIAL BONDING GRID.
3. ALL EQUIPOTENTIAL BONDING TERMINATIONS MUST BE MADE BY EXOTHERMIC WELDING. LISTED PRESSURE CONNECTORS OF THE SET SCREW OR COMPRESSION TYPE, LISTED CLAMPS, OR OTHER LISTED FITTINGS. (NEC 2008 ARTICLE 680)



**01 TYPICAL GROUNDING & BONDING DETAIL**  
PL-1.2 SCALE: NOT TO SCALE

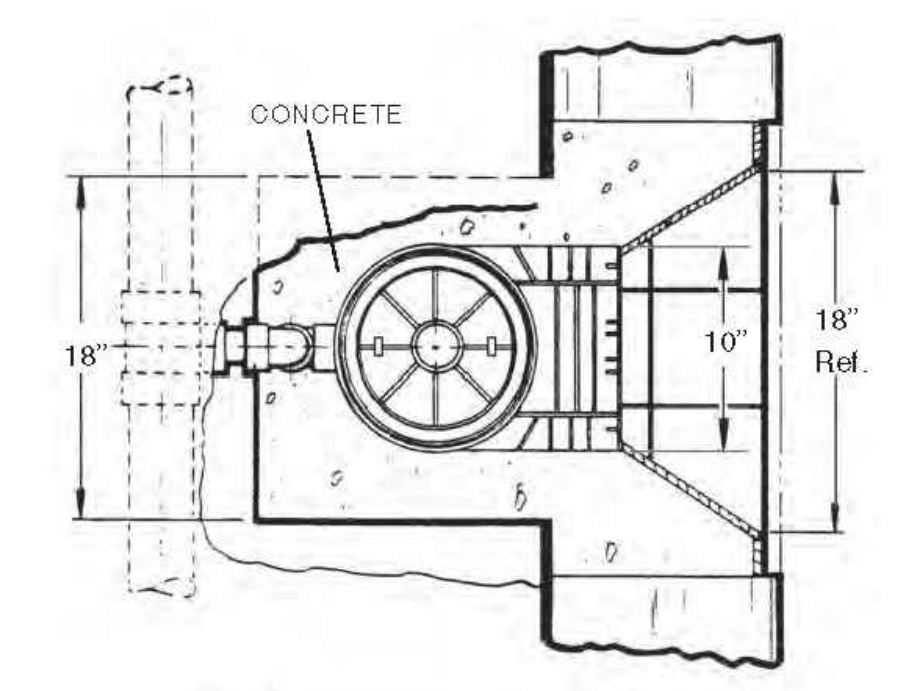


**02 AUTOFILL DETAIL**  
PL-1.2 SCALE: NOT TO SCALE

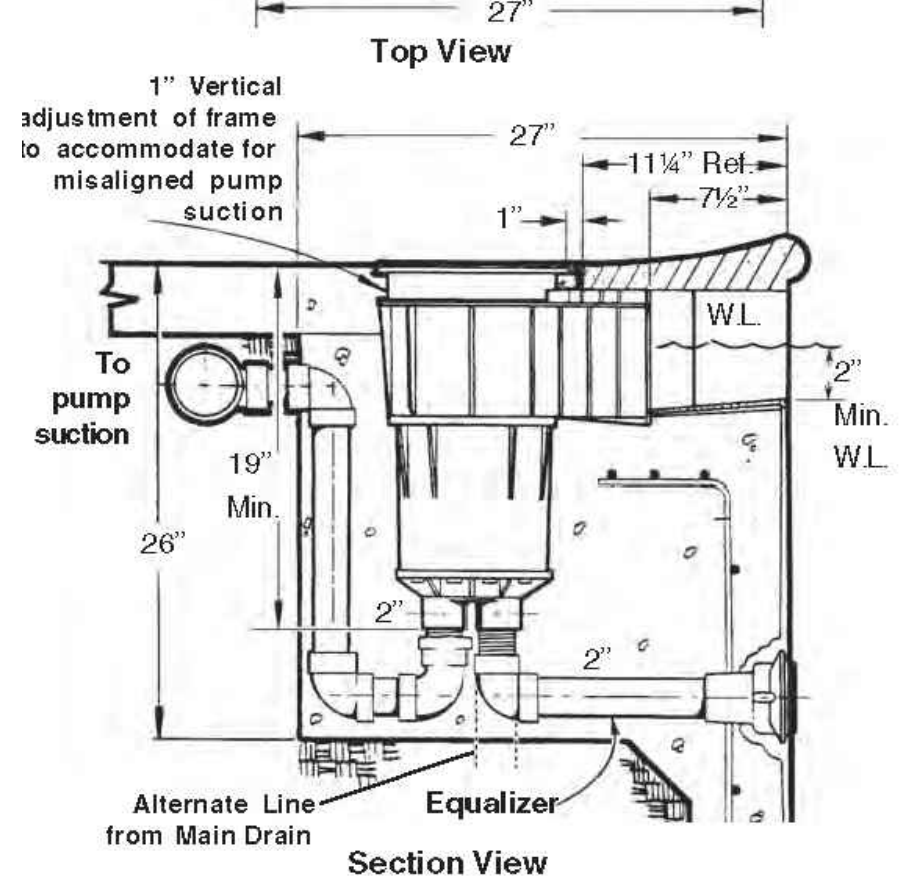


- DEPTH MARKERS**  
MARKER REQUIREMENTS:
1. DEPTH MARKERS BOTH SHOWING FEET AND INCHES
  2. "NO DIVING" SYMBOL MARKER WITH EACH DEPTH MARKER.
- NOTES:
1. DEPTH MARKERS SHALL BE PLACED ON THE DECK WITH SPACING NOT TO EXCEED 25'-0", NO MORE THAN 2' FOOT OF CHANGE IN SLOPE, AND TO ALSO PLACE A CORRESPONDING DEPTH MARKER IN DUPLICATE ON THE POOL WALL.
  2. DECK TILES TO BE WITHIN 18" OF THE POOL WATER SURFACE
  3. DECK TILES TO BE POSITIONED TO BE READ WHILE STANDING ON THE DECK FACING THE WATER.
  4. DEPTH MARKERS TO BE IN ENGLISH.
  5. NUMERICAL COLOR OF LETTERING TO BE BLACK, ON WHITE BACKGROUND.
  6. "NO DIVING" INTERNATIONAL SYMBOL MARKER TO BE PLACED AT EVERY LOCATION WHERE A DEPTH MARKER IS LOCATED.
  7. ALL DECK DEPTH MARKERS & NO DIVING SYMBOLS ARE TO HAVE A SLIP RESISTANT FINISH TYPICAL.
  8. POOL WALL DEPTH MARKERS & NO DIVING SYMBOLS ARE TO HAVE A SMOOTH FINISH.

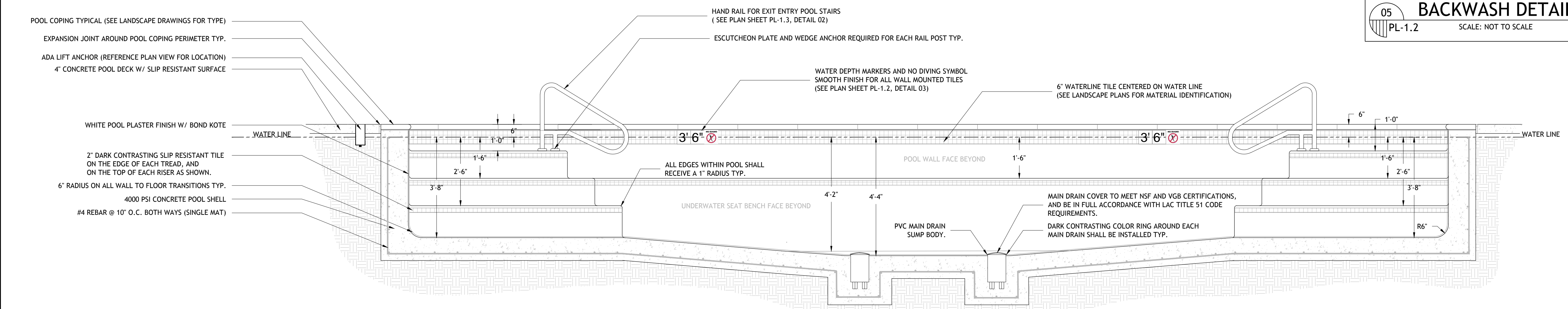
**03 TYPICAL DEPTH MARKER DETAIL**  
PL-1.2 SCALE: NOT TO SCALE



**04 TRIM TILE DETAIL**  
PL-1.2 SCALE: NOT TO SCALE



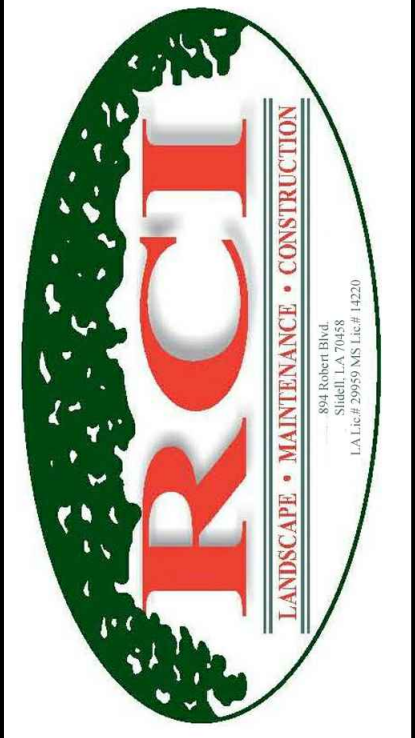
**05 BACKWASH DETAIL**  
PL-1.2 SCALE: NOT TO SCALE



**06 POOL CROSS SECTION**  
PL-1.2 SCALE: 1/2" = 1'-0"



**07 SKIMMER TYP. DETAILS**  
PL-1.2 SCALE: NOT TO SCALE



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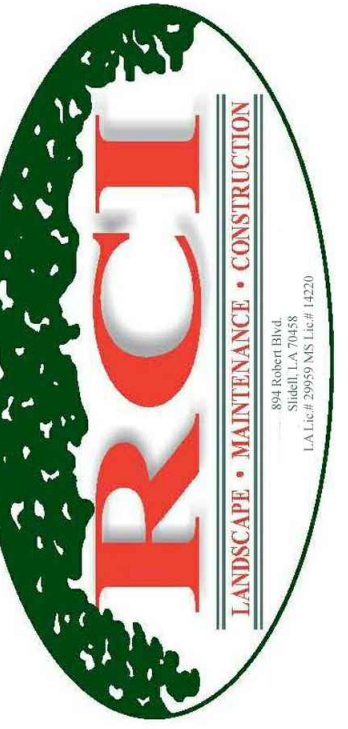
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No.	Date:	Description:

Date: 3/1/2016  
Drawn: TJH  
Checked: MR  
Sheet Title:

**POOL SECTIONS & TYPICAL DETAILS**

Drawing No.

**PL-1.2**  
Sheet No.  
5 of 7



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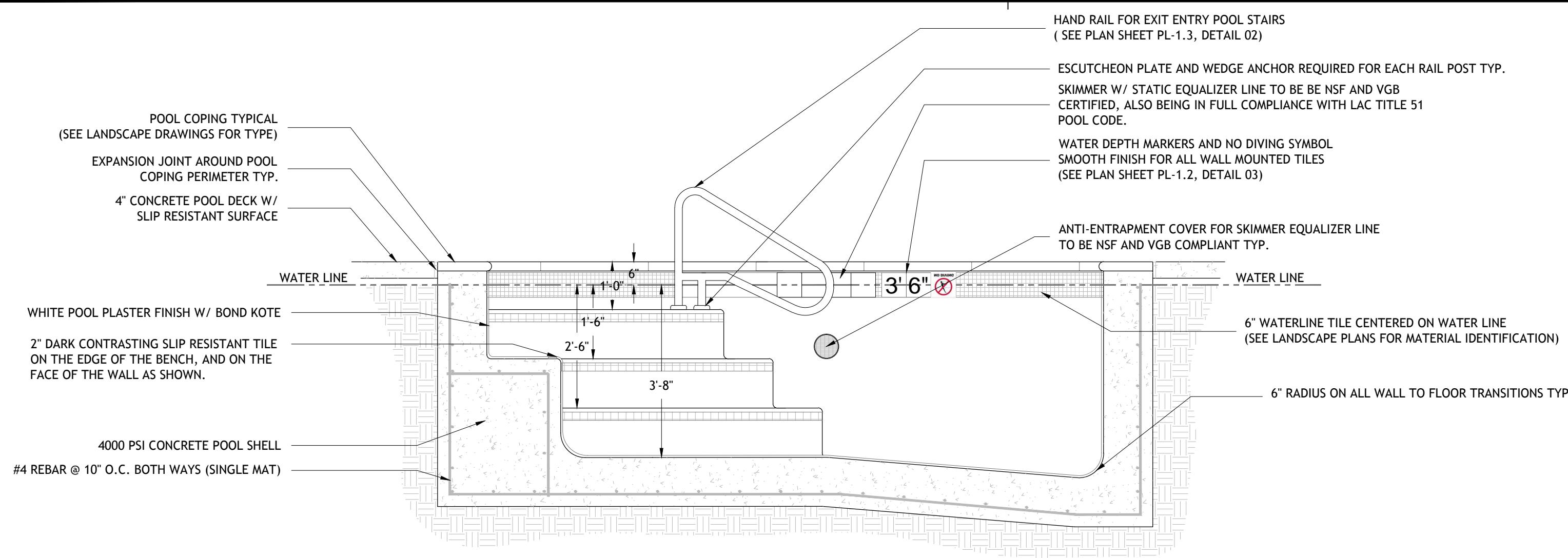
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Checked: MR

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**POOL SECTIONS & TYPICAL DETAILS**

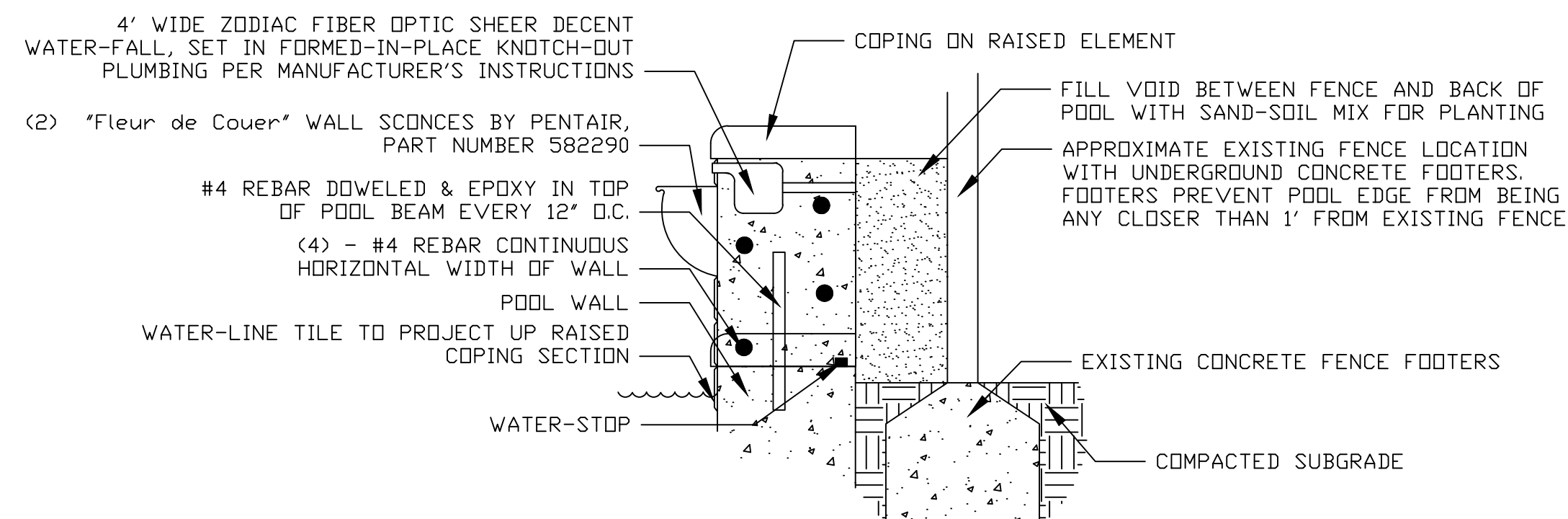
Drawing No.

**PL-1.3**

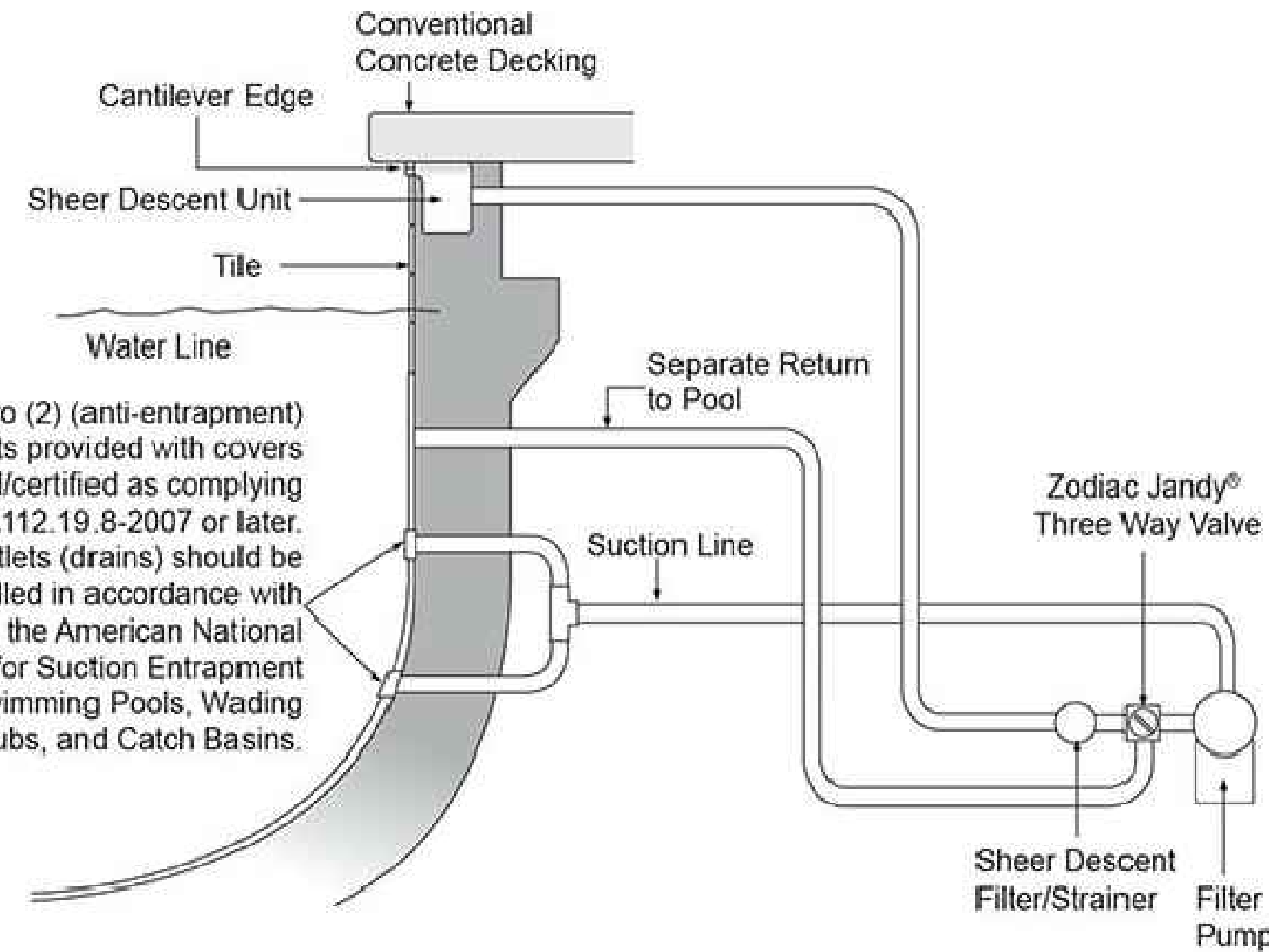
6 of 7



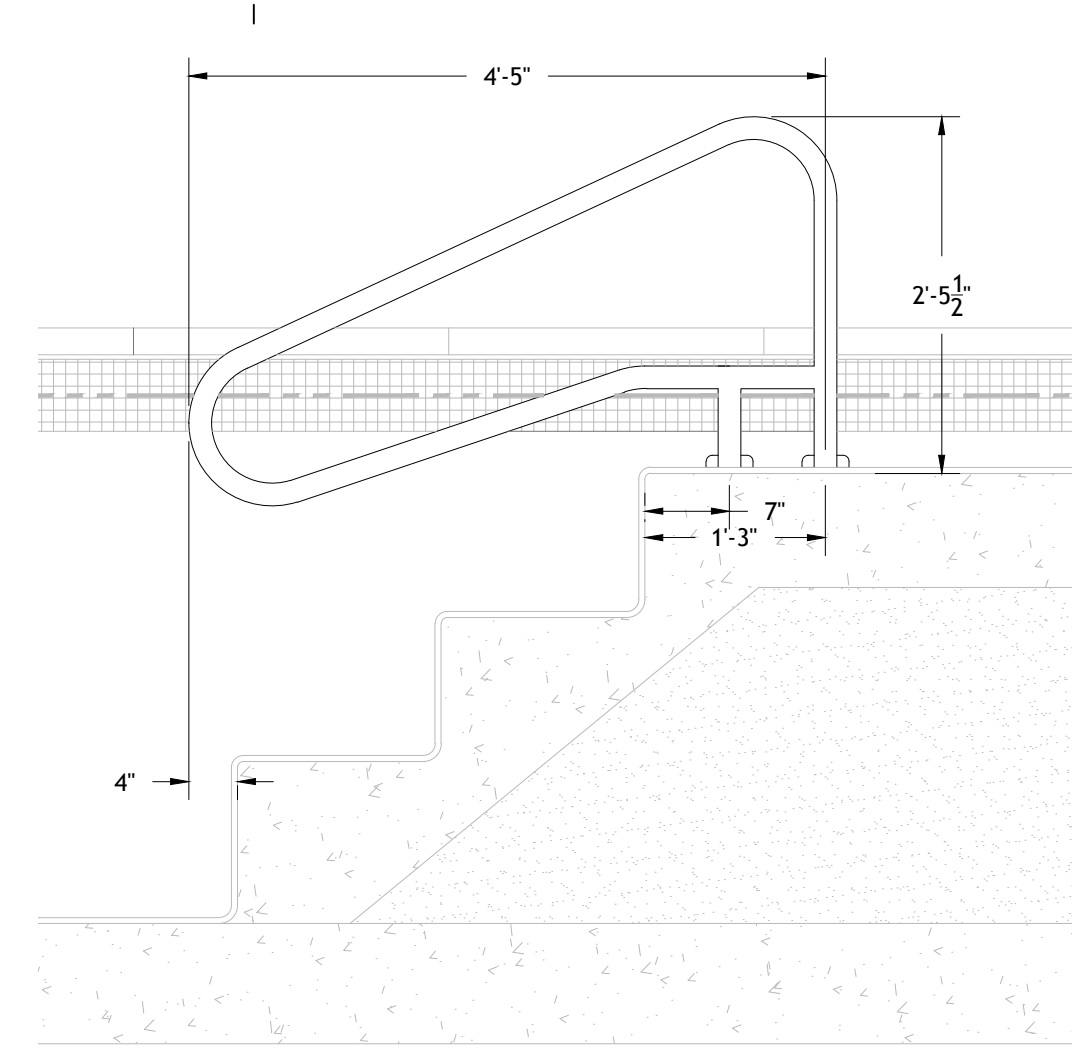
**01 POOL SECTION**  
PL-1.3 SCALE: 1/2" = 1'-0"



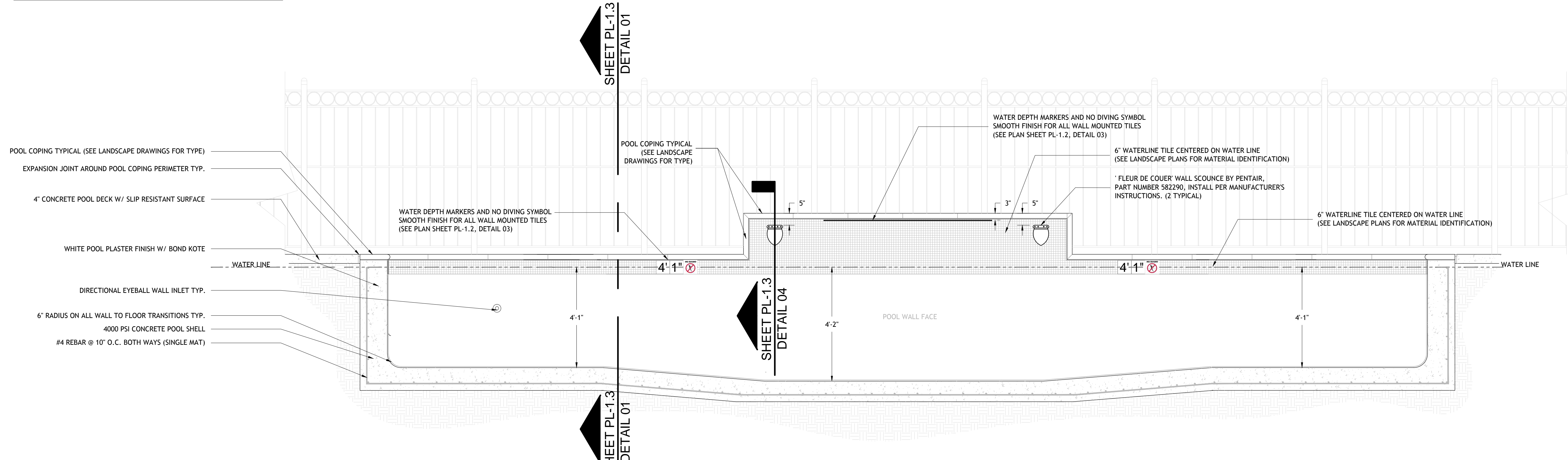
**03 WALL SCOUNCE DETAIL**  
PL-1.3 SCALE: 1" = 1'-0"



**04 SHEER DESCENT WATER FEATURE SCHEMATIC**  
PL-1.3 SCALE: NTS

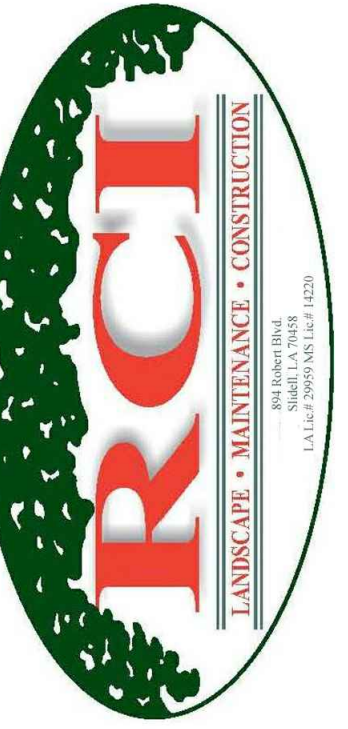


**02 HAND RAIL DETAIL**  
PL-1.3 SCALE: 3/4" = 1'-0"



**05 POOL CROSS SECTION**  
PL-1.3 SCALE: 1/2" = 1'-0"

FILE: - XREFS: -



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No.	Date:	Description:

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Sheet Title:

EQUIPMENT  
DATA  
&  
PIPING  
SCHEMATIC

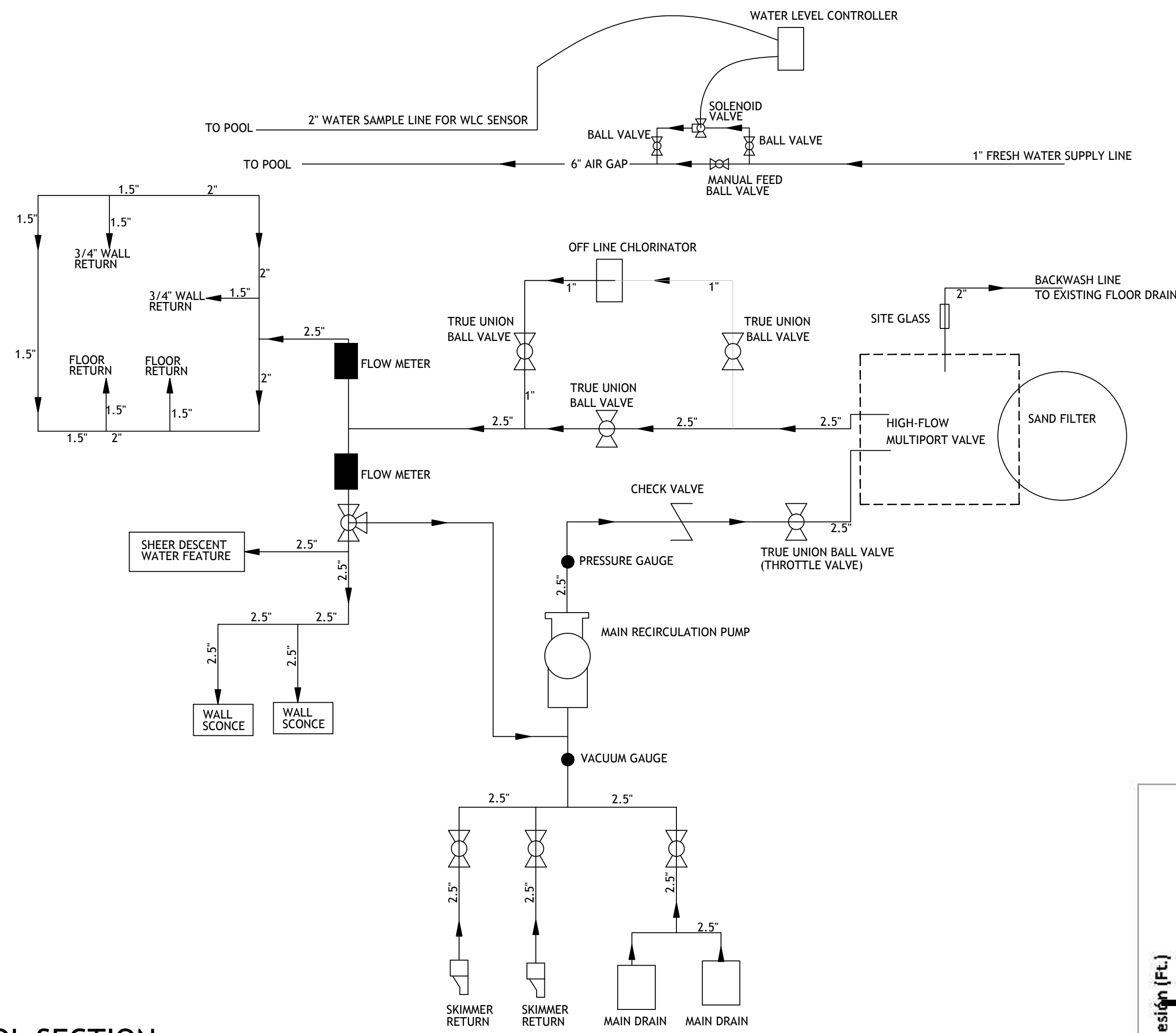
Drawing No.

PL-1.4

7 of 7

### POOL EQUIPMENT LEGEND

QTY	DESCRIPTION
1	TR140 SAND FILTER BY PENTAIR
1	WHISPERFLO 3HP PUMP XFE-8 HIGH EFFICIENCY
1	HI-FLO MULTI-PORT VALVE (TO ACCEPT 2" PIPING)
2	10" MAIN DRAIN SUMP AND GRATE ASSEMBLY (NSF AND VGB COMPLIANT)
1	3.0" BLUE-WHITE IMPACT FLOW METER
1	RAINBOW CHLORINATOR MODEL #320 BY PENTAIR
5	SP1419D HAYWARD 3/4" DIRECTIONAL EYEBALL
6	HAY-25-1504 SP10225 INLET SLIP FITTING
2	HAY-25-1507 SP1026 GRATE INSERT (FOR SKIMMER EQ LINES)
1	HAY-25-1500 SP1019 GUTTER DRAIN (FOR OVERFLOW INLET)
2	U-3 SKIMMER
2	EQUALIZER SUCTION OUTLET COVER (NSF AND VGB COMPLIANT)
1	LEVELOR - WATER LEVEL CONTROLLER MODEL K-1100
2	TRUE-UNION BALL VALVES FOR PIPE SIZE 3"
2	SCH 40 PVC PIPE FOR ALL SUCTION, RETURN, AND EQUIPMENT ROOM PIPING
1	CUSTOM 1.90" O.D. HANDRAIL DMS-102 DECK MOUNTED
1	3 TREAD STAINLESS STEEL ECONOMY LADDER
1	1" SLOW CLOSING SOLENOID VALVE
1	TAYLOR TEST KIT K-2006 (DPD METHOD OF TESTING FOR CHLORINE RESIDUALS)
4	1" 1.90" WEDGE ANCHORS FOR HANDRAIL AND LADDER
1	1.90" O.D. ESCUTCHEONS FOR HANDRAIL AND LADDER
1	1"X1 WATERLINE TILE (SEE HARDSCAPE PLAN FOR COLOR AND STYLE)
2	2X2 KEYSTONE TILE FOR STEPS AND UNDERWATER BENCHES (SEE HARDSCAPE PLAN)
1	6X6 DEPTH MARKERS, 4" BLACK LETTERING ON WHITE BACKGROUND (SLIP RESISTANT FINISH)
1	6X6 INTERNATIONAL "NO DIVING" SYMBOL
1	WHITE PLASTER

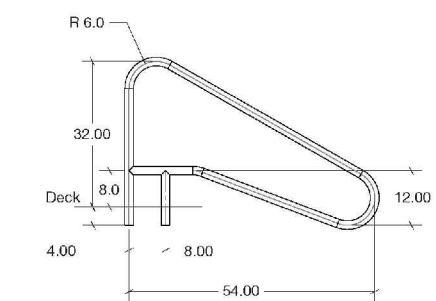


### 01 POOL SECTION PL-1.3 SCALE: NO TO SCALE

#### Hand & Stair Rails

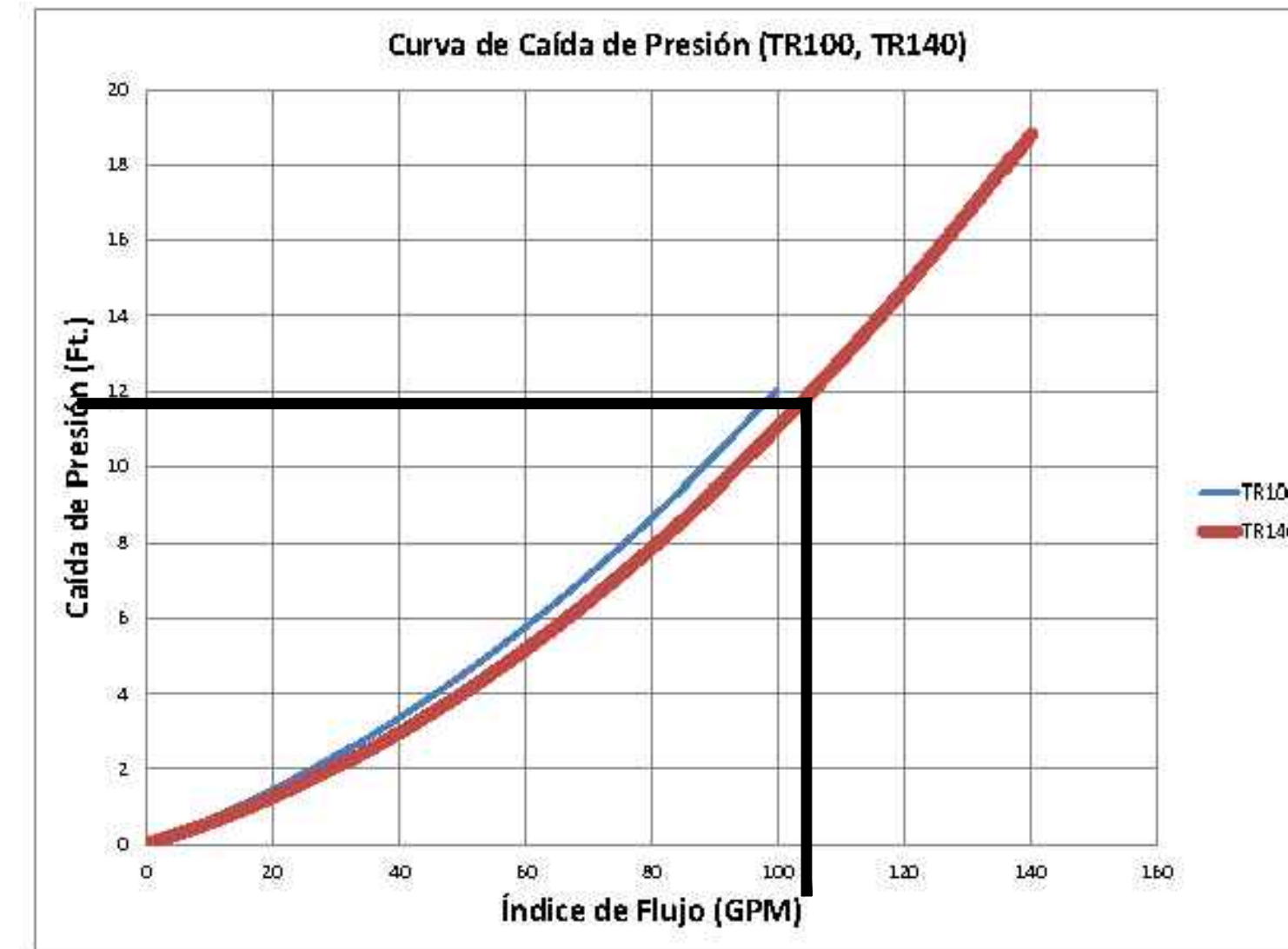
- DMS-102
- Tubing 1.90" O.D.
- Wall Thickness .048" or .05"
- Stainless Steel 304 or 316L Marine Grade\*\* (add -MG to part number)
- Bends 6" Radius
- Options: Powder-coating and Sealed/Steel Salt Friendly
- Recommended Anchors: AS-100P or AS-100B (order separately)
- Recommended Escutcheons: DP-102P (order separately)
- Sold as a single rail
- \*\*Minimum rail thickness - .049 for Residential, .065 for Commercial
- \*\*Minimum requirement for salt pools is 316L Marine Grade

Model No.	Description	Weight	Length	Width	Height
DMS-102A	54" Center Grab Rail .048"	15 lbs - 19 lbs	59"	30"	2"
DMS-102B	54" Center Grab Rail .050"	15 lbs - 19 lbs	59"	30"	2"
DMS-102P	54" Center Grab Rail .048" w/End Escutcheon	15 lbs - 19 lbs	59"	30"	2"

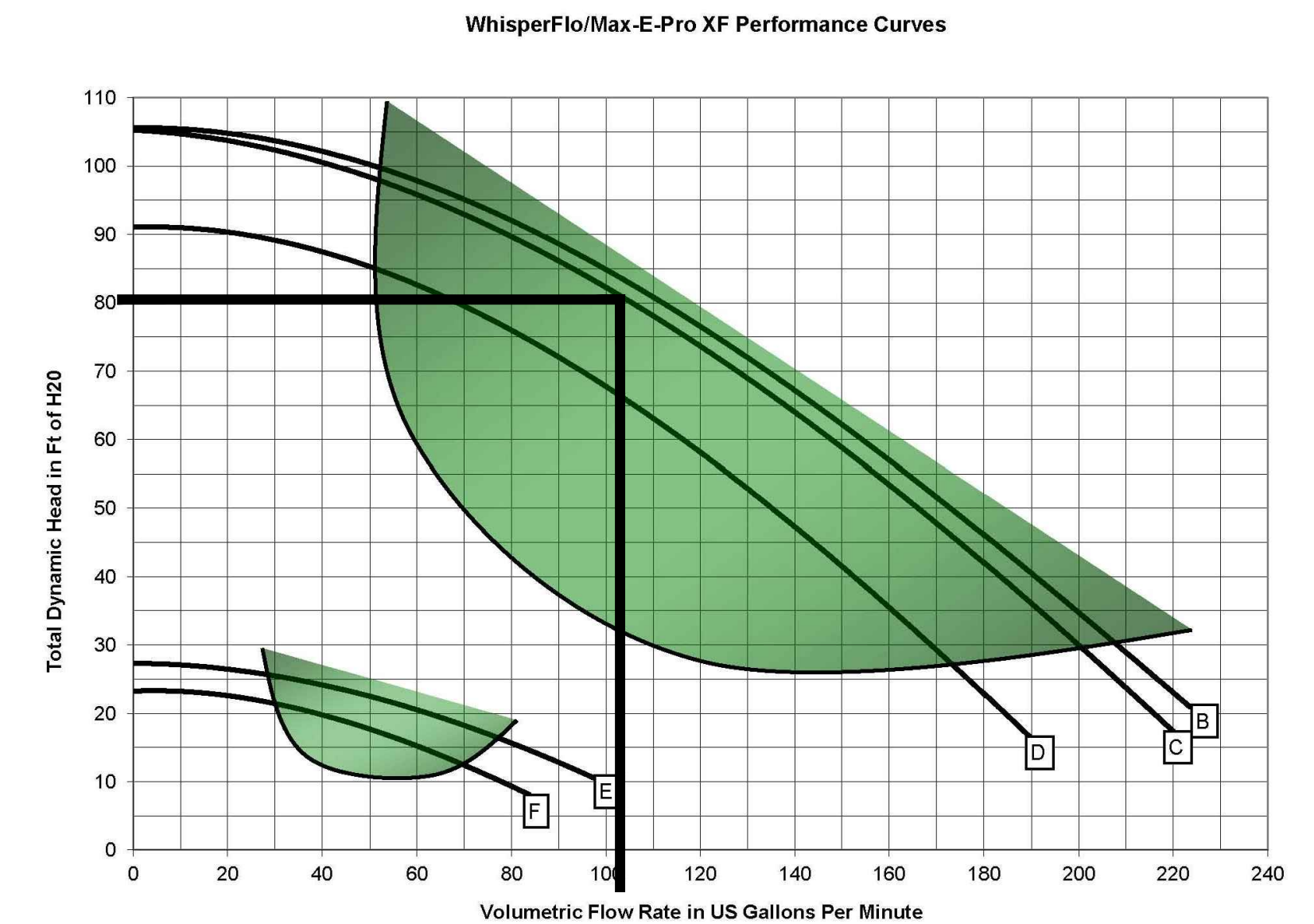


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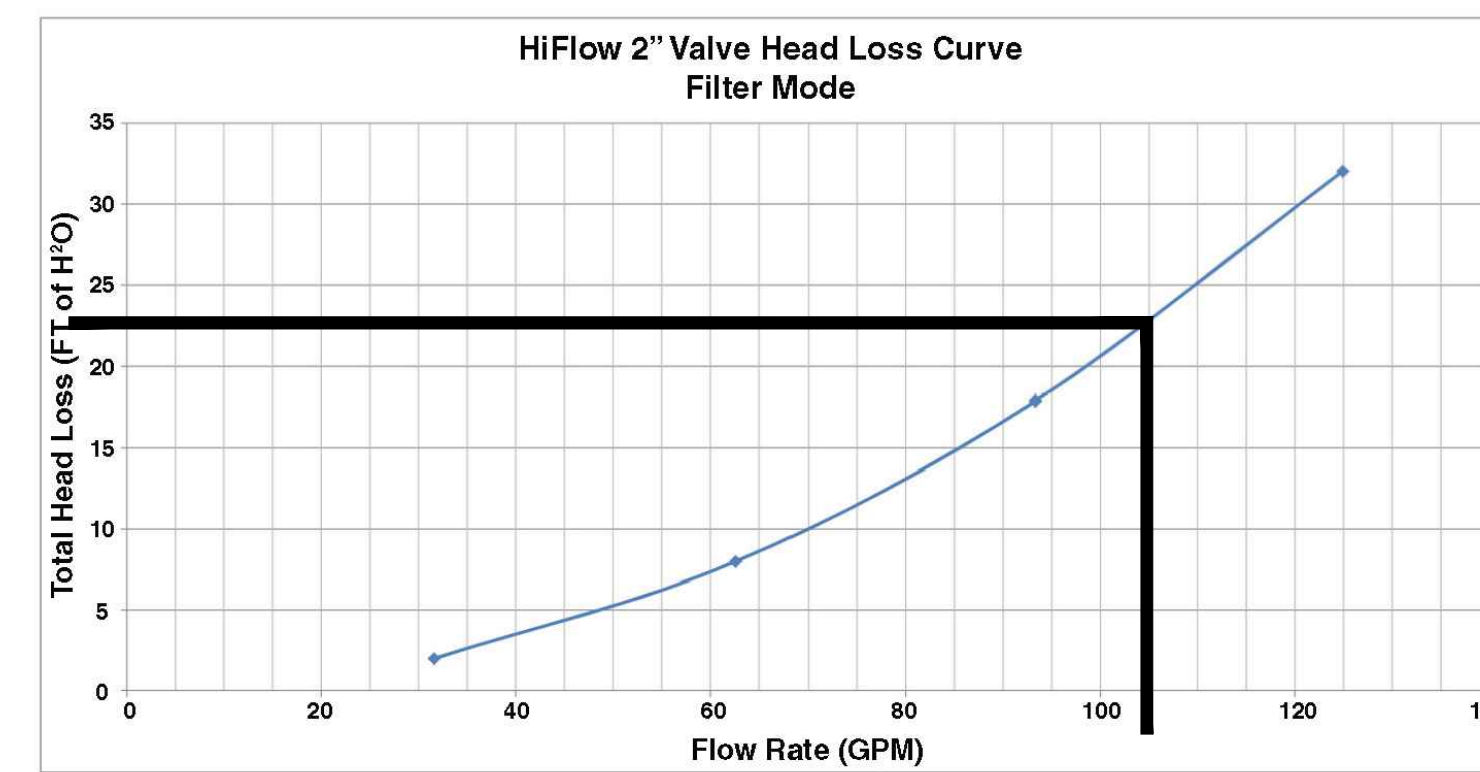
### 02 HAND RAIL CUT SHEET PL-1.3 SCALE: NOT TO SCALE



### 04 SAND FILTER PERFORMANCE CURVE PL-1.3 SCALE: NOT TO SCALE



### 05 RECIRCULATION PUMP PERFORMANCE CURVE PL-1.3 SCALE: NOT TO SCALE



### 06 HI-FLO VALVE PERFORMANCE CURVE PL-1.3 SCALE: NOT TO SCALE

