Preliminary Site Layout and Pump Location

1. Determine current return location and angle (as per plan).
2. Determine pipe routing and angle from return to pump location. Angles are to be based on factory fittings such as 11.25°, 22.5°, 45°, 90° elbows only. Rotate pump tee to meet return pipe angle.
3. Determine suction drain location and pipe routing and angle from suction outlets to pump location. Angles are to be based on factory fittings such as 11.25°, 22.5°, 45°, 90° elbows only. Rotate 12" suction 90° elbow as needed to meet suction piping angle.
4. Dig 4' wide x 4' deep trench for pipe routing and pump placement.

Note: Return piping planning determines pump location based on angles of piping required to meet proper installation of return fitting to produce current in direction of just off center of stream centerline. Placement of return fitting and set angle of flow is first priority in determining system layout.

Refer to image 2 & 4 on pg. 4

Trenching Detail

Scale: 1/8" = 1'-0"
PIPING INSTALLATION LAYOUT (MAY VARY)

12" TEE WITH (3) 4" RETURN NOZZLE

NOTE: BOLTS AND NUTS MUST NOT PROTRUDE INTO CONCRETE. ALLOW 2" CLEARANCE FOR REMOVAL

1. 12" TEE WITH (3) 4" RETURN NOZZLES TO BE SET 10" BELOW WATER LINE TO TOP RETURN
2. STRAIGHT RETURN PIPE WITH ACCELERATOR NOZZLE IS TO BE SET 10" BELOW WATER LINE TO TOP OF PIPE
3. ROTATE PUMP RETURN TEE AS NEEDED TO MEET RETURN PIPING ANGLE
4. PLACE PUMP AND 90° SUCTION FITTING AT APPROPRIATE HEIGHT TO MEET RETURN PIPING ELEVATION. DRY FIT ALL PIPING FOR PROPER FIT AND ALIGNMENT BEFORE GLUING IN PLACE. SUCTION PIPING TO 90° ELBOW IS TO BE PIPED USING ONLY FACTORY FITTINGS SUCH AS 11.25°, 22.5°, 45°, 90° ELBOWS AS NEEDED.
5. DRY FIT ALL PIPING FROM RETURN TO PUMP & FROM PUMP TO SUCTION BOXES BEFORE GLUING IN PLACE.
6. POUR 3' X 3' X 4" THICK SLAB 2" BELOW BOTTOM FLANGE FOR PUMP SUPPORT PAD.
7. PLASTIC PROTECTIVE COATING ON PUMP IS NOT TO BE REMOVED UNTIL ALL LANDSCAPING IS COMPLETED TO PROTECT PUMP FROM DEBRIS.

10" OR 12" PIPE RETURN WITH ACCELERATOR NOZZLE

NOTE: BOLTS AND NUTS MUST NOT PROTRUDE INTO CONCRETE. ALLOW 2" CLEARANCE FOR REMOVAL

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RIVERFLOW PUMP

**TYPICAL COMPONENTS**

**CONSTRUCTION GUIDE**

**LAZY RIVER PUMP SYSTEM**

**DATE:** 02 / 12 / 19

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**RIVERFLOW PUMP**

**12" TEE**

**WITH (3) 4"**

**RETURNS**

**12 X 7**

**ACCELERATOR NOZZLE IN PIPE**

**VARIABLE SPEED DRIVE**

**VARIABLE SPEED DRIVE COVER**

---

**DUAL SUCTION GUNITE APPLICATION**

**FRONT**

**SIDE**

**TOP**

---

**TYPICAL COMPONENTS**

**CONSTRUCTION GUIDE**

**LAZY RIVER PUMP SYSTEM**

**PAGE 3 OF 7**
CRITICAL NOTE:
THIS SYSTEM IS A FLOODED SUCTION SYSTEM. TO MAINTAIN FLOODED SUCTION PUMP INSTALLATION MUST ADHERE TO MAXIMUM HEIGHT IN RELATION TO WATER LINE.

VERTICAL INSTALLATION:
PUMP FLANGE GASKET MUST MEET MAXIMUM HEIGHT AT WATER LINE OR LOWER. PIPE FITTINGS ARE REQUIRED TO MAINTAIN RETURN @ 10" BELOW WATER LEVEL. REFER TO SECTIONS AND PLANS FOR PUMP ELEVATION AND REQUIRED FITTINGS AS PER PROJECT APPLICATION.
**CONCRETE PUMP BASE**

**CONSTRUCTION GUIDE**

**LAZY RIVER PUMP SYSTEM**

**PAGE 7 OF 7**

**VERTICAL PUMP INSTALLATION (IN Conc PATIO)**

**SCALE N.T.S.**

**VERTICAL PUMP INSTALLATION (IN LANDSCAPE)**

**SCALE N.T.S.**

**MAXIMUM PUMP HEIGHT (WATER LINE AT BOTTOM OF LOWER FLANGE)**

**CRITICAL DIMENSION TOP OF PIPE BELOW WATER LINE**

"TOP OF RETURN PIPE IS TO BE 10" BELOW WATER LINE. PUMP IS TO BE SET PER TOP OF PIPE REQUIREMENTS. NOTE: PUMP MAY BE BELOW WATER LINE USING FITTINGS TO ELEVATE RETURN PIPE TO PIPE DEPTH REQUIREMENTS.

**12" SCH 40 PVC RETURN PIPE**

**12" X 10" REDUCING BUSHING**

OR

**12" X 10" BELL REDUCING COUPLING**

**12" SCH 40 PVC SUCTION PIPE**

**12" 90° ELBOW**

**3" DRAIN LINE TO APPROVED SEWER OR FRENCH DRAIN**

**CAP / COPING STONES 2" ABOVE GRADE**

**CAST IN PLACE CONCRETE PUMP BASE ALLOW 2" CLEARANCE BETWEEN BOTTOM FOR FLANGE BOLT ACCESS.**

**DATE: 02 / 12 / 19**