The 45° Ø Void in the pile shall be positively vented to water or air after the pile installation. If the 3½" Ø vents are included in the pile cross-section, then venting shall be provided by the use of a 1" Ø PVC conduit through the substructure cap or column.

ELEVATION

### 2-POINT SUPPORT

- Tie Down and Support Points:
  - 0.2L
  - 0.5L
  - 0.2L

### 1-POINT PICK-UP

- Pick-up Point:
  - 0.2L
  - 0.5L
  - 0.2L

### 3-POINT SUPPORT

- Tie Down and Support Points:
  - 0.14L
  - 0.35L
  - 0.35L
  - 0.14L

### 2-POINT PICK-UP

### STORAGE AND TRANSPORTATION SUPPORT DETAILS

### TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS

<table>
<thead>
<tr>
<th>Maximum Pile Length (Feet)</th>
<th>Required Storage and Transportation Detail</th>
<th>Pick-Up Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>122</td>
<td>2, 3, or 4 point</td>
<td>1 Point</td>
</tr>
<tr>
<td>174</td>
<td>2, 3, or 4 point</td>
<td>2 Point</td>
</tr>
</tbody>
</table>

NOTES

- **DESIGN SPECIFICATIONS:**

- **DESIGN PARAMETERS:**
  - Prestressed Cylinder Concrete Section: 1,000 psi minimum uniform compression after prestress losses without loads.
  - Pick-up, Storage, and Transportation: 0.0 psi tension/2.5 times pile self-weight.

- **SPIRAL TIE:**
  - One full wrap of spiral is required at both the head and tip of pile. One half turn required for spiral splices.

- **CONCRETE CLASS:**
  - Concrete for pile shafts shall be Class V (Special). Concrete for pile splices shall be Class IV. See “GENERAL NOTES” in Structures Plans for any specific locations where the use of Silica Fume is required.

- **CONCRETE STRENGTH:**
  - The cylinder strength shall be 4,000 psi minimum at time of transfer of the Prestressing Force.

- **SPILE BINDING MATERIAL:**
  - The mate-to-mate form the joint between pile sections shall be a Type B epoxy compound in accordance with Section 926 of the Specifications. The bonding agent used on interface pile surfaces shall be a Type A epoxy compound in accordance with Section 926 of the Specifications. Epoxy Compounds used shall be contained on the Qualifiied Products List (QPL). Use epoxy bonding compound or epoxy mortar as recommended by the manufacturer. For epoxy mortar only use sand or other filler material supplied by the manufacturer and in the proportions recommended.

- **PICK-UP POINTS:**
  - Pick-up points shall be marked at the pick-up points to indicate proper points for attaching handling lines.

- **REINFORCING STEEL:**
  - Reinforcing steel shall be Grade 60, except that smooth strand wire (7w) strand and W20 tie shall be manufactured from cold drawn steel meeting the requirements of ASTM A416.

- **PRESTRESSING STEEL:**
  - Prestressing steel shall be 0.5" Ø seven-wire strand, Grade 70, low relaxation, at 44 kips.

- **PILE DRIVING AFTER SPACING:**
  - Pile splices shall receive a minimum strength of 5500 psi before driving is resumed.
1-0' Void, open top and bottom to allow through venting of sections

Roughen inside surface of 60° Ø Pipe to 1/8" amplitude for Spliced Pile Section

Closed No. 4 Bars or W20 Wire Tie @ 1-0' 2" (Typ.)

3/8" Full Epoxy Compound Joint around cylinder pile wall only (See Detail "A")

24 - No. 11 Bars

Clean inside surface of 60° Ø Pipe with a high pressure water blast (3000 psig) and apply bonding agent for Driven Prestressed Pile

Concrete Seal

SECTION A-A

SECTION B-B

DETAIL "A"

Temporary Bonding Form to retain epoxy compound

Form to retain epoxy compound

Inside Pile Wall

Full Epoxy compound joint

Gasket

Outside Pile Wall