The 45° θ Vent hole shall be positively vented to water or air after the final pile installation. If the 36° θ vents are included in the pile cut-off section, then venting shall be provided by the use of a 2" Φ PVC conduit through the substructure cap or column.

**ELEVATION**

**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: 0.6 times pile self-weight.
- Spiral Ties: One full wrap of spirals is required at both the head and tip of pile. One half turn required for spiral splices.
- CONCRETE CLASS:
  - Concrete for use 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 ultimate transfer of the Prestressing Force.
    - SPIRAL RACING MATERIAL:
      - The materials forming the joint between pile sections shall be Type-B Epoxy Compound in accordance with Section 926 of the Specifications. The bonding agent used on internal pile surfaces shall be a Type-B Epoxy Compound in accordance with Section 926 of the Specifications. Epoxy Compounds used shall be contained on the Qualified Products List (QPL). Use Epoxy Bonding Compound of Epoxy Mortar as recommended by the Manufacturer. For Epoxy Mortar only use sand or other finer material supplied by the manufacturer and in the proportions recommended.
- PICK-UP POINTS:
  - Piles shall be marked at the pick-up points to indicate proper points for attaching lifting lines.
  - REINFORCING STEEL:
    - All reinforcing steel shall be Grade 60, except that smooth steel wire (1/2" spirals and 3/8" ties) shall be manufactured from cold drawn steel wire meeting the requirements of ASTM A572.
  - PRESTRESSING STEEL:
    - Prestressing steel shall be 0.6" 7-wire strand, Grade 270 low relaxation, at 44.0 kips.
  - PILE DRIVING AFTER SPIALING:
    - Piles shall be driven a minimum of 5500 psi before driving is resumed.

**PILE PICK-UP DETAILS**

**STORAGE AND TRANSPORTATION SUPPORT DETAILS**

| TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS |
|--------------------------------------|-----------------|-----------------|
| Maximum Pile Length (Feet) | Required Storage and Transportation Detail | Pick-Up Detail |
| 122 | 2, 3, or 4 point | 1 Point |
| 174 | 2, 3, or 4 point | 2 Point |
DRIVABLE UNFORESEEN FIELD SPLICE DETAIL
(Cast in Place Plug)

Concrete Seal

Clean inside surface of 60" Ø Pile with a high pressure water blast (3000 psi/min.) and apply bonding agent for Driven Prestressed Pile

Roughen inside surface of 60" Ø Pile to 1/4" amplitude for Spliced Pile Section

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

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

SECTION A-A

SECTION B-B

24 ~ No. 11 Bars

W11 Wire Spiral Ties

36 ~ 0.6" Ø Strands @ Equal Spacing

SECTION B-B

3" Min. Cover (Typ.)

Cast in Place Plug

36 ~ 0.6" Ø Strands @ Equal Spacing

Temporary Blocking Form to retain epoxy compound

Gasket

Full epoxy compound joint

Outside Pile Wall

DETAIL "A"