**INSTALLATION & SHIPPING**

1. Remove Rigid Grout Pipe.
2. Inspect Tendon for Voids as Necessary.
4. Clean Threads and Rethread as Required.
5. Install Threaded Plug into Outlet to Form a Tight Fit.
6. Over-Ream Hole (1/8" Over-Ream) Clean and Roughen Sides.
7. Fill Pocket with Epoxy Grout.

**GROUTING**

1. Install Threaded Plug after Inspection of Voids.
2. Install Permanent Grout Cap.
3. Pressure Gauge into Existing Pipe and into Grout Cap.
4. Threaded Anchor Inlet/Outlet to be offset by 5° to allow vertical anchor inspection.

**INSPECTION**

1. Inspect Anchor for Voids through Grout Inlet/Outlet (See Grout Outlet Detail at Horizontal Surfaces for Procedures).
2. Install Permanent Threaded Plug after Inspection of Voids.
4. Anchor Sprial.

**PROTECTION**

1. Install Permanent Grout Cap after Stressing Tendons.
2. Temporary Cap.
3. Oversize Rigid Pipe and into Grout Cap.
4. Grout Outlet with Grout Valve through Oversize Pipe and into Grout Cap.

**NOTES**

1. Round Pocket Former - Gravity Fed Placement of Grout Acceptable
   Modified Square Pocket Former - Gravity Fed Placement of Grout Acceptable
   Square Pocket Former - Vacuum Grouting Required

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**GROUT OUTLET DETAIL AT HORIZONTAL SURFACES**

**POCKET PREPARATION**

1. Holes used for the Inspection and Grout Inlets/Outlets may be Formed using Tapered Pipes or Mandrels.
2. Pocket Former - Vacuum Grouting Required
   Modified Square Pocket Former - Gravity Fed Placement of Grout Acceptable
   Square Pocket Former - Vacuum Grouting Required

**PROCEDURE**

1. 1. Remove Rigid Grout Pipe.
2. 2. Inspect Tendon for Voids as Necessary.
3. 3. Vacuum Grout as Required and Allow Grout to Cure. Remove Pipe used for Vacuum Grouting.
4. 4. Clean Threads and Rethread as Required.
5. 5. Install Threaded Plug into Outlet to Form a Tight Fit.
6. 6. Over-Ream Hole (1/8" Over-Ream) Clean and Roughen Sides.
7. 7. Fill Pocket with Epoxy Grout.

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**GROUT OUTLET CONNECTION TO TENDON**

1. GROUT OUTLET CONNECTION TO TENDON
2. POCKET PREPARATION
3. FILLING POCKET

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**POST-TENSIONING ANCHORAGE AND GROUTING DETAILS**

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**2010 Interim Design Standard**

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**Revised Top Inspected Anchor with Grout Inlet Details**
**POST-TENSIONING ANCHORAGE AND GROUTING DETAILS**

### GROUT INLET AND OUTLET DETAILS FOR PT BARS

1. **GROUT OUTLET CONNECTION TO TENDON**
   - Grout Outlet Detail at Vertical Surfaces
   - Tendons at 3' to 6' from High Points (GROUT INLET / DRAIN)

2. **FILLING POCKET**
   - Procedure:
     1. Remove Rigid Grout Pipe or Drill Grout in Flexible Pipe.
     2. Inspect Tendon for Voids as Necessary.
     3. Vacuum Grout as Required and Allow Grout to Cure for 24 hr. (min.)
     4. Remove Pipe used for Vacuum Grouting.

3. **POCKET PREPARATION**
   - Procedure:
     1. Remove Rigid Grout Pipe.
     2. Inspect Tendon for Voids as Necessary.
     3. Vacuum Grout as Required and Allow Grout to Cure for 24 hr. (min.)
     4. Plug Recess with Threaded Cap on Inside Surfaces of Box Sections and Inside (nonfascia) Surfaces of I-Girders. For all other Surfaces, Plug Recess with both Threaded Cap and Epoxy Grout.

### 2010 Interim Design Standard

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<th>Date</th>
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<th>Details for C.I.P. Boxes with Internal Tendons Similar. Web Reinforcing not Shown for Clarity.</th>
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**REVISIONS**

- Added Grout Outlet to PT Bar Inlet Detail & Revised PT Bar Grouting Details.

**DATE**

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**Temporary Access Holes**

1. Temporary access holes to facilitate access for erection, jacking and grouting operations inside the box during construction are allowed. The access holes shall be limited to a maximum size of 42" wide x 30" long and shall be limited to (1) per span.

2. Slab blockouts for temporary/permanent longitudinal post-tensioning bars are not allowed. Temporary/permanent PT bars in the top slab shall be placed in oversized ducts in the slab to accommodate both the bar and coupler.

3. In lieu of (1) 42" x 30" temporary access hole, a maximum of 2 top slab blockouts (12" x 12" (max.)) between the webs is allowed for construction per span. Block-outs shall be a minimum of 12" from the nearest duct or anchor and shall be located as to prevent direct drip onto bottom slab anchors.

**Notes: Repair of Temporary Access Holes**

1. Form all large blockouts with tapered sides.

2. Immediately before casting the concrete, mechanically clean the mating concrete surfaces to remove any laitance and to expose small aggregate.

3. Repair all holes and blockouts with Magnesium Ammonium Phosphate Concrete within 24 hours of cleaning concrete.

4. After completion of the deck grooving, coat the repaired and surrounding concrete surfaces with High Molecular Weight Methacrylate.

5. Alternately, epoxy grout may be used to repair holes. High Molecular Weight Methacrylate is not required with epoxy grout.