

# Photographs of Prestressing Materials and Construction Procedures

This attachment provides photographs from the field illustrating various portions of the prestressing operation, including materials used and common procedures encountered during construction. The photo captions provide a brief explanation to convey key points.

## 1 - Materials



Prestressing strand bundles arrive onsite. Collect orange tag and fabricator's tag. Strand shall be protected until usage.



Anchor heads shipped to jobsite. Wedges come in tubs. Collect orange tags.

**Figure A-2-1. Common Materials for Prestressing Operations**

## **2 - Field Construction Procedures**



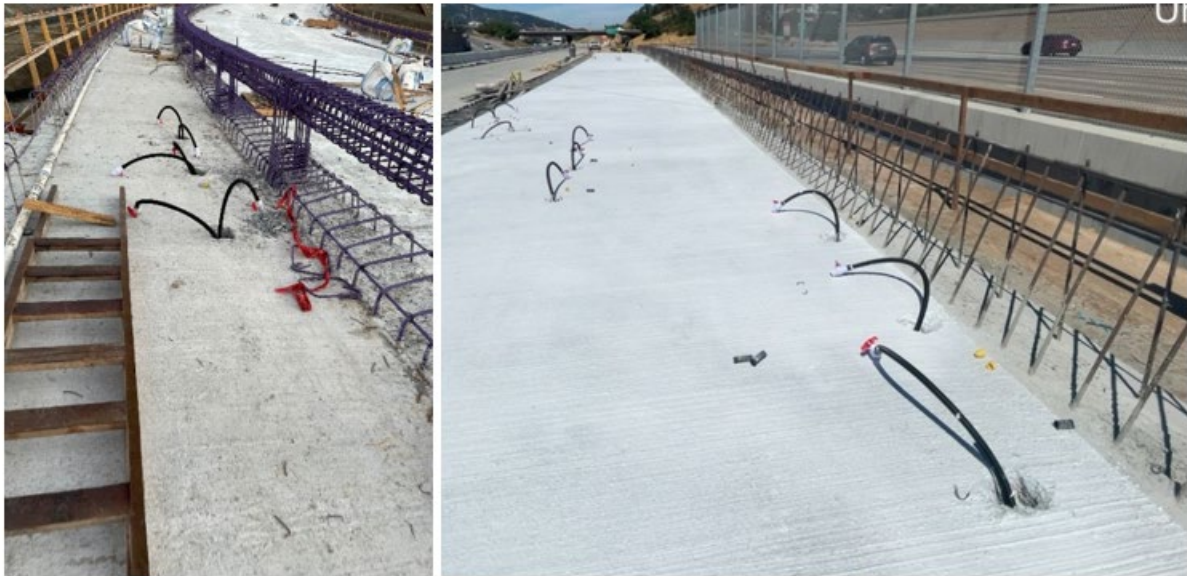
Inspection cameras can be used for inspecting inside of ducts for damage.



Check for damage and fix before deck concrete placement. After the deck placement, check the deck for concrete cracks in accordance with the specifications.

**Figure A-2-2. Field Inspection of Installed Prestressing Ducts, and Bridge Deck Prior to Prestressing**





High-point grout vents (to be removed and patched after grouting tendons).

**Figure A-2-3. Examples of Grout Vents, Including Chipping Out to Access High-Point Vents.**



Repair spalling around end anchors before placing strands into ducts.

**Figure A-2-4. Spall Repair Reminders**



Contractor performs a duct demonstration before placement of tendons to check for any obstructions/blockages. Device adequacy should be reviewed by SR/ASR.

**Figure A-2-5. Duct Demonstration**





When installing strands, they exit the far end creating an impalement hazard.  
Keep clear of the exiting end.



**Never** stand behind or directly above strands in tendon being stressed.

**Figure A-2-6. Safety Reminders- When Installing and Stressing Strands**





Connect SC strain indicator and pressure cell to contractor's authorized gauge. Check the contractor's jack and gauge at the start of each day. Disconnect after use. The contractor will spray paint the ends. The nail is used as a reference point to measure the elongation.



Completed stressing (properly seated and accepted). After accepting tendons, strands are cut.



Here the tendons are capped, ready for the air pressure test.

**Figure A-2-7. Procedure Illustrations- During Stressing and Prior to Grouting**

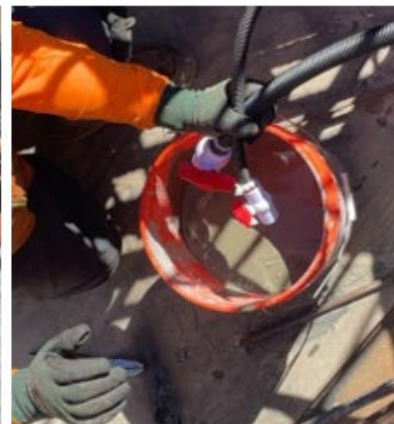




Air pressure test. Contractor marked dial with red at the target starting pressure.



Grouting operation and apparatus for CT 541.



When grouting, buckets are placed at every grout tube on the deck for overflow. When grout flows out at a consistent viscosity, valves are shut. Verify availability of concrete washout prior to grouting operation.

**Figure A-2-8. Duct Grouting Preparation and Procedure Illustrations**

