



## **Prestressing Concrete – General – Submittals**

### **Revision and Approval**

Revision	Date	Nature of Changes	Approved By
0	11-16-2018	Original issue.	Steve Altman

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### **Background**

This process establishes the shared responsibilities and procedures of Structure Construction (SC) and Structure Design (SD) (or their representative) for review and authorization of prestress submittals, including prestressing shop drawings, alternative prestressing systems, test samples, grouting plans, and daily grouting reports.

### **Process Inputs**

1. Prestressing system shop drawings per 2015 [Standard Specifications \(SS\)](#)<sup>1</sup>
2. Alternative prestressing system shop drawings (VCEP) per SS<sup>2</sup>
3. Test samples per SS<sup>3</sup>
4. Grouting plan per SS<sup>4</sup>
5. Daily grouting reports per SS<sup>5</sup>

### **Procedure**

1. All work associated with this process should be charged to the [Project Direct - Construction](#).
2. Structure Documents Unit will:
  - a. Process the prestressing submittal documents accordingly.

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<sup>1</sup> 2015 SS, Section 50-1.01C(3), *Prestressing Concrete – Shop Drawings*

<sup>2</sup> 2015 SS, Section 50-1.01C(4), *Prestressing Concrete – Alternative Prestressing Systems for Cast-in-Place Prestressed Box Girder Bridges*

<sup>3</sup> 2015 SS, Section 50-1.01C(5), *Prestressing Concrete – Test Samples*

<sup>4</sup> 2015 SS, Section 50-1.01C(6), *Prestressing Concrete – Grouting Plan*

<sup>5</sup> 2015 SS, Section 50-1.01C(7), *Prestressing Concrete – Daily Grouting Report*

3. Review the contract documents (contract plans, SS, and Standard Plans) for the requirements for each submittal according to SS Section 50-1.01, *Prestressing Concrete – General*, RE Pending File, and Caltrans [Prestress Manual](#) Section 2, *Prestress Shop Drawings*.
4. For the prestressing shop drawings:
  - a. Establish contact with the Structure Designer.
  - b. Perform initial shop drawing review and provide comments to Structure Designer.
  - c. Complete a joint review of the shop drawing submittal according to:
    - i. [Bridge Memos to Designers, Section 11-1](#), *Prestressed Concrete – Shop Drawing Review*.
    - ii. Caltrans *Prestress Manual* Section 2, *Prestress Shop Drawings* and Appendix C, *Inspection Checklist*.
  - d. Check for any duct and rebar conflicts and resolve with the Designer.
  - e. Structure Designer authorizes the prestressing shop drawings, per *Bridge Memo to Designers, Section 11-1, Prestressed Concrete – Shop Drawing Review*.
  - f. The Structure Representative and the Contractor will receive all reviewed (rejected or authorized) shop drawings from SD, Documents Unit.
5. For alternative prestressing system shop drawings:
  - a. Follow the protocol for review of prestressing shop drawings.
  - b. Review BCM 4-1.07B, *Value Engineering Change Proposal (VECP)* requirements.
  - c. Provide input to the Resident Engineer (RE) regarding acceptability of VECP.
  - d. Structure Designer authorizes the VECP drawings, per *Bridge Memo to Designers, Section 11-1, Prestressed Concrete – Shop Drawing Review*.
6. For all other prestressing submittals:
  - a. Test samples:
    - i. Materials Engineering and Testing Services (METS) will verify and authorize test samples for acceptance
    - ii. [Caltrans Construction Manual](#), Table 6-2.1, *Inspection and Release Flowchart– Source Inspection*
  - b. Grouting plans and daily grouting reports:
    - i. Review and authorize the grouting plan per Caltrans [Prestress Manual](#) Section 2, *Prestress Shop Drawings* and Appendix C, *Inspection Checklist*.
    - ii. If grouting plans are on a separate submittal, they are reviewed and authorized by SC project field staff.

- iii. SC project field staff review each daily grouting report and reject any that are incomplete.
7. Keep project team (RE, METS, Structure Designer) informed on the status of the final shop drawing submittals.

### **Process Outputs**

1. Authorized prestressing shop drawings
2. Authorized test samples
3. Authorized grouting plan
4. Authorized daily grout reports
5. Electronic copies of the as-built shop drawings submitted by the Contractor
6. Electronic as-built shop drawings submitted by Local Agency Engineer

### **Attachments**

None