

SECTION 03 38 00 {03380}

POST-TENSIONED CONCRETE

{POST-TENSIONED CONCRETE}

This section includes on-site post-tensioning of cast-in-place concrete structural building framing members and slabs. This section relies on ACI and PTI documents; refer to these documents when editing this section.

This section is not complete without provisions of the following sections:

Section 03 10 00 {03100}.

Section 03 20 00 {03200}.

Section 03 30 00 {03300}.

Section 03 39 00 {03390}.

In addition, provisions in the following sections may also be required:

Section 03 35 00 {03350}.

This section includes an option to require Contractor to develop detailed design where contract documents only identify design concept and applicable parameters.

Manufacturers listed in this section were identified as representative and not as an endorsement for meeting this specification. For additional product information, visit 4Specs at www.4specs.com, ARCAT at www.arcat.com, First Source at www.reedfirstsource.com, SpecSource at www.specsource.com, and Sweets Network at products.construction.com.

This section includes performance, proprietary, and descriptive type specifications. Edit to avoid conflicting requirements.

Contact the CSRF Support Center at supportcenter@csrf.org to submit comments or suggestions for improvements to this specification. Visit the SPECTEXT web site at www.spectext.com for current product announcements.

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cast-in-place post-tensioned concrete framing members [and slabs].
2. Tensioning tendons and grout filled [duct] [conduit] for bonded system.

***** [OR] *****

3. Sheathing-covered tensioning tendons for unbonded system.

B. Related Sections:

1. Section 03 10 00 - Concrete Forming and Accessories.
2. Section 03 20 00 - Concrete Reinforcing: Reinforcement other than tensioning reinforcing.
3. Section 03 30 00 - Cast-In-Place Concrete: Concrete product and execution requirements.
4. Section 03 35 00 - Concrete Finishing: Floor slab finishing requirements.
5. Section 03 39 00 - Concrete Curing.
6. Section 03 60 00 - Grouting: Cementitious and non-shrink grout.
7. Section [_____-_____]: Anchorage devices for [_____].
8. Section [_____-_____]: Recessed reglets.
9. Section [_____-_____]: Metal [fabrications] [_____] for casting into concrete.

C. Related Sections:

1. Section 03100 - Concrete Forms and Accessories.
2. Section 03200 - Concrete Reinforcement: Reinforcement other than tensioning reinforcing.
3. Section 03300 - Cast-In-Place Concrete: Concrete product and execution requirements.
4. Section 03350 - Concrete Finishing: Floor slab finishing requirements.
5. Section 03390 - Concrete Curing.
6. Section 03600 - Grout: Cementitious and non-shrink grout.
7. Section [_____-_____]: Metal [fabrications] [_____] for casting into concrete.
8. Section [_____-_____]: Anchorage devices for [_____].
9. Section [_____-_____]: Recessed reglets.

1.2 REFERENCES

List reference standards included within text of this section. Edit the following for Project conditions.

A. American Concrete Institute:

1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials.
2. ACI 301 - Specifications for Structural Concrete.
3. ACI 318 - Building Code Requirements for Structural Concrete.
4. ACI 423.6 - Specification for Unbonded Single-Strand Tendons.

B. ASTM International:

1. ASTM A416/A416M - Standard Specification for Steel Strand, Uncoated Seven-Wire for Prestressed Concrete.
2. ASTM A421/A421M - Standard Specification for Uncoated Stress-Relieved Steel Wire for Prestressed Concrete.
3. ASTM A722/A722M - Standard Specification for Uncoated High-Strength Steel Bars for Prestressing Concrete.
4. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens).

C. American Welding Society:

1. AWS B2.1 - Specification for Welding Procedure and Performance Qualification.