SECTION 03 01 00 {03930}

MAINTENANCE OF CONCRETE

{CONCRETE REHABILITATION}

****
This section includes repair of concrete and patching or repair of damaged or deteriorated concrete, using cementitious and epoxy repair materials. Repair of integral structural reinforcement requires detailed analysis on individual Project basis. This section includes only basic repair of concrete reinforcement.

This section includes provision for work performed using unit price payment method, when applicable.

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.
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PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Concrete reinforcement repair.
2. Concrete surface repair.
3. Concrete crack repair.

B. Related Sections:
1. Section 03 30 00 - Cast-In-Place Concrete.
2. Section 04 01 00 - Maintenance of Masonry.
3. Section [_____-_____]: Applied finish to [repaired] concrete surface.

C. Related Sections:
1. Section 03300 - Cast-In-Place Concrete.
2. Section 04900 - Masonry Restoration and Cleaning.
3. Section [_____-_____]: Applied finish to [repaired] concrete surface.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

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Use this article ONLY when work of this section is performed under unit price payment method. Delete this article when payment is by Stipulated Sum/Price.

Edit the following paragraph or add more paragraphs to describe specific conditions being addressed.
****

A. Repair Surface:
   1. Basis of Measurement: By the [square foot] [_____] ([square meter] [_____]).
   2. Basis of Payment: Includes surface preparation, [reinforcement and] concrete repair, and finishing.

B. Crack Repair:
   1. Basis of Measurement: By the [linear foot] [_____] ([linear meter] [_____]).
   2. Basis of Payment: Includes surface preparation, injection ports, repair materials, and surface finishing.

1.3 REFERENCES

****
List reference standards included within text of this section. Edit the following for Project conditions.
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A. ASTM International:
   1. ASTM A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
   2. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
   3. ASTM A996/A996M - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.
   4. ASTM C33 - Standard Specification for Concrete Aggregates.
   5. ASTM C109/C109M - Standard Test Method for Compressive strength of Hydraulic Cement Mortars (Using 2-in. or (50 mm) Cube Specimens).
   6. ASTM C150 - Standard Specification for Portland Cement.
   7. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
   8. ASTM C293 - Standard Test Method for Flexural Strength of Concrete (Using Simple Beam With Center-Point Loading).
   9. ASTM C404 - Standard Specification for Aggregates for Masonry Grout.
   10. ASTM C882 - Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear.
   11. ASTM C1042 - Standard Test Method for Bond Strength of Latex Systems Used With Concrete By Slant Shear.
   12. ASTM D638 - Standard Test Method for Tensile Properties of Plastics.
   13. ASTM D695 - Standard Test Method for Compressive Properties of Rigid Plastics.
   14. ASTM D790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

B. American Welding Society:
   1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.