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Reinforcement – Stray Current Protection

Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	02-09-2023	Original Issue	Richard Foley

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Contact SC Technical Team F for questions

Background

This process establishes Structure Construction (SC) responsibilities and procedures for review and authorization of general requirements, materials, and construction of stray current protection.

Stray current protection is primarily intended to insulate stray current from bar reinforcement, but this process also covers insulation of other structure elements as specified in the contract documents.

Prior to reviewing this Bridge Construction Memo (BCM), it is essential to review the <u>Contract Specifications</u>, Section 52-7, Reinforcement - Stray Current Protection, that this BCM is based on as identified in the title block above. The information in the <u>Contract Specifications</u> typically will not be repeated in the text of this BCM.

Process Inputs

- 1. Contract requirements for stray current protection
- 2. Form CEM 3101, Notice of Materials to be Used
- 3. Informational submittals including manufacturer's data

Procedure

1. All work associated with this process is charged as Project Direct - Construction.

- 2. Inspection of field work for this process is:
 - a. <u>Intermittent</u> for installation of stray current protection.
- 3. Before construction begins:
 - a. Review the following if appropriate for the method chosen:
 - i. Contract documents for stray current protection requirements.
 - ii. Contract Specifications:
 - 1. Section 11, Welding
 - 2. Section 50-1.03A, Prestressing Concrete General Construction General
 - iii. For guidance to verify contract compliance:
 - 1. BCM 11, Welding
 - 2. BCM 52-1, Reinforcement General
 - 3. <u>BCM 52-2</u>, Reinforcement Epoxy-Coated Reinforcement and Epoxy-Coated Prefabricated Reinforcement.
 - b. Review <u>Corrosion Guidelines</u> and discuss technical issues with the Materials Engineering and Testing Services Representatives (<u>METS Rep</u>).
 - c. Review and authorize manufacturer's data submittals in coordination with the METS Rep and District Electrical Engineer.
 - d. Review welder qualification and coordinate with the <u>METS Rep</u> to verify prequalification of the welder by performing the field qualification test weld.
 - e. Review Form CEM-3101, *Notice of Materials to be Used,* and notify the Contractor of any discrepancies or concerns.
 - f. Conduct a preconstruction meeting with the Contractor, District Project Manager, District Electrical Engineer, and the METS Rep to discuss the project requirements and safety issues.
- 4. During construction:
 - a. Verify and collect all material certifications.
 - b. Verify the stray current protection meets the requirements of the <u>contract</u> documents.
 - c. Verify the equipment and procedures used conform to the manufacturer's recommendations.
 - d. Coordinate with the METS Rep to perform the welding inspection.
 - e. Verify that the Contractor complies with Cal/OSHA safety requirements.

- f. Document all inspection, construction, and quality assurance activities, pertinent to this BCM, in the daily reports per BCM C-7, Daily and Weekly Reports.
- 5. Following construction:
 - a. Document as-built project plan changes as outlined in <u>BCM C-6</u>, Required Documents to be submitted During Construction.
- 6. File all project documentation (correspondence, materials acceptance documentation, daily reports, etc.) in the appropriate category in the project records as specified in the *Construction Manual*, <u>Section 5-102</u>, *Organization of Project Documents*.

Process Outputs

- 1. Stray current protection installed per contract requirements
- 2. Authorized submittals
- 3. Daily reports
- 4. As-built project plans

Attachments

None