



# Concrete Structures – Approach Slabs

## Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	02-28-2022	Original Issue	Richard Foley

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## Background

This process establishes Structure Construction (SC) responsibilities and procedures for review and authorization of submittals, quality assurance, materials, construction, and payment for new and replacement of existing structural concrete approach slabs and paving notch extensions.

This process includes paving notch extensions, structure excavation, placement of drainage systems, and permeable base for approach slabs.

Additional unique requirements for structure approach slabs are detailed in:

- [BCM 51-1.03F\(5-6\)](#), *Concrete Structures – General – Finishing Roadway Surfaces – Bridge Deck Surface Texture*.
- [BCM 51-1.01](#), *Concrete Structures – General*

Prior to reviewing this Bridge Construction Memo (BCM), it is essential to review the [Contract Specifications](#), Section 51-5, *Concrete Structures – Approach Slabs*, that this BCM is based on as identified in the title block above. The information in the *Contract Specifications* typically will not be repeated in the text of this BCM.

## Process Inputs

1. [Form CEM-3101](#), *Notice of Materials to be Used*
2. Submittals

# Procedure

1. All work associated with this process is charged as [Project Direct – Construction](#).
2. Inspection of field work for this process is:
  - a. [Benchmark](#), for demolition, excavation, and rebar placement.
  - b. [Continuous](#) for concrete placement.
3. Before construction begins:
  - a. Review the [contract documents](#) and as-built plans.
  - b. Review *Reinforced Concrete Construction Manual*, [Chapter 7](#), *Bridge Deck Construction*.
  - c. Review the Field Engineer Training, [Section 07](#), *Approach Slab to Punch List*, for details and photographs of approach slab components discussed in this BCM.
  - d. Verify materials to be used for approach slabs and paving notch extensions comply with the requirements of the contract documents.
  - e. For existing structures, review existing structure profile grades and make appropriate adjustments to the new approach slab grade if needed.
  - f. Discuss the removal plan.
  - g. Discuss inspection and release of materials with the Materials Engineering and Testing Services ([METS](#)) Representative.
  - h. Review and authorize or reject submittals. Notify the contractor in writing.
  - i. For approach slabs to be constructed with Rapid Strength Concrete (RSC), review the *Contract Specifications*, Section 51-1.01C(4), *Concrete Structures – General – General – Submittals – Rapid Strength Concrete*, for submittal requirements including a contingency plan for issues such as:
    - i. RSC or paving notch concrete not setting up.
    - ii. Large voids, unmarked utilities and other-differing site conditions encountered under existing slab.
    - iii. Incorrect rebar cage.
  - j. Witness placement of the trial slab per *Contract Specifications*, Section 51-5.01D(2)(b), *Concrete Structures – Approach Slabs – General – Quality Assurance – Quality Control – Rapid Strength Concrete*, and verify contract requirements are met, including strength at age of break. Confirm the contractor has verified existing field conditions.

4. During construction:
  - a. Discuss and follow the project Code of Safe Practices.
  - b. Verify the profile grade established by the contractor.
  - c. Set up pre-pour meeting and discuss with the contractor the pour and contingency plan.
  - d. Where the future concrete barrier has utility pull boxes, verify that the extra reinforcement needed around the boxes is in place.
  - e. Verify that approach slab drainage pipes and geodrain are placed per contract documents.
  - f. Follow contract documents and manufacture's requirements for bonding materials and RSC.
  - g. Field release materials in accordance with *Construction Manual*, [Section 6-2, Sampling and Testing – Acceptance of Manufactured or Fabricated Materials and Products](#).
  - h. Provide direction to the contractor on how to proceed if differing site conditions are encountered. Implement a Change Order to cover the work.
  - i. 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. Verify approach slab smoothness per [California Test 547, Method of Test for Operation of Bridge Profilograph and Evaluation of Profiles](#). Review the [SC Profilograph Online Training](#) for guidance.
  - b. Coordinate [skid testing](#) with METS per [California Test 342, Method of Test for Surface Skid Resistance with the California Portable Skid Tester](#).
  - c. Verify repairs are performed on any areas that fail to meet the requirements of California Tests 342 and 547.
6. File all project documentation (materials acceptance documentation, correspondence, Daily Reports, etc.) in the appropriate category in the project records as specified in the *Construction Manual*, Section [5-102, Organization of Project Documents](#).

## **Process Outputs**

1. Authorized submittals
2. Rapid Strength Concrete Trial Slabs

3. CTM 342 and CTM 547 test results

## **Attachments**

None