

Design Memorandum

TO: All Design Section Staff
FROM: Amy Leland
DATE: August 29, 2025
SUBJECT: Shotcrete Usage
NUMBER: 2025-03

This design memorandum provides revisions to the Bridge Design Manual M 23-50.24 and shall be considered active after the date of this memorandum. This memorandum clarifies the acceptable use of shotcrete, particularly as a proposed change to concrete structures.

Bridge Design Manual Revisions

Section 5.1.1.J Shotcrete of the Bridge Design Manual is revised as follows:

~~Substitution of CIP conventional concrete in the contract document with shotcrete requires the approval of the Engineer-of-Record.~~ When contract plans specify cast-in-place or precast concrete for an element where shotcrete is explicitly allowed per this section, shotcrete shall not be substituted without approval of the Engineer-of-Record. For elements and structures where shotcrete is not explicitly allowed per this section but is also not explicitly disallowed, approval is required from the State Bridge Design Engineer.

Background

The added language ensures that shotcrete cannot be substituted for concrete during construction without approval of the Engineer-of-Record. The deleted text refers to a contract document, and it was intended for Design-Bid-Build construction contracts specifically. The revision is intended to make the design requirements for shotcrete substitution clear regardless of delivery method.

Contact Information

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