

ENGINEERING DIRECTIVE

Tom Broderick (signature on original)

ACTING CHIEF ENGINEER

Responsibility for Bridge and Other Structural Design Approvals and Authorized Signatories for Bridge Sketch Plans and Construction Drawings

The purpose of this Engineering Directive is to define the division of responsibility for the MassDOT approval of bridge and other structural designs between the Districts and the Boston Bridge Section and to identify authorized signatories for all Bridge Sketch Plans and Bridge Construction Drawings issued by the MassDOT Highway Division.

This Directive supersedes and rescinds Engineering Directive E-09-004, "Signatory Approvals for Bridge Sketch Plans and Construction Drawings", dated August 21, 2009.

Bridge and Other Design Approvals

Effective immediately, the division of responsibility for bridge and other structural design approvals between the District Bridge Sections and the Boston Bridge Section shall be based on whether or not a bridge meets the federal definition of a bridge, the type of work to be performed, the type of structure to be designed and where the project was initiated. A bridge meets the federal definition of a bridge if it has a span greater than 20 feet as measured along the centerline of roadway (Reference: 23 CFR Part 650, subpart C, § 650.305 Definitions.)

District Bridge Sections shall be responsible for approving the following designs:

- Designs of structural repairs to bridge load carrying elements except those elements that have been identified as being fracture critical.
- Designs of non-structural repairs to bridges and bridge maintenance projects.
- Designs of retaining walls initiated by the Districts and taken from the *MassDOT Construction Standard Details*.
- Designs of temporary structures and shoring initiated by the Districts.
- Designs of non-highway bridge structures initiated by the Districts, excluding railroad bridges.
- Designs of new bridge structures, bridge structure replacements, superstructure replacements, and deck replacements for bridges that do not meet the federal definition of a bridge.
- Designs prepared by municipalities and submitted to MassDOT for approval in accordance with MGL Chapter 85, Sec. 35 for bridges that do not meet the federal definition of a bridge.

The Boston Bridge Section shall be responsible for approving the following designs:

- Designs of structural repairs to fracture critical bridge load carrying members.
- Designs of all retaining walls that are not taken from the *MassDOT Construction Standard Details* or that were initiated as part of a project by the Boston Headquarters.
- Designs of temporary structures and shoring initiated by the Boston Headquarters.
- Designs of non-highway bridge structures initiated by the Boston Headquarters including railroad bridges.
- Designs of new bridge structures, bridge structure replacements, superstructure replacements, and deck replacements for bridges that meet the federal definition of a bridge.
- Designs prepared by municipalities and submitted to MassDOT for approval in accordance with MGL Chapter 85, Sec. 35 for bridges that meet the federal definition of a bridge.

The preceding notwithstanding, the Boston Bridge Section, in consultation with the District Bridge Sections, may also approve all structural repair designs and may, at its discretion, delegate the approval of any designs to the District Bridge Sections. Such delegation shall be made in writing and retained as part of the project file.

Authorized Signatories for Bridge Sketch Plans

Effective immediately, all Bridge Sketch Plans shall be signed by two MassDOT employees, one who shall approve the structural elements and the other who shall approve the highway elements.

MassDOT employees authorized to approve the structural elements of Bridge Sketch Plans are:

- State Bridge Engineer
- Director of Bridge Project Development
- Deputy Chief Engineer for Bridges and Tunnels
- District Bridge Engineer (only for those bridges that do not meet the federal definition of a bridge unless otherwise authorized for that project)

MassDOT employees authorized to approve the highway elements of Bridge Sketch Plans are:

- Director of Project Management
- Highway Design Engineer
- Deputy Chief Engineer for Design
- Director of Bridge Project Development
- Deputy Chief Engineer for Bridges and Tunnels
- District Project Development Engineer (only for those bridges that do not meet the federal definition of a bridge unless otherwise authorized for that project)

All persons approving Bridge Sketch Plans shall be Registered Professional Engineers in Civil Engineering or Structural Engineering in the Commonwealth of Massachusetts.

The Chief Engineer is not required to approve Bridge Sketch Plans, but may approve such plans in lieu of any of the persons identified above.

Authorized Signatories for Bridge Construction Drawings

Effective immediately, Bridge Construction Drawings of new bridge structures, bridge structure replacements, superstructure replacements, deck replacements and other structures that require a separate set of plans shall be signed by the Chief Engineer and by one of the following authorized MassDOT employees:

- State Bridge Engineer
- Director of Bridge Project Development
- Deputy Chief Engineer for Bridges and Tunnels
- District Bridge Engineer (only for those bridges that do not meet the federal definition of a bridge unless otherwise authorized for that project)

Bridge Construction Drawings for bridge repairs shall be signed by one of the following authorized MassDOT employees:

- State Bridge Engineer
- Director of Bridge Project Development
- Deputy Chief Engineer for Bridges and Tunnels
- District Bridge Engineer (except for structural repairs to fracture critical bridge load carrying members)

Bridge Construction Drawings prepared by municipalities and submitted to MassDOT for approval in accordance with MGL Chapter 85, Sec. 35 shall be signed by one the following authorized MassDOT employees:

- State Bridge Engineer
- Director of Bridge Project Development
- Deputy Chief Engineer for Bridges and Tunnels
- District Bridge Engineer (only for those bridges that do not meet the federal definition of a bridge unless otherwise authorized for that project)

In addition, all Bridge Construction Drawings prepared by Consultant Designers must continue to be stamped and signed by a Registered Professional Engineer in the Commonwealth of Massachusetts for the Consultant Design firm. By affixing such seal and signature, the Consultant Designer is accepting full responsibility for the quality of its work as the designer of record. No MassDOT approvals shall relieve the Consultant Designer of any responsibilities in this regard.

All persons approving Bridge Construction Drawings shall be Registered Professional Engineers in Civil Engineering or Structural Engineering in the Commonwealth of Massachusetts.

All *MassDOT Bridge Manual* Drawings issued under Engineering Directive E-09-004 remain in effect and do not require revision in order to satisfy the requirements of this Engineering Directive.