

MASSDOT BOARD Presentation

PROJECT DEVELOPMENT PROCESS

Office of the Administrator of Highway



OVERVIEW

- The Highway Division's annual advertising program based on the last three federal fiscal years has consisted of an average of 264 projects valued at approximately \$952 Million.
- The average project takes 3.25 years to design, costs approximately \$3.6 Million and takes 1.8 years to construct.
- Designs are prepared by Highway Division Staff and Consultant Engineering Firms.

FUNDING

Federal Aid - State Transportation Improvement Program (STIP) Projects

- There are many different categories of federal aid.
- Each category of federal aid has an associated funding split.
- The federal agency responsible for providing oversight for the development and implementation of federal aid projects is the Federal Highway Administration.

FUNDING

Accelerated Bridge Program

- Includes both Federal Aid and Non-Federal Aid projects.
- Many of the smaller ABP projects are funded with Non Federal Aid.
- All of the remaining Mega Projects are funded with Federal Aid.

FUNDING

Non Federal Aid Projects

- The annual advertising program for these projects is based on funding levels established by MassDOT's Budget Office.
- This funding includes traditional state bond funded projects as well as those funded with MHS, Western Turnpike Toll, Tobin Bridge.

PROJECT INITIATION

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Project Proponent

- Typically the owner of the transportation facility is the project proponent.
- The exception to this rule pertains to the bridge program. The Highway Division initiates all projects for the rehabilitation or replacement of both state and municipally owned structures.
- Many STIP projects are initiated by municipalities.

PROJECT INITIATION

Project Need Form

- The Project Development Process starts with the preparation of the Project Need Form (PNF).
- The intent of the Project Need Form is to allow the proponent to propose a project at its most basic level to the Highway Division and the Metropolitan Planning Organization's (MPO's) staff.
- The Project Need Form is reviewed by the District Office.
- If the project is deemed to be appropriate for further development the project proponent will be directed to either prepare a Planning Report (only for large projects) or to prepare a Project Initiation Form (PIF).

PROJECT INITIATION

Project Initiation Form

- The Project Initiation Form is prepared by the project proponent with assistance provided by the Highway Division's District Office.
- The Highway Division's Project Review Committee (PRC) is responsible for reviewing all Project Initiation forms.
- The Project Review Committee assesses the merits of each project using the transportation evaluation criteria and within the context of statewide needs.

PROJECT INITIATION

Project Initiation Form (Continued)

- After approval by the Project review Committee, projects to be funded with federal aid are forwarded to the MPO for review.
- At this stage in the process it is possible, but unlikely, that the project would get fully programmed by the MPO. Typically projects that are given a favorable review by the MPO are programmed later during the phase.
- Throughout the Project Development process the Highway Division works closely with the MPO's in the development of each region's TIP.

DESIGN PHASE



DESIGN PHASE

25% Design Submittal (Preliminary Design)

- The purpose of the 25% Design submittal is to provide documentation and plans that allow project reviewers to evaluate the application of design criteria, impacts to abutting properties and impacts to environmental resources.
- When the design is approved, a Design Public Hearing is scheduled.

DESIGN PHASE

75% Design Submittal

- The 75% design submittal includes the Special Provisions and itemized Cost Estimate.
- This submittal is reviewed to ensure that comments from the 25% review and the Design Public Hearing are incorporated into the documents.

DESIGN PHASE

100% Design Submittal

- This submittal is reviewed to ensure that comments from the 75% review are addressed.
- The intent of this review is ensure that all work proposed to be performed by the contractor is clearly described on the plans and in the special provisions.

DESIGN PHASE

Environmental Permitting

- The environmental impacts of all projects are evaluated with respect numerous state and federal laws.
- The most common state environmental permits are related to the Massachusetts Wetlands Protection Act (Chapter 131) and the Massachusetts Environmental Policy Act (MEPA) (Chapter 30, sections 61 through 62H).
- The most common federal environmental permits are related to the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act and Section 404 and Section 401 of the Clean Water Act.

DESIGN PHASE

Right of Way

- Prior to advertising a project for construction, the Highway Division's Right of Way Bureau must certify that the Highway Division has a right to occupy and use all rights of way necessary for the construction of the proposed project.
- The responsibility for the various activities associated with acquiring property varies depending on the ownership of the roadway.

DESIGN PHASE

Right of Way – State Highway Projects

- For projects constructed on State Highway, the Right of Way Bureau is responsible for performing title examinations, and for conducting real estate appraisals to establish the fair market value of property to be acquired for highway and bridge projects.
- The Right of Way Bureau meets with property owners to discuss the determination of the fair market value of their property.
- The Bureau must also provide for the relocation of persons and businesses displaced by construction projects.
- Layout alterations are recorded at the Registry of Deeds.

DESIGN PHASE

Right of Way – Municipal Projects

- For projects constructed on municipally owned facilities, much of the work related to the acquisition of interests in land is the responsibility of the municipality.
- The Right of Way Bureau is responsible for reviewing all the right of way documentation assembled by the municipality.
- When it has been determined that the documentation submitted and the procedures employed by the municipality are appropriate and in accordance with federal and state law, the Right of Way Bureau issues a Right of Way Certificate for that project.

PROCUREMENT

PROCUREMENT

Projects can only be advertised when:

- The Plans, Specifications and Estimate have been reviewed and approved by all parties involved in the design review process.
- All Environmental permits are obtained.
- All property necessary for the completion of the project is secured and a Right of Way Certificate is issued.
- The project is included on the STIP (federal aid projects).
- The FHWA has approved the project and obligated the funding (for federal aid projects).
- MassDOT's Federal Aid Programming Office has authorized project advertising.



PROCUREMENT

Solicitation of Bids

- The advertisement is placed in the Boston Herald, Boston Globe, Compass, the Central Register, Construction Industries of Massachusetts Journal, and other trade publications.
- At least 21 days after the project advertisement, bids are opened and read.
- The Highway Division and the designer of record review the bid tabulations.
- If the bid appears to be properly prepared, the Highway Division prepares the necessary fiscal documents and a recommendation is made to award the contract to the lowest bidder.