

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DESIGN DIRECTIVE**

**DD-200  
PROJECT DEVELOPMENT PROCESS**  
*June 16, 2006*

Attached is the West Virginia Department of Transportation, Division of Highways' Project Development Process Guidelines.

Attachment

## PROJECT DEVELOPMENT PROCESS

The project development process is a complex and diversified task. This process begins with the inception of the project and concludes with the construction of the project. It includes initial engineering, preliminary engineering, final design, preparation of environmental documents, value engineering, right of way and utilities work, specifications and estimates.

The development of plans and related documents has become considerably more complicated. Some factors contributing to this increased complexity are environmental issues, cultural resources, increased public and agency involvement, and funding constraints.

The Division of Highways' project development process is shown on the attached flow chart. The project development process will vary in complexity, depending upon the size and scope of each individual project.

Environmental documentation will include the development of either an Environmental Impact Statement (EIS), Environmental Assessment (EA), or Categorical Exclusion (CE). The environmental documentation will be based on the scope, characteristics, location and initial engineering information of the project. This effort will vary from project to project and may involve outside agencies, individuals, and special interest groups. Early coordination with regulatory and resource agencies is required, in order to expedite the resolution of issues. The environmental document will meet the requirements of National Environmental Policy Act, Council of Environmental Quality Regulations, Federal Highway Administration guidance, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, Endangered Species Act, and other environmental and cultural resource concerns.

The mitigation phase will include work identified in the environmental and cultural resource mitigation portion of the environmental document, all necessary permits, and other issues identified in the environmental documentation phase.

Initial engineering is that work which is performed to define major project features. See Design Directive (DD) 202, "Field and Office Reviews for Initial Engineering, Preliminary Engineering and Final Design." It includes such aspects as location, profile, geometrics, major drainage features, geotechnical, identification of preliminary right of way needs, utilities, and the analysis of various alternates. Included in this phase are field and office reviews, public meetings/or hearings, estimate of costs for construction and right of way, and preparation of design report plans and narratives. See DD-205, "Guidance for Preparation of Design Reports and Studies" for more information concerning design reports. Location and Design Approvals are obtained at the end of this phase of project development, and are required before a project may proceed to the Preliminary Engineering stage. See DD-206, "Guidance for Location and Design Approvals" for more information concerning this matter.

Preliminary engineering is that work which is performed to further refine the preferred alternate identified during the environmental documentation phase. This work includes roadway geometrics, structural requirements, drainage, erosion control, geotechnical issues, earthwork, traffic control, safety, value engineering, and environmental and cultural resource avoidance or

mitigation. Included in this phase is preliminary field review/value engineering review, geotechnical (slope) review, span arrangement submissions (to include pre-span arrangement submissions), bridge type, size and location plans, and preliminary right of way plans (RW-2) necessary to identify property owners, utility verifications, and to start property abstracting. Again, reference is made to DD-202 for more information concerning preliminary Engineering and Final Design activities.

No final design activities (regardless of funding sources) shall proceed until the following have been completed:

- a) The action has been classified as a CE, or
- b) A Finding of No Significant Impact (FONSI) has been approved, or
- c) A final EIS has been approved and available for the prescribed period of time and a record of decision has been signed.

Line and Grade Approval is obtained at the end of the Preliminary Engineering phase of project development, after Environmental Clearance is given, and is required before Final Design can proceed.

Final design is that engineering necessary to complete construction contract plans and related documents, prepare specifications, proposals, and cost estimates. The contract plans and related documents are the product upon which the contractor bases his bid, and provide the complete information necessary for the contractor to construct the project. Included in this phase, the final field review, TS&L approval, final office review, final bridge plans, final right of way plans, and utility relocation designs necessary for the acquisition of right of way.

# Project Development Process

(Note: Line and Grade Approval is obtained only after environmental clearance is given.)

