Chapter 43  Design Approval

43.1 General Discussion

On all Federal Highway Administration (FHWA) funded transportation projects, local agencies must document design approval prior to preparation of plans, specifications, and estimates (PS&E).

A project design shall not be approved until the project’s environmental documentation (NEPA) has been approved and its public hearing requirements have been met.

Value Engineering Studies (VEs) are required for all projects on the NHS receiving $50 million or more and for all bridges on the NHS receiving $40 million or more. Any project that approaches this cost limit on the preliminary estimate should also have a VE study performed in anticipation of cost increases from preliminary design to the final Plans, Specification and Estimate stage of a project. Refer to Section 43.4 for more information on Value Engineering. A VE study is not required for a Design-Build project.

When there is a subsequent change to the project design or scope, an amended location-design approval is required.

43.2 Requirements for Design Approval

All items on the appropriate design matrix are required to be addressed (see Chapter 42, Table 1.1, 1.2, and 1.3 and Appendix 42.101. In addition, items listed below are also required to be addressed (some of these are included in the Project Prospectus).

.21  Traffic Data – Design-year ADT, the average daily traffic forecast during the design year should be included. The design year for new and reconstruction projects is 20 years from the projected start of construction. All other projects may be any point within 8 to 20 years from the projected start of construction.

.22  Pavement Design Criteria – Rationale for selection of the pavement type and depth of surfacing.

.23  Cost Estimate – An updated cost estimate should be prepared. Include VE study when applicable.

.24  Environmental Document (NEPA) – Documentation, including approval.

The project design must be approved by the approving authority as outlined on the agency’s Certification Acceptance Agreement or the acting designated authority for a Non-Certification Acceptance agency. For an example, see Appendix 43.62.

.25  Right of Way – Local agencies must ensure that the R/W plans were reviewed and approved.