

## Activities Considered Preliminary and Final Design

Derived from FHWA *Policy on Permissible Project Related Activities During the NEPA Process* (Order 6640.1A)

### Preliminary Design

- Preliminary design encompasses general project location and design concepts. Related activities are those needed to establish the parameters for final design.
- The definition of preliminary design includes examples of specific activities that are needed to adequately analyze alternatives and establish the parameters for final design. However, the activities specified in the definition are not the only activities that are considered preliminary design.
- Activities listed in the definition of preliminary design in Code of Federal Regulations (CFR) Title 23 section 636.103 include; environmental assessments; topographic surveys; metes and bounds surveys; geotechnical investigations; hydrologic analysis; hydraulic analysis; utility engineering; traffic studies; financial plans; revenue estimates; hazardous materials assessments; general estimates of the types and quantities of materials.
- Other activities: design and engineering activities to be undertaken for the purposes of defining project alternatives; completing the NEPA alternatives analysis and review process; complying with other related environmental laws and regulations; environmental justice analyses; supporting agency coordination, public involvement, and permit applications; development of environmental mitigation plans; title and deed research; and engineering such as; development of typical sections, grading plans, geometric alignment (horizontal alignment, vertical alignment and any clearances necessary to meet approved design criteria), noise wall justifications, bridge type, size, and location studies, temporary structure requirements, staged bridge construction requirements, structural design (substructure and superstructure), retaining wall design, noise wall design, design exceptions, guardrail length and layout, existing property lines, soil borings, cross sections with flow line elevations, ditch designs, intersection and interchange design and configuration, pavement design, storm water and sanitary sewer design plan and profile, culvert design, identification of removal items, quantity estimates, pavement details and elevation tables, and preliminary traffic control plans to be maintained during construction.
- The activities specified above are deemed to not materially affect the objective consideration of alternatives or have adverse environmental impacts. However, on a case-by-case basis, if FHWA believes that special factors are present related to the NEPA analysis, it may be determined that one or more activities listed above do materially affect the objective consideration of alternatives in the NEPA review process or have adverse environmental impacts. In such cases, the activity shall not be advanced as preliminary design.

- The list of activities above is not exclusive. Other activities necessary to the NEPA decision and that establish the parameters for final design may proceed as preliminary design so long as those activities do not materially affect the objective consideration of alternatives in the NEPA process or have an adverse environmental impact. The determination as to whether any activity materially affects the objective consideration of alternatives or has an adverse environmental impact is a discretionary FHWA determination that is to be made by the division administrator. As such, early consultation with FHWA is recommended.

### **Final Design**

- As defined in 23 CFR 636.103, final design means any design activities following preliminary design and expressly includes the preparation of final construction plans and detailed specifications for the performance of construction work. Other activities constituting final design include final plans, project site plan, final quantities, and final engineer's estimate for construction.
- Activities considered to be advanced as preliminary design for a project but rejected as materially affecting the objective consideration of alternatives or having an adverse environmental impact are considered final design.