§ 650.113 Only practicable alternative finding.

(a) A proposed action which includes a significant encroachment shall not be approved unless the FHWA finds that the proposed significant encroachment is the only practicable alternative. This finding shall be included in the final environmental document (final environmental impact statement or finding of no significant impact) and shall be supported by the following information:

(1) The reasons why the proposed action must be located in the floodplain.
(2) The alternatives considered and why they were not practicable, and
(3) A statement indicating whether the action conforms to applicable State or local floodplain protection standards.

(b) [Reserved]

[44 FR 67580, Nov. 26, 1979, as amended at 48 FR 29274, June 24, 1983]

§ 650.115 Design standards.

(a) The design selected for an encroachment shall be supported by analyses of design alternatives with consideration given to capital costs and risks, and to other economic, engineering, social and environmental concerns.

(1) Consideration of capital costs and risks shall include, as appropriate, a risk analysis or assessment which includes:

(i) The overtopping flood or the base flood, whichever is greater, or
(ii) The greatest flood which must flow through the highway drainage structure(s), where overtopping is not practicable. The greatest flood used in the analysis is subject to state-of-the-art capability to estimate the exceedance probability.

(2) The design flood for encroachments by through lanes of Interstate highways shall not be less than the flood with a 2-percent chance of being exceeded in any given year. No minimum design flood is specified for Interstate highway ramps and frontage roads or for other highways.

(3) Freeboard shall be provided, where practicable, to protect bridge structures from debris- and scour-related failure.

(4) The effect of existing flood control channels, levees, and reservoirs shall be considered in estimating the peak discharge and stage for all floods considered in the design.

(5) The design of encroachments shall be consistent with standards established by the FEMA, State, and local governmental agencies for the administration of the National Flood Insurance Program for:

(i) All direct Federal highway actions, unless the standards are demonstrably inappropriate, and
(ii) Federal-aid highway actions where a regulatory floodway has been designated or where studies are underway to establish a regulatory floodway.

(b) Rest area buildings and related water supply and waste treatment facilities shall be located outside the base flood plain, where practicable. Rest area buildings which are located on the base flood plain shall be floodproofed against damage from the base flood.

(c) Where highway fills are to be used as dams to permanently impound water more than 50 acre-feet (6.17×10⁶ cubic metres) in volume or 25 feet (7.6...
§ 650.209 Construction.

(a) Permanent erosion and sediment control measures and practices shall be established and implemented at the

highways funded in whole or in part under title 23, United States Code, shall be located, designed, constructed and operated according to standards that will minimize erosion and sediment damage to the highway and adjacent properties and abate pollution of surface and ground water resources. Guidance for the development of standards used to minimize erosion and sediment damage is referenced in §650.211 of this part.

§ 650.205 Definitions.

Erosion control measures and practices are actions that are taken to inhibit the dislodging and transporting of soil particles by water or wind, including actions that limit the area of exposed soil and minimize the time the soil is exposed.

Permanent erosion and sediment control measures and practices are installations and design features of a construction project which remain in place and in service after completion of the project.

Pollutants are substances, including sediment, which cause deterioration of water quality when added to surface or ground waters in sufficient quantity.

Sediment control measures and practices are actions taken to control the deposition of sediments resulting from surface runoff.

Temporary erosion and sediment control measures and practices are actions taken on an interim basis during construction to minimize the disturbance, transportation, and unwanted deposition of sediment.

§ 650.207 Plans, specifications and estimates.

(a) Emphasis shall be placed on erosion control in the preparation of plans, specifications and estimates.

(b) All reasonable steps shall be taken to assure that highway project designs for the control of erosion and sedimentation and the protection of water quality comply with applicable standards and regulations of other agencies.

[39 FR 36332, Oct. 9, 1974]

§ 650.209 Construction.

(a) Permanent erosion and sediment control measures and practices shall be established and implemented at the