Design Exception (Reasonable Assurance)

WHY:

The Federal Aid Policy Guides states “The determination to approve a project design that does not conform to a minimum criteria is to be made only after due consideration is given to all project conditions such as maximum service and safety benefits for the dollar invested, compatibility with adjacent sections of roadway and the probable time before reconstruction of the section due to increased traffic demands or changed conditions.” When these criteria produce severe social, economic and/or environmental impacts, lesser design values may be chosen. The result of this process is the design exception document. The design exception is prepared to record the considerations given toward social, economic, environmental and safety impacts to the motoring public.

When conditions warrant, a design exception may be granted for a project design which proposes a controlling substandard design element (CSDE). A design exception may be approved when it can be documented that a lesser design value is the best practical alternative. The warrants for the selection of a lesser design value shall give consideration to social, economic and environmental impacts together with safe and overall efficient traffic operations.

The controlling substandard design elements are:

Roadway
– Cross Slope
– Lane and Shoulder Width
– Minimum Radius (mainline and interchange ramps)
– Grades (maximum and minimum)
– Stopping Sight Distance (horizontal curves, vertical curves, two-way left-turn lanes)
– Intersection Sight Distance
– Superelevation (mainline and interchange ramps)
– Auxiliary Lane Length (interchange only)
– Through-lane Drop Transition Length

Structural
– Bridge Width
– Structural Capacity
– Vertical Clearance

A design exception shall be requested when a project contains a controlling design element which does not conform to the required design value.
While DPPD does not formally prepare the design exception request, it is charged with obtaining a reasonable assurance that the design exception will be approved by the Office of Geometric Design. With a reasonable assurance of an approved design exception, the project can be advanced.

**HOW:**

- For each alternative developed for a project, a list of substandard controlling design elements will be prepared and documented as part of the alternatives analysis.
- A thorough analysis should be available to support each proposed condition. As part of this analyses, the most recent accident data available (i.e.: previous two years, current year) is to be utilized as required by the FHWA.
- Coordination with a representative from the Office of Geometric Design will take place to discuss each proposed substandard element and the supporting rationale for each proposal.
- After thorough coordination, the Office of Geometric Design will provide reasonable assurance of approval for each design exception via a written memorandum which will be entered into the project file.