

INDIANA DEPARTMENT OF TRANSPORTATION



INTER-DEPARTMENT COMMUNICATION

Standards Section – Room N642



*Writer's Direct Line
232-6775*

August 3, 2006

DESIGN MEMORANDUM No. 06-05 POLICY CHANGE

TO: All Design, Operations, District Personnel, and Consultants

FROM: /s/ Anthony L. Uremovich
Anthony L. Uremovich
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Production Management Division

SUBJECT: Level One Design Exception Approval Procedure

REVISES: *Indiana Design Manual Section 40-8.04*

EFFECTIVE: Immediately

A. Introduction

The designer will not request an exception to the Level One design criteria until he/she has fully evaluated the impacts of the proposed design (i.e., the exception) and the associated impacts of fully meeting the Level One criteria. The evaluation process shall include obtaining comments from the applicable offices or teams including the following:

1. Highway Operations Division, Office of Traffic Engineering;
2. Production Management Division, Office of Environmental Services, Environmental Policy Team;
3. Production Management Division, Office of Geotechnical Engineering;
4. Production Management Division, Office of Real Estate, Property Management Team;
5. Production Management Division, Office of Real Estate, Utilities and Railroads Team;
6. Production Management Division, Office of Structural Services, Hydraulics Team;

After review by the applicable offices or teams, the design exception shall then be routed in the order shown below for further comments, recommendations, and final action.

B. Department Procedures

Each design element not meeting the Level One criteria will require a formal, written INDOT exception. This includes all paving exceptions, S-lines, and traffic maintenance phases. See *Indiana Design Manual* Figure 40-8B, Level One Design Exception Checklist. An editable version of this document may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/. All design exceptions for a project may be included in one document. Each of the items described below must be addressed in the order as follows:

1. Level One Criteria (Except Physically-Challenged Individuals Accessibility). The written design exception request will, at a minimum, address the following:
 - a. **Project Description.** This includes project location, functional classification, description of work, and type of area (residential, commercial, rural, etc.) in which the project is located. The location of the design exception should be identified by referencing it to the nearest Department-maintained route or other major point such as a county line.
 - b. **Design Feature.** This is a description of the design feature that does not meet the Department's criteria. Both the proposed criteria and the Department criteria should be identified, with respective design speeds where applicable. Drawings should be used to explain the criteria if necessary. The reason for the design exception request should be clearly indicated.
 - c. **Construction Costs.** This is the additional cost to construct the feature to meet the Department criteria. An abbreviated breakdown of the costs should be included.
 - d. **Project Design.** This includes the basic design parameters of the project (e.g., current and projected 20-year traffic volumes, design speed, posted speed, percent trucks, design criteria, terrain, and access control).
 - e. **Crash Analysis.** In addition to furnishing the computer printout of crash experience for the previous 3-year period, the crash data must be presented as follows:
 - (1) It should be summarized and described in general terms (e.g., type, severity, contributing circumstances).

- (2) All available sources (city, county, and state police) must be contacted to obtain the data and be noted in the design exception request.
 - (3) The crash experience which is related to the design feature and does not meet Department criteria should be analyzed and evaluated. The evaluation may include, for example, a comparison of the crash rate on the highway to the Statewide rate for that type of facility or may include a statistical analysis of the crash experience at the location of the design feature (e.g., a horizontal curve).
- f. **Cost-Effective Analysis.** A cost-effective analysis should be conducted to justify the proposed design exception, if applicable (e.g., there are crashes related to the design feature in question. See Chapter Fifty for more information).
 - g. **Ancillary Impacts.** Any adverse effects the design exception will have on any other design elements on or near the project site must be evaluated and documented (e.g., sight distance on a horizontal curve impacts intersection sight distance at an intersection outside the project limits).
 - h. **Safety.** The safety impacts of the design exception must be evaluated and documented. For example, if there were no crashes with the existing condition and the project would match or improve the situation, one could conclude that there would be no increase in crashes.
 - i. **Remedial Actions.** The designer must document the proposed remedial actions which will be implemented to alleviate the retention or construction of the design feature which does not meet Department criteria (e.g., traffic control devices).
 - j. **Other Factors.** Other factors which may have an effect on the final recommendation should be discussed. For example, the following:
 - (1) projected service life of the facility after construction is completed;
 - (2) compatibility with adjacent sections of the proposed project;
 - (3) probable time before reconstruction of the section is anticipated; and
 - (4) environmental and right-of-way impacts of meeting the Department criteria.

The design exception request must contain all of the necessary information or references without requiring the reviewer to obtain additional information (e.g., plan sheets, copies of pages of this Manual that pertain to the design exception request, or copies of pertinent pages of the AASHTO Policy on Geometric Design of Highways and Streets.)

A design exception for a local-agency project or a State project involving an element on a local agency's road should be signed by the local elected officials who have jurisdiction of the project or road.

2. Design Exception Request Routing and Approval.

For further information regarding approval of Level One design exception requests, see the notes or statements associated with the Design Tables in *Indiana Design Manual* Chapter Fifty-three, Section 54-2.0, and Section 55-3.0.

a. NHS Route Project. Within INDOT, the final concurrence in the design exception is the responsibility of the Production Management Division director. The design exception request will be submitted by Department memorandum to the Production Management Division director for review and concurrence. Upon concurrence, the Production Management Division director will transmit it for review to the FHWA for approval. An editable version of the cover memorandum, *Indiana Design Manual* Figure 40-8C, may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/. The Level One design exception request should be routed for approval as follows:

- (1) project manager;
- (2) project reviewer;
- (3) district production director;
- (4) Production Management Division's roadway manager or structural services manager, as applicable;
- (5) Production Management Division director; and
- (6) FHWA for approval.

b. Non-NHS Route Project. The design exception request will be submitted by Department memorandum to the Production Management Division's roadway manager or structural services manager, as applicable, for review and approval. An editable version of the cover memorandum, *Indiana Design Manual* Figure 40-8D, may be found on the Department's website, at www.in.gov/dot/div/contracts/design/dmforms/. The Level One design exception request should be routed for approval as follows:

- (1) project manager;
- (2) project reviewer;
- (3) district production director; and
- (4) Production Management Division's roadway manager or structural services manager, as applicable, for approval.

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