

Preface

The author of *Bridge Design Manual* is the Methods Section of the Office of Bridges and Structures.

When complete, *Bridge Design Manual* will replace the policies of the present online office-memo design manual and the latest hard-copy editions of "Aesthetic Bridge Design Guidelines," "[Design Guidelines for Decks \(Slab on Beams\)](#)," "[Design Criteria and Office Practice for Pretensioned Prestressed Concrete Beams](#)," "[Abutment Design Criteria](#)," "[Design Criteria for Piers](#)," "Criteria for Falsework Check", and similar documents. Information from office software documentation also will be included in the manual as it interprets design practice. Where production of the manual indicates gaps in existing office policies the manual will include sections for new policies.

Dual unit systems are used throughout the manual. Customary U.S. or English unit values are given first, followed by SI or metric unit values in parenthesis.

Bridge Design Manual shall be used with other Iowa DOT documents and standards including the latest editions of the Office of Bridges and Structures "Standard Sheets," the Office of Materials "Instructional Memoranda," and *Standard Specifications for Highway and Bridge Construction*. It also shall be used with the 2002 edition of the *AASHTO Standard Specifications for Highway Bridges* with current errata changes. A list of reference documents and standards along with abbreviations is given in the introduction. An additional list is given with each major article.

The office ~~will begin~~[began](#) the transition to LRFD in 2005 based on the *AASHTO LRFD Bridge Design Specifications, Third Edition*. The office will issue new LRFD sections for the manual as they are completed and generally proceed from superstructure to substructure. During the transition, parts of a bridge will be designed according to the LRFD specifications, and parts will be designed according to the standard specifications.

In general *Bridge Design Manual* is intended to define office practice for typical Iowa bridges without restricting innovation for unusual site and design conditions. The words "shall", "required", "office policy", and similar terms indicate mandatory specifications that need to be followed unless exceptions are approved by the supervising Section Leader. Other terms such as "should", "prefer", and "recommended" indicate general guidance subject to engineering judgment of the designer. Interpretations of the supervising Section Leader, the Chief Structural Engineer, the Assistant Bridge Engineer, and the Bridge Engineer supersede policies in this manual.

This manual will be supplemented with methods memos that update policies, and those memos will be available on the office web site [OBS MM No. 124]. As time permits, the Methods Section will revise the manual to include the policy portions of the memos, and the memos will be duplicated in the commentary for the manual. Where a policy-update memo is referenced in the manual the user will find the complete memo or a reference to its [location](#) in the corresponding commentary article. [Superseded and obsolete memos will be moved to the appropriate commentary appendix.](#)

Revision dates will be given on the footer for each section or article. While the manual is in production there are no plans to issue paper copies or specific editions.

Standard CADD notes are provided in Section 11 at the end of the manual.

Bridge Design Manual does not include design procedures, examples, or software. For office use, separate documents and access systems will be developed as design aids.

Users are invited to bring errors and omissions to the attention of the Methods Section of the Office of Bridges and Structures.

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