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Note: Revisions for May, 2014 are marked with yellow highlight. Deleted text is not marked; past editions of the BDDM are available for comparison.

INTRODUCTION

PREFACE

The *Bridge Design and Drafting Manual (BDDM)* provides a reference for those involved in preparing ODOT bridge design deliverables. The purpose of the manual is to:

- Provide guidance in design and detailing practices (Section 1).
- Provide guidance in detailing and drafting practices (Section 2).
- Provide guidance in bridge design roles and responsibilities, design and quality processes, and items to coordinate with other disciplines (Section 3).
- Provide guidance in bridge type selection and geometric layout (Section 3).

An effort has been made to make the *Bridge Design and Drafting Manual* informative, comprehensive, and accurate. It is a guide to acceptable ODOT practices. The manual should be used in the design of State Highway bridges. Use on other bridges in the State of Oregon should only be as noted in this manual, or as directed by the bridge owner.

The manual is not a legal document. There is no substitute for sound engineering judgment.

Bridge Design and Drafting Manual users are encouraged to submit comments, corrections, and proposals for new or revised materials.

Any comments or questions about the *Bridge Design and Drafting Manual* should be directed to:

Bridge Design Standards and Practices Engineer
Oregon Department of Transportation
Technical Services – Bridge Engineering Section
4040 Fairview Industrial Drive S.E., MS #4
Salem, OR 97302-1142
(503) 986-4200

ORGANIZATION OF THE MANUAL

The *Bridge Design and Drafting Manual* is divided into three main sections:

- Section 1: Design and Detailing Practices
- Section 2: Detailing and Drafting Practices
- Section 3: Roles, Processes, Type Selection and Layout

The acronym "BDDM" and a number refers to a section, subsection, etc., of this *Manual* unless another reference is specifically called out. So, you will see BDDM 2.1, BDDM 2.1.1.1(1), etc.

The acronym "LRFD" and a number refers to a section of the AASHTO LRFD Bridge Design Specifications.

The acronym "SP" and a number refers to a section of the ODOT Construction Specifications.

Except for the "Introduction", each Section has:

- Main body of text
- Appendix

The page numbers of the Section's text are prefixed with the Section number. Thus, for Section 2, the page numbers are 2-1, 2-2, etc.

The Table of Contents is linked to the Section's text for Sections 1, 2 and 3. The "Bookmark" navigation function is active in all Sections. Also, the "Search" and "Find" functions enable fairly rapid location of topics.

Tables, charts, and examples of forms are all identified as alphanumeric "Figures". The figure number refers to the specific section number where the figure is mentioned:

- Figure 2.1.1 is the only figure mentioned in Section 2.1.1 and inserted in or closely after the Section 2.1.1 text.
- Figure 2.1.1A is the first figure of a series of figures mentioned in Section 2.1.1 and inserted in or closely after the Section 2.1.1 text.
- Figure A2.3.2A is in the Section 2 Appendix and mentioned in Section 2.3.2.

For the sake of brevity or in order to use a familiar term in place of an unfamiliar "official" version, some editorial liberties have been taken when referring to organizational names or titles:

Manual	Official
Bridge Section or Bridge HQ	Bridge Engineering Section
Roadway Section	Roadway Engineering Section
Traffic Section	Traffic Management Section
Region Tech Center	Regional Technical Centers

REVISING THE MANUAL

Only the Bridge Design Standards and Practices Engineer, Bridge Standards Technical Specialists, or the State Bridge Engineer (or his/her designee) are to circulate communications concerning matters of or revisions to design practices.

(1) Put It in Writing - Research and develop a written proposal using three general subject headings:

- Problem Statement.
- Proposal
- Analysis / Research / and Other Supporting Data.

A template letter is shown at the end of this Section. An electronic version of this template can be found on the BDDM webpage.

Complete your written proposal and submit directly to the Bridge Design Standards and Practices Engineer at the address shown in the Preface.

(2) Review and Approval - After reviewing a written proposal for completeness, the Design Standards and Practices Engineer will:

- Acknowledge receipt of the proposal and provide an initial assessment response:
  - Accepted for consideration as submitted
  - Accepted for consideration as noted
  - Proposal tabled, see Remarks.
  - Proposal not accepted, see Remarks
- For accepted proposals, post the proposal on the BDDM webpage for review and comment.

After the review period, responses to comments will be prepared. The Standards Engineer will see that one of the following is done:

- Proposals with resolved comments will be included in the BDDM.
- Proposals without resolved comments will be tabled (and possibly reconsidered at a future update should the proposer so elect).

Proposals will be forwarded to the FHWA (Federal Highway Administration) for review, comments and approval. Any FHWA comments on a proposal will be reviewed and given a final approval.

(3) Implementation of Approved Revision - After a proposal has final approval, the Standards Engineer will include it in the Manual update on the Bridge Engineering web page. Revised or added text will be highlighted in yellow, with the revision date noted on page 1 of the BDDM section. If a revision is urgent, it may be distributed immediately in a Technical Bulletin and incorporated into the BDDM later.

RECORD OF REVISIONS

Revision Type*	Date of Revision	Inserted By**	Sheets Revised

*Interim or Annual
**First initial, last name.

I N T E R O F F I C E M E M O

TECHNICAL SERVICES
Bridge Engineering Section
Office Phone: (503) 986-4200
Fax Number: (503) 986-3407

DATE: Month D, YYYY

TO: Emily Maurer
Bridge Design Standards Engineer

FROM: [your name] Phone#: xxx-xxx-xxxx
[your position or role]
[Firm name]

SUBJECT: Proposed Revision to Bridge Design & Drafting Manual

RE: BDDM Section X.X.X.X

Problem Statement:

Proposal:

Modify/Add Section X.X.X.X as follows

X.X.X.X [Section Name]

Analysis / Research / Other Supporting Data:

☐ None
☐ Attached:
- [name of attachment]
- [name of attachment]

[and/or enter text here]

Bridge Engineering Section Response:

☐ Accepted for consideration as submitted ☐ Accepted for consideration as noted ☐ Proposal tabled, see Remarks ☐ Proposal not accepted, see Remarks		
Remarks:		
[name of reviewer] Bridge Design Standards Reviewer		Date
Emily Maurer Bridge Design Standards Engineer		Date

Cc: file