



Office of Engineering  
 Project Development Division  
 Bridge Design Section  
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John Bel Edwards, Governor  
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MEMORANDUM

TO: ALL BRIDGE DESIGNERS - IN-HOUSE AND CONSULTANTS

FROM: ZHENGZHENG “JENNY” FU, P.E.  
 BRIDGE DESIGN ENGINEER ADMINISTRATOR

SUBJECT: BRIDGE DESIGN TECHNICAL MEMORANDUM NO. 104 (BDTM.104) -  
 BDEM PART I, SECTION 9 - STANDARD PLANS - REVISION

DATE: June 9, 2021

BDEM Part I, Chapter 9 has been revised. The main changes consist of revision to Section 9.2 and adding Section 9.5. Minor edits were made in other sections.

Effective immediately, BDEM, Part I, Chapter 9 is replaced with the following:

**CHAPTER 9 – STANDARD PLANS**

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## **9.1—DEFINITIONS**

*Bridge Standards* — A general term referring to Bridge Standard Plans.

*Standard Plans* — Plan drawings that are standardized for use on any applicable project, have been stamped by a DOTD bridge design engineer of record and signed by the DOTD Chief Engineer. See EDSM I.1.1.2 for more information.

*DOTD Project* — A project that has a DOTD project number.

*EOR* — The Engineer of Record for the relevant Bridge Standard.

*Non-DOTD Project* — A project that does not have a DOTD project number.

*Standards Manager* — The designated DOTD bridge design engineer responsible for the oversight and management of the Bridge Standards.

## **9.2—STANDARDS DEVELOPMENT PROCESS/CHECKLIST**

All Bridge Standards shall be developed in accordance with the Bridge Design Section QC/QA Policy and as follows:

*Step 1:* The EOR completes and submits the online request form on the Bridge Design website. The request shall include a brief description of the need to create new standards or modify existing standards.

*Step 2:* The Standards Manager maintains a Standards Log Sheet to track all requests.

*Step 3:* The Standards Manager schedules a meeting with the EOR, the EOR's direct supervisor, the Assistant Bridge Design Administrator in charge of Standards, and the Bridge Design Engineer Administrator to discuss the request and obtain approval to proceed from the Bridge Design Engineer Administrator.

*Step 4:* The Standards Manager (or a designated person) places the requested CAD vector files in a designated ProjectWise folder where the files can be modified by the EOR. The modification of vector files in any other ProjectWise folder or outside of ProjectWise is prohibited.

Step 5: The EOR develops a new standard or revises an existing standard in accordance with QC/QA Policy and provides the following files to the Standards Manager:

- For a new standard, the EOR provides a PDF file of the new standard set.
- For a revised existing standard with minor changes, the EOR provides a PDF file of the clean revised standard and a separate PDF file of the existing standard with red mark-ups showing the changes.
- For a revised existing standard with extensive changes, the EOR provides a PDF file of the clean revised standard and a document summarizing and explaining the changes.

Step 6: The Standards Manager sets up a Bluebeam session for two weeks to collect bridge design internal comments. The distribution list shall include the following:

- Bridge Design Engineer Administrator
- Assistant Bridge Design Administrators and
- Bridge Design Managers

Assistant Bridge Design Administrators may delegate the review to a senior engineer under their charge if they are not able to review the standards.

Step 7: The Standards Manager and the EOR address all comments. If an agreement cannot be reached between the EOR, the Checker and/or the Reviewer, the Bridge Design Engineer Administrator shall be involved to make the final decision.

Step 8: The Standards Manager submits the PDF file of the Standards to the DOTD Specifications Engineer using the Specification Request Form on the Specifications and Plan Quality Unit website.

Step 9: The DOTD Specifications Engineer distributes the standards for department-wide review in accordance with EDSM I.1.1.2.

Step 10: The Standards Manager and the EOR address comments from the DOTD Specifications Engineer.

Step 11: The Standards Manager submits the final full-size standards without stamp and signature to the DOTD Specifications Engineer for Chief Engineer and FHWA review.

Step 12: The Standards Manager and the EOR address comments from Chief Engineer and FHWA if needed.

Step 13: The Standards Manager submits final full-size stamped and signed Standards to the DOTD Specifications Engineer for Chief Engineer's signature.

Step 14: The EOR creates CAD raster files in the "Development" folder.

Step 15: The Standards Manager (or a designated person) archives the vector and raster files to be replaced. The archived files shall be placed in the designated archived folder named in the format as

“Archived\_yyyy-mm-dd”. The date used to name the archived folder shall be the archived standard's Chief Engineer signature date, or EOR signature date if no Chief Engineer signature date is shown.

Step 16: The Standards Manager (or a designated person) moves the new CAD vector files and raster files from the “Development” folder to the “Vector” and “Raster” folders under the “Published Standards” folder.

Step 17: The Standards Manager (or a designated person) generates a PDF file of the raster version of the Standards and inserts an electronic stamp "For Informational Purposes Only". The PDF files shall then be placed into the appropriate ProjectWise standards folder under "Public Access".

Step 18: The Standards Manager updates the Standards Master List, Standards Log Sheet, and Standards Index on Bridge Design Section website.

Step 19: The Standards Manager notifies the DOTD Specifications Engineer of the standards in the “Public Access” folder and requests notification from the DOTD Specifications Engineer after the DOTD standards website is updated for the newly published standards. The Standards Manager verifies the DOTD standards website has been updated accordingly after receiving notification.

Step 20: The Standards Manager prepares a draft BDTM for the publication and implementation of the standards and sends the draft to the Assistant Bridge Design Administrator in charge of BDTMs for processing.

Step 21: BDTM is published.

Step 22: No later than 30 calendar days after standards publication, the EOR places final calculations, rating reports, and all other final design documents and files in the "Calculations for Standard Plans" folder in ProjectWise. The Standards Manager shall then verify that all required final design documents are in the folder.

Use the following process when developing new standards or revising existing standards:

- 1) Each standard set shall be given a short name, such as GR-MASH-ON, Misc. Span Details, etc.
- 2) Do not include bridge index numbers in standards. These numbers are for internal tracking purposes only.
- 3) References to sections in the Louisiana Standard Specifications for Roads and Bridges shall include main section number only. For example, references to all subsections in Section 805 shall be “SECTION 805”. Include the note below in the general notes for all standards:  
“UNLESS STATED OTHERWISE, SECTION NUMBER REFERENCES (SUCH AS “SECTION 805”) ARE TO THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

## **9.3—DISTRIBUTION POLICY**

### **9.3.1—Hard Copies**

Hard copies of all Bridge Standards are available for public access through DOTD General Files and Legal Section.

### **9.3.2—PDF Files**

PDF files of the latest Bridge Standards watermarked with "For Informational Purposes Only" are published in ProjectWise and on the DOTD website for public access. These PDF files should be used in plan sets prior to the 90% final plan stage. PDF files without the "For Informational Purposes Only" watermark shall not be distributed.

### **9.3.3—Raster Files**

Raster files will be distributed for inclusion in final plan sets for DOTD and non-DOTD projects and no modifications on the sheets are allowed.

For DOTD projects at 90% final plan stage, an online request for Bridge Standards shall be made to ensure that the latest revisions are used. The request form is posted on the Bridge Design website under Bridge Standards and the raster files will be distributed through the ProjectWise system only. All consultants working on DOTD projects shall have a designated folder in ProjectWise in order to receive the requested files.

For non-DOTD projects, a "Public Records Request Form for Standard Plans" and a "Hold Harmless Agreement for Standard Plans" shall be completed and submitted to the DOTD Plans Manager. Both forms are posted on the DOTD website.

### **9.3.4—Vector/CAD Files**

Vector CAD files shall only be distributed to Bridge Design staff or to consultants working on DOTD projects. These files shall only be distributed for detail utilization and the savings from their use should be reflected in the consultant man-hour estimate. The consultant assumes full responsibility for the design and detailing of the new sheet.

### **9.3.5—Historical/Old Standards**

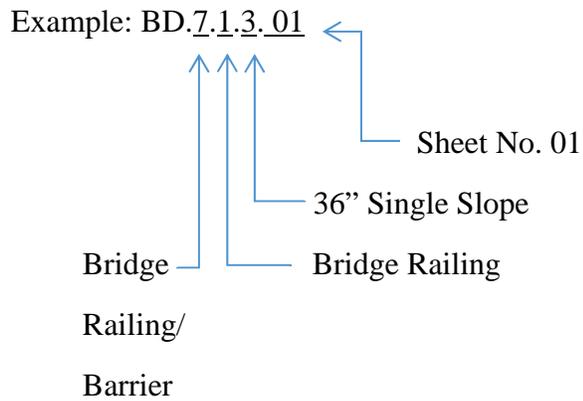
Historical or archived Bridge Standards are maintained in ProjectWise and are accessible by Bridge Design staff or through public records requests only.

## **9.4—INDEX OF THE STANDARDS**

All Bridge Standards sheets are assigned a unique index number starting with prefix "BD" and followed by four numbers as shown in the Bridge Standards Index Table and the example. The Standards Master List contains a list of all current Bridge Standards and is updated by the Standards Manager. An index of all published Bridge Standards is posted on the Bridge Design website.

**Bridge Standards Index Table**

<b>Prefix</b>	<b>1st Number</b>	<b>2<sup>nd</sup> Number</b>	<b>3<sup>rd</sup> Number</b>	<b>4<sup>th</sup> Number</b>
BD	Main Categories 1 = Guard Rail 2 = Slab Spans 3 = Precast Prestressed Concrete Girders (P.P.C. Girders) 4 = Steel Girders 5 = Misc. Span Details 6 = Piles 7 = Bridge Railing, Barrier 8 = Signing and Lighting 9 = Detour Bridge 10 = Bridge Maintenance 11 = Approach Slabs 12 = Miscellaneous	Sub-Category 1 in Each Main Category (if needed)	Sub-Category 2 in each Sub-Category 1 (if needed)	Sheet Number



## 9.5—STANDARDS COMMENTS FORM

All comments on published bridge standards shall be submitted via the “Standards Comments Form” on the Bridge Design Section website under the Bridge Standards heading. Verbal and email comments will not be acceptable. The Standards Manager will maintain a comment log and address all comments in the next revision of the standards. Prior to publishing the revisions to the standards, the Standards Manager will maintain a red mark-up PDF set to document upcoming changes, and to develop raster files with the changes. The link to the red mark-up PDF set will be provided to bridge design staff when it is created or updated to notify the upcoming changes.

When the raster files for the standard are requested at 90% final plan stage per Section 9.3.3, the Standards Manager will provide the latest raster files to be included in the project plan set.

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This technical memorandum is posted on the LA DOTD Website under *Inside La DOTD > Divisions - Engineering > Bridge Design > Technical Memoranda – BDTMs.*

Please contact Kelly Kemp at [kelly.kemp@la.gov](mailto:kelly.kemp@la.gov) or (225)-379-1809 if you have questions or comments.

ZZF/kmk/ys

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