



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

ANTHONY J. TATA  
SECRETARY

MEMORANDUM TO: Project Engineers  
Project Design Engineers

FROM: G. R. Perfetti, P. E.  
State Structures Engineer

DATE: August 28, 2014

SUBJECT: DESIGN MANUAL REVISIONS

The following sections and figures of Chapter 6 in the Design Manual were revised on February 5, 2014:

Section	Summary of Revision(s)
6.2.2	Updated the metric units for the concrete compressive strength used for the standard slab design tables; changed "24.1 MPa" to "27.6 MPa", which corresponds to 4000 psi.
6.2.2.10	Added "concrete wearing surfaces" to the list of grooved riding surfaces.
6.2.3	Removed the reference to Figure 6-44 in the thermal movement table.
6.3.3.2	Moved the sentences referring to skewed or normal diaphragm orientation from the subsection for AASHTO Shapes to the main section for intermediate diaphragms.
6.4.1	Removed the 2'-8" minimum barrier rail dimension specified for cored slabs permitted on vertical curves.
6.5.1	Removed the 2'-8" minimum barrier rail dimension specified for box beams permitted on vertical curves.
6.7.2	Changed the section number and title from "Section 7-1 Sloped Caps" to "Section 7.2.6.2 – Bridge Seats and Top of Cap".
6.7.4	Changed the section title from "Pot Bearings" to "Disc Bearings". Replaced the contents of the section with disc bearing information.
6.7.5	Removed the section for optional "Disc Bearings". Moved the section for "PTFE Bearings" from 6.7.6 to 6.7.5. Moved the section for "Sole Plate Details" from 6.7.7 to 6.7.6.
6.7.6	Changed pot bearing references to disc bearings.
6.8	Changed pot bearing references to disc bearings.

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<b>Figure</b>	<b>Summary of Revision(s)</b>
6-125	Changed from “Pot Bearing Design Data” to “Disc Bearing Design Data”.
6-126	Changed from expansion “Pot Bearing Details” to “Disc Bearing Setting Details (Curved Girder Example)”.
6-127	Removed fixed “Pot Bearing Details”; renamed as “Intentionally Left Blank”.
6-128	Removed “Standard Pot Bearing Details”; renamed as “Intentionally Left Blank”.

The following sections of Chapter 2 and Chapter 6 in the Design Manual have also been revised:

<b>Section</b>	<b>Summary of Revision(s)</b>
2.4.2	Added a new section to summarize the requirement for calculating camber for prestressed concrete girders, cored slabs, and box beams. Referenced the research project report and the Refined Method Excel spreadsheet.
6.3.2	Removed the explanation of the “Rational Method for Estimating Camber and Deflection in Precast Prestressed Members”.
6.3.2.1	Added a new section to include reference to Section 2.4.2 for calculating camber for prestressed concrete girders.
6.4.4.1	Added a new section to include reference to Section 2.4.2 for calculating camber for cored slabs.
6.4.6	Added a new section for the permitted threaded inserts detailed on the exterior face of exterior cored slab units.
6.5.4.1	Added a new section to include reference to Section 2.4.2 for calculating camber for box beams.
6.5.6	Added a new section for the permitted threaded inserts detailed on the exterior face of exterior box beam units.

The Design Manual and Design Manual Figures are available online.

GRP/DCM/TMG/kaw

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