C5.7 Bearings LRFD

See the Office of Bridges and Structures web site for archived Methods Memos listed under articles in this section.

The Methods Memos for which policies have been partially revised and/or for which document references have been updated are noted as partially revised. Any obsolete Methods Memos that apply to this section are listed at the end.

C5.7.1 General

C5.7.1.1. Policy overview

Partially revised: Methods Memo No. 90: Bridge Bearings
26 May 2004 (Note that Standard Sheets 1008 and 1009 were expanded to 1008a, 1008b, 1009a, and 1009b. 3 May 2010)

C5.7.1.2. Design information

C5.7.1.3. Definitions

C5.7.1.4. Abbreviations and notation

C5.7.1.5. References

C5.7.2 Load and displacement application

C5.7.2.1. Dead

Methods Memo No. 24: Beam Design and Bearing Design, Distribution of Dead Load 2
4 September 2001

C5.7.2.2. Live

Methods Memo No. 57: Abutment Piling Design, PPCB Bridges
5 November 2001

C5.7.2.3. Dynamic load allowance

C5.7.2.4. Thermal

C5.7.2.5. Shrinkage and creep

C5.7.2.6. Earthquake

See C6.6.2.10 for an overview of the 2008 Interim seismic requirements and their application in Iowa.

C5.7.2.7. Water and Ice

C5.7.3 Load application to bearings

C5.7.3.1. Load modifier

C5.7.3.2. Limit states

C5.7.3.3. Load path

C5.7.4 Bearing component analysis, design, and detailing

C5.7.4.1. Plain elastomeric pads

C5.7.4.1.1. Analysis and design

Methods Memo No. 209: Clarification for Plain Elastomeric Pad Design (Article 5.7.4.1.1 Analysis and design)
1 January 2009

C5.7.4.1.2. Detailing

C5.7.4.2. Steel reinforced elastomeric pads

C5.7.4.2.1. Analysis and design

Methods Memo No. 90: Bridge Bearings
26 May 2004

Methods Memo No. 70: Anchorage of Steel Reinforced Elastomeric Bearings
24 July 2003

C5.7.4.2.2. Detailing

C5.7.4.3. Steel bearing parts

C5.7.4.3.1. Analysis and design

Methods Memo No. 22: Standard Rocker Bearings—Design Exception
22 October 2001

C5.7.4.3.2. Detailing

C5.7.4.4. Anchor bolts

C5.7.4.4.1. Analysis and design

Methods Memo No. 113: Use of Anchor Bolt Wells
1 April 2009

C5.7.4.4.2. Detailing

Methods Memo No. 168: Layout of Anchor Bolt Locations

2 May 2007

C5.7.4.5. Fixed shoes, rockers, and sliding bronze plate bearings

C5.7.4.5.1. Analysis and design

Methods Memo No. 22: Standard Rocker Bearings—Design Exception
22 October 2001 (Note that Standard Sheets 1008 and 1009 were expanded to 1008a, 1008b, 1009a, and 1009b. 3 May 2010)

C5.7.4.5.2. Detailing

Methods Memo No. 168: Layout of Anchor Bolt Locations
2 May 2007

C5.7.4.6. Disk and pot bearings

C5.7.4.6.1. Analysis and design

C5.7.4.6.2. Detailing

Memo 5.7.4.6-2011 ~ Pot and Disk Bearing Detailing
Because pot and disk bearing manufacturers have proprietary height dimensions that are not known during design, the designer needs to alert the contractor to the need to determine bearing seat elevations in the field after ordering the bearings. Design drawings should not give final bearing seat elevations but should allow for the variation in bearing heights. With this memo separate articles that cover disk or pot bearings are being added to the bearings section.

Obsolete: Methods Memo No. 32: Elastomeric Expansion Bearings, New AASHTO Method A Rotation Formulas
13 August 2001

Obsolete: Methods Memo No. 92: Leveling Pads for Masonry Plates and Steel Bearings (Void, see CADD M0057 for standard sheets that have been modified to eliminate lead sheets.)
26 May 2004