

B310

Curved Plate Bearing Assembly (Prestressed Concrete Beams) (Fixed)

Approved, and signed, December 20, 2018. Last date revised: October 22, 2019.

Revised 10-22-2019

Under NOTES:

- Within the notes: Changed the term “per spec.” to “in accordance with spec.” in all instances.

At the Table:

- In the Beam Size column, added the under bars (_ _) to the beam types to designate the appropriate beam size when filling out the chart.

At the Designer Note:

- Added – “Insert table values as needed and delete unused data.”

Re-Approved 12-20-2018

In the TABLE:

- Second row, added 47” dimension to column “E” under Bearing Plate Size for the MW shape.
- Third row, added bearing pad and plate size information for MH shape beams.

At Designer Note:

- Added bearing pad size for MH shape beams.
- Added bearing plate size dimension “E” for RB, M, and MW shape beams.

At Plan (upper left corner):

- To left of dimension “B”, changed “1” CLR. (TYP.)” to “1” (TYP.)”.

Revised 11-08-2018

Under NOTES:

- Changed numbered note ③ *from* “Refer to bearing pad restraint sheet for additional information and details” *to* “Refer to bearing pad restraint B-Detail for additional information and details”.

Revised 11-02-2017

Under NOTES:

- Changed the numbered note ③ to read: Refer to bearing pad restraint sheet for additional information and details.

At the SIDE ELEVATION and SECTION X-X:

- Added the restraint bars under the bearing plate.
- Changed the note pointing to both details *to*: MN shape shown (other shapes similar)
- Fixed the hatching on the curved plate and added the sole plate in Section X-X.

At SECTION Y-Y:

- Changed the note *from*: Welded Bar (Typ.) ③ *to*: Restraint Bar (Typ.) ③.
- Removed the weld symbol pointing to the restraint bar.

At the DESIGNER NOTE:

- Added note: For parapet and semi-integral abutment bridges on grades exceeding 3%, modify this detail to provide a tapered bearing plate per detail B309.
- Added note: Per note ③ include B307 and modify as necessary.

At the bearing TABLE:

- Added the RESTRAINT PATTERN ③ column and the A-1 & A-2 designation within the column pertaining to the restraint pattern type.

Added the DESIGN DATA box:

- MAX. FACTORED SHEAR RESISTANCE:
 - 50.3 KIPS PER 1½” DIA. PINTLE
 - 36.2 KIPS PER 1½” DIA. ANCHOR ROD

Revised 01-05-2017

Under NOTES:

- At the 3rd note: Updated the anchor rod spec. number from 3385 to 3306 and updated the anchor rod galvanizing spec. number from 3392 to 3394.

Throughout the DETAIL:

- Changed the cross-hatching or removed cross-hatching on the curved plate and bearing plate.

Revised 11-03-2015

At SECTION Y-Y:

- Changed from welded “keeper” studs” to a welded “keeper” bar.
- Added the 3/16” fillet weld symbol to the welded bar on the lower left side of the detail.
- Changed the “Welded Stud (Typ.) ⓐ” to “Welded Bar (Typ.) ⓐ”

At SECTION X-X:

- Changed the shape of the beam *from* an M *to* a MN shape. Also made the change at the “Side Elevation”.
- Changed the note pointing to the beam to read: MN shape (other shapes similar).
- Removed the note “2’-2” Bottom Flange Shown” from below the Section X-X title.

Under NOTES:

- Changed all notes to “Active Voice” if needed.
- At the 3rd note, changed the spec to 3385, TYPE A.
- Changed numbered note ⓐ to read: 3/8" x 3/8" bar installed on bearing plate around perimeter of bearing pad. Bar length is 2" less than adjacent pad dimension, centered on pad. Centerline of bar to edge of pad dimension = 1/2".

ADDED:

- “RB” (to represent the Rectangular Beam) to the Beam Size column in the TABLE.
- Added “RB” to accompany the M, & MN shapes within the Designer Note.

Revised 11-06-2013

Under NOTES:

- In the 3rd note, Changed the galvanize spec. number from 3394 to 3392.
- Removed the “MnDOT” from the MnDOT Spec. references throughout the detail.

Re-Approved 09-22-2011

Updated the detail to include MW shape prestressed beams.

At PLAN: placed an asterisk (*) in the open dimension locations on each side of the “H” dimension for the bearing width. Also added: “* EQUAL DISTANCE” outside the bearing dimensions.

At TABLE: under the Beam Size column, added “M & MN” to the first row of dimensions.

- Added another row of dimensions for the MW shape to the table.

Under NOTES: Removed the slash from the Mn/DOT designation to read MnDOT throughout the sheet.

Changed the Designer Note to read: “Minimum size of bearing pad, 12” x 24” x 1/2”, is shown for M & MN shapes 16” x 36” x 1/2”, is shown for MW shapes”

Revised 10-28-2008

At SECTION Y-Y: changed THE PINTLE-TO-CURVED PLATE WELD DETAILS TO MATCH THE WELD SYMBOL.

Revised 08-10-2006

Under NOTES: Revised ⓐ *from* THE MIN. RADIUS OF THE CURVED PLATE IS SHOWN. THE MAX. RADIUS IS 30". FINISH TO ... *to* THE MIN. RADIUS SHALL BE 16" UNLESS OTHERWISE SPECIFIED IN THE TABLE. THE MAX. RADIUS SHALL BE 24". FINISH TO ...

Re-Approved 10-26-2005

At PLAN: replaced 4" dimension with an "enter data field" on both sides of H dimension

At SECTION X-X: Added subtitle: 2'-2" BOTTOM FLANGE SHOWN

At TABLE: replaced 34" dimension with an "enter data field" for E dimension

Revised 12-01-2004

In the TABLE:

- Added +/- column under ANCHOR ROD OFFSET

Revised 04-20-2004

In the TABLE:

- Added CURVED PLATE column
- Changed dimension F *from* 1 ³/₈" *to* 1 ¹/₂"
- Changed dimension J *from* 1 ³/₈" *to* 1 ¹/₄"

Under NOTES: Revised ① *from* THE RADIUS OF THE CURVED PLATE SHALL BE 1'-4" MINIMUM AND 2'-0" MAXIMUM. FINISH TO 250 ... *to* THE MIN. RADIUS OF THE CURVED PLATE IS SHOWN. THE MAX. RADIUS IS 30". FINISH TO 250 ...

Approved, and signed, November 22, 2002.