B314
Pot Type Bearing Assembly (Steel Beams) (Guided Expansion)

Approved, and signed, September 18, 2007. Last date revised: November 3rd, 2015

Revised 11-03-2015
Under NOTES:

- Changed all notes to "Active Voice" if needed.
- Changed the 2nd note to read: Provide steel plates and pintles per spec. 3309.
- Added 4th note: Provide anchor rods per spec. 3385, Type B. Galvanize per spec. 3392.
- Changed "shimming note" to read: Perform shimming under masonry plate with preformed fabric pads per AASHTO LRFD Bridge Construction spec. section 18.10.
- Changed "bearing assembly" note to read: Manufacturer to submit any bearing assembly dimensions, details, or materials not shown to the engineer for approval.
- Changed the Metalize Piston and Pot spec. *from* 2471.3L2 *to* 2471.3.L.2.

Added to the DESIGNER NOTE:

- Added - When specifying offset dimension "M", consider the size and proximity of the diaphragm and longitudinal pier reinforcement to allow adequate room for installation of anchor rods.

Revised 12-17-2008
Under NOTES:

- (3rd sentence) Changed the word from "pintles" to "pintle plate" in the sentence.
- Changed numbered note ③ to read – "Pot Bearing Manufacturer to Determine the Final Dimensions and Number of All Bearing Components including Piston, Pot, Masonry Plate, Sole Plate, Threaded Fasteners, Bolted Flange Connections, Pintles and overall height, and coordinate sharing this information with the beam fabricator and contractor."
- Changed numbered note ④ to read – "Factored horizontal resistance shall be a minimum of 15% of the strength limit state vertical load unless stated otherwise."
- Changed numbered note ⑥ to a "DESIGNER NOTE" to read – "Two 1½" diameter rods have a factored horizontal resistance of 95 kips. Designer shall increase diameter, number of rods or both when needed."
- Renumbered note ⑦ to ⑥.

At the DETAIL AT MASONRY PLATE:

- Renumbered note ⑦ to ⑥.
- Removed numbered note ⑥ from the " 2" Ø hole for 1 ½" Ø anchor rod (typ.)⑥" note on the masonry plate.
- Changed the dimension from 3" to 3" MIN. (TYP.)

At the ANCHOR ROD DETAIL – Removed the numbered note ⑥.
At the BEARING ASSEMBLY TABLE:

- Moved location of note ④ from adjacent to "Design Loads (Kips)" to adjacent to "Strength Limit State – Horizontal".
- Renumbered note ⑦ to ⑥.

At B-DETAIL NUMBER BLOCK – Added the words "DETAIL NO." above the B314 number.

Re-Approved 09-18-2007
Revised detail and Renamed from: "PLAN" to "DETAIL AT MASONRY PLATE"

Revised and Renamed Table from: "BEARING ASSEMBLY DIMENSIONS" to "BEARING ASSEMBLY TABLE" with additional new columns, sub-columns and numbered notes.

At B-DETAIL TITLE – Change title name from: "POT TYPE BEARING ASSEMBLY" to "POT BEARING ASSEMBLY"

Under NOTES:

- (3rd sentence) Removed the words "pintle plate" from the sentence.
- Replace note ① with the following text – "Factored live load (LL) rotation or 0.02 radians whichever is greater."
- Changed note ② to read – "The sole plate is included in the pot bearing assembly quantity. 1¼" min. thickness is required. Sole plate shall be tapered to finished grade including transverse taper for skewed bridges."
- Changed note ③ to read – "Pot bearing manufacturer to determine the final dimensions and number of all bearing components including piston, pot, masonry plate, sole plate, threaded fasteners, bolted flange connections, pintles and overall height. Minimum pintle size is 1½" diameter." Also added ③ to the MASONRY PLATE location in the BEARING ASSEMBLY TABLE.
- Changed note ④ to read – "Horizontal resistance shall be a minimum of 20% of the vertical applied load unless stated otherwise." Also added ④ to DESIGN LOAD (KIPS) location in the BEARING ASSEMBLY TABLE.
- Added note ⑤ - "See framing plan." Also added ⑤ to angle dimension at the DETAIL AT MASONRY PLATE.
- Added note ⑥ - "Two 1½" diameter anchor rods have a maximum resistance of 95 kips. Designer shall increase diameter, number of rods or both when needed." Also added ⑥ to ANCHOR ROD DETAIL and anchor rod note at the DETAIL AT MASONRY PLATE.
- Added note ⑦ -" "+" Denotes offset as shown." " "-" Denotes offset opposite as shown." Also added ⑦ to dimension "M" showing the offset from centerline pier at the DETAIL AT MASONRY PLATE and at ANCHOR ROD OFFSET +/- location in the BEARING ASSEMBLY TABLE.

At DETAIL AT PINTLE:

- Removed the word "(TYP.)" from the " ¼" BEVEL (TYP.)."
- Changed from - "1½" DIA. PINTLE (DRIVING FIT)" to "PINTLE"
- Added leader "DRIVING FIT" at Pintle/Pintle Plate location.
- Changed Dimension from - "1¾" DIA." to " ¼" Ø LARGER THAN PINTLE"

At SECTION X-X:

- Removed the section Y-Y section arrows.
- Changed "BOLTED CONNECTION (TYP.)" to "BOLTED FLANGE CONNECTION"
- Changed "1 ½" DIA. PINTLE (TYP)" to "PINTLE"
- Replaced the two 3" dimensions (at the centerline beam to pintle) to a dimension line with a note ③.
- Removed "(TYP.)" from the FLAT BRASS SEALING RINGS (TYP.).
- Removed the ¾" dimension showing the Masonry Plate thickness.

At DETAIL F – Removed dimension lines showing the silicone compound or approved equal and replaced it with a leader line.

At SECTION Y-Y:

- Removed "Bolted Connection (TYP.) ③" note.
- Changed " 1½" DIAMETER PINTLE" to "SEE PINTLE DETAIL."

Removed – "DESIGN DATA:" block from the lower right portion of the detail.

<u>Revised 12-06-2006</u>

Throughout detail:

- Renamed PLATE "A" to PINTLE PLATE
- Renamed PLATE "B" to PISTON
- Renamed PLATE "C" to POT
- Renamed PLATE "D" to MASONRY PLATE

At PLAN:

- Removed "tab" for anchor rods and increased N dimension.
- Renamed N dimension to D

At SECTION X-X:

- Added BOLTED CONNECTION (TYP.) ③ (detail and note)

At SECTION Y-Y:

- Added BOLTED CONNECTION (TYP.) ③ (detail and note)

Changed table.

Under NOTES:

- Renumbered note ③ *to* ④
- Added new note ③ Pot bearing manufacturer …

Approved, and signed, November 22, 2002.