

IOWA DEPARTMENT OF TRANSPORTATION

To Office: Bridges and Structures

Date: January 7, 2002

Attention: All Employees

Ref. No.: 521.2

From: Gary Novey

Office: Bridges and Structures

Subject: MM No. 36 (Miscellaneous Design and Detailing Issues for 71 ½ in. (1800 mm) Bulb Tee)

When designing and detailing the 71-½ in. (1800 mm) Bulb Tee the following policies should be followed.

1. Diaphragm
  - a. Use only steel diaphragms.
  - b. For bridge spans 120 feet (36500 mm) center-to-center of bearing or greater, the diaphragms shall be placed at the ¼ points of the span. For bridge spans less than 120 feet (36500 mm), Article 9.10 of AASHTO Standard Bridge Specifications shall apply.
  - c. For bridges crossing another highway or roadway that provides for vehicular traffic use Standard Sheet 1036BB (M1036BB). The strut W12 x 35 (W 310 x 52) between the bottom flanges shall be used only in the exterior bays of the spans that cross the roadway.
  - d. For bridges crossing waterways use Standard Sheet 1036B (M1036B).
2. 3" x 3" x 2'-0 1/2" bars (75 mm x 75 mm x 620 mm bars) shall be used to support bulb tees at integral abutments instead of the 3 inch (75 mm) S-section.
3. The minimum slab overhang for bulb tee beam bridges shall be 3'-6 1/2" (1080 mm) from the centerline of beam. This overhang will provide a little over 2" (50 mm) of clearance between the edge of the 4" (102 mm) wide deck drain and the edge of the top flange.

GAN/dgb/jaw