

IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures

Date January 1, 2008

Attention All Employees

Ref No. 521.1

From Gary Novey

Office Bridges and Structures

Subject Method's Memo No. 183 (Policy Regarding Construction Loading)

This memo is to inform designers of information that has been added to Chapter 11.02 of the Office of Construction, Construction Manual. Because of these additions, designers may be required to do additional reviews of construction loadings on bridge projects. The following is a summary of the information that was added.

“For most bridge projects, it is assumed that construction can take place without cranes and construction equipment on the bridge. However, the Contractor will be required to submit for review and approval structural analysis by a licensed engineer when one of the following loading conditions occurs during bridge construction:

1. For bridges with weight restrictions: all vehicles and equipment exceeding the posted limit.
2. Cranes or other construction equipment that are self propelled or transported to the project site by other means and considered legal or permitted during transport if:
 - a. Other components are added resulting in overall weight greater than legally allowed or granted by special permit.
 - b. The operational weight including construction loads is greater than legally allowed or granted by special permit.
 - c. Load distribution is altered during operation due to the use of outriggers or other devices that are not positioned over beam lines. Such use may result in localized deck overstress.
3. The use of heavy construction equipment on bridge decks with:
 - a. Damaged members
 - b. Critical load carrying members being replaced or repaired
 - c. The presence of other construction loads including equipment and construction material in conjunction with the specified load limits in Items 4 & 5.
4. Storage greater than 300 lbs/ft² of construction material on the bridge over a 4 ft x 8 ft area closer than 15 ft between loads.
5. Storage greater than 60.0 lb/ft² of construction material on the bridge over area greater than 4 ft x 8 ft.”

Until this is included in the specifications, cost of engineering analysis will be as directed by the Office of Construction. If you have any questions please check with me.

GAN/dgb/bj