



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

August 14, 2007

CIRCULAR LETTER 2007-13

CONSTRUCTION LOADS ON BRIDGES (FHWA TECHNICAL ADVISORY 5140.28)

COUNTY ENGINEERS/SUPERINTENDENTS OF HIGHWAYS
MUNICIPAL ENGINEERS/DIRECTORS OF PUBLIC WORKS/MAYORS
CONSULTING ENGINEERS

In the ongoing investigation of the collapse of the I-35W Bridge in Minneapolis, Minnesota, the National Transportation Safety Board has identified construction equipment and materials loading on the bridge as part of their review. The attached joint Bureau of Construction and Bureau of Local Roads and Streets memorandum is in response to Federal Highway Administration Technical Advisory 5140.28.

Sincerely,

Handwritten signature of Charles J. Ingersoll in cursive.

Charles J. Ingersoll, P. E.
Engineer of Local Roads and Streets

Handwritten signature of Roger Driskell in cursive.

Roger Driskell, P.E.
Engineer of Construction

Handwritten signature of Ralph E. Anderson in cursive.

Ralph Anderson, P.E., S.E.
Engineer of Bridges and Structures

Attachment



Illinois Department of Transportation

Memorandum

To: Diane M. O'Keefe
George F. Ryan
Joseph E. Crowe
Christine M. Reed
Mary C. Lamie
Attn: District 1
Attn: Districts 2 and 3
Attn: Districts 4 and 5
Attn: Districts 6 and 7
Attn: Districts 8 and 9
Attn: Implementation Engineer & Local Roads Engineer

From: Roger L. Driskell and Charles J. Ingersoll

Subject: Construction Loads

Date: August 14, 2007

On August 8, 2007, the Federal Highway Administration issued Technical Advisory 5140.28 regarding construction loads on bridges (see attached). The technical advisory emphasizes the importance of ensuring loadings from construction activities do not overload bridge elements.

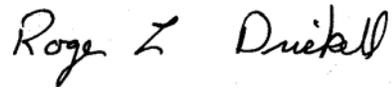
To ensure structural elements are not overloaded and collapses are avoided, caution must be exercised at all times during bridge construction. It is important to know the location of any structurally deficient members (which may be identified in contract plan notes or inspection reports available to the contractor). It is also important to monitor the behavior of the structure during construction for any changes.

Particular care must be taken when operating heavy equipment and/or stockpiling material on a structure. A structural evaluation (by an Illinois licensed structural engineer) may be necessary to verify if a structure can adequately support proposed construction loads. (Typically, stockpiling significant amounts of material in concentrated locations on a structure should be avoided.)

Per Standard Specification Article 107.16 (and Construction Memorandum 06-39), permission must be obtained from the department anytime equipment exceeding the legal loading limits (established by the statutes of the state of Illinois) is moved over or operated on a structure that will be utilized by the public. Prior to granting permission, the department will perform a structural analysis. To perform a structural analysis, the magnitudes and applied locations of the construction loads must be supplied to the department.

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For additional guidance regarding the need for a structural evaluation of construction loads (by an Illinois licensed structural engineer) contact Tom Domagalski with the central Bureau of Bridges and Structures.



Roger L. Driskell
Engineer of Construction



Charles J. Ingersoll
Engineer of Local Roads and Streets

Attachment

cc: Ralph Anderson
Mike Renner



U.S. Department
of Transportation
**Federal Highway
Administration**

Memorandum

Subject: Technical Advisory 5140.28 - Construction Loads on Bridges Date: August 8, 2007

From: Frederick G. Wright (Bud)
 Executive Director (HOA-3)

To: Division Administrators
 Directors of Field Services
 Federal Land Highway Division
 Engineers

PURPOSE

In the ongoing investigation of the collapse of the I-35W Bridge in Minneapolis, the National Transportation Safety Board has identified construction equipment and materials loading on the bridge as part of their review. While no conclusions have been reached, in an abundance of caution, we strongly advise the State Transportation Agencies and other bridge owners who are engaged in or contemplating any construction operation on their bridges to ensure that any construction loading and stockpiled raw materials placed on a structure do not overload its members.

For more discussion on this issue, please refer to the AASHTO Standard Specifications for Highway Bridges, 17th Edition, Division II, Section 8.15 or the AASHTO Load Resistance and Factor Design Bridge Design Specifications, 4th Edition, Section 3.

Please refer any questions to Benjamin Tang at 202-366-4592 or benjamin.tang@dot.gov.