

m e m o r a n d u m

date: October 3, 2007

to: Mr. Michael W. Lonergan
Acting Bureau Chief
Bureau of Engineering and
Highway Operations

from: Julie F. Georges
Principal Eng.-Bridge Design
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Described below is a proposed new Bridge Design Standard Practice which addresses the following concern:

Chemical Anchors - The National Transportation Safety Board recently completed an investigation of the July 10, 2006 concrete ceiling collapse and resulting fatality in a portion of the Interstate 90 connector tunnel in Boston, Massachusetts. The basic cause of the ceiling collapse was determined to be a failure of chemical anchors as a result of long term creep of the epoxy bonding material under sustained tensile-load. The investigative report included 19 safety recommendations, two of which were sent directly to all State Transportation Agencies, AASHTO and FHWA for immediate implementation. One of the recommendations is the prohibition of chemical anchors in sustained tensile-load overhead applications where failure of the adhesive would result in risk to the public until testing standards and protocols have been developed and implemented that ensure the safety of these applications.

Proposed new practice:

The use of all chemical anchors (referenced in Standard Specifications Section M.03.01-15) in sustained tensile-load overhead applications is prohibited where failure of the chemical adhesive would result in a risk to the public. This applies to all design and on-going construction projects. Other anchorage alternatives must be used for such applications.

The Bridge Design Manual will be revised accordingly.

APPROVED BY: Michael W. Lonergan
Michael W. Lonergan, Acting Bureau Chief

DATE: 10-4-07 *back to me*

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