

**Statement of Robert J. McFarlin, Assistant to the Commissioner for Policy,  
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**Before the Committee on  
Transportation & Infrastructure  
U.S. House of Representatives  
September 5, 2007**

Chairman Oberstar, Ranking Member Mica, and Members of the Committee, thank you for the opportunity to come before you today.

August 1, 2007, was a tragic day for Minnesota; at 6:05 pm that day the Interstate 35W bridge in Minneapolis collapsed into the Mississippi River. Thirteen people died and many more were injured. We continue to mourn those who died, comfort their families and tend to the injured. We will not forget them or this tragedy.

Many organizations from all levels of government participated in the rescue and recovery operations. We want to thank the Minnesota Congressional Delegation and the entire Congress for quickly coming to the aid of Minnesota and authorizing \$250 million in emergency relief funds. The overwhelming bipartisan expression of support from Congress has been very gratifying to the people of Minnesota.

We also want to express our appreciation to the administration and the federal government agencies, particularly Secretary Peters and the United States Department of Transportation (USDOT), for the outstanding response and cooperation in helping Minnesota respond to this tragedy. The federal government's response to this incident and assistance to the state, from all levels, has been exemplary.

Next, I want to thank the National Transportation Safety Board, and in particular Chairman Rosenker, for its thorough and expeditious approach toward investigating the reasons for the collapse. The one thing we know for certain today, is that we don't know the cause of the bridge collapse. Speculation about the cause is just that – speculation – and not a particularly productive exercise. We are confident that the NTSB has the expertise and experience to identify the cause and we are cooperating with them in every way possible.

**Statewide bridge inspection of Mn/DOT bridges**

At the direction of Governor Pawlenty, on August 2, 2007, the Minnesota Department of Transportation began an accelerated inspection of all

bridges on the state highway system. This is in addition to the routine bridge inspection program already in place. Governor Pawlenty directed that all 3,800 bridges on the state highway system be inspected by the end of the calendar year. Normally our bridges are inspected either once every year or every two years, depending on the condition of the bridge.

In the first five days, we inspected all five under deck truss bridges in Minnesota, which were similar in structure type to the I-35W bridge. Of the remaining 3,800 bridges on the state highway system, approximately 1,650 had been inspected as of August 31, and the rest will be completed by December 1, 2007.

Among the 3,800 bridges on state highways, we have placed a priority on inspecting those classified as Structurally Deficient by Federal Highway Administration (FHWA) standards. Our most current data show that there are 127 Structurally Deficient bridges on Minnesota's state highway system. To date, 102 of those have been inspected. We are proceeding at a rate of 10 inspections per week.

Minnesota has 230 Fracture Critical Bridges; some are on the state highway system, but some are also located on local road systems. (A Fracture Critical Bridge is a structure where the design of the bridge is such that the failure of one structural member could cause collapse of the bridge. The phrase "fracture critical" does not refer to the condition of the bridge.) All of the Fracture Critical bridges in Minnesota, on both the state and the local road systems, will also be inspected, whether they are structurally deficient or not. To date, we have completed 81 of those inspections, and are proceeding at a rate of 15 inspections per week.

The inspection program is being conducted by Mn/DOT inspectors with assistance from two consulting engineering firms, PB Americas and Baker Engineering. PB Americas is also under contract to the state to review our bridge inspection standards and practices and to offer recommendations.

### **Recovery operations**

The recovery of those missing after the collapse of the bridge was a multi-agency effort. All agencies involved displayed a common commitment to the priority of recovery until all 13 of the missing people were accounted for. It was a slow, deliberate and respectful process. Navy dive crews began working at 2 a.m. on August 6, joining the recovery efforts that were begun by state and local agencies immediately after the collapse. In addition, the FBI deployed a submersible search vehicle

equipped with cameras, high-intensity lights and a recovery apparatus as well.

Mn/DOT has contracted with Carl Bolander and Sons of St. Paul for debris removal, which began in earnest on August 20, when the state concluded its recovery operation for those who perished in the collapse.

Approximately 100 vehicles have been removed from the site. Bridge debris is being removed methodically in cooperation with the NTSB. Pieces of the collapsed bridge are being stored downriver on the Mississippi River flats.

NTSB investigators, along with FHWA and other bridge experts, will use the recovered pieces and other data in their analyses to identify the causes of the I-35W bridge collapse. Mn/DOT anticipates completing debris removal and site clean-up in mid-October, 2007.

### **Reconstruction of the I-35W Mississippi River bridge**

Mn/DOT has begun the process of building a new bridge to replace the structure that once carried more than 140,000 vehicles and 5,700 commercial vehicles across it daily.

Recovering emotionally from a tragedy of this magnitude takes time, but the critical importance of the I-35W corridor to our entire state requires us to respond in a rapid but thoughtful manner as we begin to design and build a new bridge.

The new I-35W bridge, which will be built as a design-build project, has a target completion date of late 2008. Construction may start as soon as mid-October. Safety will not be sacrificed for schedule. Quality will not be compromised in either the design or the construction.

Mn/DOT's preliminary design for the new I-35W bridge calls for 10 lanes of traffic, five in each direction, which is two lanes wider than the former bridge. The new bridge will be 189 feet wide to provide more lane and shoulder capacity; 80 feet wider than the former bridge. The structure will be designed for a 100-year life span. The bridge will be built so that it is structurally capable of carrying a light rail line in the future. The additional lane capacity will be dedicated to transit in the future, including managed lanes and bus rapid transit.

Mn/DOT has chosen to accelerate the delivery of the bridge project using the design-build best-value procurement process. The agency issued a

Request for Proposals on August 23 to five design-build teams previously short-listed to rebuild the I-35W bridge.

Mn/DOT believes that the design-build concept is the best fit for the I-35W bridge rebuild because of many beneficial factors. Design-build brings designers and contractors together early in the project development process. It differs from traditional design-bid-build projects in that it allows for the overlapping of design and construction so less time is spent preparing engineering plans. That means construction can begin after only a portion of the final detailed design has been completed.

The design-build process does not compromise quality. Based on the overwhelming success of Mn/DOT's past design-build projects, Mn/DOT is confident that using design-build will result in a project that meets the public's demand for quality, aesthetics, performance and fiscal accountability. Mn/DOT will consider steel or concrete-and-steel construction as design possibilities.

Key to expediting this rebuilding effort are the partnerships between Mn/DOT and local, state and federal agencies. Mn/DOT began working with these agencies within hours after the collapse and their cooperation has been outstanding. We will continue to work in cooperation with them throughout the duration of the project.

Mn/DOT representatives have presented a preliminary design for the new bridge to the Minneapolis City Council Intergovernmental Relations Committee, the Metropolitan Council Transportation Advisory Board, the Central Corridor Management Committee, the Minnesota House and Senate Transportation Committees, and Hennepin County and the communities along the I-35W corridor.

Public open houses have been held at numerous locations in Minneapolis and the surrounding suburbs, including the Roseville Area High School in Roseville, at the University of Minnesota, and at the IDS Center in downtown Minneapolis. There will be several more open houses where the public is invited to view the tentative plans and talk with Mn/DOT staff and project engineers.

There will be many opportunities for the public to comment on the design of the new bridge. For those who cannot attend these public events, the Mn/DOT Web site, [www.mndot.gov](http://www.mndot.gov), makes participation easy. A click on the bridge homepage offers links to the latest information regarding the collapse and a new page dedicated to the rebuilding. There, visitors can

review proposed plans for the I-35W rebuild and submit comments pertaining to the new bridge.

The principal funding for the new bridge will come from the federal government's emergency relief program. However, improvements to interchanges on either end of the bridge are being discussed with the City of Minneapolis and Hennepin County. When pursued, these will be separate projects and will require separate funding.

The project timeline calls for the design teams to submit technical proposals by September 14, and price and schedule proposals by September 18. The bid letting will take place on September 19. Final project award is expected by the end of September.

### **Minnesota bridge investments**

This tragedy was especially shocking and troublesome to Mn/DOT because Minnesota has one of the strongest bridge replacement, repair, and inspection programs in the nation. Minnesota is consistently among states with the fewest deficient bridges and currently ranks sixth best in this measure across the nation.

In recent years, Minnesota has made a significant effort to increase investment in its bridge program. Since 2003, Mn/DOT has invested \$390 million in the replacement or repair of state bridges. Expenditures for maintenance of state bridges have doubled since 2004. Mn/DOT's spending on state highway bridges has consistently exceeded federal funding made available solely for bridges. Minnesota's total federal apportionments under the federal aid bridge program over the last five years have been \$185 million for state, county and city bridges. Our obligation limit, the amount that federal law actually makes available to us, has been only 85% to 95% of that amount under SAFETEA-LU. In addition, federal law limits the use of money in the Highway Bridge Repair and Replacement program to only those bridges with certain sufficiency ratings. Minnesota routinely uses flexible funds from other federal funding program categories to pay for bridge repair and replacement. In contrast to the amount available from federal bridge funds (approximately \$160 million over the last five years), MnDOT has spent \$390 million on state highway bridges alone, more than twice the amount available from federal bridge funds over the last five years. Minnesota has been able to do that by choosing to spend more flexible federal system funds on bridges.

## **Bridge inspection standards**

The bridge inspection standards followed in Minnesota comply with the National Bridge Inspection Standards (NBIS) established by the FHWA. All of our bridge inspection team leaders must be certified to meet federal standards. This requires completion of a 10 day course "Safety Inspection of In-Service Bridges," which is developed by the FHWA. Certification further requires two years of inspection experience for engineers and five years for non-engineers. Additionally, periodic refresher training is required to maintain one's certification.

Inspection involves a visual assessment and rating of the bridge components. Measurements are taken when corrosion is found and non destructive testing methods such as ultrasonic or magnetic particle testing is done to detect cracks in steel members. Under-bridge inspection units (snoopers) or other lift equipment is used so the inspector has close access to the individual members of the bridge. Inspection of Fracture Critical bridges requires the inspector to be within 24 inches of the members.

## **Recommendations for improvement of bridge inspection programs**

The National Bridge Inspection Standards were extensively revised in 2005. Those revisions involved qualifications of bridge inspectors, establishment of inspection frequency and requiring the responsibility for determining load ratings be assigned to a professional engineer. Minnesota revised its inspection program to comply with those changes. The FHWA and states may need time to determine if those changes are having the desired effect.

The I-35W bridge tragedy is currently being investigated by the NTSB. Although progress is being made, the NTSB will be conducting a thorough investigation before issuing its findings on the cause of the collapse. NTSB has stated it may take up to 18 months to complete that process.

Until the cause of the bridge collapse is determined, it is very difficult to make recommendations about what changes should be made to our design, construction, inspection and maintenance practices. It is much too early to speculate about changes or improvements that should be made. In addition, any such changes should be based upon recommendations from organizations with a national perspective such as the FHWA or the American Association of State Highway and Transportation Officials (AASHTO).

## Conclusion

In closing, I commend the Committee for holding today's hearing, and again want to thank Congress for the considerable help it is providing to the State of Minnesota.

The loss of this vital I-35W transportation link is costing road-users an estimated \$400,000 per day. The Minnesota Department of Employment and Economic Development has calculated that there is an additional loss of roughly \$120,000 each day to businesses affected by the loss of the bridge. This route is important to the well-being and economic vitality of the entire region. There is great public interest in having this bridge constructed and opened to traffic without delay.

Again, I want to thank this Committee, the Minnesota Congressional Delegation, and the entire Congress for so quickly coming to Minnesota's aid in this tragedy. We are also so very grateful for the response and continuing support of the administration and federal government agencies. It's imperative that we maintain the public's faith in Minnesota's- and our nation's- network of highways and bridges.

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