



**AMERICAN PUBLIC WORKS ASSOCIATION**

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# **Structurally Deficient Bridges**

## **Statement of**

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**To the Senate Committee on  
Environment & Public Works**

**September 20, 2007**

Madam Chairwoman and members of the Senate Committee on Environment & Public Works, thank you for the opportunity to submit testimony for the *Oversight Hearing to Examine the Condition of our Nation's Bridges*. My name is Larry Frevert, President of the American Public Works Association (APWA). I submit this statement today on behalf of the more than 29,000 public works professionals who are members of APWA, including our nearly 2,000 public agency members.

APWA is an organization dedicated to providing public works infrastructure and services to millions of people in rural and urban communities, both small and large. Working in the public interest, our members design, build, operate and maintain our vast transportation network, as well as other key infrastructure assets essential to our nation's economy and way of life.

We join with others in expressing our deepest sympathy to everyone affected by the I-35W bridge collapse in Minneapolis on August 1. We remain saddened by this tragedy and continue to extend our support to local, state and federal officials working on recovery and rebuilding.

The tragic failure of the I-35W bridge is a stark reminder of the importance of public infrastructure to the daily lives of all people and to the welfare and safety of every community. But this essential public asset is aging and deteriorating. It is suffering the effects of chronic underinvestment and is in critical need of funding for maintenance, repair and improvement.

Our nation's highway bridges are no exception. The average span currently is more than 40 years old. More than one in every four is rated structurally deficient or functionally obsolete and in need of repair, improvement or replacement. Of the more than 594,000 publicly-owned bridges on which we depend for personal mobility and movement of freight, more than 158,000 are rated deficient, with more than 77,700 classified as structurally deficient and more than 80,600 as functionally obsolete.

Local governments own in excess of 300,000 bridges, more than half of publicly-owned bridges in the U.S. Of the total local inventory nationwide, 29 percent is rated structurally deficient or functionally obsolete.

Standards have been in place since the early 1970s requiring safety inspections every two years for all bridges greater than 20 feet in length on all public roads. Some bridges may be subject to more frequent inspections, and some structures in very good condition may receive an exemption from the two-year cycle and be inspected once every four years. These inspections, carried out by qualified inspectors, collect data on the condition and composition of bridges.

Structurally deficient bridges are characterized by deteriorated conditions of significant bridge elements and reduced load-carrying capacity. Functional obsolescence results from changing traffic demands on the structure and is a function of the geometrics of the bridge not meeting current design standards. Neither designation indicates a bridge is unsafe. But they do indicate a need for repair, improvement or replacement.

We cannot ignore the underinvestment in bridge maintenance, rehabilitation and replacement. It is a major contributing factor undermining efforts to adequately address deficiencies. Nationwide, the backlog of bridge investment needs is now estimated to total \$65.2 billion.

As a nation, we are failing to meet the needs of a transportation system increasingly overburdened by rising travel, a growing population and more freight. Additional traffic volumes and heavier loads are placing ever greater stress on bridges often designed for lighter loads. The US Department of Transportation reports that the funding backlog could be invested immediately in a cost-beneficial fashion to replace or otherwise address currently existing bridge deficiencies.

Local governments' ability to fund necessary bridge improvements has eroded significantly over the years. They have limited financial means to adequately address deficiencies and typically do not have the capacity to do major repairs or capital work on the magnitude of a bridge replacement without funding support.

Sharp increases in the costs of construction materials and supplies in the past few years are compounding the funding challenge for local governments. In Washington State for example, escalating material and supply costs and one of the largest construction programs in the nation have had a severe impact on delivering local agency projects. It is not unusual to take 10 years or more from the time funding can be secured and replacement done. And with the recent industry cost index increases, the gap is growing and will continue to grow.

Immediate action to increase investment is crucial to accelerating local bridge repair and replacement programs. Most bridges on local roads were either built to older standards or are so old they are in urgent need of repair or replacement. It is not uncommon that bridges have gone for years, even decades, without the appropriate action to repair or replace, due to lack of funds. This is particularly true in more rural areas.

In many cases, locally-owned bridges were often designed to carry traffic volumes and loads less than present conditions demand. As congestion increases on the Interstate System and state highways, local roads become diversion routes, supporting ever increasing levels of usage. Freight volumes, too, have increased faster than general-purpose traffic, adding demands on all parts of the system. Automobile technology allowing for greater speeds has made many bridge geometrics substandard.

Deficient bridges are rated, prioritized and repaired or replaced as funding is available. When funding is insufficient, deferred maintenance, increased inspections, weight limits and closures are often the only options.

APWA has been and will continue to be an advocate for the development of public policies which ensure the safe and efficient management and operation of our public infrastructure. As Congress considers the needs of our bridge system, we urge you to consider the following recommendations.

APWA supports a determined, comprehensive national effort to increase investment to eliminate the bridge funding backlog needed to repair, rehabilitate and replace all publicly owned bridges -- including local bridges -- as part of a zero bridge deficiencies goal. Such an effort, however, should not stop there. It needs sustained and sustainable funding to ensure ongoing system preservation and maintenance at a level necessary to prevent future deficiencies of all publicly-owned bridges.

APWA also supports updating bridge inspection standards and strengthening data collection and reporting procedures; evaluating active bridge monitoring systems; and strengthening inspector qualifications and training and inspection technologies, research and procedures for all publicly-owned bridges, including those on our local system. We believe that a program to strengthen research, technology, procedures and standards must be supported by full federal funding necessary to carry out and sustain it.

In conclusion, our nation's bridge system is aging, deteriorating and suffering the effects of decades of underinvestment. The result is the unacceptably high levels of deficiencies we see today. APWA believes that working together in partnership with local, state, federal and private sector partners, we can and must take immediate action to address our bridge needs. But it will take funding and leadership. Increased investment to repair or replace deficient bridges is vital to achieve a safer and more efficient transportation network. A strengthened inspection program can help ensure that we make wise investments to maintain and preserve all bridges.

Madam Chairwoman, we thank you for holding this hearing and are especially grateful to you and Committee members for the opportunity to submit this statement. APWA and our members stand ready to assist you and the Committee as we move forward to address our nation's bridge needs.