WRITTEN TESTIMONY

Senate Environment and Public Works Committee

"Improving the Federal Bridge Program: Including an Assessment of S. 3338 and H.R. 3999"

Wednesday, September 10, 2008

Gary M. Ridley, P.E.
Director, Oklahoma Department of Transportation

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Oral Testimony

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Director, Oklahoma Department of Transportation

- **Madam Chairwoman and distinguished members of the Committee, my name is Gary Ridley. I am the Director of the Oklahoma Department of Transportation and, as with all State DOT Directors, a member of the American Association of State Highway and Transportation Officials (AASHTO).**
- **On behalf of the State of Oklahoma and AASHTO, we want to thank you for the opportunity to be with you this morning to offer testimony related to the content of Senate Bill 3338 and House Resolution 3999 with regard to increasing the effectiveness of the Federal Bridge Program.**
- **In the current form, the proposed legislation seeks overall Highway Bridge Program improvement through increased levels of Federal involvement and also focuses attention on several perceived deficiencies in the National Bridge Inspection Program.**
- **We would submit that the deteriorating condition of our Nation's transportation infrastructure is no secret. It is not the result of a lack of Federal involvement, a mismanaged investment strategy**

or a failed bridge inspection program. In plain terms, it is a result of the failure to provide the necessary financial resources to properly maintain and expand the very system that helped make this Country what it is today. An increase in the bridge inspection frequency will only duplicate the documentation of known bridge deficiencies. Just as the creation of a new Federally approved 5-year plan will only re-emphasize how woefully ill-prepared we are to face our Nation's future with the clear knowledge and understanding of the short-comings of our past.

- **In that context, we would offer the following observations concerning the Bill:**
  - **A risk-based prioritization system subject to the approval of the Secretary affords little opportunity to improve the Federal Bridge Program, but will certainly contribute another layer of Federal bureaucracy. Bridge management systems used in each State are already designed to consider risk-based factors and are being enhanced to incorporate risk-based modeling. The prioritization of**

bridge rehabilitations or replacements must begin with bridge management and must be carefully vetted by state transportation professionals to insure that a balanced approach to managing all transportation assets is being implemented.

- **It is unlikely that the requirement for load rating ALL bridges on the Federal-Aid system every 24 months will yield meaningful information. However, load ratings should be reevaluated when the conditions observed in the field have changed significantly from the as-built condition of the structure. Also, the posting of the "safe load-carrying capacities" for each bridge indicates that a load rating-based tonnage posting would be required for all bridges. Such a methodology would diminish the effectiveness of posting only those bridges unable to carry legally loaded trucks.**
- **The development of a new 5-year Performance Plan for bridge inspections and bridge rehabilitations and replacements to be approved by the Secretary provides no**

tangible benefit. The bridge inspection program is clearly described in the National Bridge Inspection Standards (NBIS) and the opportunity for Federal input and oversight already exists through the review and approval of the mandated Statewide Transportation Improvement Plan (STIP). It is safe to say that states already utilize the bridge condition information provided by their bridge management systems along with a host of other considerations to identify transportation system deficiencies and formulate and prioritize the investment strategies presented in their STIPs. A new "performance plan" provides no new or enhanced information beyond that which exists today and does nothing to improve the inspection program or to expedite bridge program and project delivery.

- **Undoubtedly, the National Bridge Inspection Program can be improved upon. However, the focus of any improvements should be of a qualitative nature rather than simply quantitative. We would offer the following observations in support:**

- **When determining bridge inspection frequency, structural deficiency is not a true measure of structural integrity and should not be exclusively used as a trigger for an annual inspection cycle. Bridges should be and are already placed on a more frequent inspection cycle based on the condition of the main structural members and traffic volumes. The frequency of inspection of a fracture critical member should be based on a documented, in depth assessment of the condition of that member and the amount of truck traffic that is carried by the structure. Truck traffic is the driving force behind fracture critical member fatigue cycles. Therefore, fracture critical members with low average daily truck traffic may not need to be inspected at the same frequency as fracture critical members carrying large volumes of traffic.**
- **Ultimately, sound engineering judgment should be used for inspection frequency determinations for both structurally deficient and fracture critical bridges. These considerations and judgments are self evident in the fact that State's have**

implemented an inspection frequency of 12 months or less on almost 7,000 of the Nation's more than 25,000 structurally deficient Federal-Aid Highway bridges.

- **With regard to possible changes to increase the effectiveness of the Federal Bridge Program and bridge inspection procedures, we request your consideration of the following recommendations:**
- **The membership of the AASHTO Standing Committee On Highways (SCOH) is representative of the best transportation engineers in the country and therefore, in the world. This Standing Committee made up of transportation professionals should be tasked with the evaluation of the Highway Bridge Program and the National Bridge Inspection Standards in order to return improvement recommendations to the Congress for their consideration.**
- **The further consideration of the content of S. 3338 and H.R. 3999 should be limited to the appropriation of $1,000,000,000 to be utilized exclusively for construction contracts to rehabilitate or replace structurally deficient bridges on the National Highway**

System and to mandate the obligation of the funds within 18 months of the date apportioned.

- **In conclusion, we would reiterate that the further assessment, inspection, documentation and prioritization of deficient bridges will not make them better bridges. The only way to begin to reverse the current trends is to substantially increase the Federal investment in all facets of our National transportation system to include both bridges and pavements. We would be happy to answer any questions you may have.**

SEC.2. Highway Bridge Program

(a) Bridges on Federal-Aid Highways-

Existing:

'(b) Bridges on Federal-Aid Highways – The Secretary, in consultation with the States shall—

> '(1) inventory all bridges on Federal-aid highways that are bridges over waterways, other topographical barriers, other highways and railroads;
>
> '(2) identify each bridge inventoried under paragraph (1) that is structurally deficient or functionally obsolete;
>
> '(3) assign a risk-based priority for replacement or rehabilitation of each such bridge after consideration of safety, serviceability, and essentiality for public use and public safety, including the potential impacts to emergency evacuation routes and to regional and national freight and passenger mobility if the serviceability of the bridge is restricted or diminished; and
>
> '(4) determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.

Proposal:

Rather than setting up a risk based priority system in the legislation and requiring approval from the Secretary of Transportation, it would be a better approach to work with the existing bridge management systems. Bridge management systems like the AASHTOware Pontis already consider risk based factors.

Reasoning:

There are currently 44 states that are licensing the AASHTOware Pontis bridge management software. This software is already shifting toward a utility based approach that incorporates risk based modeling. A new system is not needed. Developing a risk sensitive process within the existing framework of Pontis is what is called for.

(c) '(5) '(A) '(ii) Calculation of Load Ratings

Existing:

The State shall—

> '(I) not later than 24 months after the date of enactment of this paragraph, calculate the load rating for all highway bridges described in subsections (b) and (c) that are located in the State;

'(II) at least once every 24 months thereafter, reevaluate and, as appropriate, recalculate the load rating for each such bridge; and

'(III) ensure that the safe load-carrying capacities for such bridges are properly posted.

Proposal:
The State shall update or cause to be updated load ratings for all span structures and update these load rating calculations as conditions change in the field which requires recalculation of the safe load carrying capacity. The State shall also ensure that such bridges that do not meet existing strength requirements are properly posted.

Reasoning:
The requirement for load rating **ALL** bridges on the Federal Aid system every 24 months would be very burdensome for State and Local transportation agencies. Load ratings should be reevaluated when the conditions observed in the field have changed significantly from the as-built condition of the structure. Some condition changes that would require updating a load rating, but not limited to, are as follows:

- Dead load conditions have significantly changed on the superstructure.
- Condition of the main load carrying members in the superstructure has deteriorated significantly, i.e. beams, pier beams.
- The bridge owner and/or team leader inspecting the bridge feel that the current load rating is in error.

SEC.3. National Bridge Inspection Program

'(d) Frequency of Bridge Inspections-

Existing:
'(1) IN GENERAL – Subject to paragraph (2), the standards established under subsection (a), at a minimum, shall provide for—

'(A) annual inspections of structurally deficient highway bridges using the best practicable technologies and methods;

'(B) annual in depth inspections of fracture critical members, as such terms are defined in section 650.305 of title 23, Code of Federal Regulations (as in effect on the date of enactment of this paragraph); and

Proposal:
'(A) The State shall inspect structurally deficient bridges on a more frequent inspection schedule when the NBI condition state of the superstructure or substructure (NBI Item 59 or 60) reach a condition state of 3, Serious Condition. The condition of the deck shall not enter into this decision. The period between inspections is not to exceed 24 months. There will be no requirement for

increased inspection frequencies for structurally deficient bridges with low traffic volumes. Functionally obsolete bridges will be inspected on a frequency not to exceed 24 months.

'(B) The State shall perform in-depth fracture critical inspections on bridges located on NHS routes on a more frequent inspection schedule based on average daily traffic and average daily truck traffic and the condition of the fracture critical member as well as the presence and severity of fatigue details. The period between inspections is not to exceed 24 months. There will be no requirement for in-depth fracture critical inspection of fracture critical members on structures carrying low traffic volumes with no evidence of fatigue or fracture.

Reasoning:

'(A) Structural deficiency is not a true measure of structural integrity and should not be used as a trigger for an increased bridge inspection frequency. A bridge should be placed on an increased inspection schedule based on the condition of the main structural members and traffic volume. The NBI rating of the deck (NBI Item 58) should also not be a trigger for increased inspection frequency. In Oklahoma, a significant percentage (23%) of on-system structurally deficient bridges are structurally deficient based on the NBI rating of the deck. Increasing the frequency of inspection of these structures based purely on being structurally deficient would not yield any more beneficial information than inspections based on a 24 month inspection cycle. Ultimately, sound engineering judgment should be used for inspection frequency determinations.

'(B) Requiring that all fracture critical members be inspected on an annual basis makes an inaccurate assumption of all fracture critical members. A fracture critical member is defined as a steel member with a tension component that the failure of said member could result in the collapse of a portion of or complete collapse of the structure. The frequency of inspection of a fracture critical member should be based on member condition and the amount of traffic that is carried by the structure, specifically truck traffic. Truck traffic is the driving force behind fracture critical member failure. Fracture critical members with low average daily traffic or low average daily truck traffic should not be inspected at he same frequency as fracture critical members carrying large volumes of traffic.

(f) Qualifications of Program Managers and Team Leaders

Existing:

(A) an individual serving as the program manager of a State be a professional engineer licensed under the laws of that State.

(B) an individual serving as a team leader for a State for the inspection of complex bridges or follow-up inspections of bridges for which there has been a critical finding be a licensed professional engineer; and

(C) an individual serving as a team leader for a State for the inspection of all other bridges be a licensed professional engineer or have at least 10 years of bridge inspection experience.

Proposal:

(A) An individual serving as the program manager of a State shall be at a minimum a licensed and registered professional civil engineer with 4 years of bridge inspection experience in addition to successful completion of the 80 hour NHI bridge inspection training course and the NHI Fracture Critical Bridge Inspection course.

(B) Team leaders performing inspections of complex structures shall be at a minimum a licensed and registered professional civil engineer with 4 years of bridge inspection experience in addition to successful completion of the 80 hour NHI bridge inspection course and successful completion of the NHI Fracture Critical Bridge Inspection course. (Complex structures shall include all fracture critical members and all bridges of unusual design and construction, or any type defined by 23 CFR 650.305, *Complex Bridge*.) Follow-up of critical findings should only be performed by personnel with the same qualifications.

(C) Team leaders performing inspections of standard structures shall have a minimum of 5 years of bridge inspection experience in addition to successful completion of the 80 hour NHI bridge inspection course. (Standard structures shall include, but are not limited to reinforced concrete boxes, redundant structures, and non-fracture critical members.)

Reasoning:

(A) An individual charged with overall responsibility of a bridge inspection program should be a licensed and registered professional civil engineer. A program manager must be educated in engineering principals and methods as well as possess a keen understanding of the bridge inspection and reporting process. An individual can adequately fulfill these requirements through education, licensure, and experience.

(B) Team leaders performing inspections on complex structures must be educated in engineering principals and methods to adequately, safely, and thoroughly inspect such a structure as well as to report critical findings to bridge owners. Personnel tasked with follow-up of structures with critical findings must be as qualified as those personnel performing the inspections.

(C) Team leaders performing the inspection of non-complex structures need not have the same education and licensure as those team leaders performing inspections of complex structures. Generally, non-complex structures do not have unusual design features or are not constructed of unusual materials and therefore not as susceptible to the same type of scrutiny as a complex structure.

Comments and Concerns regarding HR 3999
American Association of State Highway and Transportation Officials (AASHTO)

General:

- Overall, the draft bill is so restrictive that it inevitably sets up a "worst first" process and pays only lip-service to true bridge asset management processes.
    - The goal of a "worst first" process seems logical enough – fix the worst bridges first – but in reality the process allows good bridges to deteriorate to the point where they are more expensive to address than if earlier, more cost-efficient measures were instituted earlier in the bridge life-cycle.
    - Thus, funding is not used to its best advantage and the agency is continually playing "catch-up." Economists have repeatedly determined that "worst first" is not the best approach for making improvements to systems like our nation's bridge infrastructure.
- In addition, the bill will add a significant amount of extra paperwork, both for the states and the federal government, which will not add value to the process nor will it increase the speed of bridge replacements and rehabilitation. The money and staff time spent on keeping up with the reports and submittals could be spent more effectively on actual maintenance and repair of the bridges.

Specific Comments:

- Inflexibility in Transfers of Federal Bridge Funding
    - States have proven time and again that although they transfer money out of the restrictive "bridge program," they still spend significantly more money overall on bridge maintenance, rehabilitation, and replacement. However, this draft bill restricts transfers even further, providing almost zero flexibility to transfer funding to more flexible programs – such as STP – where administration is simpler and projects can be realized more quickly.
    - An example of the potential problem with the current language would be an historic bridge that may be "eligible for replacement" due to functional obsolescence – Even though the community wants to keep it "as is," this would preclude the State from ever being able to make funding transfers. (see pg 11, line 1-4)

- Performance Plan Too Restrictive
    - The restrictive requirements of the Performance Plan and its associated Approval Process (pgs 7-9) would likely lead states to segment their funding pots and report on state and federal funding separately, thus creating unnecessary administrative burden.
        - Federal bridge funds would be included in the required Performance Plan
            - More staff will be needed to write and update these plans, and more staff will be needed at the federal level to review and respond to these plans – This is not a "value-added" process.
        - State funds would likely be kept separate because of the restrictions in the federal requirements, thus producing two sets of books.

        - The unintended consequences would include more work and a disjointed planning process for bridge management and funding.
    - The Performance Plan also does not allow for unexpected situations.
        - The annual approval process and funding restrictions does not easily allow states to react quickly when an unexpected situation arises and needs immediate attention.
    - The current verbiage in part (II) of the Performance Plan section (pg 8, lines 3-6) could be interpreted such that the bridges included in the plan need to be rehabilitated or replaced within the 5-year plan window, which is unrealistic for all but the simplest of bridge replacement projects.
    - If the performance plan requirement is kept, a more reasonable expectation is to update it every *two* years (pg 7, line 21) to keep it consistent with one full cycle of inspections.

- Immediate Recalculation of Load Ratings for All Highway Bridges Unnecessary
    - The requirement to recalculate the load rating for all highway bridges (pg 7, lines 5-10) over the next two years, regardless of their current condition or status, is unnecessary and simply a paperwork exercise for the majority of situations.
    - Normally, a State DOT does not recalculate load ratings every two years – only if a change in the inspection ratings would indicate that the load rating might have changed.

Additional Issues for Consideration

- Potential Security Issue with Release of Information
    - There is a potential security issue related to the sections of the draft bill that require State DOTs to "report critical findings" and to "make information more readily available and more easily understood by the general public." Simply put, we are telling people in laymen's terms the precise location of all of our critical infrastructure weak spots.

- Federal/State Coordination in Development of Processes Should be Encouraged
    - AASHTO recommends adding "in consultation with the States" to various sections of the draft bill to ensure that the USDOT utilizes the wealth of experience and expertise of the engineers in the State DOTs in developing processes, criteria, etc., related to the bridge program (e.g., pg 4, line 15; pg 8, line 22)

- Detail Could Limit Approaches Used
    - The section on Minimum Requirements of Inspection Standards is unnecessarily detailed. Pg 14, lines 8-12, discuss testing with "a state of the art technology" that detects fatigue cracks "as small as 0.01 inches…". While AASHTO suspects this wording to be a requirement to use a specific (but not directly mentioned) proprietary product, the unintended consequences will include restricting the inspectors' engineering judgment, adding to inspection costs, and precluding the use of other more effective processes and devices.

- AASHTO recommends removing this section and leaving the engineering decisions to the engineers.

- Time Frame for Independent Review Too Short
  - The time allotted for the review of the risk-based priorities by the National Academy of Sciences is too short – Could potentially be only 6 months
  - AASHTO recommends modifying wording in (ii) Report to Congress to state "Not later than 1 year after entering into appropriate arrangements with the Secretary, the Academy shall…"

- Qualifications for Team Leader Too Restrictive
  - The requirement for a team leader that conducts inspections of "complex" (which is undefined and open to interpretation) bridges or follow-up inspections on critical findings to be a professional engineer is not the best assurance of an accurate or quality result. Professional engineers, while licensed after 4 years of work experience and schooled in civil engineering, do not necessarily have any bridge inspection expertise and, it is safe to say, most do not.
  - A previous version of the bill (from April 2008), which allowed for a licensed professional engineer OR 10 years or more of bridge inspection experience, is much more reasonable and will provide for a more knowledgeable inspection work force.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
HARRISBURG, PENNSYLVANIA 17101-1900

OFFICE OF
SECRETARY OF TRANSPORTATION

August 7, 2008

Honorable James L. Oberstar, Chairman
Committee on Transportation and
Infrastructure - U.S. House
B-370A Rayburn House Office Building
Washington, D.C. 20510

Honorable Barbara Boxer, Chair
Environment and Public Works Committee
U.S. Senate
456 Dirksen Senate Office Building
Washington, D.C. 20510

Honorable John Mica
Ranking Minority Member
Committee on Transportation &
Infrastructure - U.S. House
2163 Rayburn House Office Building
Washington, D.C. 20510

Honorable James Inhofe
Ranking Minority Member
Environment and Public Works Committee
U.S. Senate
456 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Oberstar, Chairwoman Boxer, Representative Mica and Senator Inhofe:

As Congress considers HR 3999, The National Highway Bridge and Reconstruction Act of 2008, I would like to offer some comments on this important legislation, which will provide much needed additional federal resources for bridge repair and reconstruction projects in Pennsylvania.

Pennsylvania leads the nation with the highest number of structurally deficient bridges. PennDOT has nearly 4,000 structurally deficient bridges greater than 20′ with another 2,100 owned by local municipalities. PennDOT is working diligently to address this crisis. In the past five years, we have made significant state investments in our bridges. In 2006, PennDOT invested an unprecedented $558 million in 894 bridge projects statewide with $133 million being spent on bridge preservation and the remaining $425 million devoted to rehabilitating and replacing structurally deficient bridges. In 2007, that investment was over $700 million.

Under Governor Rendell's FY 2008-09 "Rebuild Pennsylvania" program, a combination of federal and state funds, including $350 million in bond funds, will underwrite an accelerated bridge program. The combined funding will allow PennDOT to start repair or replacement of 411 structurally deficient bridges this fiscal year.

PennDOT supports the primary initiatives in HR 3999 as a way to improve bridge safety. Two issues we keenly support are listed below with our comments for improvement:

1. Providing an additional $1 Billion for the rehabilitation or replacement of structurally-deficient bridges carrying routes on the National Highway System (NHS). Additional federal funding is crucial to addressing Pennsylvania's needs. This initiative could be further improved by expanding the funding eligibility to all structurally deficient bridges, including those on non-NHS routes. In Pennsylvania, 52% of our structurally deficient State bridges and nearly 100% of our local bridges that carry non-NHS routes would not be eligible as currently written.

2. Requiring a risk-based prioritization for reconstruction of deficient bridges. PennDOT developed its own Risk Assessment tool to prioritize its bridges based on structural deficiency to ensure the critical bridges were being fixed. HR 3999 could be improved by limiting the risk prioritization to only those bridges that are structurally deficient to focus on improving bridge safety, rather than including bridges that are functionally obsolete as currently written. Further, such a risk-based prioritization should be implemented on an individual state basis, not on a nationwide basis, as conditions and demands on bridges vary significantly. For example, a prioritization tool with a heavy weighting factor on earthquake risk may allocate few resources to Pennsylvania bridges less exposed to that risk.

PennDOT has concerns with certain provisions of HR 3999 and offers the following comments:

1. Non-transferability of bridge funds – PennDOT has repeatedly demonstrated that the current flexibility on fund transfers has reduced our program administrative costs.. This flexibility enables Pennsylvania to more effectively administer its highway/bridge program, but this has not meant that bridge projects have been short-changed. From 2003 through 2006, for example, Pennsylvania received $1.67 billion in federal bridge apportionments, transferred a little over 40%, but still made bridge investments of $2.38 billion. Bridge funds have been transferred to less-restrictive State Transportation Planning funds where they were used to rebuild Interstate bridges. A further example is that federal bridge funds can only be spent on bridges 20 feet and longer. PennDOT owns nearly 10,000 bridges between 8 feet and 20 feet in length; nearly 2,000 of these bridges are structurally deficient. Some of the transferred funds have gone to repair these structures. We concur with AASHTO's opinion that such funding flexibility should be continued.

2. **Detailed requirements for the bridge inspection program – HR 3999 contains some specific changes to the very technical inspection program. Such changes may limit the ability of the inspection program to address new challenges or use new technology in a timely manner if controlled by legislation**. PennDOT agrees with AASHTO's comment that the wording "in consultation with the States" should be added to various sections (See attachment) of the bill to ensure the ongoing collaboration between States and DOT in the regulatory process continues. Some items of particular concern include:

- **Immediate load rating of bridges** – All Pennsylvania bridges have current load ratings. PennDOT policy requires that these ratings be re-computed after inspections have identified changes in structural conditions. If the HR 3999 provisions requiring statewide re-analyses of all bridges were ordered, it could be a one time cost to Pennsylvania of $20 M - $30 M in precious resources for our 23,000+ National Bridge Inventory System (NBIS) bridges.

- **Increased requirements for inspection team leaders** – The proposed requirements for professional licensure or 10 years experience will likely have the unintended consequence of delaying bridge inspections in Pennsylvania. With over 23,000 NBIS bridges in the Commonwealth to inspect, PennDOT has an aggressive inspection training and certification program in place that meets and exceeds the federal standards without the additional requirements proposed. The proposed qualification standards could disqualify certain team leaders who have demonstrated a high-standard of inspection expertise, thus hindering PennDOT's ability to conduct statewide inspections.

- **More frequent inspections requirement for structurally deficient bridges and for fracture critical bridges** - The proposed annual inspections are unnecessary to guarantee safety for many of these bridges. PennDOT uses the guidance provided in the current FHWA Bridge Inspection Reference Manual to set the appropriate frequency and scope of inspections for individual bridges. Accordingly, Pennsylvania already performs annual inspections on approximately 2,000 bridges. Requiring additional, unnecessary inspections (estimated at 1,000 inspections costing $1M-$2M annually) would reduce the available resources needed to ensure safety of other bridges.

We appreciate your continued focus and support in improving the safety of the nation's bridges. If more information would be helpful, we would be pleased to provide it.

Sincerely,

Allen D. Biehler

Allen D. Biehler, P.E.
Secretary of Transportation

Attachment

cc: The Honorable Edward G. Rendell
PA's Congressional Delegation

ATTACHMENT

Regarding our concerns regarding the detailed requirements to the bridge inspection program on Page 2 of our letter, PennDOT recommends the following revisions to HR 3999 to ensure the ongoing collaboration between the States and the DOT on the regulations governing the bridge safety inspection program continues, :

Amending HR 3999 Version 7/10/2008 (6:38 pm)

Page 4, Line 15

Following the word "Secretary", insert the phrase ", in consultation with the States,"

Page 8, Line 22

Following the word "Secretary", insert the phrase ", in consultation with the States,"

Page 9, Line 16

Following the word "Secretary", insert the phrase ", in consultation with the States,"

Page 14, Line 17

Following the word "Secretary", insert the phrase ", in consultation with the States,"

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AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AASHTO
THE VOICE OF TRANSPORTATION

Pete Rahn, President
Director, Missouri Department of Transportation

John Horsley, Executive Director

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July 22, 2008

The Honorable James Oberstar
Chairman
Committee on Transportation and Infrastructure
U.S. House of Representatives
2365 Rayburn House Office Building
Washington, D.C. 20515-2308

Dear Congressman Oberstar:

I am writing to you on behalf of the American Association of State Highway and Transportation Officials (AASHTO) which represents the transportation agencies of the fifty States, the District of Columbia and Puerto Rico.

First, we appreciate your leadership in restoring and building bridges throughout the United States. Your efforts on behalf of the state transportation agencies throughout the years have been highly regarded and we know we can count on you as an ally for preserving our nation's transportation infrastructure. Regretfully, however, we would like to express our opposition to certain provisions of H.R. 3999, The National Highway Bridge Reconstruction and Inspection Act.

H.R. 3999 would severely restrict the transfer of federal bridge funding. States have proven time and again that although they transfer money out of the restrictive "bridge program," they still spend significantly more money overall on bridge maintenance, rehabilitation, and replacement. For example, in 2004, the latest year for which we have data, state and local governments spent a total $10.5 billion on bridges, more than twice as much as apportioned and allocated under the $5.1 billion federal-aid bridge program. The total $10.5 billion level of investment happened despite transfers out of the federal-aid bridge program. States are forced to make such transfers because of the inflexibility of the bridge program. The provision in H.R. 3999 that further limits transfers will only make the program more rigid and preclude appropriate bridge asset management.

H.R. 3999 also sets up a "worst first" process with its risk-based performance planning process. States have found true bridge asset management programs to be more effective in preserving and extending the life of the nation's bridges. Further, this performance planning process would add a significant amount of paperwork and bureaucracy to planning for bridge replacement and rehabilitation.

Please consider our concerns with these provisions of H.R. 3999, The National Highway Bridge Reconstruction and Inspection Act. Please contact Janet Oakley at 202-624-3698 if you or your staff have questions or need additional information.

Sincerely yours,

John Horsley
Executive Director

Oral Testimony

House Transportation and Infrastructure Committee

September 5, 2007

Malcolm T. Kerley, P.E.

Chair, Highway Subcommittee on
Bridges and Structures
American Association of State Highway and
Transportation Officials

- Mr. Chairman, my name is Malcolm Kerley. I am the Chief Engineer for the Virginia Department of Transportation. I chair the Highway Subcommittee on Bridges and Structures of the American Association of State Highway and Transportation Officials (AASHTO).
- On behalf of AASHTO, I want to thank you for holding this hearing and to express our support for your proposed National Highway System Bridge Reconstruction Initiative.
- I am here to provide you and the public with the answers to some critical questions that have arisen since the tragic collapse of the Interstate 35W bridge in Minneapolis:
- 1. What have states done since the accident to make doubly sure the nation's bridges are safe?
- 2. How are states investing bridge money?
- 3. Are current funding levels adequate for the job at hand?
- The State Departments of Transportation consider bridge safety and preservation to be one of our highest priorities, and a responsibility we take very seriously.
- Every state conducts a thorough and continual bridge inspection and rehabilitation program. America's bridges are inspected every two years by trained and certified bridge inspectors,

conditions are carefully monitored, and, where deterioration is observed, corrective actions are taken.

- While we know all states comply with federal bridge inspection standards, each state has a responsibility to ensure that it develops more detailed program appropriate to its unique circumstances.
- Since August 1, in compliance with federal requests, every state has reviewed or is in the process of re-inspecting its steel deck truss bridges. Based on the reports of this review, we can say that these bridges are safe.
- Nonetheless, of the almost 600,000 bridges across the country, roughly 74,000 (or 12.4%) are classified as "structurally deficient." This means that one or more structural condition requires attention. This may include anything from simple deck repairs to reinforcement of support structures.
- Classifying a bridge as "structurally deficient" does not mean that it is unsafe. But it does mean that work is needed.

How are states spending their bridge funding?

- As age and traffic take a toll on bridge conditions, states wage a daily campaign to preserve them in good condition.

- The good news is that since 1990 states have reduced, by almost half, the number of structurally deficient bridges on our nation's

highways.

- Reports alleging a diversion of federal bridge funding are misleading because they focus only on federal Bridge Program data and fail to look at the total picture of all the resources states commit to bridge improvements.
- The fact is that states **are spending dramatically more money on bridges than is provided under the Highway Bridge Program.**
- In 2004 the federal Highway Bridge Program provided $5.1 billion to the states.
- States actually spent $6.6 billion in federal aid for bridge rehabilitation. State and local funding added another $3.9 billion for bridge repairs.
- As the FHWA reports, in 2004, a total of $10.5 billion was invested in rehabilitation by all levels of government.
- Transfers between federal programs are simply a project management tool, and do not reflect actual levels of state bridge spending.

Are Current Funding Levels Adequate for the Job at Hand?

- Clearly the answer is no. A huge backlog of bridge needs still remains. According to the U.S. DOT's 2006 *Conditions and Performance Report*, needed repairs on National Highway

System bridges alone total over $32 billion, which includes over $19 billion needed on Interstate Highway System bridges.

- SAFETEA-LU increased guaranteed spending levels for highways and transit by 38 percent over the previous bill. But for the Bridge Program, SAFETEA-LU increased annual funding levels by only 6 percent.
- That funding has been eroded by dramatic increases in materials costs – steel, concrete, fuel, asphalt – which have increased an average of 46 percent from 2003-2006.
- Thus, we are left with a program that does not have enough funding to overcome the system backlog..

AASHTO commends Chairman Oberstar's efforts to improve the national transportation infrastructure. This Bridge Rehabilitation proposal is a good first step.

- We also recommend streamlining processes that delay needed repairs on our nation's highway system, and allowing the use of proprietary engineering-related products that could spur innovation in long-term solutions.
- The tragic Minneapolis bridge collapse has rightfully caused us to examine our bridge programs nationally. AASHTO and the State DOTs stand ready to act upon any recommendations of the National Transportation Safety Board and to work with the

Congress to address the nation's transportation investment needs. I would be glad to answer any questions you may have.

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STANDING COMMITTEE ON HIGHWAYS (SCOH)

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Secretary: King Gee, FHWA
AASHTO Liaison: Ken Kobetsky

Charge Statement
The committee shall develop all major engineering standards, guides, and policies for the highway program and either as a unit or through its subcommittees, investigate, study and report on all engineering activities and developments, including all phases of road and bridge design, construction, maintenance, traffic requirements, roadside development, aesthetics, tests and investigations of materials, protection of the environment; make recommendations regarding needed research, promote and encourage technology transfer by member states and related research agencies; and be responsible for providing the full range of highway engineering publications for the Association. It shall identify and receive reports from its subcommittees and task forces as to federal regulatory mandates of national concern, and provide reports thereon. It shall provide guidance and direction to its subcommittees and task forces on technical issues, review of work plans, and identifying key policy areas through its councils.

The councils are identified as the Council on Project Delivery and the Council on Operations. These councils shall be composed of various subcommittees, task forces and sub-units duly established and function within the Standing Committee on Highways. New subcommittees, task forces or other sub-units within the Standing Committee on Highways will be assigned to one of the councils as deemed appropriate by the Chair and with the approval of the committee as a whole. A simple majority of the committee members is required to approve such an action.

The chairs of the assigned SCOH subcommittees, task forces, assigned sub-units to the council, and other members as recommended by SCOH shall be members of the councils. The chairs may designate their vice-chair or another designee to attend council meetings as necessary. The chair of the council shall be recommended by SCOH and appointed by AASHTO's President. The chair of a council shall appoint one of the members as the vice-chair of the council.

The Councils will have the authority to task the respective subcommittees, task forces, and sub-units within SCOH with providing technical assistance in support of its directives.

The subcommittees, within the framework of the engineering standards and policies developed by the Standing Committee on Highways and formalized by the Association, shall develop such technical details, guides, manuals, specifications, and other publications appropriate for their individual activities and needs. All subcommittees and special committees subordinate to the Standing Committee on Highways shall report to the Chair thereof.

All task forces established under a committee or subcommittee shall report to the chair thereof. The committee is delegated the authority to take appropriate action on behalf of the Association on matters submitted to it by the Special Committee on U.S. Route Numbering, and shall report such actions to the Board of Directors.

The standing committee shall be responsible for administering NCHRP 20-7 on behalf of AASHTO. This program is aimed at providing rapid solutions to small or modest research problems having general applicability to the states. While project proposals may be made by any AASHTO Member Department, a decision to proceed shall be by majority vote of this committee.

Each Member Department shall be entitled to membership on the Standing Committee. The member shall be designated by the Chief Executive Officer of the Member Department, and should be the person considered as the

Department's Chief Highway or Engineering Officer.

AASHTO Staff Liaison
Ken Kobetsky

Reporting Commitees

- Subcommittee on Bridges and Structures
- Subcommittee on Construction
- Subcommittee on Design
- Subcommittee on Highway Transport
- Subcommittee on Maintenance
- Subcommittee on Materials
- Subcommittee on Right of Way and Utilities
- Subcommittee on Systems Operation and Management
- Subcommitte on Traffic Engineering (NCUTCD)
- Special Committee on U.S. Route Numbering
- NTPEP Oversight Committee
- Value Engineering Task Force
- AASHTO Technology Implementation Group (AASHTOTIG)

Reporting Joint Committees

- AASHTO/ACEC: Joint AASHTO - American Council Of Engineering Companies Committee
- AASHTO/AGC/ARTBA: Joint AASHTO - Associated General Contractors - American Road And Transportation Builders Association Committee

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All Federal Aid Highway Bridges
All Func Class Except 08, 09, and 19
As of August 28, 2008

	# Bridges	# SD	# FO	# Def	SD Bridges Insp Freq > 12
ALABAMA	8,196	446	1,404	1,850	166
ALASKA	720	62	122	184	62
ARIZONA	5,599	123	451	574	104
ARKANSAS	8,053	346	1,129	1,475	146
CALIFORNIA	17,538	2,437	2,898	5,335	2,385
COLORADO	4,622	313	617	930	258
CONNECTICUT	3,025	214	801	1,015	194
DELAWARE	572	8	97	105	2
DIST. OF COL.	201	17	133	150	17
FLORIDA	8,469	123	1,215	1,338	105
GEORGIA	8,678	299	1,202	1,501	268
HAWAII	873	83	313	396	74
IDAHO	1,985	121	253	374	4
ILLINOIS	11,868	1,123	1,258	2,381	548
INDIANA	7,782	541	1,123	1,664	539
IOWA	7,703	851	478	1,329	777
KANSAS	11,559	462	1,083	1,545	354
KENTUCKY	5,236	337	1,425	1,762	265
LOUISIANA	6,948	447	1,477	1,924	55
MAINE	1,313	136	302	438	124
MARYLAND	2,961	154	566	720	102
MASSACHUSET	3,933	470	1,806	2,276	71
MICHIGAN	6,725	924	1,191	2,115	721
MINNESOTA	5,787	367	312	679	0
MISSISSIPPI	8,293	766	976	1,742	396
MISSOURI	9,919	1,529	1,474	3,003	420
MONTANA	2,402	48	332	380	46
NEBRASKA	5,368	254	238	492	227
NEVADA	1,293	23	186	209	14
NEW HAMPSHIR	1,207	130	195	325	29
NEW JERSEY	4,833	526	1,235	1,761	525
NEW MEXICO	2,946	248	168	416	184
NEW YORK	9,815	909	3,410	4,319	738
NORTH CAROLI	7,073	695	1,200	1,895	695
NORTH DAKOTA	1,830	62	43	105	55
OHIO	12,165	829	2,189	3,018	0

All Non Federal Aid Highway Bridges
Func Class 08, 09 and 19 Only
As of August 28, 2008

	# Bridges	# SD	# FO	# Def	SD Bridges Insp Freq > 12
ALABAMA	7,712	1,366	895	2,261	257
ALASKA	481	96	138	234	96
ARIZONA	1,770	84	249	333	76
ARKANSAS	4,489	631	1,018	1,649	78
CALIFORNIA	6,870	901	1,182	2,083	817
COLORADO	3,786	290	325	615	279
CONNECTICUT	1,155	158	309	467	139
DELAWARE	285	14	35	49	2
DIST. OF COL.	41	4	30	34	4
FLORIDA	3,209	182	616	798	119
GEORGIA	5,900	706	821	1,527	613
HAWAII	243	59	48	107	57
IDAHO	2,140	231	234	465	25
ILLINOIS	14,234	1,377	812	2,189	1,348
INDIANA	10,761	1,497	1,404	2,901	1,485
IOWA	17,095	4,391	1,040	5,431	3,519
KANSAS	13,958	2,433	1,371	3,804	1,897
KENTUCKY	8,396	983	1,912	2,895	479
LOUISIANA	6,372	1,310	821	2,131	1,036
MAINE	1,079	218	201	419	187
MARYLAND	2,202	249	528	777	199
MASSACHUSETTS	1,110	143	382	525	33
MICHIGAN	4,212	747	448	1,195	652
MINNESOTA	7,333	800	205	1,005	11
MISSISSIPPI	8,729	2,212	364	2,576	836
MISSOURI	14,285	2,827	2,150	4,977	2,605
MONTANA	2,568	363	270	633	358
NEBRASKA	10,103	2,158	967	3,125	1,987
NEVADA	443	29	41	70	13
NEW HAMPSHIRE	1,151	269	243	512	89
NEW JERSEY	1,641	200	352	552	200
NEW MEXICO	920	156	157	313	85
NEW YORK	7,545	1,253	1,661	2,914	702
NORTH CAROLINA	10,816	1,765	1,636	3,401	1,764
NORTH DAKOTA	2,621	672	221	893	577
OHIO	15,901	2,051	2,544	4,595	4

OKLAHOMA	12,860	1,998	1,226	3,224	1,616
OREGON	4,274	262	904	1,166	160
PENNSYLVANIA	11,883	2,830	2,852	5,682	2,427
RHODE ISLAND	615	131	203	334	128
SOUTH CAROLII	5,556	632	687	1,319	403
SOUTH DAKOTA	2,790	266	129	395	259
TENNESSEE	8,642	391	1,376	1,767	390
TEXAS	32,699	391	5,622	6,013	356
UTAH	1,884	100	223	323	88
VERMONT	1,336	230	265	495	230
VIRGINIA	7,722	505	1,472	1,977	21
WASHINGTON	4,537	261	1,252	1,513	219
WEST VIRGINIA	3,397	529	677	1,206	283
WISCONSIN	6,950	489	605	1,094	476
WYOMING	1,900	170	130	300	167
PUERTO RICO	1,445	146	556	702	134
TOTALS	315,980	25,754	51,481	77,235	18,027

Deficiency does not include the 10-yr rule

OKLAHOMA	10,731	3,681	562	4,243	2,987
OREGON	3,017	217	413	630	109
PENNSYLVANIA	10,433	3,430	1,952	5,382	2,415
RHODE ISLAND	126	35	54	89	33
SOUTH CAROLINA	3,665	629	173	802	92
SOUTH DAKOTA	3,130	964	142	1,106	924
TENNESSEE	11,238	890	1,500	2,390	888
TEXAS	17,905	1,525	3,466	4,991	1,429
UTAH	969	90	92	182	86
VERMONT	1,379	303	264	567	302
VIRGINIA	5,725	732	1,048	1,780	34
WASHINGTON	3,102	156	576	732	93
WEST VIRGINIA	3,647	544	999	1,543	331
WISCONSIN	6,881	774	295	1,069	761
WYOMING	1,136	226	169	395	121
PUERTO RICO	725	85	374	459	82
TOTALS	285,365	47,106	37,709	84,815	33,315

Deficiency does not include the 10-yr rule