

STATEMENT OF THE HONORABLE ELAINE L. CHAO
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BEFORE THE
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UNITED STATES SENATE

HEARING ON
IMPROVING AMERICA'S TRANSPORTATION INFRASTRUCTURE:
THE ROAD FORWARD
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Chairman Barrasso, Ranking Member Carper, and Members of the Committee, thank you for the opportunity to testify on the state of our highway and bridge infrastructure. It is an honor to testify for the first time as Secretary of Transportation before this Committee, which is working on issues that are so vital to our country's continued safety, security, and economic success.

The State of Our Highway Infrastructure

Our country's vast network of highways and bridges connect our communities and support our economy. Running from coast to coast, through beautiful rural landscapes and great cities, the National Highway System (NHS) is comprised of 223,257 miles of road, which is approximately five percent of the total mileage in our country. Despite this low percentage, the NHS accounts for 55 percent of the total vehicle miles travelled (VMT) and over 83 percent of the miles traveled by truck in the country. In 2016, total miles driven on public roads in the U.S. increased for a fifth straight year by 1.65 percent to 3.2 trillion miles. These figures underscore the critical demands placed on America's highways and bridges.

Pavement and bridges in poor condition directly impact the lives of ordinary citizens by increasing wear and tear on vehicles, driving up repair costs, inflating travel times, and sometimes introducing new safety concerns. For freight users, poor conditions can increase the cost of doing business and delay the delivery of millions of tons of goods and agricultural products across the country. As you may know, trucks transport the majority of U.S. freight, so keeping our roads and bridges in good condition is critical to our country's competitiveness.

The recently released DOT report, "2015 Status of the Nation's Highways, Bridges and Transit: Conditions and Performance," (2015 C&P Report) contains some good news regarding the state of our bridges. From 2002 to 2012, the share of bridges classified as "structurally deficient" has improved. For example, the percentage of bridges in this classification dropped from 14.2 percent in 2002 to 11.0 percent in 2012. The share of bridges on the NHS classified as structurally deficient also improved over the same period, dropping from 5.9 percent to 4.5 percent.

But, while bridge conditions are heading in the right direction, the 2015 C&P Report suggests that there is more work to do. The Report stated that the percentage of Federal-aid highway

mileage classified as “acceptable ride quality” (either good or fair quality) decreased from 87.4 percent in 2002 to 80.3 percent in 2012. When weighted by vehicles miles traveled, the decrease in acceptable ride quality went from 85.3 percent to 83.3 percent, which leads to the conclusion that ride quality on less-traveled Federal-aid highways has significantly declined since 2002. This is of particular concern for rural communities. Nearly 73 percent of our country’s public roads are located in rural settings with populations less than 5,000.

Drivers slowing to avoid poor pavement and bridge conditions can also create congestion, which continues a troubling trend. The Texas Transportation Institute estimates that total delays resulting from congestion experienced by all travelers increased from 5.6 billion hours in 2002 to 6.7 billion hours in 2012. The cost of wasted time and fuel attributable to congestion also rose, from a staggering \$124 billion in 2002 to \$154 billion in 2012. Bringing our existing infrastructure into a state of good repair will not only make our roads and bridges safer, but will also save travelers and shippers time and money.

The Federal Lands Transportation Program provides critical support for roads, bridges, trails, and transit facilities managed by Federal Land Management Agencies, such as the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, and U.S. Forest Service, as well as Tribal Nations. These transportation networks, which are critical for supporting the economy, national defense and for providing access for all Americans to our country’s national scenic treasures, are critical for supporting the economy, national defense and for providing access for all Americans to our country’s national scenic treasures, are falling into disrepair, creating a backlog of billions of dollars in deferred maintenance. Access to Department of Interior managed public lands generated nearly 1.8 million jobs and \$296 billion in economic output for State and local economies in 2015. There are also more than 450,000 miles of roads that are not actually located on Federal lands but provide access to Federal lands. This creates opportunities for recreational travel and tourism, protection and enhancement of resources, and sustained economic development in both rural and urban areas. Annual visits to Federal lands total nearly 1 billion, and are expected to rise as the population increases. This poses a challenge to Federal Land Management Agencies to maintain the needed infrastructure to fulfill their missions of providing visitor enjoyment while conserving precious resources.

Moving Forward to Address These Challenges

The Department is already taking steps to improve our nation’s infrastructure by implementing the FAST Act, which Congress passed in 2015. This was important legislation.

But before describing the ongoing efforts at the Federal Highway Administration (FHWA), I want to take this opportunity to commend the outstanding work of the FHWA, particularly its Acting Deputy Administrator, Butch Waidelich, and the FHWA divisional managers in Georgia, during the recent fire and collapse of the I-85 bridge outside of Atlanta. This was a superb example of prompt action and timely collaboration with the Georgia State government, including Governor Deal’s office, Georgia State Department of Transportation, including Commissioner Russell McMurry, and the courageous police, state troopers, firefighters and other first

responders. They brought the situation under control and evacuated everyone with no loss of life or injuries.

Regulatory Streamlining

With respect to implementing the FAST Act, the Department has already begun accelerating the environmental review and permitting process for new projects, which can be too cumbersome, lengthy, and delay the start of new projects. Not only do these delays increase the costs—the cost of capital and labor can both increase substantially over many years—but by alleviating the uncertainty that permits will eventually be issued, the Department hopes to make projects more attractive to private investors.

The Department has begun to more fully utilize the tools that Congress incorporated in the last several surface transportation reauthorizations, particularly to improve the National Environmental Policy Act (NEPA) review process. These provisions have allowed us to:

- create new categorical exclusion (CE) actions to increase the percentage of projects that can clear NEPA review without lengthy and costly processes, and to provide States with templates to complete them;
- promote the option of a combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) documentation, allowing a quicker resolution to the NEPA process;
- establish time limits for litigation challenging an environmental review; and
- reduce duplication by linking the planning and environmental review processes.

Additionally, under the Surface Transportation Project Delivery Program, commonly referred to as the NEPA Assignment Program, States can choose to assume the Federal Highway Administration's (FHWA) responsibilities for environmental review under NEPA. To date, five States—California, Texas, Florida, Utah, and Ohio—have assumed NEPA responsibilities. Alaska, Arizona, and Nebraska are also actively pursuing this opportunity.

Each State must enter into a memorandum of understanding (MOU) with FHWA and agree to certain conditions, such as waiving sovereign immunity and submitting to Federal court jurisdiction if a NEPA decision is legally challenged. To promote flexibility, States also have the option to assume only environmental approvals for projects that are eligible for categorical exclusions (CEs) under the CE Assignment Program. For example, Alaska signed a CE assignment MOU in September 2009. The FHWA has observed that NEPA assignment States take more care and consideration in environmental and project decision making, resulting in better stewardship of the environmental resources impacted by projects.

Another FHWA initiative is to allow separate Federal permitting and review processes and the environmental review process to move forward concurrently, at the outset of a project, rather than conducting them sequentially. This approach can contribute to significant resource efficiencies and cost savings in the project development process. Sharing and exchanging environmental documents and information reduces duplicative reviews and identifies permitting

challenges early in the process, which results in expedited resolutions and accelerated project delivery.

While the Department is taking steps to conduct environmental reviews more efficiently, we will continue to examine additional ways to create more flexibility in the system, in order to ensure that vital highway and bridge projects do not spend years languishing in a cumbersome and ineffective environmental review processes. One innovation might be to better coordinate the review processes with other agencies involved in permitting. DOT is not the only federal entity involved, and the FAST Act is not the only statute that directs this process government-wide.

Funding and Financing

On the funding side, the Highway Trust Fund is projected to have enough cash to cover expenditures through Fiscal Year 2020, the final year of the FAST Act authorization. As of the end of April 2017, the Highway Account of the Highway Trust Fund has a total balance of \$47.7 billion. In recent years, outlays from the Highway Trust Fund have outpaced revenue from highway taxes, penalties, and interest, which have been the traditional source of highway funding. Given this trend, it is crucial to work together to find innovative ways to finance highway infrastructure.

In the FAST Act, Congress created the Surface Transportation System Funding Alternatives (STSFA) Program, which provides grants to States to demonstrate user-fee based alternative revenue mechanisms that can help maintain the long-term solvency of the Highway Trust Fund. These include on-board vehicle technologies to charge drivers based on miles traveled, and multi-State or regional approaches to road user charges. These projects are evaluating the reliability, as well as the security, of such technologies and addressing common challenges to implementing use-based fees, including public acceptance, privacy protection, and equity concerns. Last month, the Department published a Notice of Funding Opportunity (NOFO) for up to \$20 million in STSFA funds for Fiscal Year 2017, with applications due next month. The Department hopes to gain valuable insight from the STSFA program about possible new funding mechanisms for addressing the impending shortfalls in the Highway Trust Fund.

The FAST Act also authorized funding in the amount of \$1.435 billion to provide Transportation Infrastructure Finance and Innovation Action (TIFIA) credit assistance for eligible projects for FY 2016-2020. The FAST Act authorized the Department to consolidate the TIFIA program into the Surface Transportation and Innovative Finance Bureau, also referred to as the Build America Bureau, along with the Railroad Rehabilitation & Improvement Financing (RRIF) program, the Private Activity Bonds (PABs) program, and the National Surface Transportation and Highway Projects (NSHSP) program. The Department has been implementing the FAST Act changes to TIFIA and the other programs that have been consolidated into the Build America Bureau structure.

The FAST Act also continued the Emergency Relief program, a special program from the Highway Trust Fund, which provides funds for emergency and permanent repairs on Federal-aid highways and roads, tribal transportation facilities, and roads on Federal lands that have suffered serious damage as a result of natural disasters or failure from an external cause. Just last month,

I approved the release of \$768.2 million to help fix roads and bridges damaged by storms and catastrophic events across forty States.

Additionally, in the Consolidated Appropriations Acts for Fiscal Years 2016 and 2017, Congress provided flexibility to allow States to repurpose certain earmarked funds that were over 10 years old and had not been used for their stated purposes, putting previously idle funds to use on critical highway and bridge projects. Thus far, 2,200 earmarks worth approximately \$1.8 billion have been repurposed.

MAP-21 and FAST Act Implementation

The Department continues to implement the congressional directives contained in the FAST Act and MAP-21. We are reviewing our implementation efforts, particularly with respect to streamlining to maximize any flexibility granted by Congress.

Safety

Safety continues to be the Department's highest priority, and is at the core of our mission. The Nation lost 35,092 people in motor vehicle crashes in 2015—an average of 96 deaths per day. The 7.2 percent increase in fatalities from 2014 to 2015 ended a five-decade trend of declining fatalities. The National Highway Traffic Safety Administration's (NHTSA) projection of traffic fatalities for the first nine months of 2016 shows that an estimated 27,875 people died in motor vehicle traffic crashes, an increase of approximately 8 percent from the same period in 2015. In addition to the tragic impact on human life, NHTSA estimates that when lost quality of life is also considered, annual societal consequences of highway crashes can be quantified at \$836 billion. Nothing can replace the loss of a loved one, but quantifying the economic and societal costs of motor vehicle crashes demonstrate even further the importance of investing in highway safety and achieving a better safety record on U.S. highways.

The FAST Act continued the Highway Safety Improvement Program (HSIP), providing estimated annual average funding of approximately \$2.6 billion. Over the life of the FAST Act, an average of \$260 million of this funding per year is reserved for the Railway-Highway Crossings Program. The HSIP has broad eligibilities aimed at achieving a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land.

The FHWA encourages a data-driven, performance-based approach to save lives on all public roads. Under the HSIP, States develop and implement comprehensive, data-driven Strategic Highway Safety Plans (SHSPs) that establish statewide safety goals, objectives, and key emphasis areas and integrate the "four Es" of safety—engineering, education, enforcement and emergency medical services. Beginning this summer, States and metropolitan planning organizations (MPOs) will set data-driven annual safety performance targets for the first time, which will help guide their investment decision-making.

To achieve the vision of zero fatalities, crashes on local and rural roads must be addressed. Fifty-five percent of all public road miles are locally-owned rural roads. In 2012, 19 percent of the

U.S. population lived in rural areas, but rural road fatalities accounted for 54 percent of all road fatalities. The fatality rate in rural areas has remained 2.5 times higher than the fatality rate in urban areas, which may be the result of several factors including the distance to hospitals. The FHWA continues to take a coordinated national approach with its partners and stakeholders to address local and rural crashes. The FHWA's local and rural road safety program encompasses training, technical assistance, guidance, and other tools. This program has shown measured success, more States are funding projects on local roadways with their Highway Safety Improvement Program dollars, and local agencies are more aware of their roadway safety issues through the development of Local Road Safety Plans, and more local agencies are participating and SHSP development that includes participation from local agencies.

Performance Management

In MAP-21, Congress made significant changes to the Federal-aid highway program by establishing new requirements for performance management. These changes were intended to increase the accountability and transparency of the Federal-aid highway program and to provide a framework to improve our investment decision making by focusing on performance outcomes for key national transportation goals. State DOTs will now be required to establish performance targets and assess performance in key areas.

FHWA has been implementing these performance management directives from Congress through a series of inter-related rulemakings and other actions, including a suite of training courses, technical tools, and guidance to educate our State and local partners. The FHWA has completed the rulemakings addressing performance management in the Highway Safety Improvement Program and asset management. Working with NHTSA, FHWA has delivered target-setting workshops to more than 1,000 stakeholders in 45 States, including representatives from State DOTs, MPOs, and State Highway Safety Offices. State DOTs that fail to meet or make significant progress toward meeting their safety targets will be required to direct a larger share of their highway spending toward HSIP projects.

Under the asset management provisions in MAP-21 and the FAST Act, State DOTs must develop and implement an asset management plan, which aims to improve and preserve the condition of assets and system performance at a minimum practicable cost. An FHWA rule finalized last year implements this statutory requirement, explains the form and content for the resulting plans, and establishes FHWA's oversight role.

Freight

The continued success of the freight industry is vital to our national economic interests; investment in our Nation's transportation infrastructure is needed if we expect to maintain a global competitive edge. Trucks currently carry 64 percent of the tons and 69 percent of the value of freight moved in the United States. In the next 30 years, the U.S. economy is expected to double in size and the Nation's population is projected to increase by 68 million people. Driven by this projected economic and population growth, freight movements across all modes are expected to grow by roughly 42 percent by the year 2040, making investments in our freight infrastructure a priority.

As you all know, the FAST Act established the National Highway Freight Program (NHFP) to improve the efficient movement of freight on the newly designated National Highway Freight Network (NHFN). NHFP funds can be used to support freight projects that improve intermodal connectivity, which is critical to ensure the safe, resilient, and efficient flow of freight movement across the overall freight transportation system. In Fiscal Years 2016 and 2017, FHWA has distributed over \$2.2 billion in National Highway Freight Program funding to the States by statutory formula.

Under the FAST Act, the Department is required to develop a National Freight Strategic Plan, which will identify strategies and best practices for improving intermodal connectivity and performance on the freight system, as well as mitigating the impacts of freight movement on communities. DOT is currently working to develop this plan, which we look forward to sharing with this Committee and other stakeholders.

The FAST Act also requires each State to develop a State Freight Plan, a comprehensive plan for their immediate and long-range planning activities and investments that includes: identification of significant system trends, needs, and issues; identification of multimodal critical rural freight facilities and corridors; an inventory of facilities with freight mobility issues; strategies to mitigate congestion or delay; and a freight investment plan. Beginning December 4, 2017, a State may not continue to obligate formula freight funds unless it has developed a comprehensive State Freight Plan. States are currently working on their plans and three States—Nevada, Idaho, and Ohio—have completed development of compliant plans.

Congress not only provided formula funds for freight development in the FAST Act, but also created the Nationally Significant Freight and Highway Projects program (that became unofficially known as “FASTLANE”). This grant program provides financial assistance through competitive grants or credit assistance to projects that, for example, improve the safety, efficiency, and reliability of the movement of freight and people; generate national or regional economic benefits and increase our national economic competitiveness; or reduce highway congestion and bottlenecks. Each fiscal year, 25 percent of the competitive grant funds distributed are reserved for projects in rural areas. In Fiscal Year 2016, grants totaling over \$700 million were awarded to 14 States and the District of Columbia. We are examining ways to increase the effectiveness of that program.

Technology and Innovation

Technology and innovation play a critical role in tackling these various challenges. The Department’s Intelligent Transportation Systems Joint Program Office (ITS JPO) performs research on intelligent systems and is currently focusing on developing intelligent vehicle and intelligent infrastructure technologies, including vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) connectivity through the application of advanced wireless technologies. The program invests in major research initiatives, develops and tests the underlying technology and applications, and provides deployment support, including technology transfer and training. In addition to connected vehicles research, ITS JPO is also focusing on expanding automation to enable the smooth and safe introduction of automated features into our vehicles and

transportation systems. Intelligent transportation technologies like these have the capacity to create safer vehicles and roadways by enhancing crash avoidance capabilities; enhance mobility by exploring methods and strategies that increase system efficiency and improve individual mobility; and better manage traffic flow and reduce congestion. Each of these improvements enables infrastructure to operate more efficiently, to better support future economic growth and to improve the lives of everyday Americans.

In addition to ITS JPO, the Department supports several competitive grant programs that encourage and facilitate the deployment of new technologies by our State and local partners. Last month, the Department issued a Notice of Funding Opportunity (NOFO) for the second round of competitive grants in the Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Program. Congress created this program in the FAST Act in order to develop model deployment sites for large scale installation and operation of advanced transportation technologies. Eligible projects, such as V2V and V2I communication systems, collision avoidance technologies, integration of intelligent transportation systems with the Smart Grid, and advanced mobility and access technologies, are designed to improve safety, efficiency, system performance, and infrastructure return on investment. Last year, the Department distributed \$56.6 million to eight projects in six States, which leveraged close to \$100 million in additional public and private funding. Up to \$60 million is available this fiscal year and applications are due next month. The Department looks forward to evaluating this new group of projects to discover how our State and local partners can continue to be laboratories of innovation.

The Accelerated Innovation Deployment (AID) grant program provides \$10 million per year to eligible entities to accelerate the implementation and adoption of innovation in highway transportation. AID is one initiative under the multi-faceted Technology and Innovation Deployment Program (TIDP), which was continued by Congress under the FAST Act to provide funding and other resources to offset the risk of implementing an innovation. AID can accelerate the adoption of innovative technologies and new business practices in highway construction. Thus far, AID has funded 62 projects in 34 States, totaling \$44.4 million.

Investment in research is critical to the identification, development, and evaluation of these technology and innovation initiatives. While the private Sector and the States undertake significant research efforts, the Federal government plays a role in performing higher risk, advanced research, as well as research that meets critical national needs. The Federal government also provides an independent assessment and evaluation of the benefits and performance of innovations. Many of the cost and time savings, and safer technologies and innovations advanced by our State and local partners through AID, were first developed and refined by FHWA at its Turner-Fairbank Highway Research Center. These advances include the use of ultra-high performance concrete, the Diverging Diamond Interchange, and adaptive signal control systems.

The Administration's Infrastructure Plan

The President has made clear that modernizing our country's crumbling infrastructure, including our Nation's highways and bridges, is one of his top priorities. The Administration's

infrastructure initiative will be comprehensive, covering surface transportation and aviation, along with other important sectors, like ports, inland waterways, pipelines, water, broadband, and energy as well. The Administration's goal is to seek long-term reforms on how infrastructure projects are regulated, funded, delivered, and maintained. It is designed to leverage Federal dollars by incentivizing State, local, and non-Federal investment in infrastructure, and it will address infrastructure development in both urban and rural areas in ways that are supportive of a wide range of funding options and sensitive to funding challenges faced by some communities. We hope to broaden and expand participation in infrastructure funding so that more projects can be undertaken overall and so that we do not supplant existing state, local, or private funds already dedicated to infrastructure. The goal is to increase the total amount of infrastructure investment, while delivering better transportation outcomes for Americans.

Conclusion

Thank you again for the invitation to appear before you today. I welcome the opportunity to work closely with you on these issues of critical importance to our country's infrastructure, so our economy can continue to grow and create good jobs for America's working families. Thank you.