



Washington Office

25 Massachusetts
Ave., NW Suite 500

Washington, D.C. 20001

(202) 789 -7850

Fax: (202) 789-7859

Statement for the Record of
The American Society of Civil Engineers
on
"Reviewing the Implementation of the Infrastructure Investment and Jobs Act"
Subcommittee on Highways and Transit
Committee on Transportation and Infrastructure
U.S. House of Representatives

March 28, 2023

Introduction

The American Society of Civil Engineers (ASCE) appreciates the opportunity to submit a statement to the House Committee on Transportation and Infrastructure's Subcommittee on Highways and Transit regarding the hearing on "Reviewing the Implementation of the Infrastructure Investment and Jobs Act."

ASCE was an ardent supporter of the Infrastructure Investment and Jobs Act (IIJA) of 2021. Successful implementation of this once-in-a-generation investment has the potential to improve safety for Americans and modernize the nation's roads, bridges, transit systems, pipes, ports, broadband, airports, schools, and drinking water systems. As implementation of the five-year IIJA continues, ASCE asks Congress to maintain a strong commitment to the provisions included in this law.

Once passed into law, landmark legislation requires diligent review and evaluation. ASCE commends the House Subcommittee on Highways and Transit for holding a hearing on this subject. This hearing is a good opportunity to examine ongoing considerations related to the implementation of the IIJA.

Recommendations for effective implementation of the IIJA

With the \$1.2 trillion investment provided by the IIJA, the federal government can restore its critical partnership with cities and states to improve and modernize our nation's infrastructure. To optimize the investment associated with over 100 new programs and many more existing programs across critical infrastructure sectors, ASCE developed key recommendations for Congress, the Administration, and state and local governments to consider regarding IIJA implementation.

1. Cut Red Tape and Increase Transparency Across Government Agencies

ASCE has identified areas where the federal government should work with industry stakeholders to ensure projects are not delayed due to overly burdensome and often redundant red tape. First, while ASCE supports the intention of the Build America, Buy America Act (BABAA) language in the IIJA, we need to ensure that language does not hamper innovation, cause unnecessary project delays and cost increases, or further constrain markets. While guidance from the Administration related to BABAA is helpful, with continued inflation and supply chain issues already creating challenges for the effective implementation of the IIJA, it will be critical to not add additional burdens or requirements that could further impede the full impacts of this historic investment. For many gadgets and materials that engineering professionals rely on every day, there are no American manufacturers.

Second, ASCE is encouraged by the IIJA codifying One Federal Decision, which will lead to cost reductions, and applauds the Administration for developing a Permitting Action Plan to further accelerate the federal permitting and environmental review process. One of the key recommendations in the *2021 Report Card for America's*

*Infrastructure*¹ was to streamline the project permitting process across infrastructure sectors while ensuring appropriate safeguards and protections are in place. Therefore, ASCE believes the most recent plan is a step in the right direction to ensure that projects can be delivered on time and on budget, while maintaining the rigorous environmental review process.

ASCE applauds the 118th Congress' prioritization of permitting reform. ASCE supports the inclusion of provisions that aim to further reform the National Environmental Policy Act (NEPA) process in the Lower Energy Costs Act (H.R. 1). Drawn-out regulatory review processes can be detrimental to infrastructure investment by delaying projects, creating uncertainties, and increasing overall project costs. Permitting reform can help the projects supported by the IIJA break ground in a timely manner.

Finally, the federal government has a responsibility to ensure IIJA funds are properly managed. The historic scope of the IIJA and the large number of partners needed to deliver the legislation, such as state and local governments, contractors, consultants, non-profits, and even the public, means the federal government will face a complex challenge to reduce the risk of waste, fraud, and abuse. Therefore, transparency will be key, especially in areas like the grant selection process.

2. Streamline the Engineering Contracting Process

In recent years, many projects around the country have been slowed down due to increased change orders during the contracting process. The Engineers Joint Contract Documents Committee (EJCDC), a joint venture of ASCE, the National Society of Professional Engineers, and the American Council of Engineering Companies, publishes documents related to engineering, construction, design/build, construction manager as advisor, construction manager at risk, and procurement. The use of the EJCDC documents reduces potential errors, redundancies, or conflicts in construction contracts. EJCDC updates its documents approximately every five years to reflect industry trends, court decisions, and changes in applicable laws and regulations. The EJCDC has developed contracts for scoping, preliminary design, final design, construction, and commissioning. Therefore, the EJCDC has contracts that are ready to expeditiously move projects through the process when utilized appropriately.

EJCDC construction contract forms that can effectively deliver projects under a variety of project delivery methods funded under the IIJA are available, and ASCE urges federal and state agencies to accept the current versions of the documents without exception. Additionally, it is necessary to ensure that smaller, rural, or disadvantaged communities are aware of these contract forms and have access to them.

Therefore, ASCE recommends that all federal agencies follow the U.S Department of Agriculture's (USDA) Rural Utilities Service (RUS) model, which has preapproved certain standard EJCDC engineering and construction series documents for use in

¹ <https://infrastructurereportcard.org/>

projects funded under the RUS Water and Waste Disposal program. By preapproving EJCDC documents, the USDA has eliminated the need for applicants to purchase the separate Funding Agency edition of the documents and therefore has streamlined the process and made these documents more accessible for rural or disadvantaged communities. Local agencies are also relieved of the burden of drafting and editing documents for later approval by federal and state agencies.

Furthermore, ASCE supports qualifications-based selection procedures outlined by the Brooks Architect-Engineers Act, the numerous similar state and local laws, and the American Bar Association's Model Procurement Code for State and Local Governments for engagement of engineering services. As the IIJA is implemented, ASCE strongly recommends that the application of the Brooks Act is upheld.

3. Collaborate with the Engineering Community to Develop Technical Assistance and Leverage Non-traditional Data Sources for Disadvantaged and Rural Communities

The IIJA took great strides to acknowledge the inequities that were created or exacerbated by our nation's built environment. Examples of positive steps include establishment of the Reconnecting Communities Pilot Program at the Department of Transportation, investment in Superfund and brownfields remediation, and set-aside funds for rural and disadvantaged communities throughout many of the water and broadband infrastructure programs.

ASCE would like to build on these steps and focus on examining how public agencies are working with non-traditional data sources to identify which communities could benefit the most from infrastructure investment. For example, the Los Angeles County Department of Public Works is considering new metrics when making investment decisions, including U.S. Census Bureau data on potential exposure to pollutants, prevalence of certain health conditions, and socioeconomic factors. Having well-established metrics and a variety of dependable aggregated data sources can assist in making sure the IIJA is effectively benefiting the communities that need investment most.

ASCE and the engineering community stand ready to work with federal agencies to help expand upon the technical assistance programs that many rural and disadvantaged communities will rely on to receive competitive grants. Agencies should coordinate with the nation's engineers to help identify those communities that need assistance and determine what type of assistance is needed, whether it is grant preparation, identifying suitable projects that will bring community benefits, or long-term capacity building within agencies or jurisdictions.

4. Dedicate Resources to Grow the Pipeline of Skilled Workers

To realize the potential of this five-year legislation, it is critical that we have the civil engineering workforce in place to design, build, and maintain the nation's infrastructure. The American Council of Engineering Companies found that the industry will need to add 82,000 full- and part-time engineers to implement the IIJA. Workforce shortages abound across the infrastructure sector and are especially felt among public agencies who are working to implement the IIJA.

Public agencies, which have varying levels of resources at their disposal, are at different stages in solving this issue. Some are deploying advanced workforce recruitment and retention strategies, while others are just now beginning to encounter shortages. One strategy to attract and retain more workers is offering a better explanation of pension benefits. Research from the National Institute on Retirement Security shows many employees and potential employees don't understand how pensions work. Younger workers in particular may not realize the value of reliable monthly income during their retirement. Thorough initial conversations about how a pension can complement a total compensation package can give public sector employees a boost and help them compete with private industry counterparts.

Other practices for recruiting and retaining workers include changing policies to allow same-day job offers and increasing resources available to potential and current employees through online portals and toolkits. For example, the Washington State Department of Transportation has a Workforce Development Toolkit, which offers interview tips, information on the modern work environment, and talent development resources such as tuition reimbursement and leadership development.

Infrastructure owners cannot effectively utilize the influx of funding from the IIJA if they do not have the workforce in place. Congress recognized workforce needs with provisions in the CHIPS and Science Act of 2022. ASCE believes Congress should build on these commitments and encourage state and local governments to include skilled workers in their long-term workforce development plans.

5. Require the Use of the Most Up-to-Date Codes and Standards and Regularly Fund Climate Data Updates

The most reliable way to ensure our nation's infrastructure is resilient and that we are truly building back better is the widespread adoption and enforcement of modern, up-to-date building codes. Therefore, ASCE strongly encourages federal agencies to incentivize the use of up-to-date codes and standards, which can mitigate risks of climate or manmade events such as hurricanes, fires, sea level rise, and more.

The following ASCE documents and standards should also be utilized for new projects that are receiving IIJA funds. These same documents serve as a basis upon which such a model code can be developed:

- *ASCE 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE/SEI 7-22)*, currently an integral part of U.S. building codes, describes the means for determining soil, flood, tsunami, snow, rain, atmospheric ice, earthquake, and wind loads, and their combinations for resilient structural design;
- *ASCE 24, Flood Resistant Design and Construction*, prescribes a standard for cost effectively increasing resiliency by reducing and eliminating risks to property from flood hazards and their effects;
- *ASCE 41, Seismic Evaluation and Retrofit of Existing Buildings*, standardizes methods for the retrofit of existing buildings to increase resiliency in communities after a seismic event;
- *ASCE Manual of Practice 140, Climate-Resilient Infrastructure: Adaptive Design and Risk Management*, provides guidance for and contributes to infrastructure analysis/design in a world in which risk profiles are changing due to climate change per the Fourth National Climate Assessment.
- *ASCE Manual of Practice 74, Guidelines for Electrical Transmission Line Structural Loading*, provides guidelines for the interpretation of ASCE 7 specifically for overhead power lines and includes updated wind and ice loadings that all overhead transmission and distribution lines should be designed for with the consideration of current climate change data.
- *ASCE Manual of Practice 141, Wood Pole Structures for Electrical Transmission Lines: Recommended Practice for Design and Use*, provides guidelines for the proper design and analysis of wood pole structures used in our distribution and transmission grid infrastructure.

While many state and local government agencies are leading the way, to fully realize the benefits of the IIJA, ASCE encourages federal agencies and Congress to support and incentivize the widespread adoption and enforcement of up-to-date building and infrastructure codes. The recent creation of the National Initiative to Advance Building Codes, which will focus on helping state and local governments adopt the most up-to-date building codes and standards, indicates that federal officials understand the importance of these codes and standards for resilience. ASCE stands ready to support the work of the initiative.

Additionally, we urge Congress to provide robust funding to federal agencies like the National Oceanic and Atmospheric Administration (NOAA), FEMA, and NIST, whose missions include both developing the data necessary for ensuring standards can address the impacts of climate change and preparing and implementing a national model code that considers increasingly strong storms. While some states have taken it upon themselves to update data sets, such as rainfall data, this has led to a piecemeal approach and fails to recognize that floodplains and other hazards do not end at state lines, putting communities across the country at risk. We cannot build resiliently relying

on backward-looking data and, therefore, strongly urge Congress to fund these critical programs.

6. Incentivize Asset Management and Life Cycle Cost Analysis

As new competitive grant programs are developed across federal agencies, these programs should provide incentives for asset management and life cycle cost analysis as a routine part of the planning process. There are a growing number of state and local governments and private sector infrastructure owners demonstrating the long-term advantages of employing comprehensive asset management practices. However, asset management plans are not required or incentivized by the federal government in many sectors. By encouraging the development and regular update of asset management plans and life cycle cost analysis as a condition to receive new federal funding, we can ensure programming and planning for operations and maintenance are part of every new infrastructure project. Furthermore, by providing prioritization for those agencies already using asset management practices, the federal government can ensure additional state and local agencies develop asset management plans and implement life cycle cost analysis.

ASCE recommends federal agencies assess each new and existing IIJA program to determine whether requiring an asset management plan is feasible and would provide value for stakeholders. Additionally, ASCE encourages infrastructure owners that already have asset management plans to regularly update them so that these tools remain useful for decision-making.

ASCE's resources on IIJA implementation

Recognizing that the IIJA is benefiting communities in all 50 states, ASCE also created an online map feature (Figure 1). Users can view projects in their state or region and filter the results by infrastructure category. The five-year IIJA includes funding for a wide variety of infrastructure projects, such as fixing potholes, replacing lead pipes, deploying broadband services, increasing rail activity, and cleaning up the environment. ASCE believes it is important to track projects that are supported by this legislation and illustrate the impacts of this historic investment.

Showcasing the specific location and benefits of a project to a community can help foster better understanding everywhere of how infrastructure strengthens the economy and improves quality of life. To underscore that point, ASCE has also partnered with the American Council of Engineering Companies and the American Public Works Association to produce the Engineering & Public Works Roadshow. The Roadshow partners are making stops around the country to highlight the benefits that recently-completed projects have brought to communities, from easing supply chain chokepoints to revitalizing downtown districts.

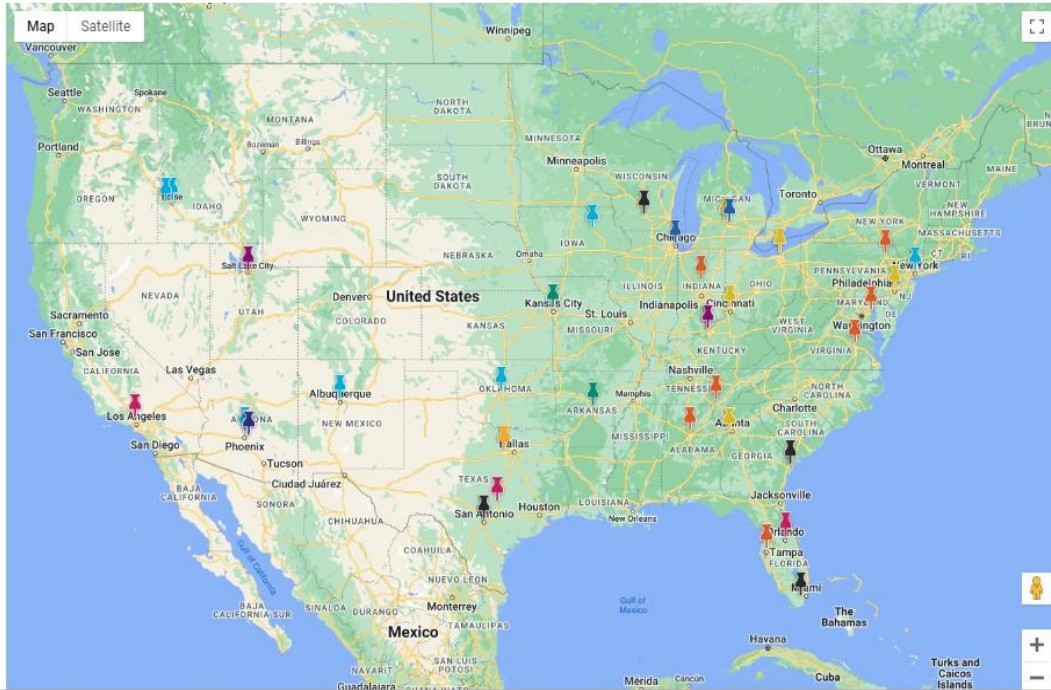


Figure 1 ASCE’s IJIA project map, available through its online IJIA Implementation Resource Center.

Conclusion

ASCE thanks the House Subcommittee on Highways and Transit for holding a hearing on implementation of the IJIA, which ASCE strongly advocated for. ASCE asks Congress to maintain a robust commitment to infrastructure as implementation of the IJIA continues.

ASCE appreciates the opportunity to share our recommendations for efficient implementation of the IJIA. We stand ready to answer any questions and we look forward to working with Congress on successfully implementing this historic legislation.