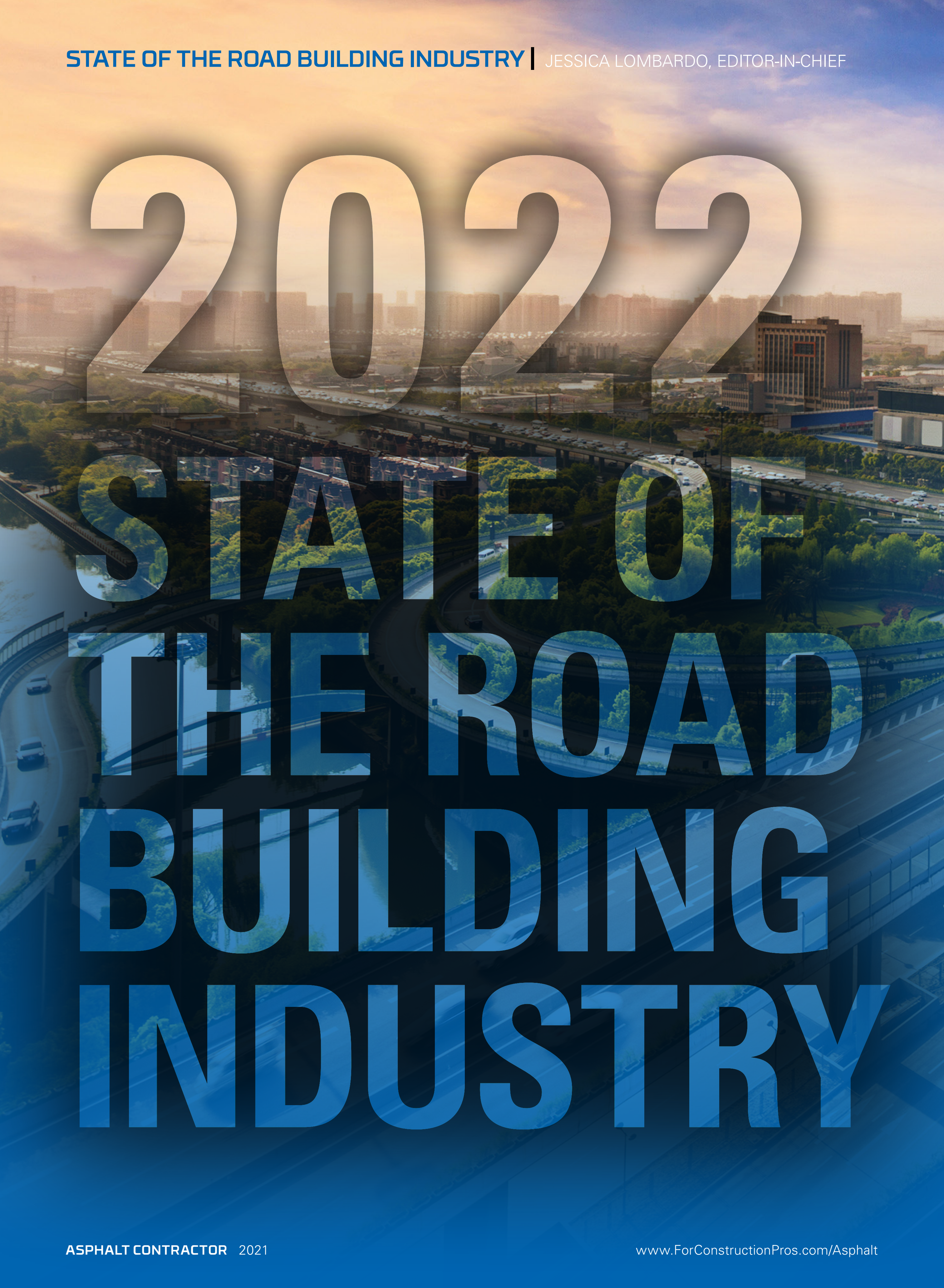


2022 STATE OF THE ROAD BUILDING INDUSTRY

Newport Coast Media/AdobeStock

Let's Get to Work

With the passage of the Infrastructure Investment & Jobs Act, we are well-positioned to take advantage of the long-term, sustainable funding this legislation will provide

Each year with the *Asphalt Contractor* State of the Road Building industry report, we seek to give contractors some idea of what the year ahead will bring. After a long 2021, this year brought us even more challenges with rising prices, lack of people and a whole lot of unpredictability.

As the year comes to a close, and after many months of debate, we finally received some good news with the passage of the Infrastructure Investment & Jobs Act (IIJA) which promises $1.2 trillion dollars for infrastructure over the next five years. You can follow along through the next few pages to see how we got to the passage of this historic legislation and what it means for our industry.

This bill marks the first time since 2015 that a significant infrastructure bill has been passed by Congress and represents bipartisan support for infrastructure spending that will benefit all 50 states. In each of the next five years, the federal government will now spend the equivalent of about 1 percent of GDP on roads, bridges, rail, public transit, water systems, broadband, power systems and more. It is the largest such investment in more than a generation. It will raise federal infrastructure spending to its highest share of GDP since the early 1980s.

"The National Asphalt Pavement Association (NAPA) and like-minded organizations in the transportation construction industry, along with our engaged member companies and State Asphalt Pavement Association partners, have advocated for adequate and consistent federal highway funding for a very long time," Dr. Audrey Copeland, president and CEO, NAPA says. "We are thrilled and thankful to advance this once-in-a-generation bill, with a significant investment in transportation infrastructure, across the finish line in a bipartisan way."

While the bill is not perfect, and there will be struggles in completing this work with the current state of the labor market and supply chain, there are many reasons to be optimistic for the foreseeable future. Let's dive in to the bill and see what industry experts have to say about it and the long-lasting benefits it will provide to our industry, our economy and our country.

IT'S FINALLY INFRASTRUCTURE WEEK

Q: *After years of waiting and 10 months of debate, infrastructure was finally made a priority and Congress passed the* Infrastructure Investment & Jobs Act (IIJA). *The bipartisan bill is a lot less than the $2.3 trillion Biden initially asked for in the spring, but it is still a significant amount of funding for the next five years. How will this investment impact the road building industry and the economy?*

Alison Premo Black, American Road & Transportation Builders Association (ARTBA)

DR. ALISON BLACK, SENIOR VICE PRESIDENT & CHIEF ECONOMIST, ARTBA:

The IIJA will provide a significant boost in federal transportation investment that will impact every state highway, bridge, and transit program. The increase in the federal-aid highway program is truly historic – this is largest boost in funding since the first two years of the program, over 60 years ago.

The IIJA offers a generational opportunity to repair and modernize every state's transportation system, while simultaneously delivering tangible economic benefits for years to come.

- On average, federal funds account for over 50 percent of state spending on capital outlays. The additional resources will help states address their capital programs and it is likely that states will move projects up the pipeline.
- We expect highway and bridge construction activity to increase in 2022 as projects supported by the IIJA get underway. Spending will ramp up in 2023 and 2024 as work continues and new projects start.
- This multi-year spend out of funds will support market activity for many years. A recent report on the IIJA by IHS Markit found that 43 percent of the IIJA money is spent after 2026, continuing to have a positive impact in the long-term.
- The same report by IHS Markit found that the new investment under the IIJA will support over 250,000 jobs, increase federal, state, and local tax revenues by $160 billion, and add an average of $500 in annual personal disposable income per household. They estimate that every $1 invested to fix our roads generates $3.60 in economic activity.

Joe Biden is inaugurated as the 46th President of the United States. He introduced his "Build Back Better" plan which he said would make "historic investments" in the country's infrastructure.

JANUARY

FEBRUARY

Biden warned the Senate Environment and Public Works Committee that China would "eat our lunch" if America didn't "step up" infrastructure spending.

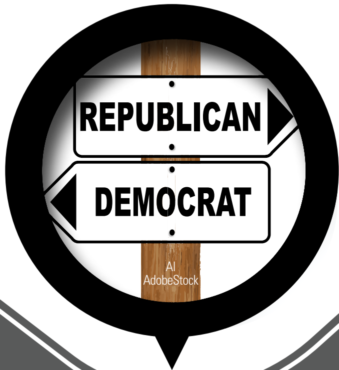
MARCH

Biden introduces the American Jobs Plan, a more than $2.3 trillion infrastructure package that was set to be unveiled in four parts: transportation infrastructure, modern infrastructure like broadband, investing in the care economy to aid health workers and funding innovation and research and development infrastructure.

Biden urges Congress to get to work on crafting a program, regardless of their opinions on the plan. Biden met with a bipartisan group of lawmakers to discuss his $2.3 trillion infrastructure proposal and how to fund it. Biden said he would like progress on the plan by Memorial Day.

APRIL

MAY



Republicans & Democrats continue to craft their own proposals for infrastructure funding, each with different priorities and price tags to address our crumbling roads & bridges.

I-40 Hernando DeSoto Bridge was suddenly closed as engineers discovered a fractured support beam during a routine inspection. The cost of such closure for the trucking industry is $2.4 million each day, highlighting the need to update our infrastructure.

MAY 11TH

Edward Mortimer, United States Chamber Of Commerce

Dr. Anirban Basu, Associated Builders and Contractors

Audrey Copeland, National Asphalt Pavement Association (NAPA)

EDWARD MORTIMER, VICE PRESIDENT OF TRANSPORTATION INFRASTRUCTURE, U.S. CHAMBER OF COMMERCE: Enactment of the IIJA will mean historic investment in our nation's infrastructure. This will allow state and local partners to not just fix, but modernize aged infrastructure. The new law will ensure the creation of millions of new jobs and improve the nation's economic productivity and quality of life. The legislation includes a five-year reauthorization of surface transportation programs which will allow state departments of transportation to make long-term decisions with the predictability of federal investment.

DR. ANIRBAN BASU, CHIEF ECONOMIST AT THE ASSOCIATED BUILDERS AND CONTRACTORS: The deal includes $110 billion for major projects including bridges and another $40 billion specifically allocated to building and repairing bridges. This would not only help communities finance needed improvements, but would also open the door to longer-term infrastructure planning, which this nation desperately requires.

DR. AUDREY COPELAND, PRESIDENT AND CEO OF NAPA: The passage of IIJA assures a record investment in our nation's highway programs to improve and repair our highways and bridges. It includes a five-year reauthorization of the Federal-Aid Highway Programs, giving states the certainty they need to budget for and plan highway and bridge projects. States will begin planning the 2022 construction season this winter based on the funding levels in IIJA. Federal highway funding would jump from $46.4 billion this year to as high as $69.3 billion in 2022, which will substantially increase demand for asphalt pavement.

MAY 23RD

The Senate Environment & Public Works (EPW) Committee introduced the Surface Transportation Reauthorization Act of 2021 (STRA), which sets a new baseline funding level at a historic high of $303.5 billion for Department of Transportation programs for highways, roads and bridges. Republicans & Democrats began working together to negotiate a bipartisan plan.

JUNE 16TH

21 Senators (11 Republicans, nine Democrats and one Independent) came together to support a five-year, $974 billion infrastructure package.

BUILD NEW VS. REPAIR OLD

Q: *Our nation's current infrastructure is in poor condition, receiving a C- on ASCE's most recent Infrastructure Report Card. Are there concerns with the IIJA that the money will be used towards new projects and not addressing the backlog of deteriorating roads and bridges that are in need of repair?*

Copeland: There are about $1.6 trillion in needed highway improvements in the United States. We trust that the state departments of transportation and local agencies will prioritize and balance the current infrastructure repair backlog with the need for new projects.

Basu: Many of these decisions will be made by local policymakers. Undoubtedly, there are many who will strive to address current infrastructure deficits. Those are the deficits, after all, about which many of their constituents complain. For other policymakers, this represents an opportunity to "go big." That said, one suspects that many of the most pressing issues will be addressed, particularly with respect to deficient bridges.

Black: Each state will decide how to spend their federal highway program funds within the guidelines of the program, depending on their needs and priorities. But in terms of how states use their federal dollars, most funds are already going towards projects to fix existing structures. Under the FAST Act, states used 46 percent of their federal funds to support reconstruction and repair work. An additional 19 percent of funds were used for projects that added capacity to an existing road. This could include widening a lane, adding a turn-lane, or an additional lane for thru-traffic. States used six percent of funds for new highway and bridge construction.

Mortimer: Enactment of the IIJA will ensure we continue to expand highways where needed and bring innovation and technology to address others parts of the system. The legislation ensures states can make the best decisions to improve their road and bridge networks for many years to come. Creation of a new national bridge program will ensure the nation addresses the 45,000 structurally deficient bridges that can be unsafe and in need of modernization.

Pavement Preservation Recycling Alliance (PPRA): Chuck Ingram, 2021 ISSA President: I have a feeling that this money, without earmarks for pavement preservation, will be targeted to construction type projects. In our area, we have already been informed that 75% of any potential funding will be directed to bridges. More substantial, long term projects will likely benefit more from this funding. System enhancement vs. system preservation. But hopefully what may happen is to free up local revenues to be channeled to preservation type work.

Bob Huitt, AEMA 2021 President: New or improved capacity projects are enticing to politicians because they are sexier than maintenance but you have to maintain what you have first with the budget that you have and only after that should we focus on long term projects.

Jonathan Pease, ARRA 2021 President: If the IIJA would allocate a percentage of money be used for recycling and preservation, it could mean a lot for our industry. That said, we have no clue how they will spend it so hard to say how it will effect our limited industries in a fairly large group of infrastructure.

Q: *Many in Congress and the industry have said the IIJA is not perfect, but it still has transformative funding the road building industry needs. What is lacking from this bill?*

Copeland: NAPA worked to include the Wicker-Stabenow amendment to make "paving activities" eligible for the new carbon emissions program and additional funding being stood up in IIJA. Unfortunately, debate on the bill was cut short in the Senate and the amendment was not offered. NAPA will try again when Congress takes up a technical corrections bill on IIJA. However, the IIJA did exempt aggregates, asphalt binder, additives, and polymers from the Buy America requirements for construction materials. Without the exemption, paving activities may have shut down in the northeast and been severely constrained across the country.

Mortimer: Like any legislative process, the need to compromise means that not everyone gets everything they would like. That being said, while imperfect, the legislation is the largest, most comprehensive investment in infrastructure since the creation of the Interstate Highway System in 1956. The positive impacts from this legislation will be felt for 50 years to come. One area where the Chamber would have liked to see more focus on in the legislation is the need to enhance private investment to supplement public investment. Some improvements were made, but we will continue to work with Congress to continue to provide further opportunities to grow private investment as an important tool moving forward.

PPRA:

Ingram: The IIJA missed the chance to create earmarks for pavement preservation.

FUTURE OF FUNDING

Q: *The IIJA reauthorizes the traditional surface transportation programs for five years, with a $118 billion bailout of the Highway Trust Fund (HTF) from the Treasury's general fund. It does not however address the fact that the gas tax is not a sustainable source of revenue moving forward. What should the solution be to shore up the HTF for the future?*

Basu: I have advocated for many years for a federal sales tax. Raising income, corporate and other taxes can create disincentives to work and to produce, which limits their appeal. A federal retail sales tax could raise a considerable amount of revenue,

JUNE 24TH

The bipartisan group of senators reached a deal with Biden who announced the plan would be moving forward. The President acknowledged the deal would not include proposals he's made for spending to help American families, but firmly endorsed the deal on infrastructure.

JULY 28TH

The Senate agreed to take up talks on the $1.2 trillion bipartisan infrastructure package. This was the first step in a process that set up a final vote on the package.

AUGUST 5TH

The Congressional Budget Office (CBO) released their assessment of the $1.2 trillion bipartisan infrastructure package and projected that the senate's bill would add $256 billion to the federal deficit over the next decade. Experts countered that the bill was being paid for in fiscally responsible ways.

Andy Dean / AdobeStock

August 10TH: Senate Passes Bill

After months of debate, lawmakers in the Senate came to a final agreement on the $1.2 trillion bipartisan infrastructure bill. The package, called the Infrastructure Investment and Jobs Act, is the culmination of drawn-out and painstaking negotiations between a bipartisan group of senators and the Biden administration and will allow both parties to claim a win after extensive work across the aisle.

After the Senate passed the bill down to the House for review, they agreed to vote on the measure before the expiration of highway funding.

August 25TH: The House voted 220 to 212 to consider the Senate-passed Infrastructure Investment and Jobs Act (IIJA) no later than Sept. 27.


ipopba / AdobeStock

The U.S. House of Representatives voted to extend government funding for another two months after failing to bring the IIJA vote to the house floor. The vote extended crucial funding for surface transportation projects until October 31st.


freshidea / AdobeStock

September 30TH: Highway Funding Expires

and could be implemented to avoid regressivity. Higher user fees represent another obvious source of revenue for infrastructure maintenance. However, raising such fees on water, toll roads, etc., can be highly regressive. There needs to be more sources of ongoing, predictable revenue. The gas tax will fade in effectiveness over time. It already has been.

Black: The IIJA was funded through a variety of one-time revenues. This means that the revenues going into the Highway Trust Fund, absent this transfer, are not enough to cover the IIJA spending levels. When Congress revisits the highway program as it expires in 2026, they will have to address this issue once again. As in the past, the options are to raise revenues, cut the program, or provide resources from the General Fund.

Over the last decade, we have seen states take steps to diversify their own transportation revenues. While over 30 states have raised their gas tax revenue during that time, many of these initiatives included increases in other revenues and user fees, such as motor vehicle registrations, license fees, business taxes, sales taxes, and revenue raised from alternative-fuel vehicles.

There are also 23 states that have a variable rate component to their gas tax. This means that a part of their motor fuel tax rate adjusts automatically to an outside indicator, such as changes in inflation, project costs, or the wholesale price of gasoline.

Copeland: In the short term, a gas tax increase is needed, but it is critical that multiple options are explored. For example, a vehicle mile tax, tolling, bonding and freight fees need to be explored in the next reauthorization, in addition to the gas tax.

Mortimer: We were disappointed not to have had user fees as part of the funding for this bill. We continue to believe that long-term sustainable funding mechanisms are critical moving forward. The IIJA legislation does include a national pilot program to examine a Vehicle Miles Traveled mechanism. We will continue to work with Congress moving forward to ensure the long-term financial security of the HTF.

PPRA:

Huitt: State and local budgets were hurt when gas tax revenues fell due to less commuting and traveling. We should increase their budgets to make up for revenue shortfalls from the previous 20 months. Local governments know what they need to do with these funds better than anyone.

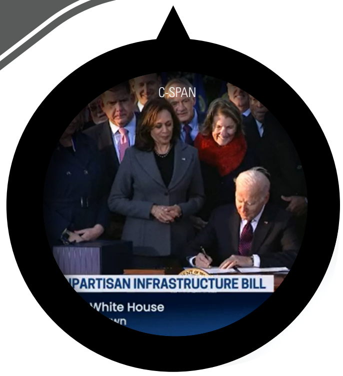
A House vote on the Infrastructure Investment and Jobs Act was delayed again after negotiations among Democrats broke down on Biden's Build Back Better agenda. The House did, however, extend transportation funding until December 3. The funding was set to expire October 31 after a previous 30-day extension.

October 28TH: Congress Passes Another Short-Term Extension of Highway Funding

November 5TH: Infrastructure Investment & Jobs Act Passes House

After months of debate, Democrats hammered out an eleventh-hour deal to send the historic $1.2 trillion bipartisan spending measure to Biden's desk.

President Joe Biden has signed the $1.2 trillion Infrastructure Investment and Jobs Act (IIJA) into law, boosting highway and public transportation investments by $450 billion.



Nov 15th: Biden Signs IIJA Into Law

We need a gas tax reform and we have to assess user fees more appropriately for people who use the roads. The national gas tax has not been raised in a long time and is way behind inflation. There needs to be an inflation clause in any gas tax reform. The time to do this was a couple of years ago when gas was below $2 per gallon. The public doesn't mind another 5¢ per gallon when gas is $2. But when gas is $4, they punish politicians that support it.

High miles per gallon cars and electric vehicles are not paying their fair share. Annual car inspections should include a determination of miles traveled per year and a user-tax to be assessed accordingly. It could be collected with auto insurance payments.

ASPHALT INDUSTRY PROVISIONS IN THE INFRASTRUCTURE INVESTMENT & JOBS ACT:

- A 5-year reauthorization of Federal-Aid Highway programs
- 55% growth in funding above baseline for highway and bridge programs
- $40 billion more in highway and bridge grants
- $15 billion for airfield pavement grants
- $15 billion for private activity bonds
- An exemption from Buy America rules for aggregates, asphalt binder, additives and polymers
- Codifies "one federal decision" to improve project delivery
- Reauthorizes the Accelerated Implementation Deployment Asphalt Technology program, providing $30 million for asphalt
- Incentivizes safety contingency funds to make work zones safer
- Contains no "Green New Deal" provisions or pavement mandates

**Source: National Asphalt Pavement Association*

CONCERNS OVER PRICES & PEOPLE

Q: *Lack of skilled workers and rising material prices were issues facing our industry since long before COVID-19, but the pandemic has increased these challenges. Experts predict a long road ahead to get to the other side of this. Goldman Sachs thinks inflation will get worse before it gets better. Inflation climbed faster in September than it has for more than 30 years and experts predict it could last for at least another 6 to 9 months. How will this impact the industry and implementation of the IIJA?*

Basu: The IIJA will both accelerate growth and further strain labor supply. While road and bridge construction are relatively more capital intensive than other forms of construction, there are already too few workers available to work on large-scale infrastructure projects. Issues pertaining to labor supply extend well beyond road and bridge construction.

We will probably see extended time schedules. Everything that takes longer causes greater resource constraints. It may be that it will take more than five years to deploy much of this infrastructure funding.

Black: The increase in fuel and input prices have been a challenge this year for the entire construction industry, and some contractors have also faced significant delays for select materials. Most economists believe the price increase are a temporary, supply-side issue. So, while the price pressures will likely continue through the first part of 2022, we do expect project costs to moderate as the supply issues are resolved.

PPRA:

Ingram: The industry has faced more unforeseen challenges in the past two years than in the past several decades. Without a stable workforce in terms of numbers, a leveling of material costs, better supply line conditions and more reasonable budgets to fund right-sized, right-placed projects the adjustment will be to continually increase costs

WHAT'S IN THE INFRASTRUCTURE INVESTMENT & JOBS ACT

The IIJA will deliver nearly $550 billion of new federal investments in America's infrastructure over five years, touching everything from bridges and roads to the nation's broadband, water and energy systems. Here's a broad overview of where the money will go:

- $548 billion in new infrastructure spending.
- $110 billion for roads, bridges and major infrastructure projects. Some 20%, or 173,000 miles, of the nation's highways and major roads are in poor condition.
- $40 billion for bridge repair, replacement and rehabilitation. 45,000 bridges are structurally deficient and the White House says this is the single largest dedicated bridge investment since the construction of the interstate highway system, which started in the 1950s.
- $25 billion for airports. Of that amount, $15 billion is distributed by formula over five years for grants to airports to use for their Airport Improvement Program.
- $11 billion for safety for the National Highway Traffic Safety Administration, Federal Motor Carrier Safety Administration, Pipeline and Hazardous Material Safety Administration, and a "Safe Streets for All" program.
- $16 billion for major projects that would be too large or complex for traditional funding programs.
- $1 billion to reconnect communities -- mainly disproportionately Black neighborhoods -- that were divided by highways and other infrastructure, according to the White House. It will fund planning, design, demolition and reconstruction of street grids, parks or other infrastructure.
- 39 billion for transit, including for Capital Investment Grants and the "low-no" emission vehicle procurement program.
- $17.3 billion for ports and waterways.
- $46 billion for infrastructure resiliency investments.
- $7.5 billion for low-carbon and zero-emission school buses and ferries along with another $7.5 billion for electric vehicles and low-carbon school buses and ferries.
- $65 billion for broadband, $55 billion for water infrastructure, along with $73 billion for power and electric grid infrastructure investment.

The spending is partially paid for with unused coronavirus relief dollars, unused federal unemployment aid, sales of oil from the Strategic Petroleum Reserve, increased fees for some Superfund sites and customs, and delaying a Medicare expense for a year. Some money would also come from tighter enforcement to ensure cryptocurrency investors pay taxes once they sell and realize their gains. Budget experts say the bill is likely to add about $350 billion to the deficit over the next decade.

"Enactment of the historic IIJA could not have happened without industry stakeholders coming together and speaking with one voice," says Edward Mortimer, vice president, transportation infrastructure, United States Chamber Of Commerce. "It was a long and windy legislative process, but with stakeholders working together, Congress finally acted to the benefit of all Americans in passing the IIJA. Now it is incumbent upon us to work with Federal, state and local partners to ensure the legislation delivers "shovel-worthy" projects that transform our nation's infrastructure and provides safe and efficient transportation networks that will benefit America's economy and quality of life for many years to come."

MORE IMMEDIATE ISSUES: VAX & TECH

Q: *Companies that have been busy with work have also been tasked with keeping their workers safe from the virus, and a potential vaccine mandate.*

Copeland: OSHA's Vax/Test ETS will significantly impact productivity. There will be a lot of paperwork and recordkeeping requirements. There is also concern, in some areas, that companies will lose a portion of their workforce if mandatory vaccines or weekly testing are implemented. NAPA and its coalition partners were successful in advocating that outdoor workers are at low risk for COVID transmission and, as OSHA recognizes their low risk, those workers are exempt from the Vax/Test Rule.

Q: *The IIJA reauthorizes the Advanced Innovation and Deployment of Paving Technologies program, which allocates $6 million per year for FHWA to advance and deploy asphalt technologies to improve quality and efficiency. What other technologies and innovations will the industry continue to see and utilize to help them stay productive?*

Basu: The great revolution in construction delivery is coming. It may take many forms, including prefabrication, modularization, more robotics, advances in materials science, more sophisticated equipment generally, 3D printing, digitization, drones, driverless vehicles and artificial intelligence. Construction services are delivered today much as they were decades ago. That will change, and there will be a handful of companies that will lead the way. Hopefully, those companies will be American, creating new export channels in the process.

Copeland: The pandemic was a catalyst for implementing e-ticketing more rapidly than most expected.

Balanced Mix Design (BMD) would be a positive disruptor if owners use it as an opportunity to let contractors innovate with their materials and mix design methods. In certain regions, road owners are or will be requiring Environmental Product Declarations (EPDs) of construction materials, prompting asphalt mix producers to quickly learn how to determine the impact of their mixtures on the environment.

NAPA encourages contractors to get involved with cooperative organizations that will give them a voice in the room along with early access to conversations that owners and researchers are having to prepare for the future.

to remain solvent. We've prepared for what hopefully will be the worst so far, but no improvement is on the horizon. People staying home for whatever reason, logjams in political circles and worsening infrastructures don't add up to a quick turnaround for projects.

Q: *The IIJA will create "good-paying jobs that can't be outsourced" – as many as 660,000 new jobs by 2025, according to a Washington Post analysis. This is a little concerning for an industry that's already struggling to find workers. There are reports that the bill includes funding and provisions to get more job training programs going, and to get more women into the construction and trucking industries, but what else can we do to fill these open careers?*

Copeland: For some of our members in certain regions, hiring is a very real concern, and they are contemplating the best measures to recruit and retain workers. Our industry is fortunate that asphalt employees were by and large able to continue working throughout the pandemic and the retirement rate for this industry is lower than the national average. Pre-pandemic, NAPA established an effort to provide tools to help the industry recruit and retain talent. Through careful planning, innovative construction techniques, persistent recruiting, and collaboration with agency partners, the industry stands ready to continue delivering high-quality asphalt pavements. The people who perform the work are invaluable; without them, tasks cannot be accomplished. Great employers differentiate themselves from their peers by building a climate and culture that attract the types of individuals who can meet the organization's goals. Employee incentive programs, active employee engagement surveys, investing in professional training and development, and simply saying "Thank You" go a long way toward job satisfaction.

Basu: The IIJA should have had a much larger human capital development component. This represents an opportunity to induce more Americans into apprenticeship and similarly situated programs. The goal should be to create an extraordinarily talented pool of construction workers who can continue to help build out America in various ways even after these infrastructure dollars have been spent. Of course, there will also be considerable numbers of retirements during the years ahead. The focus should be on young people, including from under-represented groups, including women. Too few young people are aware of the opportunities from growth and prosperity offered by the skilled construction trades.

Black: Over the decade, since states began increasing their own revenues, highway and bridge contractors have added over 60,000 jobs. During that same time, industry wages increased at a faster rate than in other sectors to attract that labor. We expect the market will adjust, although in some regions there may continue to be challenges. The adoption of new technology and increases in productivity will also help deliver projects.

Mortimer: As we know, workforce challenges have been a problem the last several years. Our view is that enactment of IIJA provides a new opportunity to redouble our efforts to reach out to underserved communities and inform and educate on the job opportunities available to modernize our nation's infrastructure. We also look forward to partnering with labor partners to provide apprentice and other job training opportunities. The key is to reach out to communities that may not have heard of the potential job opportunities and provide them the knowledge and skills to ensure they are part of building modern infrastructure. This is also a commitment of the Biden Administration and we look forward to partnering with them to ensure communities participate and benefit from building 21st century infrastructure. **AC**