

November 16, 2022



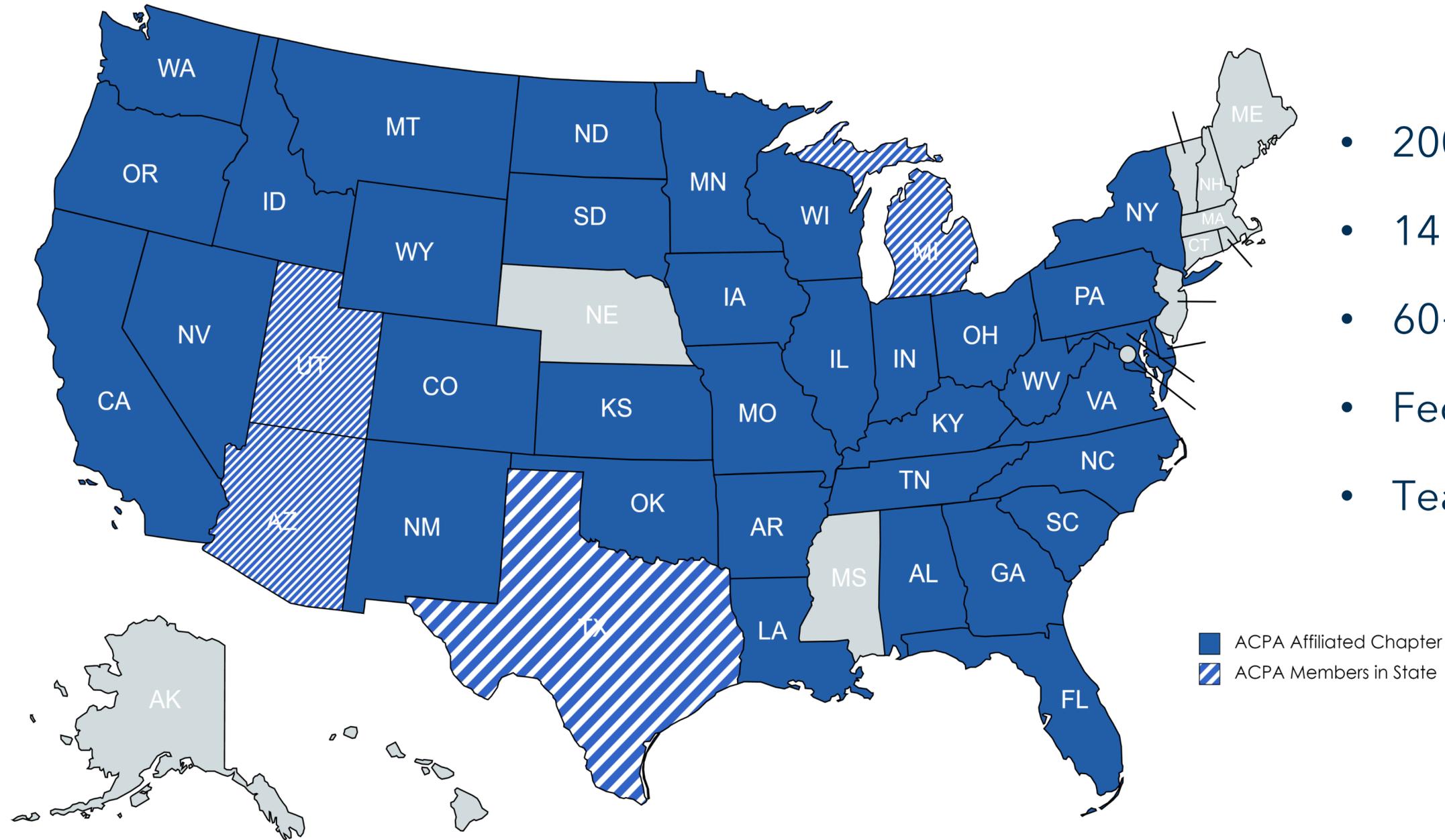
Arizona Pavement/Materials Conference 2022

Laura O'Neill Kaumo

President & CEO, American Concrete Pavement Association



Across the United States – Who is ACPA?



- 200+ Contractor Members
- 14 Cement Companies
- 60+ Equipment, etc.
- Federation of ~ 20 Chapters
- Team of Civil Engineers

Who Are We – ACPA National Team



GARY MITCHELL, P.E.
VP - CHIEF OF ENGINEERING
AND CONSTRUCTION



ERIC FERREBEE, P.E.,
SENIOR DIRECTOR OF
TECHNICAL SERVICES



ANDY GIERALTOWSKI
CHIEF OPERATING OFFICER



LARRY SCOFIELD, P.E.
PAVEMENT INNOVATION
(SHARED W/ IGGA)



TIM MARTIN, P.E.
SENIOR VICE PRESIDENT
OF ENGINEERING



DOMINIC GATTI
COMMS AND GOVERNMENT
AFFAIRS MANAGER



AMBER DAVIS
ADMINISTRATIVE AND
EVENTS COORDINATOR



CHRISSY MYSKO
MARKETING/COMMUNICATIONS
COORDINATOR



ANNA MCMULLEN
DIRECTOR OF MEMBERSHIP
AND CHAPTER RELATIONS



VAL KILMENT
ACCOUNTING ASSISTANT

Who Are We – Our CEO



UNIVERSITY OF MIAMI
SCHOOL of LAW



ACEC



Where ACPA is heading: ACPA's Vision and Mission

ACPA's mission is to develop and protect concrete pavement markets through education, advocacy, marketing, and industry technical leadership.

ACPA's vision is for concrete to be the pavement material of choice, benefitting communities and society within US, state, and local economies.

***ACPA is the only
national trade
association
dedicated solely
to concrete
pavement***

Implementing our Strategic Plan

ACPA's Strategic Plan calls for improved marketing efforts and stronger communication strategy:

- Increase understanding the role concrete pavement plays in **sustainability and resiliency**
- Increase understanding that concrete pavement is a critical long-term solution to **environmental needs**
- Increase the understanding of the impact of low-bid contracts on **sustainability** and workforce

***ACPA Chapters
name marketing
and
communication for
promotion support
as number one
need from ACPA***

Why Do We Care - 2022 Mid-Term Elections

- **No Red Wave**
- **Close political margins - House R's, Senate D's + Runoff**
 - Neither party has a mandate
- **What does this mean for infrastructure funding?**
 - Potentially a positive but watch Appropriations
 - Investigatory Oversight = Inflation, Environmental Issues
- **Sizable Gen. Z turnout**
 - Profile of Gen. Z as a voter
 - Sustainability, Resiliency, and Equity *here to stay*

Federal Funding

Fiscal Year 2022

- \$45.1 B in total paving-relevant formula highway spending
- \$5.66 B in total paving-eligible competitive grants
- \$823.6 M in paving-relevant formula highway funding for Arizona
- \$69.5 M in Airport Improvement Program for Arizona

Fiscal Year 2023

- \$45.9 B in total paving-relevant formula highway spending
- \$5.72 B in total paving-eligible competitive grants
- \$840.1 M in paving-relevant formula highway funding for Arizona
- \$2.8 B subject to appropriations that Arizona can compete for

Government Operating Under Continuing Resolution Until Dec 16

Includes emergency funding for hurricane and wildfire victims

Federal Funding – Competitive Grant Opportunities

Going Beyond Core Highway Formula Funding Programs

- The IIJA funds numerous competitive grants including INFRA, RAISE, Mega, Port Infrastructure Development Program, FLTP, Rural, PROTECT discretionary, and Healthy Streets.
- Additional competitive grant opportunities are available such as FHWA's Climate Challenge, Thriving Communities Program, SMART, and Accelerated Innovation Deployment.
- ACPA is monitoring grant opportunities and helping Chapters work with states and localities to take advantage of available funds.



Generation Z Voters

Sustainability, Climate Change Concern, DEI Issues here to stay...

- 1 in 8 voters Gen Z
- Diverse voter demographic
 - 48% Gen Z voters of color
 - More likely to embrace DEI & LGBTQ issues
- More likely to look to government to solve problems
 - Believe global warming caused by human activity
 - Learned from debt lessons of millennials, but still motivated by social issues

“Gen Z power is only growing, and it will permanently change the dynamics of our elections. They comprise 10% of eligible voters already, a share that will increase with each passing day as more age into the electorate.”

- Time Magazine

Concrete Paving Relevant Material for the Future

Strong case to be made for concrete paving

- Look at entire life cycle
 - Use phase, > fuel consumption
 - Aging concrete absorbs carbon
- PCA Roadmap to Carbon Neutrality
- Long-life Pavements - 50, 75, 100 years
- Lowering Temperatures, reduces heat islands
- Resiliency
- Overlays, strong option

CONCRETE: THE SUSTAINABLE PAVEMENT SOLUTION

With a **LONG LIFE OF 30 OR MORE YEARS** with minimal maintenance, concrete pavements are economically sustainable and cost efficient.



Concrete pavement's lighter color **MITIGATES URBAN HEAT ISLAND EFFECTS** and can help offset global warming.

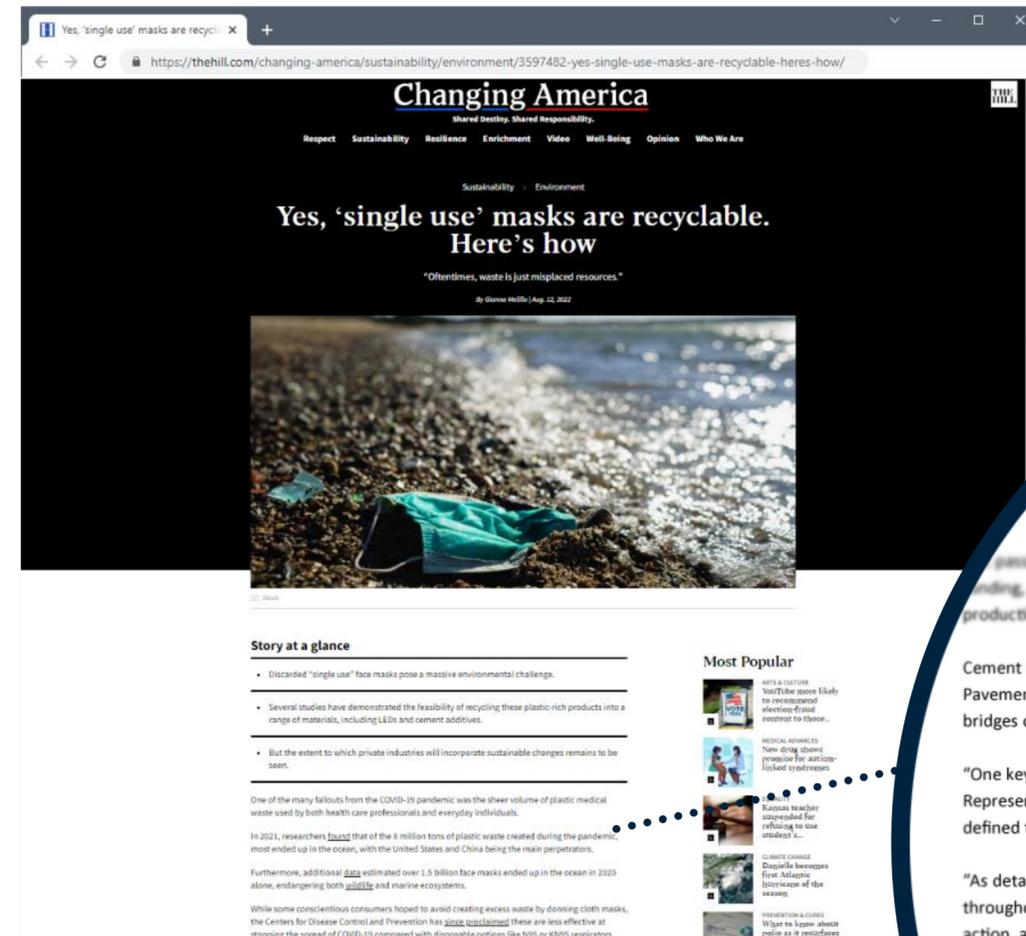
Smooth, rigid concrete pavements **REDUCE VEHICLE FUEL CONSUMPTION.**



As concrete pavement ages, it **ABSORBS CARBON DIOXIDE**, helping to reduce the amount of CO₂ in the atmosphere.

Sustainability Whitepaper

- Outlines ACPA's case for concrete paving
- Will be released December 1, 2022 ACPA's Annual Meeting
- Builds on PCA's Roadmap to Carbon Neutrality
- Will address - EPDs, Relationship to Resiliency



Cement is an ingredient of concrete, widely used for road construction and paving. A report from the American Concrete Pavement Association (ACPA) on the IJA notes "the legislation authorizes \$304 billion to the Highway Trust Fund for roads and bridges over five years with approximately \$100 billion in new spending for roadways specifically."

"One key initiative to ensure the sustainability of concrete pavement is to reduce the [carbon dioxide] emissions of cement. Representing manufacturers of the most widely used cement type, Portland cement, the Portland Cement Association (PCA) has defined the industry's efforts in its Roadmap to Carbon Neutrality," said the ACPA in a statement to Changing America.

"As detailed in the Roadmap, America's cement manufacturers have committed to the goal of reaching carbon neutrality throughout the cement-concrete-construction value chain by 2050. The Roadmap provides direction and incentives that urge action, and the concrete pavement industry and ACPA are in full alignment with the Roadmap's objectives, which support the IJA's call for sustainable paving materials."

For Shi, he hopes the law will spur agencies into action.

"Without sufficient funding, usually there's plenty of deferred maintenance. There's no room for innovation," he said. "But with an increased investment, I think it's definitely going to inspire both the public sector and the private sector to look for more innovative solutions and more sustainable solutions."

He noted that even though the process used in his team's lab experiments was innovative, he doesn't plan to file a patent.

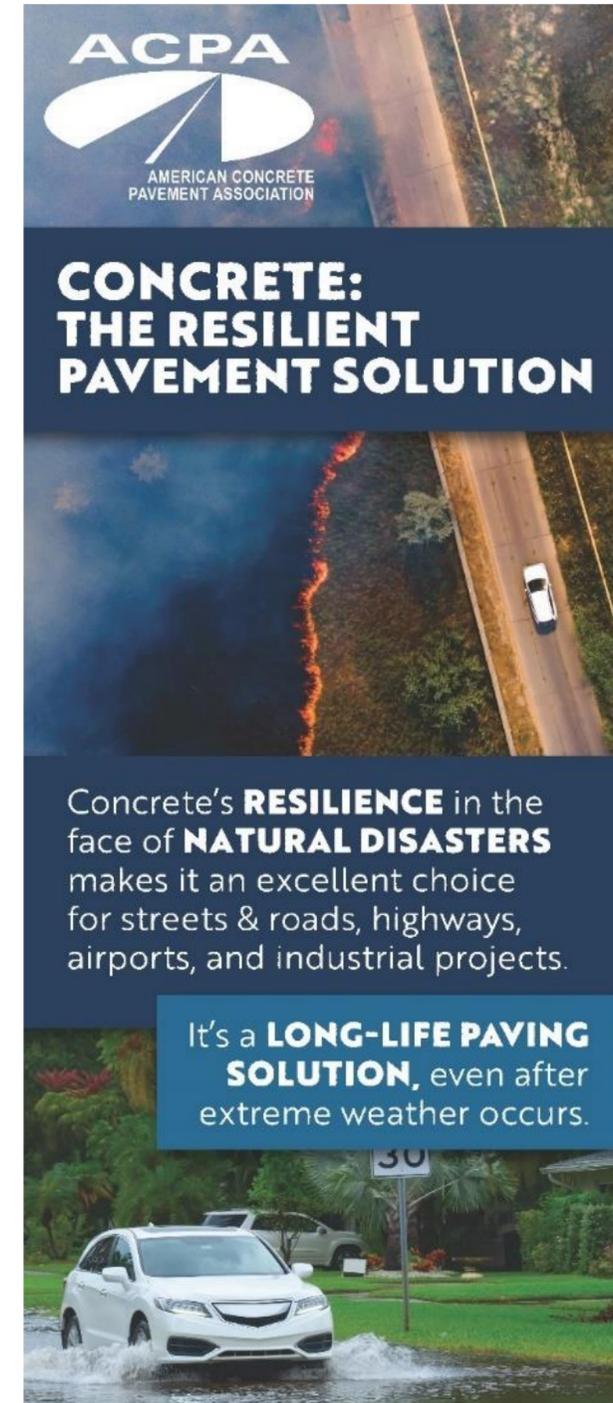
"It is to demonstrate the beneficial use of masks and inspire people to collect the masks in their communities," he said.

"...material, significant improvements in cement tensile strength...

Beyond Sustainability: Resiliency

Resiliency and Sustainability are Connected!

- Resiliency = ability to anticipate and adapt to changing conditions and quickly recover
- Concrete pavement excellent choice when considering withstanding natural disasters w/ greater intensity and duration
- Long-life solution even after extreme weather conditions



Beyond Sustainability: Equity

- Sustainability is often defined as the intersection between the **"Three E's"**: equity, environment, and economy
- Transportation social justice can couple with "urban heat island effect"
- Concrete pavements help mitigate the consequences of inequitable infrastructure design by using quieter, safer, more durable, and cooler pavements



ON-DEMAND WEBINAR

**TRANSPORTATION
RESILIENCE FOR A
CHANGING CLIMATE**

PRESENTER
Nick Vivian, P.E.
Pennsylvania DOT

American
Concrete Pipe
Association

Year after year, States and communities across the Country are seeing an increasing number of intense extreme weather events, causing substantial impacts to transportation systems across the United States. This webinar focuses on resiliency and sustainability by featuring Pennsylvania Department of Transportation and how they are working toward meeting the challenges involving climate change, equity, infrastructure resiliency, and safety.

Shaping the Conversations Shaping Our Industry

ACPA Upcoming Communications Efforts

- Long-Life Pavement Campaigns
- Sustainability White Paper
- Importance of preservation
- Impact of Low Bid Contracts

WISCONSIN Bipartisan Infrastructure Law (BIL)

Roadway Pavement Related BIL Funding	FY 2022
National Highway Performance Program (NHPP) The NHPP is the federal-aid highway program that supports improvements in the condition and performance of the National Highway System. Eligible activities include construction, reconstruction, restoration, resurfacing, and preservation of NHS segments, bridges, or tunnels.	\$552,315,450
Surface Transportation Block Grant Program (STBG) The STBG program is the federal-aid highway program with the broadest eligibility criteria. Funds can be used on any federal-aid highway, on bridge projects on any public road, and for other purposes.	\$268,694,003
PROTECT Grants Program (PROTECT) PROTECT is a formula and competitive grant program to help States reduce the vulnerability of transportation assets to natural disasters.	\$27,242,586
National Highway Freight Program (NHFP) The overarching aim of the NHFP is to improve the efficient movement of freight on the National Highway Freight Network.	\$26,094,521
Total Roadway Pavement Related	\$874,346,560

Airport Related BIL Funding	FY 2022
Airport Improvement Program (AIP) AIP provides grants to public agencies – and, in some cases, to private owners and entities – for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems.	\$39,799,581 over 86 airports Largest recipients: • NKE @ \$6.5M • MSN @ \$3M • ATW @ \$3.1M

Wisconsin Concrete Pavement Association
LEARN MORE AT WISCONCRETE.ORG

Concrete Pavement's Role in a Sustainable, Resilient Future



AMERICAN CONCRETE PAVEMENT ASSOCIATION

CASE STUDY: PERMANENT PAVEMENTS

MINIMAL REPAIRS NEEDED TO BRING I-70 IN COLORADO INTO ITS 50TH YEAR AND BEYOND

A concrete section of I-70 located on Colorado's western slope has served its region for 46 years. Despite supporting population growth that took Rifle from about 2,000 residents to more than 10,000 and doubled the expected traffic volume, the pavement has required rehabilitation only twice and is expected to last for many years to come.

Constructed in 1976, the concrete section of I-70 outside of Rifle, Colorado, is 10.5 miles of 8-inch concrete pavement on a cement-treated base. The road was originally constructed to continue the development of the interstate highway system through Garfield County. It has served northern Colorado with minimal maintenance for 46 years and is intended to stay in service for years to come. At the time of its construction, Rifle had just over 2,000 residents; during the decades following the construction of the concrete section of the highway, the municipality's population grew rapidly and now boasts over 10,000 residents. Throughout the five-fold increase in population and doubling of expected traffic volume, the concrete section of highway has required only minor rehabilitation on occasions. The pavement met its 20-year design life in 1996 with no rehabilitation work needed. In 2004/2005, early 30 years after construction – the Colorado Department of Transportation (CDOT) completed a panel cement and diamond grind project to improve rideability. In 2014 – 38 years after construction – CDOT completed another panel replacement project. As of 2022 – 46 years after construction – CDOT has spent a mere \$7.9 million on rehabilitating this long-life pavement. The state's most recent condition survey identified that this section of highway would benefit from additional panel replacements and diamond grinding, so CDOT has a minor rehabilitation project scheduled for 2023. CDOT plans to continue to maintain this pavement, ensuring it will effectively perform for well over five decades.

COMMUNITY IMPACTS

In a ranching community originally populated after the arrival of the railroad, Rifle depends on its connection to the rest of the state. The concrete section of I-70 outside of Rifle served the area throughout its period of greatest population growth and is older than the majority of the current residents. Connecting the rural region between Grand Junction and Denver, the long life of the concrete pavement has supported Rifle and the surrounding area for 46 years and will continue to do so for years to come.

KEY BENEFITS

- The long life of this pavement:
- Saved taxpayer dollars by serving its purpose with minimal repairs
- Conserved resources by not needing reconstruction or replacement
- Reduced greenhouse gas emissions by increasing the fuel efficiency of the large number of trucks traveling over it
- Freed up state resources to pursue infrastructure projects in other parts of the region

CONCRETE PAVEMENTS - THE PERMANENT SOLUTION



Cement “Tightening”/ Supply Chain Issues Impacting Project Delivery?

- Supply chain issues impacting most industries
- Workforce Shortages
- Supply Chain Issues/Trucking/Rail
- Portland Cement Association’s Outlook and Presentation at ACPA’s Annual Meeting
- Working with state DOTs to ensure consistent delivery of quality concrete pavements





Registration Is Open

Concrete Pavement University | Excellence in Paving Awards | Grand Ole Opry Tour | Market Forums | Chairman's Reception | Economic Outlook | Exciting Excursions | Distinguished Service Awards



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Thank You

