

Quarter 1 | 2018

CONCRETE PAVEMENT PROGRESS



The Highway Pavement That Beat the Odds

ALSO IN THIS ISSUE:

Reconstructed US 301 Addresses
Congestion and Safety Issues

ACPA Names Recipients of Annual
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A Time for Celebration

IN THIS ISSUE OF CONCRETE PAVEMENT PROGRESS, we report on some exceptional projects and people.

Our cover story describes a section of pavement that has lasted more than 70 years, and which continues to play a vital role in California's Inland Empire. The 10-mile section of highway was originally built as a rural four-lane highway from Ontario to Colton, California. Now part of Interstate 10, the pavement has beaten the odds (and the passage of time) and far outlasted its original design life.

We also visit a project in Delaware, a remarkable reconstruction project that will address the increased traffic volume and growing safety concerns, while also providing road users with a durable pavement that will meet both present and future needs.

We also reveal the gold and silver award recipients in our "Excellence in Concrete Pavement" awards program. We are also pleased to present the recipients of our "Distinguished Service Awards," including our distinguished Hartmann-Hirschman-Egan award.

Many of the projects featured in this issue have beaten the odds, which is to say, have overcome the challenges of weather, extremely tight schedules, and a host of other factors that can not only impede construction schedules. Others have stood the test of time, meeting or exceeding their design lives.

And, of course, behind these and many other projects, are the people whose efforts on the grade, in the laboratory (or through field research), or in the classroom, have contributed significantly to the construction of quality projects.

We're pleased and proud to celebrate them all, and as we mentioned in our 4th quarter 2017 issue, we even held a "birthday party" of sorts to celebrate the project in California.

We're eager to tell your story about how you and your team have beaten the odds to complete a high quality, durable concrete pavement project. Our goal is to continue to celebrate the fine work and excellent concrete pavements by ACPA members! Please let us know the highlights so we can tell your story!

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The Highway Pavement That Beat the Odds

By Sheryl S. Jackson

IN 1947, A 10-MILE SECTION OF HIGHWAY, originally designated US 70-99, was built as a rural four-lane highway from Ontario to Colton, California. Seventy years later, the highway section, now part of the bustling Interstate 10, plays a vital role in California's Inland Empire, the state, and the nation.

That would be a remarkable feat for any pavement, but considering this highway section is only approximately 8 in. thick, the story becomes even more intriguing.

"It is amazing that the road has survived this long, especially with the volume of heavy truck traffic that it handles," says Michael Ristic, P.E., Senior Transportation Engineer, District 8, California

Department of Transportation. In 1993, the stretch of I-10 in Ontario, California carried 90,000 vehicles per day—today, the volume is more than 280,000 vehicles per day, which includes a much higher percentage of large trucks. "For a comparable road today, we expect a 12- to 14-in. concrete pavement to last 40 years."

Steel tie-bars were used to prevent the lanes from separating and to reduce cracking. "While there was some use of tie-bars in the 1940s, [the technology] was not used from the 1950s to 1970s, but now it has become standard practice again," says Ristic. He also believes that the quality of material and the likelihood that the concrete could cure in place for roughly five months

before it opened for traffic has contributed to the pavement's long life.

The pavement also holds the distinction of being the first highway section to be diamond ground, which was a revolutionary process when it was first treated in 1967. "This was the first site of diamond grinding in the nation," Ristic said, adding, "It was repeated on the same pavement sections in the 1980s, in 2000 and in 2016," he explains.

"Actually, the 8 in. of concrete pavement is really now only 7.5 in." Even with the thinner concrete layer, only about 25 percent of the original pavement has been replaced over the years, he adds.

continues on page 8 »

CALIFORNIA I-10

PROJECT SNAPSHOT

- » **Year Built:** 1947
- » **Location:** Ontario, California
- » **Pavement Length:** 10 miles
- » **Project Features:** 8-in. concrete pavement, steel tie-bars, diamond grinding for maintenance
- » **Original Contractors:** Match Corporation and the Griffith Company





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Tips for Planning a Birthday Party for Your Pavements

The 70th Anniversary Celebration for I-10 in Ontario, California was the first pavement celebration planned by the public relations team at Caltrans' District 8 office. District 8 public information officer Joy M. Schneider shared a few tips that will help ensure a successful special event:

- » **Develop a planning checklist.** Identify all activities required to implement the event, with responsibilities assigned to an individual, timeframe for completion, and a column for notes on progress at weekly meetings. Make sure everyone is working from the same list and has the same updated information throughout the planning process.
- » **Create a theme.** Whether the theme is simply a color palette or a design, such as the diamond design picking up on the diamond grinding innovation, use it consistently in all materials related to the event.
- » **Think about the visuals.** With or without media at an event, it is guaranteed that photos will appear on social media. For this reason, be thoughtful about what those photos look like by creating a setting that sends the message you want—even if you are not taking the photos. Schneider's office placed plants on stage to add depth and texture to the background, added a white and blue balloon arch over the stage to create a festive feeling, and produced an event-specific podium placard with the theme design and name on the card. "If you have elected officials at the event, be aware that their staff will be taking photos for social media to let constituents see them representing their areas," says Schneider.
- » **Plan giveaway items to commemorate an event.** A souvenir coin with the diamond design, event name, and date was given to each person attending the event. Schneider points out that although coins are an emerging trend in commemorative takeaways, make the item fit your event.



» continued from page 6

Concrete paving on bituminous treated subgrade on the Ontario-to-Colton Freeway



Celebrating the past, embracing the future

This unique pavement section was recognized with a celebratory event in August 2017. Tom Tietz, executive director of the California Nevada Cement Association, spearheaded an event that was supported by Caltrans, the Southwest Concrete Pavement Association, CalPortland Company (which supplied the original cement), the American Concrete Pavement Association, and Portland Cement Association.

“It was a great partnership between our office and the industry representatives because we have limits on what we can spend on special events, and we can only spend money that can be charged to active projects—which this obviously was not,” says Joy M. Schneider, public information officer for District 8.

About 60 people including industry representatives, The Hon. Jim Frazier, Assembly Member (11th District) presented a joint resolution to John Bulinski, Caltrans District 8 Director. Also presenting comments were The Hon. Eloise Gomez-Reyes, Assembly Member (47th District), The Hon. Marc Steinorth, Assembly Member (40th District); and Allen Hamblen, President/CEO of CalPortland and 2017 Chairman of the Portland Cement Association Board of Directors. Also participating in the event were Caltrans employees and representatives of the original contractor companies companies attended the event.

For this reason, everyone was happy to have an opportunity to learn about the pavement’s history and celebrate it. “Our engineers were ecstatic about the event,” says Schneider. “Department of Transportation employees don’t always get recognized in a positive way, and it was important for the contractors, Caltrans employees, and industry representatives to talk about a positive.”

“Our engineers were ecstatic about the event. Department of Transportation employees don’t always get recognized in a positive way, and it was important for the contractors, Caltrans employees, and industry representatives to talk about a positive.”

– Joy Schneider, District 8 public information officer

In November 2017, ACPA presented its Longevity Award to Caltrans District 8, and accepting the award were Jian (James) Lan, P.E., Senior Transportation Engineer, and Kevin H. Chen, P.E., Transportation Engineer.

At this writing the pavement remains in service. There are plans to reconstruct the outside two lanes to accommodate increasing numbers of trucks. Eventually, the remaining pavement will give way to a toll lane, but Caltrans' Ristic is quick to explain the replacement is not related to the pavement condition. "It is in good shape, but it is more cost-effective to remove it with the new construction," he explains.

Several core samples were presented to dignitaries, as well as to ACPA, where it is displayed in the Association's historical artifacts exhibit. Long after the pavement is replaced, the original 8 in. pavement will endure—not merely as a relic, but as a reminder of the potential of concrete pavements and the innovative spirit of the agencies, contractors, and suppliers. ✧



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Reconstructed US 301 Addresses Congestion and Safety Issues

Road is second major concrete project since early 2000s

By Sheryl S. Jackson

U.S. HIGHWAY 301 BEGAN AS A TWO-LANE UNPAVED ROAD, connecting farms, businesses and towns. Since the 1950s, the highway, which extends from Maryland through Delaware to connect to US Route 40, has seen an increase in traffic and congestion as commercial and residential growth has expanded.

To address the increased volume and growing safety concerns, the highway is getting a new life as a four-lane toll road with electronic tolling.

“A new and upgraded US 301 in Delaware has been talked about since the mid-1960s,” says

Kenneth L. Cimino, public outreach coordinator for the US 301 Mainline Project, Delaware DOT. “The existing highway has been built and upgraded in various stages over many years. While it is in good pavement condition, there are numerous traffic signals and driveways, and in some places, there is only one lane in each direction, which contributes to the safety and congestion issues.”

The Federal Highway Administration approved the plans for a new corridor in 2008 and construction began in 2015 on the new, \$470-million, four-lane electronic toll road that will bypass the existing highway.

“The 14-mile corridor is being built to address safety, the mixture of local and regional traffic, and the high percentage of trucks in this important commercial corridor,” says Cimino. “It will also address congestion in the Middletown area and below the Chesapeake and Delaware Canal, the highest population and commercial growth area in New Castle County Delaware.” The highway is scheduled to open in December 2018.

The US 301 mainline travel lanes and shoulders are being constructed with concrete to produce a 40-year pavement. “Concrete for the mainline travel lanes was chosen through a detailed

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11.04.2017 01:43



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Life Cycle Cost Analysis in partnership with FHWA,” explains Cimino. Concrete payment is considered for new major highway projects in Delaware, but the last new major highway project that used concrete pavement was the new alignment for State Route 1 from Dover to I-95, which was completed in the early 2000s, he adds.

Multiple Contracts

The project was split into seven different contracts to balance competition and to increase construction efficiency, says Cimino. “DelDOT recognized that if the project was bid as one contract that it would potentially limit competition, and potentially increase construction costs.”

Atlantic Contracting and Material Company, an ACPA member, is working as the paving subcontractor on the contract that includes about 4.5 miles of mainline work, creating six ramps and tying into seven bridges.

“The road is two Northbound and two Southbound lanes, with each lane 12-ft wide, a 10-ft outside shoulder and a 4-ft inside shoulder for a total width of 38 feet,” explains Tate Cantwell,

resident engineer for Century Engineering. “The entire road, including shoulders, is concrete pavement.”

“The pavement is 12 in. of portland cement concrete with a 6-in. soil cement base and 12-in. Type A borrow,” explains Cantwell. “There is also a 4-in. asphalt-treated permeable base layer and a 6-in. underdrain.” In addition to paving the mainline, temporary detour roads were created to move traffic around new bridge construction, he adds.

Although building a new road through open land with few roads to cross over is less complex than reconstructing an existing road in a high-traffic area, the project still presented some challenges due to delays in construction work that preceded Atlantic’s work, says Patrick Smith, PMP, senior project manager for Atlantic. “Originally, we were supposed to begin paving in August 2017, but we were not able to start until the first week in November.”

The delay meant dealing with nighttime temperatures that were below 40 degrees F. Because DelDOT requires ambient temperatures to be 40 degrees and rising for concrete paving operations,

it was necessary to get approval to pave, says Smith. “DelDOT changed the guideline to 35 degrees and rising, which made it possible for us to continue paving into the first week of December,” he says. “We targeted our batch for 60 degrees, which required the use of a boiler in our plant and we did change our mix design include nearly 15 percent cementitious material.”

Another challenge was acting as a subcontractor rather than a general contractor, Smith says. “We are a high-production operation and often serve as the general contractor on projects. On this project, we were not responsible for scheduling all other crews and the general contractor did not believe that we would pave as fast as we did,” he says. Once Atlantic’s crews began paving, the general contractor’s crews were often just a step ahead of the paving operation.

The delayed start to the paving operation meant that only about 40 percent, or about 93,000 square yards of the project was completed when cold weather stopped construction in December 2017, says Smith. “We’ll start up again in March and finish the job in about three to four weeks—14 pour days.”

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“About halfway through the day, we realized that we had a chance to meet the one-mile mark, adrenaline kicked in and we completed a 24 ft-wide, one-mile stretch in one day. It was a very long day, but everyone was excited to reach the goal.”

– *Patrick Smith, PMP,
Atlantic senior project manager*

» continued from previous page

Stringless Paving

One reason the actual paving went quickly, was the use of stringless paving—a new technology for Atlantic. “Our first stringless paving project was an 800 ft-long helicopter apron at Norfolk Naval Station, which served as a test of the technology for us, but US 301 was our first mainline road project for stringless technology,” says Smith. Although there was a learning curve for Atlantic personnel, after a few days, the crew was regularly paving one-half mile each day, with a goal to pave one mile in one day.

That goal was reached, points out Cantwell. “Cold weather slows paving, but all the stars lined up perfectly one day for the paving crew to reach the one-mile mark.”

“About halfway through the day, we realized that we had a chance to meet the one-mile mark, adrenaline kicked in and we completed a 24 ft-wide, one-mile stretch in one day,” says Smith. “It was a very long day, but everyone was excited to reach the goal.” ✦

U.S. HIGHWAY 301

PROJECT SNAPSHOT

- » **Total Project Cost:**
\$ 470 million
- » **Total Project Length:** 13+ miles
- » **Individual Contracts:** 7
- » **Project Length for Atlantic Contracting & Materials' Contract:** 4.5 miles
- » **Number of Concrete-Paved Lanes:** 2 Northbound, 2 Southbound 12-ft lanes with 10-ft outside shoulder, 4-ft inside shoulder
- » **Mainline Pavement:** 12-in. of PCCP, 6-in. cement soil base
- » **Amount of Concrete:** 185,000 square yards
- » **Contractor:** Atlantic Contracting & Materials



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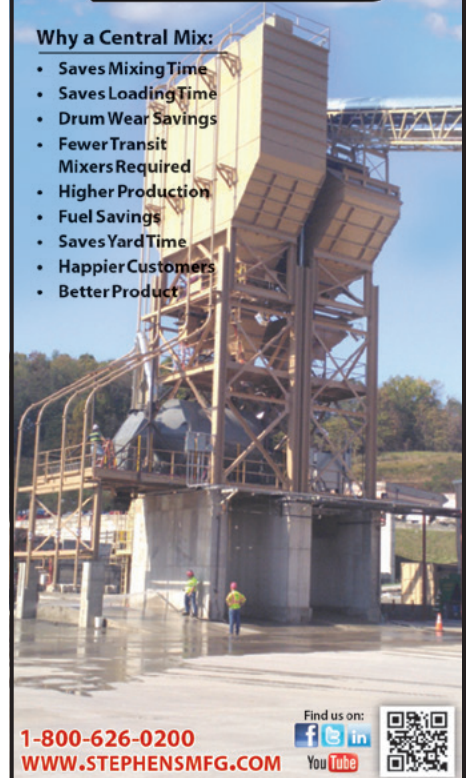
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ACPA Names Recipients of Annual “Excellence in Concrete Pavements” Awards



The American Concrete Pavement Association (ACPA) has named recipients of its 28th Annual “Excellence in Concrete Pavements” awards, which recognize quality concrete pavements constructed in the United States and Canada.

The awards program encourages high-quality workmanship in concrete pavement projects, and serves as a way to share information about challenging and highly successful projects. The program recognizes contractors, engineers, and project owners who completed outstanding projects.

For more details about the projects, please visit www.acpa.org/excellence2017a. ✦

Reliever & General Aviation Airports



Jack Edwards National Airport Improvements, Gulf Shores, Ala.

CONTRACTOR: A.G. Peltz Group, LLC
OWNER: Jack Edwards National Airport
ENGINEER: Barge, Waggoner, Sumner and Cannon, Inc.



Reconstruction Project at Northwest Missouri Regional Airport

CONTRACTOR: Ideker, Inc.
OWNER: City of Maryville, Missouri
ENGINEER: Jviation, Inc.

Commercial Service & Military Airports



Runway 14-32 Rehabilitation, Pittsburgh International Airport, Findlay Township, Pa.

CONTRACTOR: Golden Triangle Construction Company, Inc.
OWNER: Allegheny County Airport Authority
ENGINEER: Michael Baker International



Runway/Taxiway Reconstruction, Wayne County Airport, Romulus, Mich.

CONTRACTOR: Ajax Paving Industries, Inc.
OWNER: Wayne County Airport Authority
ENGINEER: RS&H

Roller Compacted Concrete (Industrial)



Bayport Container Yard, Seabrook, Tex.

CONTRACTOR: A.G. Peltz Group, LLC
OWNER: Port of Houston Authority (POHA)
ENGINEERS: LAN Engineering | HVJ Associates Inc.

Walmart Distribution Center, Mebane, N.C.

CONTRACTOR: Morgan Corp.
OWNER: Wal-Mart Stores, Inc.
ENGINEERS: Kimley-Horn

RCC (Special Application)



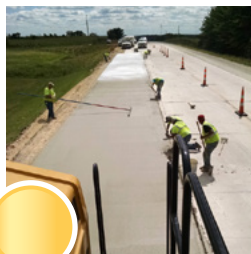
Crossgate Road, Port Wentworth (Savannah), Ga.

CONTRACTOR: A.G. Peltz Group, LLC
OWNER: Georgia Department of Transportation
ENGINEER: Georgia Department of Transportation

Brickhaven Ash Unloading Facility, Moncure, N.C.

CONTRACTOR: Andale Construction, Inc.
OWNER: Green Meadows, LLC
ENGINEER: HDR Engineering

Concrete Pavement Restoration (CPR)



Douglas County Concrete Pavement Preservation Program, Highlands Ranch, Colo.

CONTRACTOR: Villalobos Concrete Company | Chato's Concrete, LLC | Interstate Improvement, Inc.
OWNER: Douglas County, Colo.
ENGINEER: Douglas County, Colo.

State Highway 52 CPR Project, Winneshiek County, Iowa

CONTRACTOR: Wicks Construction Inc. | Iowa Civil Contracting, Inc.
OWNER: Iowa Department of Transportation
ENGINEER: WHKS & Co

Municipal Streets & Intersections (>30,000 SY)



State Route Rehabilitation Project, Curry County, N.M.

CONTRACTOR: K. Barnett & Sons, Inc.
OWNER: New Mexico Department of Transportation
ENGINEER: CH2M Hill



I-49 & Peculiar Way Interchange Improvements, Peculiar, Mo.

CONTRACTOR: Emery Sapp & Sons, Inc.
OWNER: Missouri Department of Transportation
ENGINEER: George Butler Associates, Inc.

Municipal Streets & Intersections (<30,000 SY)



Diagonal Highway Reconstruction, Boulder, Colo.

CONTRACTOR: Castle Rock Construction Company
OWNER: City of Boulder (Public Works Dept.)
ENGINEER: Loris and Associates



State Highway 42, Sister Bay, Wis.

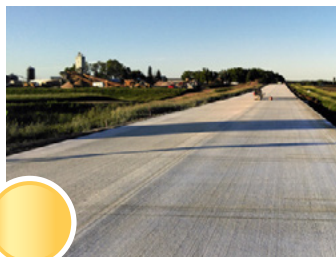
CONTRACTOR: Vinton Construction Company
OWNER: Wisconsin Department of Transportation | Village of Sister Bay
ENGINEER: REI Engineering, Inc. | Village of Sister Bay

County Roads



Voca Road & US 69 West, Atoka County, Okla.

CONTRACTOR: TTK Construction Co., Inc.
OWNER: Oklahoma Department of Transportation
ENGINEER: Southeast 3 Circuit Engineering District



County Road M-56, Dickinson County, Iowa

CONTRACTOR: Cedar Valley Corp., LLC
OWNER: Dickinson County, Iowa
ENGINEER: Dickinson County, Iowa

State Roads



Route AC Construction in Perry County, Perryville, Mo.

CONTRACTOR: Emery Sapp & Sons, Inc.
OWNER: Missouri DOT
ENGINEER: Missouri DOT – Southeast District

US-56 Reconstruction, Gray, Kan.

CONTRACTOR: Koss Construction Co.
OWNER: Kansas DOT
ENGINEER: Transystems

Overlays, Streets, and Roads



Award winners were not present for the formal award presentation.



Merriam Lane Reconstruction & Improvements, Wyandotte, Kan.

CONTRACTOR: Miles Excavating, Inc.
OWNER: Unified Government of Wyandotte County and Kansas City
ENGINEER: Burns & McDonnell

Allamakee B-38 Postville, Allamakee County, Iowa

CONTRACTOR: Cedar Valley Corp., LLC
OWNER: Allamakee County
ENGINEER: Allamakee County

Overlays, Highways



State Highway 51, Blaine County, Canton, Okla.

CONTRACTOR: Duit Construction Co., Inc.
OWNER: Oklahoma DOT
ENGINEER: Oklahoma DOT

State Highway 13 Resurfacing Project, Moffat County, Colo.

CONTRACTOR: Castle Rock Construction Company
OWNER: Colorado DOT – Region 3
ENGINEER: Colorado DOT – Region 3 – Craig Residency

Urban Arterials and Collectors



NY Gateway Connections Improvement Project – U.S. Peace Bridge Plaza, Buffalo, N.Y.

CONTRACTOR: Surianello General Concrete Contractors, Inc.
OWNER: New York State Department of Transportation – Region 5
ENGINEER: Parsons Transportation Group of NY, Inc.



State Highway 119 Reconstruction, Longmont, Colo.

CONTRACTOR: Castle Rock Construction Company
OWNER: Colorado DOT – Region 4
ENGINEER: Colorado DOT – Region 4, Boulder Residency

Divided Highways (Rural)



Wood County I-75 Reconstruction, Perrysburg, Ohio

CONTRACTOR: E&B Paving, Inc. | E.S. Wagner Co
OWNER: Ohio Department of Transportation – District 2
ENGINEER: Ohio Department of Transportation – District 2



South Lawrence Trafficway (K-10), Douglas, Kan.

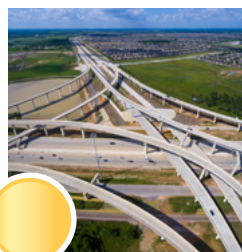
CONTRACTOR: Emery Sapp & Sons, Inc.
OWNER: Kansas Department of Transportation
ENGINEER: HNTB Corp.

Divided Highways (Urban)



I-25, Lincoln Avenue to County Line Road, Douglas County, Colo.

CONTRACTOR: Interstate Highway Construction, Inc.
OWNER: Colorado DOT
ENGINEER: Colorado DOT Region 1 – Lone Tree Residency



Grand Parkway Project, Houston, Tex.

CONTRACTOR: Zachry Construction Corp. | Odebrecht Construction, Inc.
OWNER: Texas DOT
ENGINEERS: Parsons Transportation Group | The Transtec Group, Inc.

Industrial Paving



Circle Test Track Reconstruction at GM's Milford Proving Ground, Mich.

CONTRACTOR: Ajax Paving Industries, Inc.
OWNER: General Motors
ENGINEER: PEA, Inc.



WANT TO SEE MORE?

More project photos and descriptions can be found online at:

www.acpa.org/excellence2017a

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ACPA Names Niederriter 2018 Chairman

THE AMERICAN CONCRETE PAVEMENT ASSOCIATION HAS NAMED CHUCK NIEDERRITER, Chief Operating Officer of Golden Triangle Construction Company, as its 2018 Chairman of the Board of Directors.

Niederriter became the 55th person to serve as ACPA Chairman during a ceremony at ACPA's Annual Meeting, where he accepted a ceremonial concrete gavel from 2017 Chairperson Lori Tiefenthaler, Senior Director of Marketing for Lehigh Hanson, Inc.

"The mission for 2018 will be for the national organization to work closely with the ACPA-affiliated chapters to provide increased service and assistance to our governmental partners at the state and local level," he said, adding, "This is in direct support of decisions-making about pavement design and selection process for our highway systems.

"This is of great importance today considering the heightened awareness nationally for much needed improvements to the infrastructure in the United States," he said, adding, "The transportation departments across the country are asking for help, and we are prepared to step in!"

Celebrating Successes

During his acceptance speech at ACPA's 54th Annual Meeting, Niederriter said, "Our clients expect our projects to last a generation. Unfortunately, the measure of success for our product

is that often goes unnoticed for 50 years. As such, we need to celebrate our successes."

Addressing an audience of 285 association members, affiliates, and other guests, "As we move forward in 2018, I want to encourage, challenge, and invite you to 'get into the trenches.' I know your ACPA national and Chapter staff will be there, and I promise you I'll be right there with you to push for concrete pavements and celebrate our victories, too!"

Niederriter's comments including a poignant story about the founding and evolution of Golden Triangle Construction, where he began his career as a project engineer. During his approximately 32-year tenure, he has overseen tremendous growth of the company, he said, recalling his first project with the company, a new taxiway and cargo apron at Pittsburgh International Airport. Today, the company as an industry leader in Pennsylvania, West Virginia, and Ohio.

About Chuck Niederriter

Chuck Niederriter graduated from the University of Pittsburgh's School of Engineering in 1982, and has worked at Golden Triangle Construction since 1986. He serves as Chief Operating Officer and is responsible for the overall day to day operations.

In addition to his position at Golden Triangle, he also serves in several volunteer leadership roles,



including Vice President of the Associated Pennsylvania Constructors. He is also past Chairman of the ACPA-Pennsylvania Chapter and past-President of the Constructors Association of Western Pennsylvania (the local chapter of the Associated General Contractors of America); he also has served on numerous other Boards of Directors.

About Golden Triangle Construction

Founded in 1952, Golden Triangle Construction Co., Inc. is headquartered in Imperial, Pa., near Pittsburgh. The company grew from a subcontractor doing curb and drainage work to its current role as a leading heavy/highway/utility construction company. Today, the company has 350 employees who work in western Pennsylvania, throughout West Virginia, and in eastern Ohio. ✧





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Industry Groups Unveil Pavement Design Platform

LEADING CEMENT AND CONCRETE ORGANIZATIONS' TODAY UNVEILED a new online pavement design tool that offers features and benefits never before available to the pavement design community. The formal launch of the platform took place on January 8, and coincided with the 95th Annual Meeting of the Transportation Research Board meeting.

PavementDesigner.org is free of charge and was created for city, county, and consultant engineers, academia, or anyone involved in design of roadway, industrial, and parking area pavements. PavementDesigner improves upon traditional pavement design software programs, and provides the following value-added features:

- **No cost** – The platform is offered completely free of charge, eliminating the expense and burden of ordering software and updates, licenses, etc.
- **Immediate access** – The platform brings the industry's best pavement design programs² together into a single website that allows professionals to design pavements immediately.
- **Cloud storage/retrieval** – Users have the option of creating a user ID and password to save their design work, as well as to retrieve projects using any digital device.
- **Automatic updates and improvements** – The online system is automatically updated when new content or details are added. Users will not have to download updated software or "patches."

"ACPA was excited to serve as the project leader for PavementDesigner, working closely with our industry partners and our software designer," said Eric Ferree, EIT, the American Concrete Pavement Association's Director of Technical Services. "We are pleased to introduce all in one place the industry's best design solutions for concrete and cement-based pavement design."

"PavementDesigner.org represents a dramatic shift in solutions availability to designers of streets, roads, parking lots, and industrial facilities," he said, adding, "By bringing multiple programs together in one package and eliminating the cost and time to download software, updates, and patches, we have removed barriers and enabled designers to select the best option for pavement designs."

"This comprehensive but easy-to-use pavement design tool not only covers full-depth concrete, but also provides design solutions for concrete overlays and composite pavements," said Wayne Adaska, P.E., the Portland Cement Association's Director of Pavements. "Further, the tool includes other cement-based materials like roller-compacted concrete, cement-treated base and full-depth reclamation with cement."

Designers also can reach out for design support, using contact information found on the website to reach the network of pavement design experts representing the sponsoring organizations and their affiliates.



Using PavementDesigner.org

PavementDesigner guides the user through three basic stages of pavement design. The user first selects the project type (parking, street, or intermodal facility). The system then guides the user through the project level details and the design of the pavement structure. Each module has help screens and conversions built in to assist the user in entering pavement structure details. After pavement structure information is entered and calculated, the user moves to a summary screen where the pavement design may be reviewed, analyzed, printed, and/or saved.

“PavementDesigner presents a unique experience to the user which logically steps the designer through the pavement design process,” explained Brian Killingsworth, P.E., the National Ready Mixed Concrete Association’s Executive Vice President of Local Paving. “The user experience and functionality of the website were foremost in our minds throughout the development. Couple that with state-of-the-art technical methods and reporting and the user will find the design process to be exceptional.”

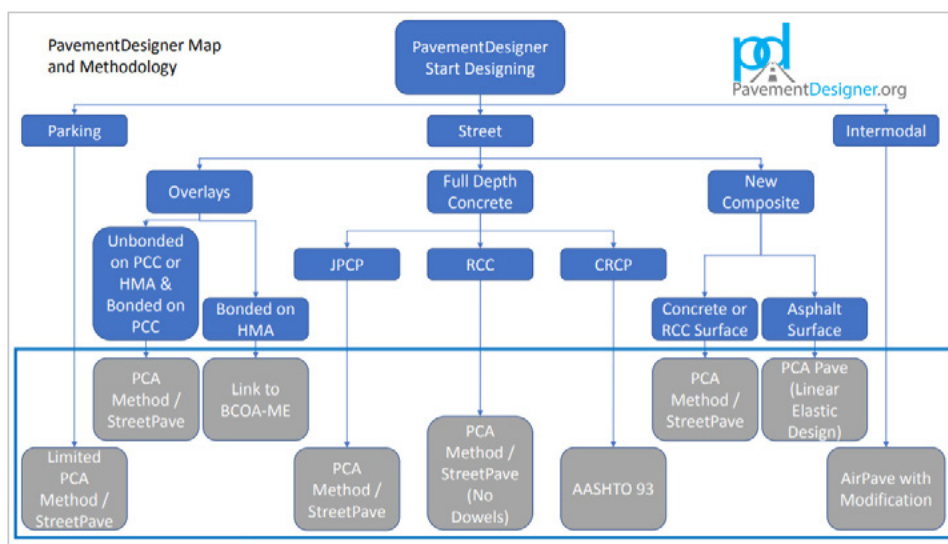
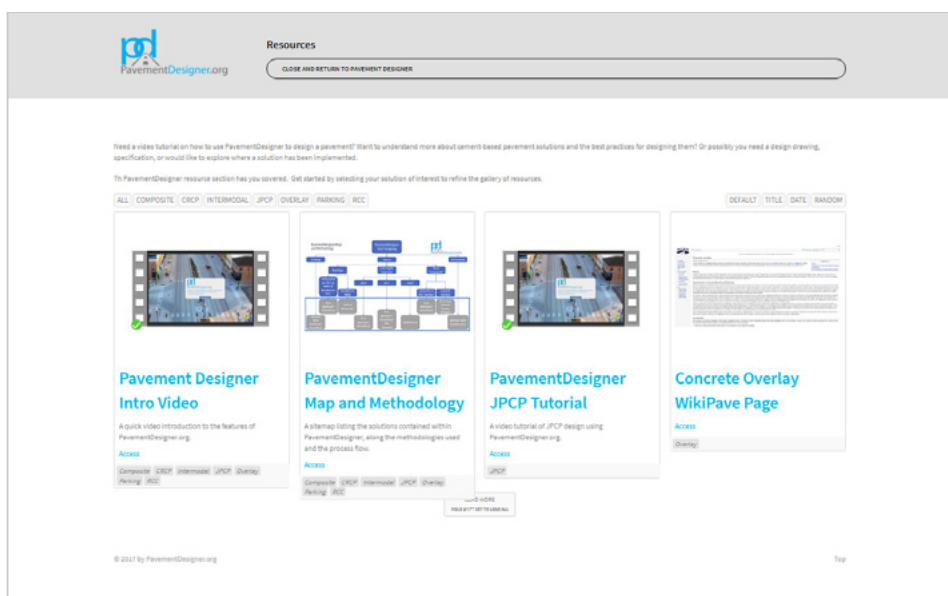
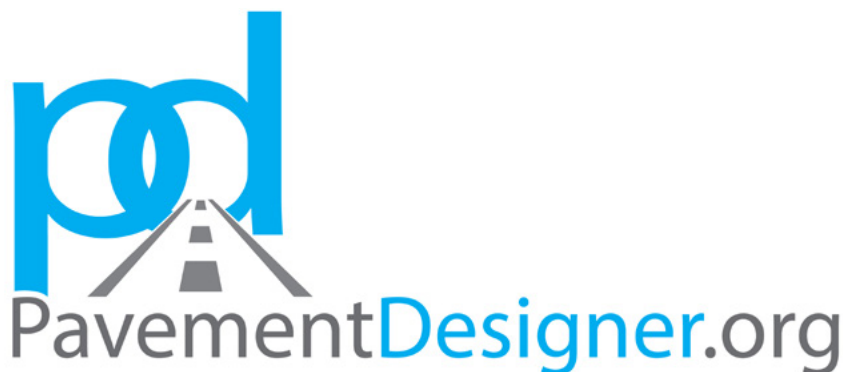
Help is at Hand

The portal also includes helpful resources, which are readily available from the sidebar. Users can view a PavementDesigner introductory video; view the platform’s map and methodology visual to see solutions and a process flow; and watch a video that shows how to use the portal to design a jointed plain concrete pavement.

The resource section also includes details from drawings of various concrete pavement structures, as well as images, descriptions, and weblinks to other resources and tools designed to assist pavement designers and others gain more insights about specific types and applications for concrete pavements. Additional training and support materials will be added as feedback is received. ✧

[1] Primary sponsors are the American Concrete Pavement Association (ACPA), the Ready Mixed Concrete (RMC) Research & Education Foundation, and the the Portland Cement Association (PCA). Additional funding and support came from the RCC Pavement Council. The RMC Research and Education Foundation is affiliated with the National Ready Mixed Concrete Association.

[2] PavementDesigner is built on updated versions of ACPA’s StreetPave, AirPave, and WinPAS programs, as well as PCA’s PCAPave program. The portal also includes design guidance, substructure sensitivity, and asphalt design evaluation capabilities.



Screenshots from the new PavementDesigner.org website.

ACPA Presents Hartmann-Hirschman-Egan Award to Mike Darter



THE AMERICAN CONCRETE PAVEMENT ASSOCIATION PRESENTED its 2017 Hartmann-Hirschman-Egan (HHE) Award to Michael I. Darter, Ph.D., P.E., Principal Engineer with Applied Research Associates, Inc. and Professor Emeritus of the University of Illinois.

The award recognized Darter for his innovation, leadership, teaching, and mentoring in the field of civil engineering, as well as for his advancement of technology that has resulted in countless numbers of high-quality concrete pavements.

“As an authority on design, construction, rehabilitation, and management of concrete pavements worldwide, your contributions have been innumerable, far-reaching, and enduring,” said ACPA President and CEO Gerald F. Voigt. Voigt, along with many others in the concrete pavement industry, have been students, colleagues, or mentees of Dr. Darter.

Darter’s 40-plus years of consulting, research and teaching have resulted in a legacy of exceptional

pavement engineers and in engineering tools used in all facets of concrete pavement design; evaluation and forensic analyses; performance prediction modeling; performance-related specifications; life-cycle cost analysis; and rehabilitation procedures.

“Among the most noteworthy is your achievement as principal developer of the AASHTO Mechanistic-Empirical Pavement Design Guide, the most comprehensive tool for concrete pavements in history,” Voigt said, adding “Your contributions continue to make profound, positive differences in the quality and longevity of pavements. Equally important, your unique style of teaching has not just transferred knowledge, but also inspired many engineers to follow the pathways you created.”

At the presentation ceremony, Voigt was joined by Mark B. Snyder, Ph.D., P.E., President of Pavement Engineering and Research Consultants, Inc., in paying tribute to Dr. Darter. The ceremony also included visuals of quotes from a wide-range of industry and public-sector officials, all of whom

represent just a small number of the many professionals who have been students of, worked with, or were otherwise inspired by Dr. Darter.

In addition to his distinguished service to the concrete pavement industry, Dr. Darter is also the author of “Gone with the Wind, He Said: The Cold Case Search for My MIA Brother” and “Fateful Flight of the Lonesome Polecat II.” ♦



ACPA Presents Distinguished Service Awards

THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) has presented four of its Distinguished Service Awards to industry and agency officials. The awards are:



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ACPA's Lifetime Pavement Recognition Award

California Department of Transportation (Caltrans) District 8

ACPA's Lifetime Pavement Recognition Award presented to a 70-year-old section of concrete pavement on California's Interstate 10 (Ontario to Colton Freeway). The award was presented to the California Department of Transportation (Caltrans) District 8. Accepting the award on behalf of Caltrans District 8 were Jian (James) Lan, P.E., Senior Transportation Engineer, and Kevin H. Chen, P.E., Transportation Engineer.

The concrete pavement built in 1947 along this 10-mile section, originally designated US 70-99, is still in use today and has survived the unrelenting forces of traffic and time. In 1967, this pavement became a historic section as the first concrete pavement in the nation to receive a revolutionary new process called diamond-grinding. Today, diamond-grinding is a widely accepted and time-tested technology that is commonly used around the world.

Thanks to the innovative and forward-thinking spirit of CALTRANS and the local paving industry, this concrete pavement continues to serve California's Inland Empire, while linking the past, present, and future of concrete highways. The award was presented at ACPA's 54th Annual Meeting.

ACPA's Marlin J. Knutson Award for Technical Achievement

Tyler Ley, Ph.D., P.E., Oklahoma State University

ACPA's Marlin J. Knutson Award for Technical Achievement to Tyler Ley, Ph.D., P.E., Oklahoma State University. The award recognized his enthusiastic approach to learning, researching, teaching and innovating, which has had a positive impact beyond your students to your colleagues in the concrete paving industry. The award cited technical accomplishments which are resulting in innovative, practical products used for characterizing concrete for paving applications. The award also cites the Super Air Meter (SAM), which has become a core component of the concrete pavement industry's drive for Performance Engineered Mixtures. The award was presented at World of Concrete.

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ACPA's Sustainable Practices Recognition Award

Emery Sapp & Sons, Inc. & Kansas Department of Transportation

ACPA's Sustainable Practices Recognition Award to Emery Sapp & Sons, Inc. (an ACPA Member) and the Kansas Department of Transportation for their team effort in Project. In addition to the complexity of building a six-mile, four-lane highway on new alignment, the contractor and agency's combined efforts successfully employed context sensitive measures in the truest spirit of recognizing and prioritizing sustainable construction practices on the South Lawrence Trafficway (K-10) sustainable construction.

The award recognized some extraordinary actions, including clearing and grubbing by hand to protect the local ecosystem, including plants and animals in the Baker Wetlands. The award also cited the innovative spirit—including use of stringless paving, recycled timber mats, and a forward-thinking approach to foundation stabilization—which underscored the use of both modern technology and old-fashioned hard work and ingenuity. The award also recognized the contractor and agency for their lasting work, which provides a well-designed, long-lasting highway, while also meeting the delicate need for ecological balance in the wetlands. The award was presented at ACPA's 54th Annual Meeting.



ACPA's Outstanding Pavement Promotion Award

Task Force for the Preservation of Historic Concrete Pavement Artifacts

ACPA's Outstanding Pavement Promotion Award to the Task Force for the Preservation of Historic Concrete Pavement Artifacts. Comprised of Shiraz Tayabji, Kurt Smith, Larry Scofield, Mark Pardi, and Bill Davenport, the task force has been voluntarily chronicling 50+ year old concrete pavements and collecting concrete pavement artifacts.

The award recognizes those efforts, and cites the successful commemoration of the 125-year anniversary of the nation's first concrete street in Bellefontaine, Ohio, and leadership in championing the 2017 construction of a replica of the original 1891 concrete pavement test section remind us all the power of celebration in promotion. The award was presented during the ACPA reception at TRB. ♦

Registration Set for TTCC, NC2 Spring Meeting

The spring 2018 meeting of the Technology Transfer Concrete Consortium (TTCC) and National Concrete Consortium (NC2) will be held April 24 through 26 at The Coeur d'Alene resort in Coeur d'Alene, Idaho.

The event begins with a TTCC pooled-fund TAC breakfast meeting on April 24, followed by the NC2 general session. Performance Engineered Mixtures (PEM) takes center stage at the meeting, with presentations by officials from the FHWA, CP Tech Center, and state agencies. A session on latex-modified bridge deck overlays follows in the afternoon. On April 25, discussions will focus on alternatives to the traditional ways (methods and materials) used in concrete placement, and the day will conclude with discussions on ongoing research. For a complete agenda, please visit the NCPTC website at www.cptechcenter.org.

Registration

Registration for all but government officials is offered online through April 13:

www.cptechcenter.org/ncc/TTCC-NCCMeetings.cfm

For hotel registrations, call 888-965-6542 or visit www.cdaresort.com. Use group code **NCONCRETE18** to obtain the discounted rate of (\$149/\$179).

Rounding out the three-day meeting is a local tour of the US 95 Sand Creek Byway project scheduled for Thursday.

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