

let's talk concrete

PAVEWISE 2020
concrete
CONFERENCE

WEDNESDAY

September 23

10:30-12:00 | OPENING SESSION | STATE OF THE MARKET IN FLORIDA



Florida Concrete and Products Association Welcome Remarks

Florida Concrete and Products Association has a long history in the State of Florida and is the newest chapter of the American Concrete Pavement Association with dedicated staff supporting local concrete paving projects. Join the conference to hear how we are working hard to help Florida transition to a more resilient state.

Matt Sitter
President

Florida Concrete &
Products Association



Meeting the needs of a rapidly growing population.

The Secretary will present the current state of the Department and how it is working through the pandemic. Taking advantage of the shutdown to expedite projects. Working with industry on research projects and guidelines. Florida continues on track to meet the needs of a rapidly growing population.

Kevin Thibault
Secretary

Florida Department
of Transportation



State of the Concrete Pavement Market

The presentation will cover the current state of the concrete paving market in Florida. Including past concrete pavement projects (including quantities placed and cost) for the last 5 years and concrete pavement candidate list (current list of committed projects with schedule and cost) for next 5 years.

Tim Latner
Director, Office of Design

Florida Department
of Transportation



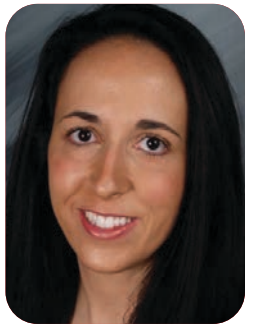
National Update on ACPA and Concrete Paving

Mr. Voigt will provide a summary of ACPA's recent activities and accomplishments, and an update on the U.S. concrete paving industry. Despite challenges including the pandemic there is a reason to be optimistic about the long-term future of the concrete paving industry. Agencies are starting to realize the role concrete pavements can play in fostering healthy inter-industry competition and in strategic applications like high-traffic routes and disaster or flood-prone corridors.

Jerry Voigt
CEO & President

American Concrete
Pavement Association

1:00-2:30 | SESSION 2 | TOOLS AND RESOURCES



Moderator

Monica Manolas
President
Ash Grove South



Working Together to Advance Concrete Pavement Technology

The National Concrete Pavement Technology Center at Iowa State University has pursued a mission to advance the state of the art of Portland cement concrete pavement technology through collaborative partnerships with Agency, Industry and Academia.

Gordon Smith
Associate Director

National
Concrete Pavement
Technology Center



Performance Engineered Mixtures, It's Time For A Change

For decades, owner agencies have used prescriptive specifications that relied primarily on slump, air, and strength as indicators of concrete quality and durability. New technologies are available to better assess and control the quality of concrete. This presentation will discuss the Performance Engineered Mixtures initiative, including ongoing national work and state and industry implementation.

Mike Praul
Sr. Concrete Engineer

FHWA, Office of
Preconstruction,
Construction, &
Pavements



Florida's Concrete Test Road Initiative

The Florida Concrete Test Road will include 2.5 miles of experimental concrete pavement open to real world traffic. It will allow for a comprehensive in-service performance assessment of new and emerging concrete pavement technologies while giving full consideration to factors such as traffic loading, design features, materials properties, construction practices, and environmental conditions. The test road will be unique in that it is the only full-scale concrete pavement test facility of this type in the Southeastern United States.

James Greene
General Manager
Engineer

Florida Department
of Transportation

3:00-4:30 | SESSION 3 | BEST PRACTICES PANEL



Moderator

Timothy Ruelke
Director, Office of Materials
Florida Department of Transportation



Designing Concrete Pavements - Best Practices

Concrete pavement design includes a variety of design elements to ensure a successful project that is also constructible. This starts with having a quality thickness design from a state-of-the-art pavement design tool. It also includes having constructible specifications and plans that include a plan for laying out concrete pavement joints (especially at intersections). And it also includes developing a durable mixture design that can be placed appropriately. This presentation will touch on these and other design aspects that are required to create a successful concrete pavement job.

Eric Ferreebe
Director of Technical
Services

American Concrete
Pavement Association



Improved Performance & Customer Satisfaction Using Diamond Saw-Cut Surface Textures

Ride quality, noise reduction and safety improvement are factors in both pavement type selection as well as pavement rehabilitation and preservation. The concrete pavement industry has focused on concrete pavement improvement including tire/pavement noise, smoothness and friction. After over a decade of research, the industry has developed a body of knowledge detailing the benefits, costs and best practices related to diamond saw cut surfaces; the quietest, smoothest and most durable concrete surfaces ever developed. This presentation will cover basic construction principals, available diamond surface textures, benefits and costs.

John Roberts
Executive Director

International
Grooving and
Grinding Association

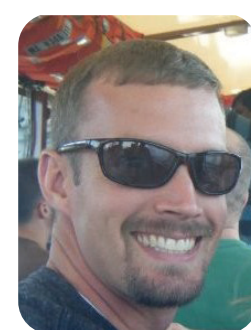


State Road 200: Collaboration leads to success

All large projects come with challenges. How those challenges are addressed will directly affect the outcome of the project. This presentation will focus on lessons learned, best practices and how the right partnering relationship made the project a success.

Sam Joiner
General Manager

Ajax Paving



Joey Wood
Construction Project Engineer

Eisman & Russo



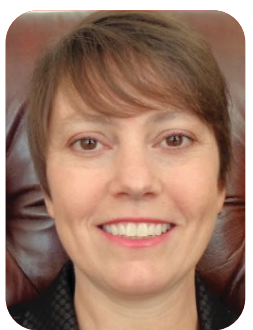
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THURSDAY

September 24

9:00-10:30 | SESSION 4 | THE FUTURE OF FREIGHT TRANSPORTATION



Moderator
Amy Wedel
Director of Concrete Pavement
Florida Concrete & Products Association



Rickey Fitzgerald
Manager Freight & Multi-modal Operations
Florida Department of Transportation

Future of Freight in Florida
Freight travel demand has been a growing source of demand on the transportation network and, historically, has grown at rates faster than person-travel demand growth. The shipment of materials and products to meet the needs of individuals and businesses is a major source of travel demand on the transportation system. Trucks involved in freight transportation are third only to person travel for daily activities and tourist/visitor travel in terms of vehicle miles of travel on our roadway system. The impact of freight on our transportation system is further accentuated by the fact that trucks consume greater roadway capacity than cars due to their size and performance characteristics and have a more significant impact on the roadway condition due to the weight of trucks and the loads they carry.



Jeremy Gregory
Executive Director
Concrete Sustainability Hub
Massachusetts Institute of Technology

Pavement-vehicle interaction: how smoothness and stiffness play a role in fuel consumption

Pavement-vehicle interaction (PVI) is the component of vehicle rolling resistance that describes how the condition of the pavement affects the performance of vehicles driving on them. This talk will focus on the PVI mechanisms of smoothness/roughness and stiffness and how they affect the excess fuel consumption (EFC) of vehicles. Although EFC due to PVI may only lead to a few percent increase in fuel consumption for a single vehicle, the impacts of EFC due to all of the cars and trucks driving on the nation's roads is significant. For the life cycle environmental impacts of pavements, EFC due to PVI usually is the largest source of greenhouse gas emissions. Network-level analyses from several states demonstrate the large scale of EFC: 1 billion gallons of fuel on California's busiest roads over a five-year period. Minimizing EFC can be accomplished by changing the way we design and maintain pavements to maximize smoothness and stiffness.



Jim Mack
Director Infrastructure - Market Development
Cemex

Improving Pavement Resiliency: A Case for Concrete Pavements to Counter Act Flooding Impacts

Flooding tops the list of climate change hazards having a consequential impact on pavement performance; yet when we design pavements, we still assume that the future climate conditions will resemble the past. This is a poor assumption. Furthermore, when a natural flood disaster does occur, often times the focus is on the immediate impacts of a washout during the flooding. While this is important, when looking at pavement's resiliency, one also needs to recognize that damage occurs at two different times: Immediately when the pavement is first exposed to the flood; and secondly after the flood and over time when the pavement is loaded in its weakened state often when rescue, emergency response and recovery activities are taking place.

This presentation will expand on this concept and provide direction on how to mitigate pavement damage due to flooding.



Tyler Ley
Professor and Gilbert, Cooper, W&W Steel Chair
School of Civil & Environmental Engineering
Oklahoma State University

How can autonomous vehicles save our roads?

This presentation presents a plan on how autonomous vehicles will save our roads. This will be achieved by creating separated truck corridors that can allow autonomous trucks to travel together and be powered by overhead electrical lines. This will be a combination of technologies that can help relieve challenges in deteriorating roads, relieve the shortage of long haul trucking drivers, allow autonomous vehicles an entry to the transportation market, resolve the limitations of a limited range of electric vehicles, reduce traffic-related congestion and delays for the traveling public, and reduce the 7% of greenhouse gas emissions from long haul trucking vehicles.

11:00-12:30 | SESSION 5 | LOCAL ROADS - ROUND TABLE DISCUSSION



Moderator
Brian Killingsworth
Executive Vice President
National Ready Mixed Concrete Association



Roger Schmitt
Director of District and Local Road Transportation Engineering
Florida Concrete & Products Association

Introduction of the Streets and Local Road Design Guide Project
Concrete pavements can provide long term solutions to streets and local roads. Intersections, bus stops and turn lanes often need regular maintenance as acceleration and deceleration of traffic can cause rutting and stress on pavements. Concrete will also be cooler and safer in a dense urban environment.



Eric Ferree
Director of Technical Services
American Concrete Pavement Association

PavementDesigner.org for local roads

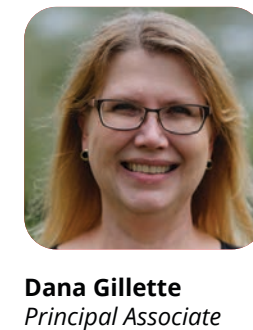
PavementDesigner.org is a free Online tool for designing concrete and cement-based paving solutions and it is also featured in the new Streets and Local Road Design Guide. PavementDesigner allows users to design parking lots, streets and local roads, and inter-modal facilities. In addition, PavementDesigner features designs for conventional jointed plain concrete pavement (JPCP) as well as concrete overlays, roller-compacted concrete pavement (RCC), and cement-treated bases and subgrades. This presentation will give a brief overview of the tool while going through an example of how to design a concrete pavement.



Phillip "Greg" Davis
State Pavement Design Engineer
Florida Department of Transportation

Support of City and County Projects

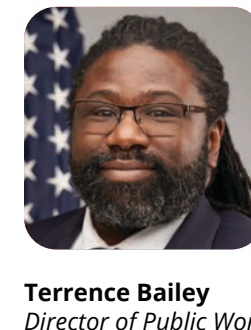
City and county pavement design specifications often refer to FDOT pavement guidelines which have historically been for high volume roadways. The department and industry are working together on a pavement design guideline to address the needs for lower volume streets and local roads. The Department is ready to support local projects collaboratively with industry.



Dana Gillette
Principal Associate
Erdman Anthony



Phoebe Cuevas Molina
Associate
Erdman Anthony



Terrence Bailey
Director of Public Works
City of Riviera Beach

Reducing Sea Level Rise Impacts on Low Lying Roads

The team designed sustainable infrastructure to withstand sea-level rise in this waterfront neighborhood on Singer Island. The water, sewer, pavement, and drainage were original systems and all were replaced. The asphalt roads were in poor condition with ponding complaints. Research showed that concrete roadways better survived flooding which are expected in the future. A major challenge was keeping the community informed through community meetings and written and verbal notifications.

