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Engineering Arkansas' Pavements

Southeastern Asphalt User-Producer Group
Baton Rouge, LA

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Let's Chat...

- Efforts Underway in Arkansas
- A Systems Approach to Pavements
- Future Work to Support the System
- Our Challenge Going Forward

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Work, Work, Work

- Interstate Rehabilitation Program (IRP) "II"
- Off-Interstate Connectivity Program
 - First dedicated use of general sales-tax revenue for highways in 50+ years
- Highway Improvement Plan (normal)

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Current System / Efforts

Materials

- RAP
- WMA
- Shingles
- PPA Binders

Planning → Design → Construction → Maintenance

- Design/Build
- A + C
- PWL

DARWin
AASHTO 1993

Pavement Management

- Automated Distress
- Preservation
- Rehabilitation
- Recycling

Traffic, Materials, Calibration, Data Mgmt

PVD Pavement

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M-E Concept

Climate, Materials, Traffic → Structure → Response → Damage Accumulation (Time) → Distress

(from FHWA)

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Arkansas' Efforts

Sensitivity Analyses, Local Calibration, Design Studies, Materials Characterization, Traffic Characterization, Database Development / Tools

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Vision: Pavement Engineering

Engineering Arkansas' Pavements

PVD Pavement
Site Manager
PMS MMHIS

Planning, Design, Construction, Maintenance, Rehabilitation, Inventory

Data Warehousing
Common Platform

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Future Efforts

Engineering Arkansas' Pavements

- Rehabilitation-centered Systems
 - Materials Characterization
 - Performance Models
 - Calibration
- Implementation of Advances
 - Materials
 - Construction
- Systems Management
 - Communications
 - Education and Training
 - Sustainable Processes

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The Challenge: Change the Conversation

Engineering Arkansas' Pavements

- Pavement Design
- Pavement Materials
- Pavement Construction
- Pavement Management
- Pavement Rehabilitation

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WE'RE WORKING ON IT