

## SEAUPG West Subgroup Update

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2022 Annual Meeting – Raleigh, NC

## SEAUPG West Subgroup




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## Asphalt Tonnage - 2022

- Tons HMA placed by DOT:**
  - Arkansas** – 3,244,350 last 12 months
  - Louisiana** – ~2,000,000 last 12 months
  - Mississippi** – 2,282,000 in 2021 and 1,796,000 so far in 2022
  - Oklahoma** – 2,966,817 in 2021 and 3,248,181 so far in 2022
  - Texas** – 13,058,734 last 12 months



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## Funding

- What is the state of the DOT Funding for 2022?**
  - Arkansas** – STIP 2022 1,549.80 Million
  - Louisiana** – N/A
  - Mississippi** – Funding is in great shape in MS. Lottery funds and infrastructure bills are helping to maintain our recent levels of funding over the last few years
  - Oklahoma** – STIP 2022 1,137.48 Million
  - Texas** – Funding is sound



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## Funding

- Is the level of asphalt work set to increase / decrease / hold steady in 2023?**
  - Arkansas** – Decrease slightly from \$1,188.4 million in 2022 to \$1,168.4 million in 2023
  - Louisiana** – Expected to increase with additional funding from IIJA
  - Mississippi** – Hold steady
  - Oklahoma** – Increase from \$1,137.48 million in 2022 to \$1,384.52 million in 2023
  - Texas** – Hold steady



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## 2022 Initiatives

- Did you have any new initiatives in 2022, if so, what was learned?**
  - Arkansas** – Special Provisions issued for mix designs with reduced design gyrations and VMA adjustments. No validation/results at this time
  - Louisiana** – Began looking into Plastic Modified Asphalt 4.75 mm mixtures finalizing Non-destructive density for Pay in Pilot Received Grant for FHWA Climate Challenge Evaluating new generation of Rejuvenators Requiring only Polymer Modified AC All ongoing
  - Mississippi** – None



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## 2022 Initiatives

**Oklahoma** – BMD, ODOT is gathering data from test sections, pilot projects along with existing Superpave mixes to get a sense of where Oklahoma is at. We are going to have to work on the specification and test procedures such as aging.

**Texas** – Continued to pursue Balanced Mix Design

Working towards a statewide Approved Overlay Test list similar to our Approved Hamburg Wheel Test list

Created a new statewide Binder Technician Certification Program

Working to create a statewide Seal Coat Technician Training and Certification Program  
Field Verification Group which led to updating our Inspector Training and Development educational resources

Heavy Duty Pavement Design, Liquid Asphalt and Seal Coat Working Groups

HIMA/HPG – Highly Polymer Modified Binders implemented into select test sections



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## Asphalt Program Updates

• **Do you have any upcoming major specification changes?**

**Arkansas** – Looking into industry best practices for RAP quality control to implement into our specifications (early stages)

Wrapping up research project for implementing a cracking test for mix designs. IDEAL-CT (ASTM D8225) was selected; expected implementation within one year

**Louisiana** – Non-destructive Density for Pay is in Pilot and expected for the new book.

Potentially requiring only Polymer modified AC in all layers

**Mississippi** – Officially made the switch to internal angle for all gyratory compactors



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## Asphalt Program Updates

**Oklahoma** – Working on BMD specifications for design and construction, and implementation of Ideal-CT

**Texas** – All TxDOT specifications are currently under rewrite for our 2024 specification book. There are many changes being considered.

Multiple "One Time Use" special specifications to evaluate new products and technology

Example: HIMA/HPG - highly polymer-modified binder

Program updates:

TxDOT is creating a statewide binder technician certification program to ensure consistency between all parties. This will be similar to our HMA, Soils, and Aggregate programs.



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## Balanced Mix Design

• **Have you or do you plan to implement BMD in your state?**

**Arkansas** – Not yet implementing full-scale BMD. Gradually moving toward performance-validated volumetric design

**Louisiana** – Implemented for all travel lane mixtures in 2016

**Mississippi** – Yes. Still in the planning stage

**Oklahoma** – We have a 4-Phase implementation plan, currently working on the 3rd Phase with pilot projects, benchmarking, and field validation

**Texas** – Yes



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## Balanced Mix Design

• **What approach has been chosen for your state, and what tests have you adopted for BMD?**

**Arkansas** – Volumetric design with performance verification, APA, Retained Stability and Ideal-CT

**Louisiana** – LWT, Intermediate temperature SCB

**Mississippi** – Still evaluating different BMD tests

**Oklahoma** – Volumetric design with performance optimization, HWTT and Ideal-CT

**Texas** – Volumetric design with performance verification, HWTT and Overlay test during design. Correlate Ideal-CT to Overlay and correlate Ideal-RT to HWTT during the design phase. Use Ideal-CT and Ideal-RT during production to monitor performance.



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## Balanced Mix Design

• **Are Any pilot projects underway or planned? If so, has there been any real-world validation of this BMD criteria?**

**Arkansas** – Special Provisions issued for mix designs with reduced design gyrations and VMA adjustments. No validation/results at this time.

**Louisiana** – Fully implemented, pilots in 2014-2015.

**Mississippi** – None.

**Oklahoma** – Sponsors 3 NCAT test track sections focused on BMD, 3 shadow projects completed in 2018, 10 pilot projects expected to be completed by late 2022, working on 2023 project selection criteria, will be focused on field validation.

**Texas** – TxDOT sponsors a few sections on the NCAT test track, and 3 state universities aided in testing and placing 34 total test sections across 9 different geographic locations over the last 3 years. Have a contract to monitor these sections and update the BMD specification. They will continue to test the sections over time. Maintenance Division will monitor skid and condition surveys. The updated specification will then be used to help implement additional projects through the normal construction process.



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## Balanced Mix Design

• Does your state's contractor's association been on board with BMD?

**Arkansas** – Yes; have been pushing for reduced gyrations and increased RAP contents

**Louisiana** – Agency buy-in was essential in the implementation

**Mississippi** – Our contractors are sending in extra material during the mix design approval process so we can do additional BMD testing/cataloging

**Oklahoma** – Yes, they have been on board and very supportive of BMD implementation efforts

**Texas** – Yes. Our Universities, Contractors, and TxDOT have partnered very closely and tested very extensively to determine what will/will not work. We created multiple Committee groups to ensure communication throughout the projects.



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## Smoothness

• Has your state had issues with smoothness specifications?

**Arkansas** – Minor issues that have been addressed with the industry

**Louisiana** – Unknown

**Mississippi** – Recently only minor issues; major hurdles during initial implementation (2013-2015)

**Oklahoma** – We are moving towards MRI/IRI and trying to get away from the Profile Index

**Texas** – No



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## Smoothness

• Any issues with the reliability of testing equipment?

**Arkansas** – No. The University of Arkansas' Center for Training Transportation Professionals (CTTP) will be starting a certification program for profilometers in the fall of 2022

**Louisiana** – Unknown

**Mississippi** – We certify contractor equipment annually and perform spot QA checks on projects to check for comparison to our values

**Oklahoma** – Not that we know of but the high speeds profilometers along with the laser mounts seem to be easier and very reliable

**Texas** – No



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## Smoothness

• Does your state have a time limit to test final smoothness once the job has been completed?

**Arkansas** – Must be tested within 5 days of completion of a day's paving

**Louisiana** – End of the project for pay, end of lift for QC

**Mississippi** – Contractors are required to collect surface smoothness values within 72 hours, PE has the discretion to waive this clause

**Oklahoma** – Within 7 days of completion

**Texas** – Yes, 10 Working days to collect IRI data and 24 hours to deliver the data file to the Project Engineer



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## EPDs

• Has there been any recent buzz around EPDs and LCA in your state?

**Arkansas** – Currently meeting the requirements of the Transportation Asset Management Plan (TAMP); looking into developing and expanding LCA on the systems and treatments not covered in the TAMP

**Louisiana** – Yes. Recently received FHWA grant to develop EPD and LCA model for Louisiana Pavements.

**Mississippi** – There has been some discussion of EPDs but they are in the early stages. We will be participating in FHWA's Climate Challenge which will include work with EPDs and LCA

**Oklahoma** – Yes, OAPA Conference will have training session workshops on EPDs and LCA to help the producers in the state.

**Texas** – TxDOT and TTI applied for the FHWA climate challenge. Regarding LCA, have submitted a research statement that is under review. There is some research in universities but not aware of any life cycle assessment within TxDOT



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## (STIP)

• Since IIJA was passed and signed into law, a significant increase in federal funding for highway construction is anticipated.

• Does your state anticipate stepping up and matching federal funds with the increase?  
Yes for all States

• Please indicate the anticipated construction funding reported in your current STIP for the years below:

State Fiscal Year	Arkansas	Louisiana	Mississippi	Oklahoma	Texas
2022	\$1,188 M	Unknown	\$650 M	\$1,137 M	\$10.6 B
2023	\$1,168 M		\$675 M	\$1,384 M	\$9.8 B
2024	\$1,147 M		\$700 M	\$1,197 M	\$8.7 B
2025	Not Programmed		\$725 M	\$1,284 M	\$8.9 B



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## E-Ticketing

• Does your state have an E-Ticketing specification?

**Arkansas** – Yes, but participation is voluntary; the specification allows multiple different software at the option of the contractor

**Louisiana** – LADOTD uses Headlight for electronic project delivery.

**Mississippi** – No but we will be moving that way in the next few years

**Oklahoma** – Yes

**Texas** – Yes, SP520-002



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## E-Ticketing

• What types of issues have been identified since using E-Ticketing?

**Arkansas** – No major issues; not currently able to import the end-of-day ticket summary into our current reporting system

**Louisiana** – Seems to be well accepted

**Mississippi** – There have been some demos for different products but there have been some software communication issues

**Oklahoma** – The biggest issue has been with internet access to remote portable asphalt plants

**Texas** – We have not used E-Ticketing yet as it is the contractor's discretion



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## E-Ticketing

• What benefits have the state DOTs seen with using this software?, Producers- Suppliers?

**Arkansas** – DOT personnel is happy; easy to maintain tracking records, and less chance of misplaced documents

**Louisiana** – Availability of real-time data, geotagging, and ease of use for project documentation.

**Mississippi** – N/A

**Oklahoma** – Being able to access the tickets in real-time or whenever a check is warranted. Don't have to wait for the tickets to hit the project. Also, there is a safety factor when it comes to collecting tickets in traffic.

**Texas** – N/A



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## 2023 Initiatives

• Do you have any new initiatives or specifications coming out in 2023?

**Arkansas** – None

**Louisiana** – Continuing 2022 initiatives

**Mississippi** – None

**Oklahoma** – Get producers and agencies more familiar with BMD, work on BMD specifications, and training/education for BMD and MRI/IRI. WMA and carbon reduction.

**Texas** – New specification manual for 2023. Revise TxDOT test methods. Transition from LIMS and SiteManager into APCM (AASHTOWare)



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## Special Thanks

- **Arkansas** – Jared Johnson
- **Louisiana** – Samuel Cooper III
- **Mississippi** – Cass Coon
- **Oklahoma** – Larry Patrick
- **Texas** – Travis Patton



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