



Alabama R07 Performance Specifications For Rapid Renewal

Peer to Peer Meeting Burlington, VT

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U.S. Department of Transportation
Federal Highway Administration

AMERICAN ASSOCIATION
OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

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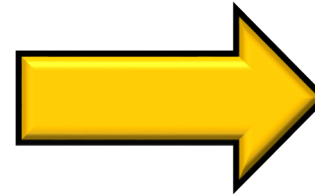
Why So Many Pavement Projects?

▶ Challenges to Alabama

▶ Why R07?

- ▶ Enables us to introduce new proven technologies to DOT.
- ▶ Supported by research, financial, and technical assistance.
- ▶ Allows for flexibility in an era of changing cultures, retirements, and staffing reductions.
- ▶ Helps us solve problems!!

TOTAL ROAD MILES
10,850



BY SURFACE TYPE

BITUMINOUS
10,690

CONCRETE
144

UNPAVED
16

ALABAMA STATE FACTS



CAMELLIA



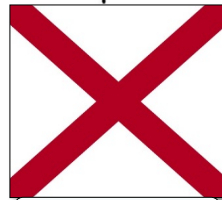
JOHNSTONE JUNONIA



LARGEMOUTH BASS



YELLOW HAMMER



STATE FLAG



OAKLEAF HYDRANGEA



SOUTHERN PINE



FIGHTING TARPON



EASTERN TIGER SWALLOWTAIL



STATE SEAL

SHRP2 Opportunity - Advancing Three New Technologies Together

- ▶ Alabama DOT wants **new testing methods** to address uniformity of the mat during mix placement to get longer-term pavement performance and increase contractor productivity.
 - ▶ Lead Adopter for ***Using Technologies to Enhance Quality Control on Asphalt Pavements (Ro6C)***
- ▶ EDC's **intelligent compaction technology**
 - ▶ Identifies temperature segregation areas, zones or spots of lower stiffness, paver stops, quality of joints
 - ▶ Potentially preventing premature failure providing long term cost saving benefits.
- ▶ SHRP2 **performance-based specifications (R07)** will allow ALDOT to assess the entire roadway mat and provide real-time quality control for the contractor in asphalt laydown operations.

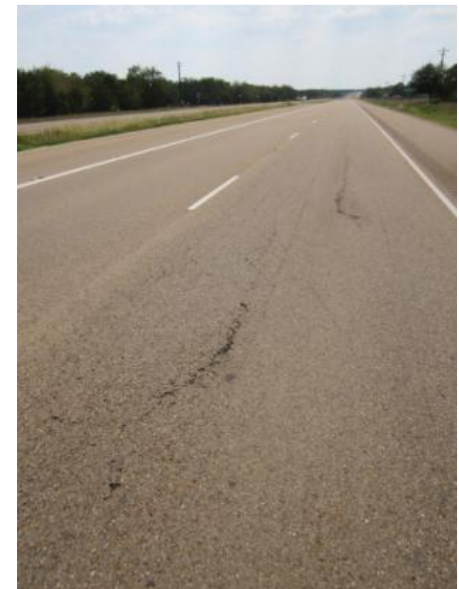
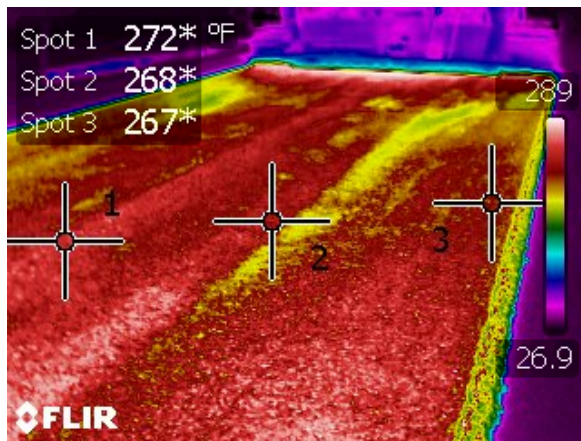
What is Alabama's Approach?

- ▶ Incorporate intelligent compaction through the use of performance-based specifications
- ▶ Our first project with IR is on **US 43 in North Alabama** using performance specs through R07
- ▶ Conduct **side-by-side testing**
- ▶ Develop a **performance-based specification** in the area of Intelligent Compaction.
- ▶ Utilizing IC, IR, and IRI for **full Quality Control coverage** of the pavement surface.



Technologies to Enhance Quality Control on Asphalt Pavements – R06C

- **Problem:** Thermal streaks can be very damaging, depending on the level of density achieved in localized areas. Can lead to longitudinal and centerline segregation, overall poor asphalt quality.
- **SHRP2 Solution:** Infrared Thermography – Scanners attached to pavers, enabling real-time readings while paving is occurring.



Job Special 12-1882

- ▶ Present **specification** at the Pre-Construction Conference September 23rd – this Friday.
- ▶ Incentive to **utilize** the equipment.
- ▶ **Bring together** both IC and IR.
- ▶ **Bonus pay** for achieving coverage and “Good” thermal differentials.

Implementation Activities

- ▶ Present **specification** at the Pre-Construction Conference September 23rd.
- ▶ Determine construction **schedule**.
- ▶ Develop **field-testing protocol**.
- ▶ **Upgrade or purchase** testing equipment.
- ▶ Conduct **training/workshop** for Inspectors/Contractors.
- ▶ Conduct **post-construction assessment** of project and specifications.



Expected Value to Alabama DOT Using R07

- ▶ Supply ALDOT with **new methods** to accurately and completely evaluate the roadway mat and placement practices of the contractor.
- ▶ **Encourage contractors** to apply greater control and ingenuity.
- ▶ **Improve** project quality.
- ▶ **Accelerate** construction.
- ▶ **Minimize costly** construction oversight.
- ▶ **Reduce claims and inspection.**





Questions?

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