



ERGON

Asphalt & Emulsions

SUCCESS STORY

**Dirt Road Upgrade:
Durability at Low Cost
With Triple Seal + Fog Seal
Surface Treatment**

GOAL

Enhance Durability of
Dirt Road at Low Cost

SOLUTION

Triple Seal (CRS-2H) + eFog HP High-
Performance Fog Seal Surface Treatment



LOCATION

Butler Road in
Laurens County,
Georgia



DISTRESS

N/A –
Maintenance



TRAFFIC

Low Volume



AGENCY

Laurens County



CONTRACTOR

The Scruggs
Company



SUPPLIERS

Ergon A&E (CRS-
2H and eFog HP);
Martin Marietta -
Ruby Quarry
(Aggregate)

Background: Applying surface treatments over dirt roads is a common occurrence within Laurens County, Georgia. Such treatments not only protect and improve performance and safety of dirt roads, but they are more affordable to maintain with the limited budgets county agencies are typically allotted.

Goal: When the time came to upgrade three miles of Butler Road, the County decided to continue with a proven method that would yield exceptional performance without breaking the road budget. That method was a triple seal + fog seal surface treatment.

A triple seal + fog seal is a fitting solution for upgrading dirt roadways like Butler Road. This combination surface treatment allows for exceptional performance with minimal maintenance over time.

What is a Triple Seal?

A triple seal consists of chip seal applications applied in three lifts. With each lift, an emulsion is spray-applied onto the surface at a specified rate followed by the spreading of aggregate over the emulsion. Differently sized aggregates are used for subsequent lifts, each layer filling voids from the previous course, facilitating a strong and long-lasting seal.

A triple seal treatment plus a high-quality fog seal enhances road durability, helps to prevent moisture intrusion, ensures reduced tire noise and results in a smoother ride quality with longer-lasting rock retention as compared to single and double chip seals. When compared to the cost of traditional hot mix asphalt applications, agencies can see savings of up to 65% with a triple

seal + fog seal treatment. This is a huge benefit for agencies like Laurens County.

Application Highlights

The three-mile Butler Road project began in May 2021, with The Scruggs Company as the contractor. In preparation for the triple seal, MC-70 emulsion, supplied by Ergon Asphalt & Emulsions (Ergon A&E), was applied as the priming base. Priming is an important step when applying a surface treatment over a dirt road. It helps enhance the structural integrity of the roadway by serving as a waterproof barrier, preventing moisture intrusion and reducing the likelihood of potholes. It also provides a layer of asphalt binder for a subsequent asphalt treatment to adhere to effectively. (Note that asphalt bonds better with asphalt than a dirt road without any primer.) Sand was applied over the MC-70 to serve as a protective barrier to traffic that was allowed back on the surface immediately following the application.

Four months after priming (due to scheduling challenges), The Scruggs Company applied the triple seal using CRS-2H chip seal emulsion, supplied by Ergon A&E, and aggregates brought in from the Martin Marietta – Ruby Quarry.

Triple Seal Application

The Scruggs Company applied the CRS-2H emulsion at 0.30 gallons per square yard followed by Size 6 aggregate for the first lift; 0.22 gallons per square yard followed by Size 7 aggregate for the second lift; and 0.18 gallons per square yard followed by Size 89 aggregate for the third and final lift. Each lift was rolled after the aggregate was applied.

This phase of the Butler Road project was completed in three days. Traffic was immediately returned to the treated section after all three lifts had been completed.

Fog Seal Application

Following the triple seal, a fog seal using Ergon Asphalt & Emulsions' eFog HP high-performance emulsion was applied at 0.12 gallons per square yard to further lock down aggregate, extending the life of the triple-sealed road. Scheduling challenges throughout this project caused the fog seal application to be delayed by a few weeks; However, fog seals can typically be applied as early as three days after a chip seal/triple seal application.

The fog seal provided Butler Road with a dark appearance similar to the fresh hot mix asphalt look without the new pavement cost, which agencies and citizens appreciate. Traffic was returned within 90 minutes following the fog seal application.

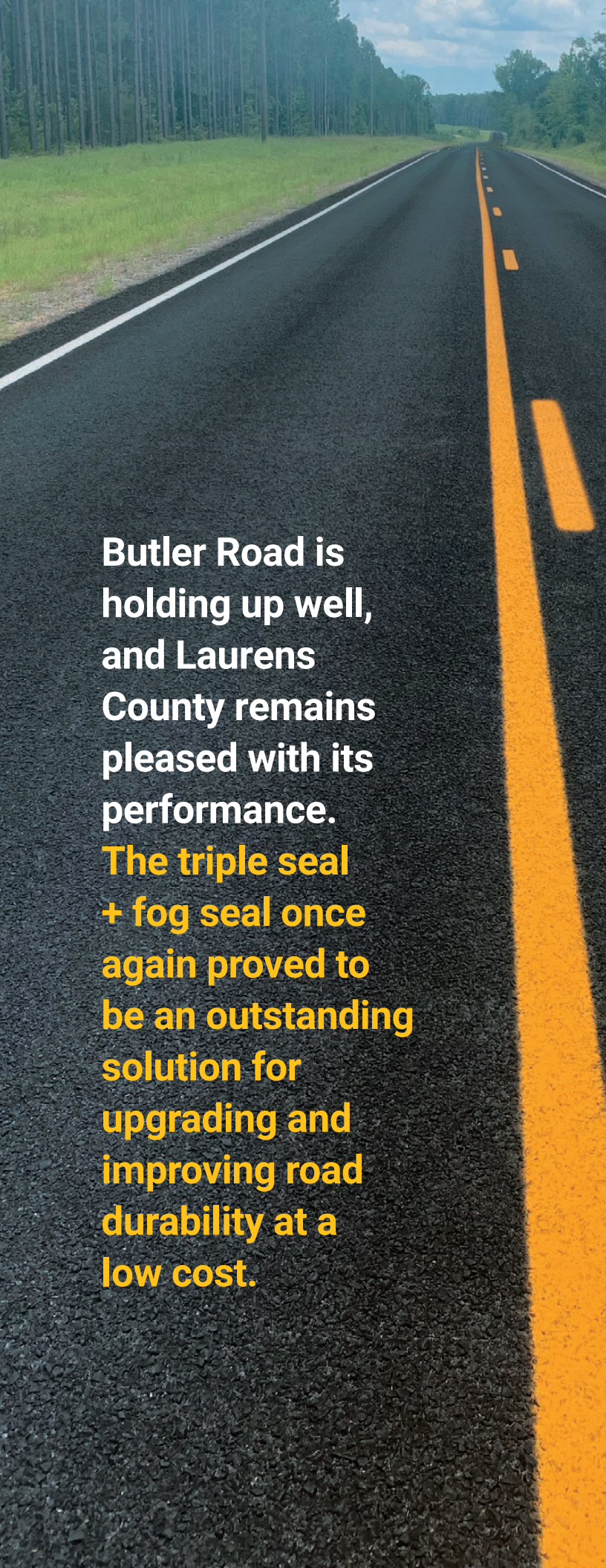
Results

Butler Road is holding up well, and Laurens County remains pleased with its performance. The triple seal + fog seal once again proved to be an outstanding solution for upgrading and improving road durability at a low cost.

From dirt roads to paved roads, Ergon A&E offers surface treatment options designed to address multiple distresses while enhancing durability and performance.

If you're interested in upgrading your dirt roads long term, contact one of our expert team members today.

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