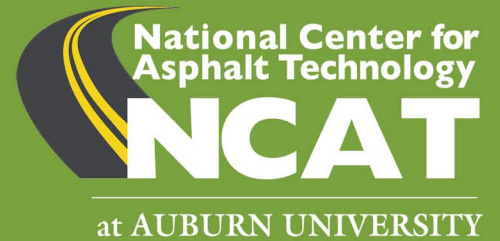


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Evaluation of a Rubber Modified Mixture Designed Using a Balanced Design in Lake Yahou Park

Year 2 Field Evaluation

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Project Objective

The objective of this project is to evaluate the performance of a rubber-modified mixture designed using a balanced mix approach compared with a conventional Superpave mix. To accomplish this objective, McClellan Development Authority resurfaced a segment of Lake Yahou Road using a balanced mix with a Ground Tire Rubber (GTR) additive in the southbound lane and the adjacent northbound lane of the same road with a conventional Superpave mix. The field performance of the test sections is being monitored for 6 years.

Year 2 Project Evaluation

A 0.4-mile segment of Lake Yahou Road in Lake Yahou Park near Anniston, Alabama was paved in 2024 with a GTR asphalt. This mix was placed in the southbound lane of Lake Yahou Road, while a conventional mix was placed in the adjacent northbound lane to serve as a Control mix. Figure 1 shows the location of these test sections.

The first field performance evaluation was conducted in August of 2025, and a second was conducted in August of 2026. These sections were evaluated using NCAT's automated pavement condition survey vehicle, as shown in Figure 2. The purpose of these surveys was to assess and compare the current pavement condition of the test sections in terms of IRI, rutting, texture, and cracking. Three data collection runs were made in each lane.

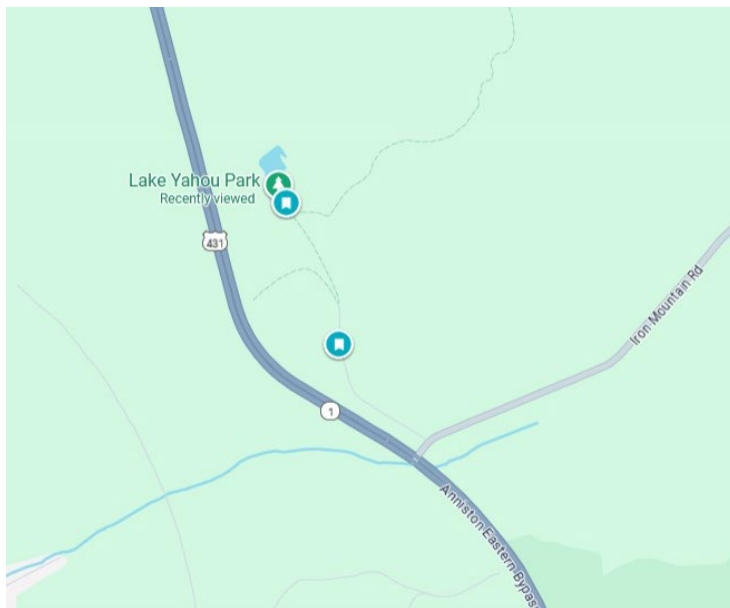


Figure 1 Test Section Location



Figure 2 NCAT’s Automated Pavement Condition Survey Vehicle

The average IRI and texture measurements are presented in Table 1. No measurable rutting was observed in either section throughout the evaluation period. In addition, both mixtures exhibited very similar IRI and macrotexture values at each inspection, indicating that the two sections provided comparable surface characteristics and ride quality over time.

Table 1 Ride Quality and Texture Results after Two Years

Year	Lane	Mix	IRI, in/mil	Macrotexture, mm
2025	NB	Control	113	0.61
	SB	Rubber	116	0.56
2026	NB	Control	120	0.62
	SB	Rubber	120	0.56

Potential cracking was detected and classified using Pathway Service’s software AutoCrack and AutoClass, which classifies cracking by type. At the two-year inspection, the Pathway system did not detect cracking in the mix sections. Figure 3 and Figure 4 show overviews of the two mixes at the time of each inspection. Figure 5 and Figure 6 show examples of the surface texture of the mixes at the time of each inspection. Both mixes were found to be performing well after two years in service.



Figure 1 Example of Both Mixes at One-Year Inspection (Rubber on Left, Control on Right)



Figure 2 Example of Both Mixes at Two-Year Inspection (Rubber on Left, Control on Right)



Figure 3 Example of Surface Texture at One-Year (Rubber on left, Control on right)



Figure 4 Example of Surface Texture at Two-Years (Rubber on left, Control on right)