



HIGHWAY 105 - ST. ANSGAR, IA

PROJECT DESCRIPTION

This project is a 5-mile-long topping over existing deteriorated asphalt overlay with a concrete pavement base. Mitchell County agreed to a **.8-mile test section** in the middle of the Highway 105 project **to investigate thickness and joint-space benefit opportunities courtesy of fiber reinforced concrete (FRC)**. Half of the test section was placed at 4" thick with the remainder at the conventional 6" thickness. For both segments, four joint-spacing options were used in 500 ft. long sections: 6' x 6', 12' x 12', 12' x 15', and 12' x 20'; both plain (unreinforced) sections and FRC sections (FORTA-FERRO®) were placed in-line. The fiber was added to the aggregate weigh-hoppers and then **mixed uniformly** with a portable central batch mixing system. Pavement surface treatment included a wet-burlap drag and highway tining.

Over the next 2 years, the sections will be analyzed by the CP Tech Center using nondestructive sonar test devices to determine whether mid-panel cracks and/or joint-activation have occurred. The research findings will be used by Iowa's city, county, and DOT engineers to choose the optimum longitudinal and transverse joint spacing in thin concrete overlays based on different variables. **This project represents a rare opportunity to prove the merits of FRC in real-world, and real-traffic conditions.**

KEY POINTS

- Uniformly Mixed
- Real-world and Real-traffic Testing
- Cost Effective

DETAILS

Date: Fall 2017

Location: St. Ansgar, IA

Dosage: 4.0 lbs. / cu. yd.

Fiber: FORTA-FERRO® 2-1/4"

Owner Type: Government

Application: Pavement

Contact us for more details