

# VARIOUS LOCATIONS - KENTUCKY

Kentucky Transportation Cabinet . Automated High Friction Surfacing Treatment

## PROJECT OVERVIEW



Kentucky's rural, often mountainous terrain can present a challenge to many drivers. The KYTC recognized that it needed to apply improved safety treatments on horizontal curves throughout the Commonwealth to reduce the number of roadway departures experienced.

As a result, KYTC conducted a review of a variety of low-cost safety countermeasures for reducing roadway departures in both wet and dry weather conditions.

After thorough consideration, KYTC decided to conduct an initial pilot program with HFST - a compound comprised of a two-part, highly modified epoxy resin binder and a specially graded, high-friction bauxite aggregate.

DBi Services applied HFST on over 100 site-specific horizontal curves across the Commonwealth of Kentucky. The DBi Services approach to HFST features self-contained, fully-automated, continuous application vehicles.

Benefits of this innovative application process include cost-effective and superior surface consistency along with the use of fewer materials as compared to the less sophisticated hand-application method involving buckets and squeegees.

### Project Highlights

The 3-year statewide HFST program to improve pavement friction and reduce roadway departure crashes in horizontal curves was launched with over 100 carefully selected locations beginning in 2010.

The program entailed the application of HFST at site-specific areas where skidding crashes have occurred, resulting in fatalities, serious injuries and/or property damage.

DBi Services' HFST applications are reducing fatalities and saving lives by increasing pavement grip and keeping vehicles on the road.

### Relevant Experience Gained

- DBi Services managed work across 100+ locations, using just-in-time delivery of materials to selected storage locations.
- This large-scale project required close coordination among our suppliers, our staff and our procurement team to ensure materials, equipment and staff were working seamlessly.
- DBi Services worked in all KYTC operating districts, and in over half of the Commonwealth's 120 counties.
- Our team has experience working across a variety of roadway surfaces, conditions and grades.

### Value to Customer

- Sites where HFST has been applied, roadway departure crashes have been reduced by 87.4%.
- Wet-weather roadway departure crashes have dropped by 90%, from 357 to 33.
- Dry-weather roadway departure crashes have seen a reduction of nearly 80%, from 128-26.
- Using DBi Services' highly productive, fully-automated vehicles, work was completed quickly at all locations, thereby minimizing traffic disruption.



**High Friction Surfacing Treatments are eligible for federal and state funding through HSIP (Highway Safety Improvement Programs)**

WORLD HEADQUARTERS:

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LOCATIONS WORLDWIDE

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