



↘ HIGH FRICTION
SURFACE TREATMENTS

PROJECT CASE STUDY

The Federal Highway Administration's Every Day Counts (EDC) initiative is designed to identify and deploy innovation aimed at shortening project delivery, enhancing the safety of our roadways and improving environment sustainability. Building projects more quickly depends on the highway community advancing innovative practices to a level of routine use by highway agencies and contractors. One focus area of the EDC initiative is a pavement overlay option – High Friction Surface Treatments (HFST).

HFST are pavement surfacing systems with exceptional skid-resistant properties that are not typically provided by conventional materials. Through the spot placement of a thin layer of durable high friction aggregates as a topping on specially engineered resin or polymer binder, these aggregate systems provide long-lasting skid resistance, while also making the overlay much more resistant to wear and polishing. In this way, HFST restores pavement friction surfaces where high traffic volumes have polished existing pavement surface aggregates and can also serve to mitigate highway departures where vehicle speeds exceed existing geometric designs for sharp curves and superelevations.

Case Study: West Virginia Department of Transportation

West Virginia has a high number of run-off-the-road crashes. Their goal of applying HFST at these locations is to reduce the number of crashes. They intend to look at the total number of accidents 3 years after application.

WIRT COUNTY – WV 14 AT MP 15.48

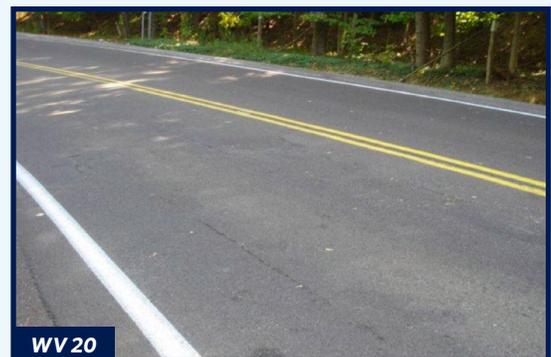
WV 14 is a typical two-lane road in West Virginia with an ADT of 3400. The site is located at a six-degree horizontal curve. Prior to application, this site had four wet weather crashes in a span of 3 years. No skid testing reading was available prior to the project, but it had a reading higher than 69 after installation. The project was completed in October 2012. Total linear feet of installation is 420.

MERCER COUNTY – WV 20 AT MP 16.42 BETWEEN PRINCETON AND ATHENS, WV

WV 20 is a two-lane road in southern West Virginia with an ADT of 7200 comprising mostly of commuters. The site is located at a series of horizontal curves. Prior to the application, this site had four run-off-the-road crashes in a span of 3 years. No skid testing reading was available prior to the project, but it had a reading higher than 69 upon project completion. The project was completed in August 2011. Total linear feet of installation is 2,200.



WV 14



WV 20

For additional information, please contact:

Joseph Cheung, P.E., HFST Lead
FHWA Office of Safety
joseph.cheung@dot.gov

Donna Hardy, P.E., Mobility and Safety Engineer
WV Division of Highways, Traffic Engineering Division WV DOT
donna.j.hardy@wv.gov

Every Day Counts (EDC), a State-based initiative of FHWA's Center for Accelerating Innovation, works with State, local and private sector partners to encourage the adoption of proven technologies and innovations aimed at shortening and enhancing project delivery

 U.S. Department of Transportation
Federal Highway Administration