CASE STUDY: Bellevue, Washington  
Downgrade Intersection Approach

The Forest Drive westbound approach, at its intersection with Cole Creek Parkway, regularly had vehicles sliding down the hill during icy weather. In 2011, the average daily traffic at the approach was 4,941 vehicles. In an effort to combat the problem, a High Friction Surface treatment was applied on this approach in 2004. From 1995 to October of 2004, the City of Bellevue had recorded 2.7 accidents per year that were attributed to grade, skidding, driving too fast for conditions, or run off the road. Subsequent to the installation, the average went down to 0.5 accidents per year. In 2007, due to a surface water problem at the bottom of the hill, the pavement was resurfaced. To determine if the HFST should be reapplied, the City of Bellevue analyzed the effect of it on the crash cost. They found an annual accident cost reduction of about $25,000 per year to the public. Hence, the City recommended that the HFST be reapplied.

Location: Cole Creek Parkway and Forest Drive  
Problem: Forest Drive WB approach; during icy weather, vehicles would slide down the hill  
Material: Calcined bauxite  
Installation: October 2004

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