

Project Profile

General Project Information

Project Location: Washington Road, Tazewell County, Illinois
Road Owner Contact: Tazewell County, Norm Johansen, County Engineer
Project Length: 5.5 miles
Date Placed: Summer 2001

Washington Road is a 3900 ADT pavement with 15% trucks. It exhibited severe surface distresses. Tazewell county considered several alternatives, and decided upon the ReFlex® emulsion cold-in place recycling process to remove the distresses and reuse the materials in the existing pavement. Even though the initial cost of the project was slightly higher than the mill & fill and thin overlay alternatives, the county's life cycle cost analysis (see graph) determined that overall costs would be lower. Further, with the ReFlex® system, the improvement in structure and the resistance to thermal cracking are greater, and the recycling of the cracked pavement should reduce reflective cracking and lead to longer pavement performance.



Construction Information

Contractors: Prime: RA Cullinan (UCM);
 CIR Sub: Mid State Reclamation

Construction Notes: Mill & recycle 3" followed by overlay. The project included shoulder rehabilitation, quality control and quality assurance.

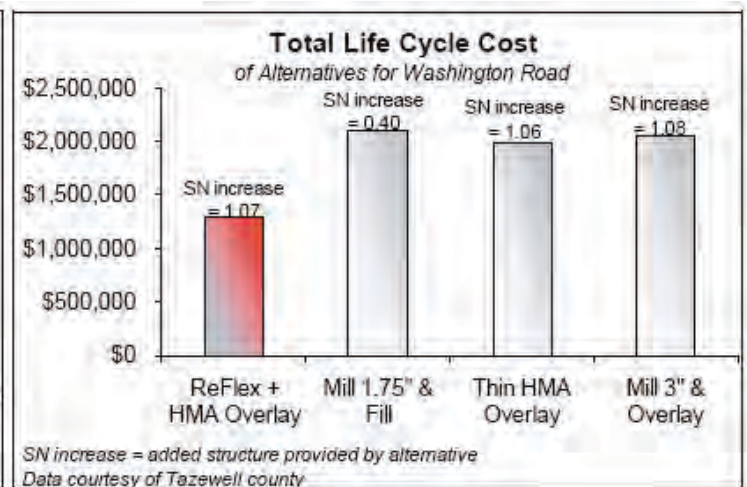
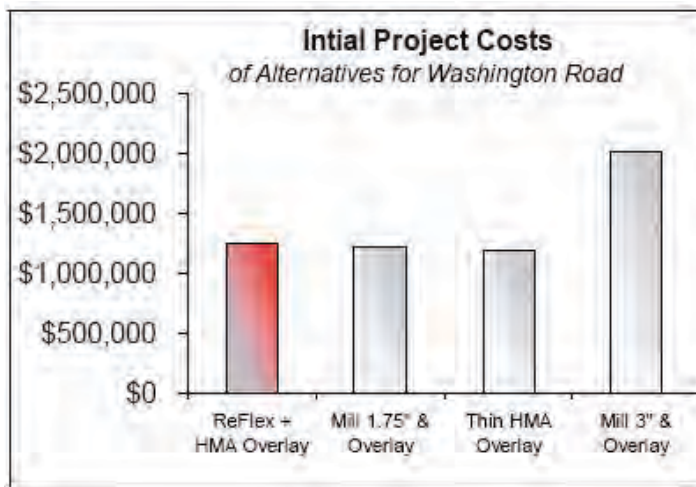
Traffic Return: Open to local traffic immediately after recycling.

Surfacing: 3" HMA overlay



Performance Results

Testing on lab prepared specimens gave excellent resilient modulus results (450 ksi). Resilient Modulus is a common method for measuring the stiffness modulus of HMA. The structural strength of the pavement was confirmed by falling weight deflectometer (FWD) testing done by ERES engineering consultants on the pavement in October, 2003. Their report stated, "Based on the [FWD analysis] and the projected traffic, the pavement section has excess structural capacity." A copy of the ERES report is available from Road Science™. The county is pleased with this 2001 project, and has contracted other ReFlex® projects every year since.



For more on this project, the ReFlex® process or other solutions available in your area, contact your local Road Science™ representative.

