

Introduction to Pavement Preservation

Pavement preservation is a program that employs a network level, long-term strategy to enhance pavement performance. By using an integrated, cost effective set of processes pavement life can be extended, safety improved, and the agency road network can be managed more effectively. Our pavement preservation process works best when roads are still in good condition. This prevents them from getting to the point where rehabilitation can become costly or full reconstruction is necessary.

By using PCI data and ADT counts, agencies can narrow down and pinpoint areas to implement treatments, as well as monitor the overall improvement of the network. “Right road, right treatment, right time”. This information is imperative to successful implementations that will maximize pavement life. A well implemented pavement preservation approach achieves maximum efficiency by increasing the average condition of the pavements while decreasing the average cost per square yard.

Just as pavement characteristics differ, so do pavement preservation treatments. Aside from the costly standard mill-and-pave approach, there are cost effective surface treatments that can be applied to extend the life of the asset. These preservation treatments include, Crack Seal, Chip Seal, High Performance Chip Seal, Slurry Seal, Microsurfacing, Micro Pave Joints, and Ultra-Thin Overlay. These treatments, along with good construction practices, allow infrastructure owners to achieve and sustain a desired state of good repair despite tight budgets.

These processes are specified and backed by the New Jersey Department of Transportation as well as The Federal Highway Administration. NJDOT has significantly increased the use of preventive maintenance treatments over the last ten years. Instead of waiting until pavements deteriorate to a poor condition which then requires costly conventional resurfacing or rehabilitation treatments, preventive maintenance treatments are applied at a fraction of the cost to roadway sections in good or fair condition. Using this approach, New Jersey has improved the overall road network by 35%.

Pavement preservation is a cost effective as well as a greener approach to getting the most life out of your roads. The unique characteristics to using cold pavements allow agencies to decrease their “carbon footprint” in addition to making their tax dollars go farther. Advancements in asphalt emulsion technology allow for better control of the materials, increased performance, and lessen the delay of roadwork for the traveling public. By adding these tools to your network management, a stronger, safer roadway can be sustained for less money along with maintaining past investments for years to come.