



Bay Village Ohio: Maintaining Roadway Network Conditions through an Extensive Crack Seal Program

The City of Bay Village leverages a standardized pavement management program, allowing them to deploy their crack seal treatments to the right roadways, and at the right time. Through this effort, the City has been able to extend the life of these roadways an average of 4 years, while maintaining an above-average network condition of 74.

Same day return to traffic

Provides an additional 3 - 5 years of pavement life extension

Provides a 15% average network condition rating increase

BACKSTORY:

The City of Bay Village Ohio resides in northern Ohio along the Lake Erie coastline and within the Snowbelt. The region contributes to the lake-snow effect, causing large deposits of snow which is an accelerant to the are freeze-thaw cycles their roadway network faces multiple months through the year.

PROBLEM:

Leveraging standardized condition assessment data, the City learned that their roadway network as a whole was declining, with cracks opening up sooner than expected due to both the climate and reflection from mill and overlay strategies. If the cracks were left untreated, the accelerated freeze-thaw processes would result in more stop-gap maintenance, potholes, and unhappy residents.

The only route to a better roadway network is consistent preventive and preservation maintenance policies. "

— James Golden, CEO, Pavement Management Group

SOLUTION:

The City learned that by sealing the cracks on a consistent schedule, it would in effect reduce the amount of water, debris intrusion within the cracks, resulting in fewer ramifications from freeze-thaw cycles. Through continued condition assessment practices, a 3-year list of crack seal candidates can be identified and applied toward the annual maintenance and repair program. This practice assurance that these selected roadways can remain in good condition over the next 3-5 years, allowing them to better address the roadway failures within the network. Over time, the network average condition has increased an average of 15%. When comparing roadway network conditions to other agencies within the region who are not employing a crack seal program, this translates to a 10 PCI point overall gain, providing for an accountable and maximized use of taxpayer dollars within the confines of the annual maintenance and repair budget.

PHOTOS:



Roadway that Received a Crack Seal Treatment at the Right Time



Roadway that Did NOT Receive a Crack Seal Treatment at the Right Time



Upcoming Crack Seal Candidate