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Hot-In-Place Resurfacing On-Site Recycling Expands Service

*Tim Flanagan
describes the
Hot-In-Place
process.*

"Hot-In-Place" Resurfacing Method Debuts in Michigan

by Theresa Lark, GLR Editor

In the fall of 2007, this writer had the opportunity to view the first use of Hot-In-Place resurfacing in Michigan. While new to our state, the technique has been around for twenty-five years and widely used in many other states for the last several years. Not new to our state are shrinking budgets that squeeze municipal services.

In 2007, City of Fenton Director of Public Works Les Bland learned that his budget for paving maintenance

had been slashed by 40%. Bland placed an urgent call to his resurfacing contractors to let them know that projects for the remainder of the year were not likely to move forward. That's when Tim Flanagan of Flanagan Sales suggested Hot-In-Place, a service he offers in partnership with Gallagher Asphalt that can reduce expenditures and extend resurfacing area.

ON-SITE RECYCLING REDUCES COSTS

On a decidedly cool day in early October, the intermittent light rain did not deter the Gallagher crew



The first of two machines that pre-heats the existing paving material. Note the extensive cracking and wear of this residential street.



The second machine raises the temperature of the asphalt even higher, before applying an oil/polymer mixture to rejuvenate the asphalt.

and their lead representative for Hot-In-Place, Patrick Faster. The crew operated two specialized machines in tandem to rejuvenate existing, worn pavement into an intermediate course ready for top-coat application.

The first unit moved slowly along the cracked and worn road surface, pre-heating the asphalt to about 180°F. The second unit followed closely, further heating the road surface to 280° – 300° before applying an oil-polymer mixture to improve the viscosity of the aged asphalt. The second unit also pulled multiple rows of spring-loaded scarifiers to penetrate the softened asphalt. Augers at the back remixed the material and left behind a base that was leveled and compacted with standard paving screed and roller.

The residential Fenton streets then, because of severe budget constraints, received a slurry seal top-coat. Faster said application of a 1 ½” top-coat of asphalt is more typical and lasts longer than slurry seal. A new asphalt layer can last 12-15 years; a slurry seal will extend the useful life 5-6 years.

Flanagan said re-using materials already on-site provided a tremendous saving over other resurfacing methods. Hot-In-Place minimizes grinding and removal of aging asphalt surfaces, though some grinding is still required near curbs and gutters. While it’s true that aggregate removed after grinding is re-used, Faster says this method is more cost-efficient and environmentally friendly because there are no hauling costs.

Engineering costs are also minimized; Hot-In-Place preserves existing elevations while restoring a smooth road surface. Roads are back in service within minutes after the crew passes, with minimal traffic control costs and few disturbances to motorists.



Scarifiers and an auger pulled by the second truck prepare the aggregate to be compacted.



Both vehicles are operated using a computer affixed to the exterior.

HOT-IN-PLACE EXPANDS SERVICE AREA

Les Bland is pleased with the service and with the fact that the City of Fenton was able to resurface ten roads with Hot-In-Place. He had expected to resurface 3 or 4 roads with conventional methods. Bland added “Our residents are pleased and the City Council is happy; it’s an election year and our resurfaced areas are 100% better than where we started.

Hot-In-Place works well for roads that are structurally sound and is promoted as an effective preventive maintenance technique. The City of Fenton roads were somewhat older and thinner than the optimal desired pre-existing surface. When asked recently about how the resurfaced areas in his City had fared over the winter, Bland was optimistic, saying, “they appear to have held up well; Flanagan and Gallagher accomplished the job and filled a need within the budget we had available.”

The equipment and crews for this unique resurfacing method are highly specialized, and Flanagan urges agencies to get on the schedule early. Faster calls Hot-In-Place an “outside the box” solution for agencies with “\$200 problems and only \$100 to fix them.”



Hot-In-Place finished product.

Editor’s Note: This project was recognized with the APWA-Michigan Chapter Award - Transportation - Less than \$2Million



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Your existing roadway is worth more today than what it cost originally—don't you wish all of your assets behaved this way? Give us a call at Gallagher and we'll explain how Hot-in-Place Recycling can extend your resurfacing budget by completely rejuvenating your old roadway surfaces to good-as-new condition.

We'll show you how to dramatically reduce both maintenance and reconstruction costs, and do your part to help protect the environment. Hot-in-Place Recycling technology consumes approximately 30% to 35% less energy than conventional methodology and with less trucking and milling involved, it's a very green process.

Of course, the other green is very important, too. The good news: budgets can be stretched upwards of 35% and total project time reduced by as much as 50%. Think about that—you'll enjoy fewer user delays, reduce manpower and fuel consumption.

Your existing aggregates sat in a quarry for thousands and thousands of years. . .there's plenty more life in them. Call Gallagher and we'll show you how to make the most of what you already own.

Gallagher Asphalt Corporation is one of the oldest and largest asphalt producers in the State of Illinois. We've been building roads for over 80 years and recycling them for 25. We have what it takes to help you.

