

## What drivers should know!

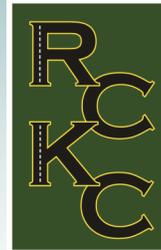
The Road Commission of Kalamazoo County (RCKC) is committed to providing a safe, smooth road system in the most cost effective manner possible. Chip seal is one treatment RCKC uses as part of a total asset management approach of applying the right treatment on the right roadway at the right time. Using the right "mix of fixes" to maintain a roadway lengthens the effective life of that roadway and reduces the total cost of the pavement over its useful life.

Chip seal treated roads are safe to drive on and are environmentally friendly. A chip seal treatment upon application, may appear to be a nuisance to the traveling public, but over time the treated surface improves. There is no reason to avoid them.



The temperature of asphalt emulsion used for chip seal can exceed 165 degrees. Do not walk barefoot or allow pets on freshly treated chip sealed roads.

For more information:  
The Road Commission of  
Kalamazoo County will be happy to  
answer any further questions  
or concerns.



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## Chip Seal Basics Preserving our roads for the future



## What is a “chip seal”?

Chip seal, is a preventive maintenance treatment in which the pavement is sprayed with asphalt emulsion, then immediately covered with aggregate and rolled (rotated) to its flattest side. The construction materials utilized in chip seal operations are the same materials used to construct hot mix asphalt (HMA) pavements. Chip seals are used to seal the wearing surface of an HMA pavement. A chip seal treatment preserves a pavement surface for up to a 10 year period as it prevents oxidization of the pavement surface and moisture infiltration, which reduces cracking and potholes.



Beginning 2016, the RCKC will advance our chip seal program to a higher level by applying the first chip/fog seal treatment at the beginning stages of the HMA surface life (1-2 years after a new HMA surface is place) for our primary network.

Performing earlier applications of chip seal will protect and preserve the new HMA surface and prevent the initial deterioration of an HMA surface, which will also extend the timeline for future chip seal applications. Chip seal treatments performed at years 1-2 of age will also reduce the crack fill and HMA wedging costs due to improved surface condition and advanced preventive maintenance.

## How is it applied?

Chip seal is a surface treatment in which asphalt emulsion is applied to a pavement and then immediately covered with a single layer of aggregate. Chip seal is used to seal the surface of an existing pavement and improve surface friction. Rollers, street sweeping and traffic flow after a chip seal assists in compacting the aggregate. The RCKC continues to monitor the quality of our product and the application rates for both the asphalt emulsion and the aggregate to reduce stone loss.



A fog seal treatment will also be applied with our 2016, primary road chip seal projects to assist in reducing loose stone and dust associated with a new chip seal treatment. A fog seal treatment is a light application of asphalt emulsion diluted with water and applied to the surface of a bituminous pavement or recent chip seal. The fog seal treatment will create a black surface that appears to resemble new HMA. The black surface of a fog seal treatment also assists with pavement marking contrast and has value to RCKC's winter maintenance operations as the black surface absorbs heat and assist with the melting of snow and ice.

## What is it good for?

The purpose of a chip seal treatment is to create a water proof membrane that protects the HMA surface from water infiltration and oxidization from the sun. The construction materials utilized in chip seal operations are the same materials used to construct hot mix asphalt (HMA) pavements. Chip seals are used to seal the wearing surface of an HMA pavement. A chip seal treatment preserves a pavement surface for up to a 10 year period . Chip seal remains the most cost effective method to preserve our infrastructure.

