

## What is RCKC?

The Road Commission of Kalamazoo County (RCKC) maintains 1,268 miles of road throughout the 576 square mile county (including 105 miles of gravel roads). The primary road system consists of 448 miles; the remaining 820 miles comprise the local system.

RCKC also maintains:

- ◆ 62 Bridges
- ◆ Over 22,762 Signs
- ◆ 47 Traffic Signals
- ◆ 41 Flashing Signals at intersections

Our goal is to maintain a county road system that is safe and convenient for public travel and to manage the roadside environment, with a view toward preservation.

Working with other governmental units, we work hard to locate and maximize every dollar available for infrastructure maintenance and construction. We are dedicated to public service and available to serve you.



As a matter of policy, major road improvement projects are conducted by the Road Commission based on a safety ranking system. At RCKC "Safety is First".

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



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## Gravel Roads



## Gravel Roads Need Constant Attention

**FACT:** There are 105 miles of local county roads that are not paved and many won't be for years.

Many people call them "dirt roads", but unpaved roads have a gravel surface consisting of stone, sand and clay fines.

Gravel roads have an ever changing surface condition that must be considered when motorists travel our local gravel road network.

## Routine Maintenance

Gravel roads are maintained by routine grading, adding gravel as needed by "spot grading" and applying dust control materials throughout the spring, summer and fall seasons. Routine gravel road maintenance temporarily corrects washouts, potholes, surface corrugations and rutting. Routine gravel road maintenance is performed multiple times throughout the year and may be followed up with an application of dust control material to temporarily reduce dust and stabilize the road surface.

As a gravel road ages, the aggregate surface will show distress that requires more than routine maintenance to correct. The most common problem that develops is "shoulder berms" or secondary ditches that build up along the edge of the road. These "shoulder berms" form over time and restrict water from entering the ditches, which then causes water to lie in the traveled portion of the road. When water is left ponding in the roadway, the gravel surface and road base become saturated causing road surface defects and aggregate base failures. The migration of gravel from the road surface to the shoulder area is caused by traffic, winter plowing operations, erosion of material during heavy rain events, water and wind erosions. Improper routine grading techniques can also create these shoulder "berms".

Periodically all gravel roads need major rehabilitation project to maintain proper structure, width and drainage. Typical gravel road improvements as part of a rehabilitation project include: berm removal, ditching, road widening and placement of a new gravel surface.

## Winter Maintenance

- Gravel roads are difficult to maintain during the winter season with fluctuating temperatures.
- Frozen ground cannot be graded and snow or ice removal are limited to protect the aggregate surface.
- Sand is spread on curves and intersections for traction.
- Salt cannot be used on gravel roads because it melts the frozen aggregate causing an unstable road surface and rutting.



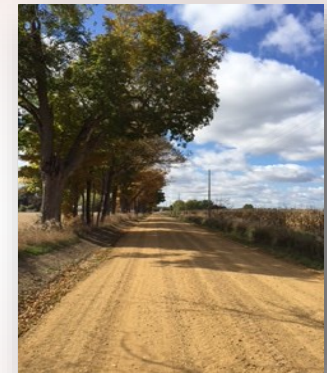
Typically during the "spring thaw," gravel roads are a challenge to maintain much like our hard surface roads, it is when they are the most vulnerable. The faster the ambient temperature rises and the road bed begins to thaw, the more unstable gravel roads become. The road bed thaws from the top surface down preventing water from penetrating the frozen layer underneath which then causes excessive water saturation on the road surface. When a gravel road is undergoing the thaw cycle, the surface of a gravel road is the consistency of mud, eliminating the option for grading the road to improve its "drivability". Also, applying new gravel to a muddy surface will reduce the stability of the new gravel making it even more difficult for vehicular travel. The proper time to perform routine gravel road maintenance and apply additional gravel is when the road bed is completely thawed and settled with adequate moisture remaining in the aggregate to achieve compaction.

## Gravel Road Paving

Hard surfacing solves many gravel road problems, but lack of road funding frequently prevents paving.

Although more people are moving to rural areas with gravel roads (increasing traffic and maintenance needs), those roads still serve fewer people than most paved roads. Higher traffic volume roads remain a priority. Some people like the rural nature of gravel roads.

A special assessment process may be initiated by Landowners or by a Township Board to hard surface a road, not the Road Commission. (See Special Assessment of Roads Brochure).



## Grader Facts

We maintain **105 miles** of unpaved roads

We have **3 graders** in our fleet. Our oldest is from 1999 and has 10,500 hours on it.



Graders move **5 mph** when grading

To grade **one mile** of road takes **1.5 hours**

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To grade all our unpaved roads takes **159 hours** or **19 calendar days!**