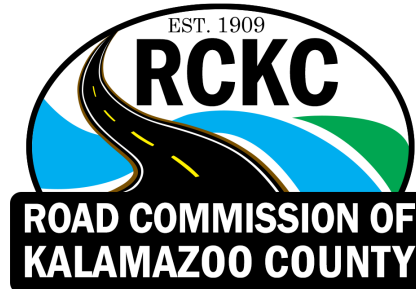




## GRAVEL FACTS

- The RCKC has 109 miles of gravel roads in the county road network as of 2022
- We have 3 motor graders in our fleet
- Graders move at approximately 4 mph when grading
- To grade 1 mile of road takes approximately 2 hours
- To grade all of our unpaved roads it takes 218 hours

## CONNECT WITH US



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# GRAVEL ROADS

The Unpaved Roads of the  
County Road System



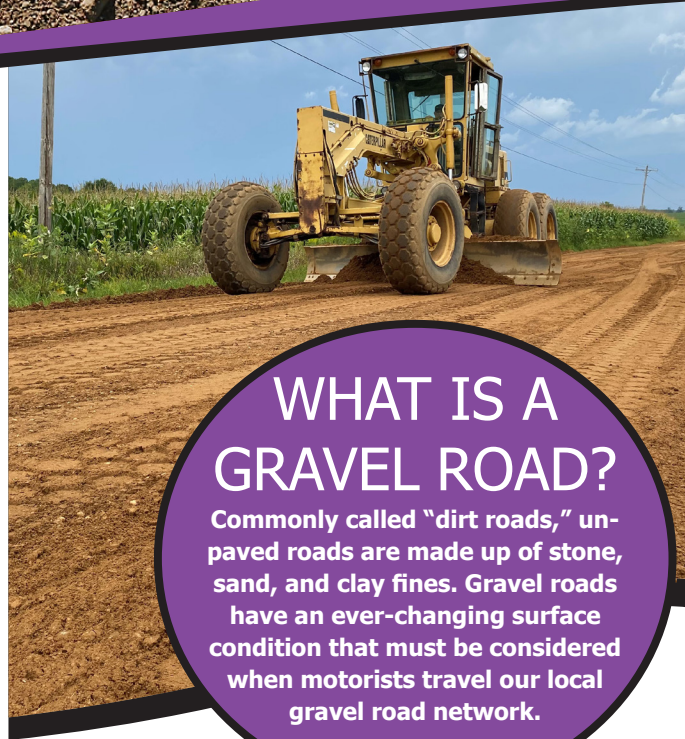


## ROUTINE MAINTENANCE

Gravel roads are maintained by routine grading, spot graveling (adding gravel in small amounts where needed), and applying dust control materials throughout the spring, summer and fall seasons. Routine gravel road maintenance temporarily corrects washouts, potholes, surface corrugations, and rutting. This routine maintenance is performed multiple times throughout the year.

As a gravel road ages, the aggregate surface will show distress that requires more than routine maintenance to correct. The most common issue is the development of "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 projects 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.



## WHAT IS A GRAVEL ROAD?

Commonly called "dirt roads," unpaved roads are made up 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.

## GRAVEL ROAD PAVING

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

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

A special assessment process may be initiated by land-owners or by a township board to hard surface a road. The Road Commission does not initiate this process (see Special Assessment of Roads Brochure).

## WINTER MAINTENANCE

- Gravel roads are difficult to maintain during the winter season with fluctuating temperatures.
- Frozen ground cannot be graded. 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.

Gravel roads are a challenge to maintain during the spring thaw. Much like our hard surface roads, it is when they are most vulnerable. The faster the ambient temperature rises, and the roadbed begins to thaw, the more unstable gravel roads become. The roadbed thaw begins at the top of the surface, 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. Applying new gravel to a muddy surface will reduce the stability of the new gravel, making it even more difficult for travel. The proper time to perform routine gravel road maintenance and apply additional gravel is when the roadbed is completely thawed and settled with adequate moisture remaining in the aggregate to achieve compaction.

