



# Black Hawk County Engineer

316 E. 5<sup>th</sup> Street ▪ Room 211 ▪ Waterloo, Iowa 50703 ▪ Phone: 319-833-3008 ▪ Fax: 319-833-3139

Email: [engineer@co.black-hawk.ia.us](mailto:engineer@co.black-hawk.ia.us)

Website: [www.co.black-hawk.ia.us](http://www.co.black-hawk.ia.us)

“The mission of the County Engineer and Secondary Roads Department is to develop, construct, manage and maintain a safe and modern network of county roads and bridges, by being efficient, financially responsible and environmental stewards to the residents and visitors of Black Hawk County.”

## Risks of Placing a Seal Coat

A seal coat is a very effective method of mitigating gravel road dust. The seal coat is placed on top of a prepared gravel road and then the dust from the gravel is no longer able to get airborne.

The County recognizes that sealcoating can be a large expense for residents. Therefore, residents should know that there are risks associated with seal coats. The risks primarily come in three different forms, the spring thaw, winter maintenance and heavy and/or high traffic volumes.

1. **Spring Thaw:** if a road has a past history of frost boils or becomes very soft during the spring thaw, the roadbed may be poorly draining. A seal coat can help to keep water and moisture out of the roadbed, but it is not impermeable and it may not be surface water that is keeping the subgrade wet. Regardless of the water source, this water will freeze in colder months and will thaw. During the thaw process the material underneath the seal coat can become soft and unable to support loads. A heavy truck or other traffic may go over this sealcoat and break through the layer of sealcoat because there is not support underneath it during the thaw; this may happen unexpectedly and without warning. Typically, the county tries to keep the motor grader off the roads at this time. See photo where damage occurred rapidly to a 3-year old sealcoat during February 2018.



2. **Winter Maintenance:** The County must maintain the roadway. Occasionally, during winter storms that have freezing rain or a lot of ice, it may be necessary for us to scarify the ice on top of the sealcoat so that it gets broken up sooner and melts so slippery conditions are not present. Although the county tries not to damage



the seal coat, it is possible that furrows may occur in the seal coat after this process takes place.

3. **Traffic Volumes:** if a road receives a high volume of traffic or has heavy agricultural use, it may not be cost effective to cover the roadway with a seal coat. Too many heavy loads can damage a seal coat. Particularly during the spring thaw, as was explained above.

The more layers a resident has placed on their seal coat, the more likely the seal coat is to bridge the poor soil conditions below. Typically 4 to 5 layers of a seal coat can withstand most traffic loads.