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MEMO

TO: Dee F. Bruemmer

County Administrator

FROM: Jon Burgstrum

County Engineer

SUBJ: Base Stabilization

DATE: May 9, 2013

As you know, we have a list of roads for our macadam program that we take traffic counts on regularly. Over the last several years, there have been county wide reductions in the traffic counts. We believe that the price of gas is the reason people are driving less. The reduction in traffic counts and the fact that we have been aggressive with our macadam program has reduced the number of eligible projects. Currently there are a couple of years in our five year plan that do not have macadam projects.

We have been looking at several options that are available as an alternative to macadam and paving. We are not proposing that this replace our macadam and new paving program. We will continue to monitor our roads and propose macadam's as they become eligible. This process is a way to reduce maintenance and dust on some of our high maintenance roads.

We are proposing to begin a road base stabilization program. The process involves scarifying the existing roadbed and applying the stabilizing agent. New rock is usually added and blended with the agent. The thickness is dependent on how much existing rock is present. Equipment used is a spray truck to apply the agent, a Motorgrader to mix and blend the material and a roller to compact the surface. The process can be done with our own crew.

The criteria for determination of which roads would be done has a larger maintenance aspect versus number of houses or facilities served as in the macadam criteria.

There are three materials that we have identified that could be used to stabilize the road base which would reduce dust and maintenance.

- 1. Calcium Chloride
- 2. Base One
- 3. Roadbond EN-1

We believe that calcium chloride and the Base One product would be the best choices for us. The Roadbond product requires adding fly ash or Portland cement which would increase our costs.

Clinton County has completed projects using both the Base One product and the calcium chloride. I will have a presentation at the committee of the whole meeting to show you the process and the results of their work. We will also drive these roads on our tour on the 14th.