# COUNTY ENGINEER'S PERSPECTIVE – PLANNING AND DESIGN FOR THE FUTURE

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By

Ken Skorseth

SDLTAP Program Manager

#### THE ISSUES

- Dust Control/Stabilization will likely increase
- Very few projects are actually designed.
- Need better guidance on product compatibility with varying aggregate and soil types.
- A great need for a guide at the operations level for road prep and application of products.

### **Dust Management Vs Thin Asphalt?**







#### **Another Built Last Year – Failing This Year Project**



#### A Remarkable Contrast!



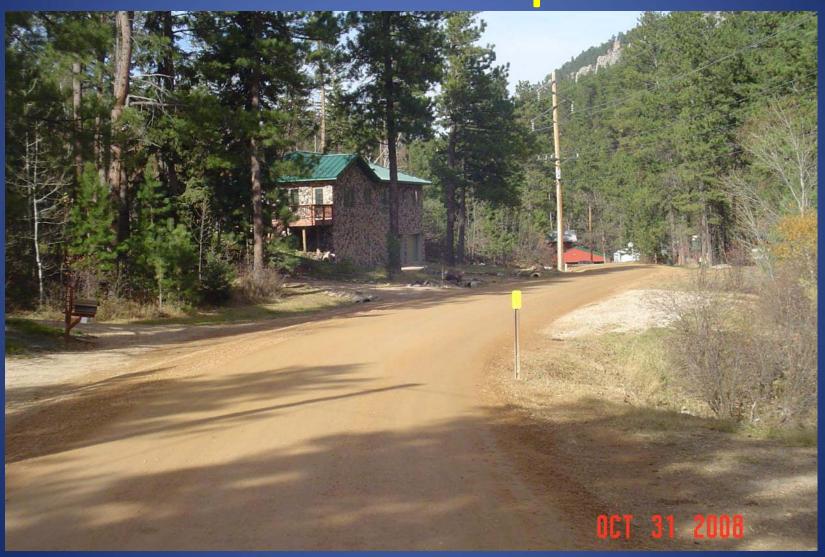
### Without Adequate Funds for Base Improvement and Paving – Stabilized Gravel is an Alternative.



### Maitland Rd – Lawrence Co, SD



# Heavy Residential Traffic & Continued Development



# A Model of Successful Gravel Stabilization for 17 Years



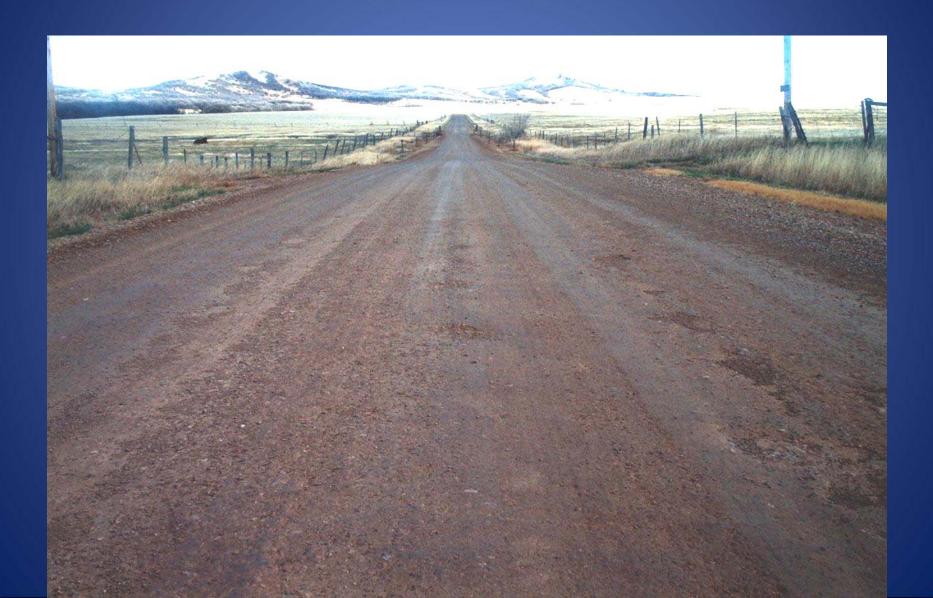
# One Section of Maitland Rd With Asphalt Surface



### But, Not all Dust Control/Stabilization is Successful!



### 2% Crown on Surface - Wrong Design!



# Almost Complete Failure of an Organic Oil



# And Finally the Control of Preparation and Application -

### This Road is <u>Not</u> Ready for Surface Treatment



### A Positive Contrast – Next Five Slides



### **Aggressive Surface Preparation**



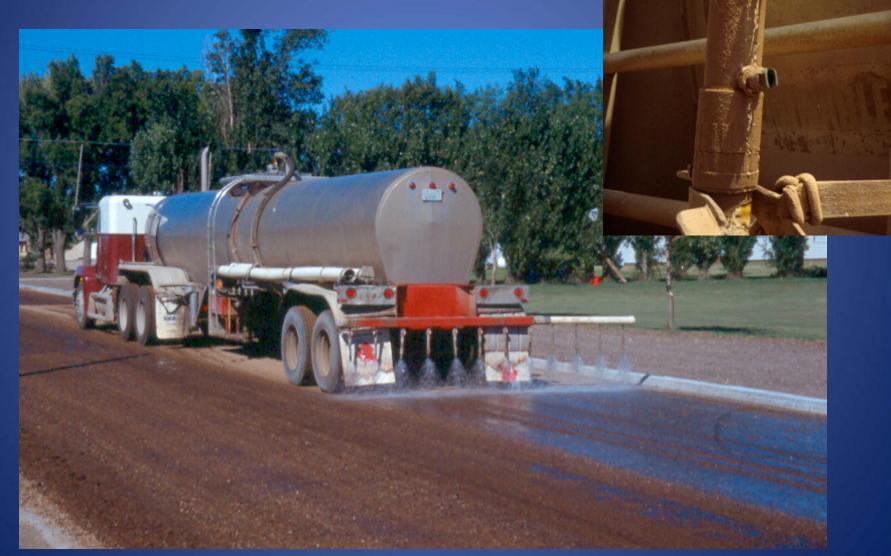
### Very good material nicely shaped with 1 ½ to 2 inches of loose material ready for treatment.



### Prewetting is Often Needed When Treating Dry Aggregate.







## When Projects are Done Well – The Performance is Excellent

