



BORAD DISCUSSION TIME

Public Works – August 6, 2014

Pavement Surface Evaluation and Rating (PASER) – Gravel Roads

TO: Board of County Commissioners
COPY: Joe Kirby, County Manager
FROM: Jim Davis, Doyle Villers
SUBJECT: Gravel Roads PASER Assessment - 2013
DATE: August 6, 2014

Pavement Surface Evaluation and Rating (PASER)

The PASER system is a process used to evaluate the surface condition of roads, both paved and gravel. This rating system was developed by the Transportation Information Center, University of Wisconsin-Madison. The rating system describes types of surface conditions and provides a simple system to visually rate the road's surface condition. The rating system for gravel roads uses a scale of one (1) to five (5) to ranging from "travel is difficult" at one to "newly constructed road" at five.

The County's PASER analysis assessed and rated the condition of existing gravel roads on the three following conditions:

- **Crown;** "The height and condition of crown, and an unrestricted slope of the roadway from the center across the shoulders to the ditches."
- **Drainage;** "The ability of roadside ditches and under-road culverts to carry water away from the road."
- **Gravel layer;** "Adequate thickness and quality of gravel to carry the traffic loads."

Deterioration is typically the result two general causes:

1. environmental due to weathering, aging, volume and speed of traffic
2. structural caused by repeated traffic loadings, heavy trucks and high volumes

La Plata County Public Works completed a Pavement Surface Evaluation and Rating (PASER) of our gravel roads during the months of July and August in 2013 and only include those "gravel roads" that actually have a maintained gravel surface. This required driving approximately 304 miles of gravel county roads to complete a visual evaluation of the surface condition, documenting sections of each road where there are significant changes in the surface conditions, and reviewing the records of road maintenance. To build a digital data base the roads we also located using GPS data collection, and representative sections of the roads were photographed to document the current surface condition.

The 2013 PASER report is used to provide a snapshot in time of the surface condition of our gravel roads, and is being used to assist in scheduling future road maintenance, possible future capital projects, and is helpful with the development of future budgets.

TABLE A – CONDITION SUMMARY OF 304 MILES OF GRAVEL COUNTY ROADS - 2013				
District	GOOD	FAIR	POOR	Miles in District
1	54.45	54.42	3.52	112.39
2	36.66	9.80	0.00	46.46
3	66.28	14.19	3.70	84.17
5	54.59	6.50	0.00	61.09
Total miles	211.98	84.91	7.22	304.11
Percent of total	70%	28%	2%	100%

In summary, 70% of our 304 miles of gravel county roads surveyed in 2013 were in good condition, 28% was determined to be in fair condition, and approximately 2% was considered in poor condition. This information is helpful in the review of past road maintenance practices and is being used to evaluate possible changes in road maintenance that could optimize available funds while maintaining a reasonable level of service. This information is also being used to schedule future maintenance and capital projects and will help assist in the determination as to what level of funding may be required to keep our roads in their existing condition or potentially what they may look like over time if the investment is not made.

The annual maintenance typically includes grading, and the application of gravel and magnesium chloride, while the capital projects might include conventional reconstruction or full depth reclamation to upgrade a higher ADT gravel road to a paved or chip sealed road.

CR 120



CR 105



CR 245



CR 214



CR 304



CR 308



CR 502



CR 501

