

Region 2 Planning Commission

ASSET MANAGEMENT ANNUAL REPORT

HILLSDALE, JACKSON, and LENAWEE Counties

Presented to the Region 2 Planning Commission Executive Committee
February 11, 2010

Participating Agencies



Hillsdale County Road Commission



ASSET MANAGEMENT

Purpose of Asset Management

The primary purpose of asset management is to manage infrastructure. It takes a strategic approach to transportation planning, one that looks at the entire road network rather than as individual projects in distinct jurisdictions.

The asset management system requires the collection of data. The data allow transportation officials to monitor the transportation system and plan how to optimize the preservation, improvement and timely replacement of roads. Instead of simply accounting for existing infrastructure, asset management strives to ensure the proper use and performance of those assets, a process that involves the continuous assessment of conditions and evaluation of trade-offs between different actions.

Over the last seven years, staff of Region 2 Planning Commission has assisted the Michigan Department of Transportation in the collection of asset management data. The process will continue in 2010 as federal aid roads throughout the Region will be surveyed for a eighth consecutive year.

The data collection effort was originally scheduled to take place over a three-year period. However, the program was extended and will continue on a limited basis in the near future. Funding beyond FY 2010 is not certain but some counties and local units of government (e.g. City of Adrian, City of Hillsdale, Hillsdale County, Lenawee County, City of Jackson, City of Litchfield, City of Tecumseh, and Village of Blissfield) have used the software to rate local roads. Having established a base of information, MDOT has reduced the roads to be rated to 50% of the federal aid road inventory.

MDOT's goal is to gain accurate road ratings. To this end, they express the preference for the retention of the same raters from year-to-year, if possible. MDOT also sponsors annual PASER training workshops which are put on in conjunction with Michigan Technological University.

2009 Asset Management Survey Data Collection

Data collection is currently limited to federal aid eligible roads (rating of local roads can be done at the option of local transportation agencies). Federal aid eligible roads are defined as any public road or bridge that is eligible for federal aid to be spent for the construction, repair or maintenance of the particular facility. There are currently 2,079 miles of federal aid eligible roads in the three-county region. The mileage per county breaks down as follows:

Hillsdale County - 515 miles
Jackson County - 840 miles
Lenawee County - 724 miles

Data collection teams in each county consisted of representatives from MDOT, county road commissions and/or city engineering departments, and Region 2 Planning Commission. The county data collection teams were as follows:

2009 Jackson County Asset Management Team

Justin Droste, MDOT Jackson TSC
Dan Valdez, Engineer Jackson County Road Commission
John Dowling, City of Jackson Engineer
Jon Steigel, Jackson County Geographic Information System

2009 Lenawee County Asset Management Team

Justin Droste, MDOT Jackson TSC
John Keck, Lenawee County Road Commission
Kristin Bauer, City of Adrian
Kathy Righter, City of Tecumseh
Tim Anderson, Region 2 Planning Commission

2009 Hillsdale County Asset Management Team

Justin Droste, MDOT Jackson TSC
Heather Boyd, Hillsdale County Road Commission
Tim Anderson, Region 2 Planning Commission

Three types of data are collected on each road segment - number of lanes, surface subtype, and surface rating. The data are collected using a GPS system hooked to a laptop computer. The data is exported into Roadsoft software for analysis.

Number of lanes - each segment broken up into number of lanes. Freeways and boulevards divided into separate segments by direction.

Surface subtype - identify the surface subtype among the following: asphalt, sealcoat, composite, concrete, and gravel.

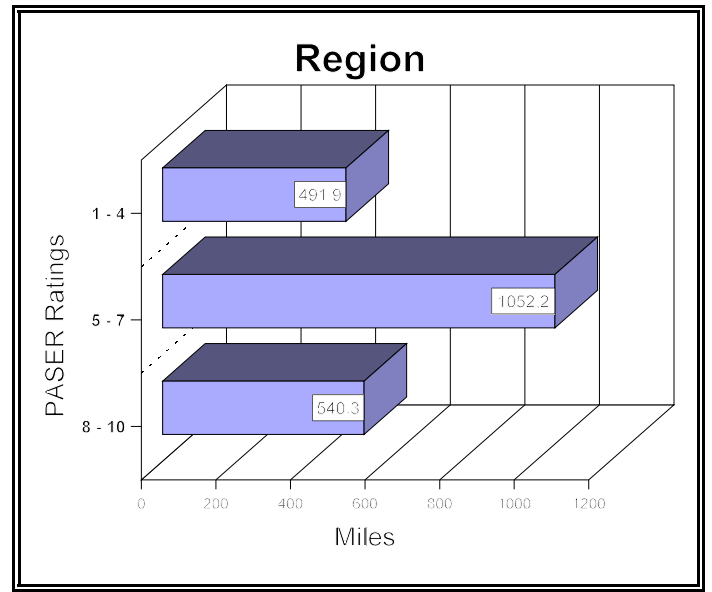
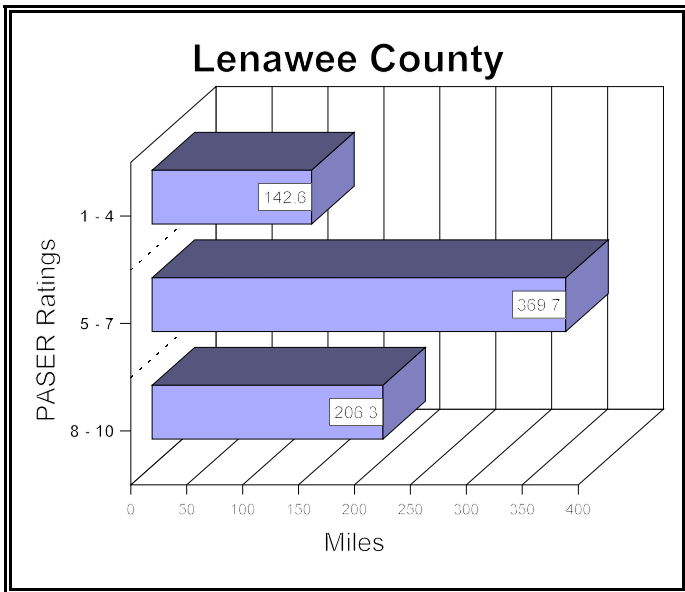
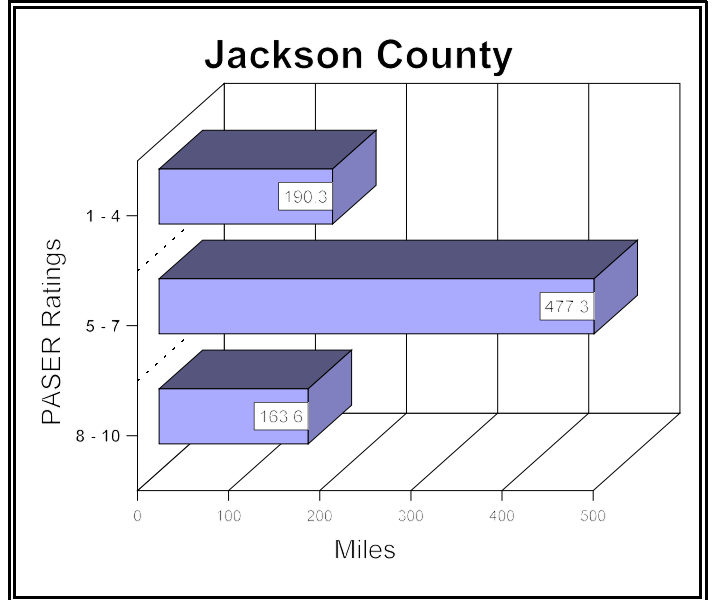
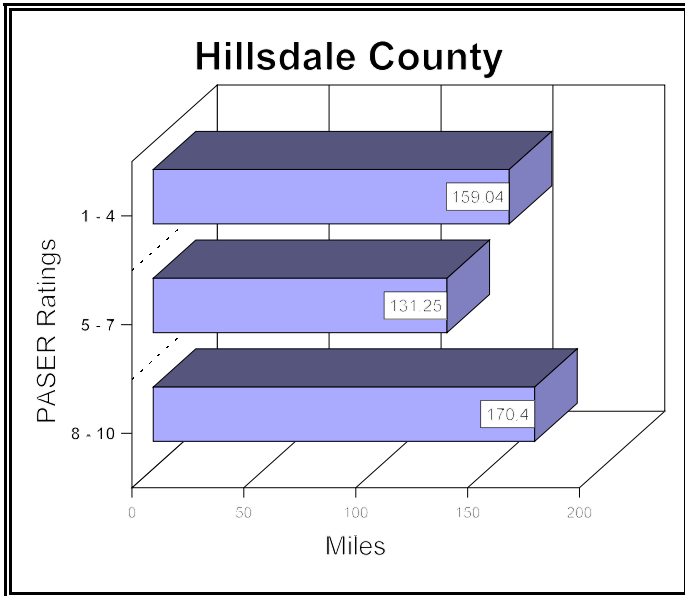
Surface rating - using the PASER rating system, the road surfaces are rated according to the scale in the following table.

PASER RATING SCALE

Surface Rating		Visible Distress	General Condition/ Treatment Measures
10	Excellent	None	New construction
9	Excellent	None	Recent overlay, like new
8	Very good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater)	Recent sealcoat or new road mix. Little or no maintenance required.
7	Good	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open 1/4") spaced due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10 feet or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6	Good	Slight raveling (loss of lines) and traffic wear. Longitudinal cracks (open 1/4" - 1/2") due to reflection and paving joints. Transverse cracking (open 1/4"-1/2") some spaced less than 10'. Slight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging, sound structural condition. Could extend life with sealcoat.
5	Fair	Moderate to severe raveling (loss of lines and coarse aggregate). Longitudinal cracks (open 1/2") show some slight raveling and secondary cracks. First signs of longitudinal cracks near wheel path or edge. Transverse cracking and first signs of block cracking. Slight crack raveling (open 1/2"). Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging, sound structural condition. Needs sealcoat or non-structural overlay.

Surface Rating		Visible Distress	General Condition/ Treatment Measures
4	Fair	<p>Severe surface raveling.</p> <p>Multiple longitudinal and transverse cracking with slight raveling.</p> <p>Block cracking (over 25-50% of surface).</p> <p>Patching in fair condition.</p> <p>Slight rutting or distortions (1" deep or less).</p>	<p>Significant aging and first signs of need for strengthening. Would benefit from recycling or overlay.</p>
3	Poor	<p>Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion.</p> <p>Block cracking over 50% of surface.</p> <p>Some alligator cracking (less than 25% of surface).</p> <p>Patches in fair to poor condition.</p> <p>Moderate rutting or distortion (1" or 2" deep).</p> <p>Occasional potholes.</p>	<p>Need patching and major overlay or complete recycling.</p>
2	Very poor	<p>Alligator cracking (over 25% of surface).</p> <p>Severe distortions (over 2" deep).</p> <p>Extensive patching in poor condition.</p> <p>Potholes.</p>	<p>Severe deterioration. Need reconstruction with extensive base repair.</p>
1	Failed	<p>Severe distress with extensive loss of surface integrity.</p>	<p>Failed. Needs total reconstruction.</p>

2008-09 Regional PASER Rating Summary



Source: 2008-2009 Region 2 Planning Commission Asset Management Program

For more information visit www.michigan.gov/mdot

Additional information is available on Region 2 Planning Commission's web site at www.region2planning.com