



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

GLORIA J. JEFF
DIRECTOR

September 28, 2004

The Honorable Shirley Johnson, Chair
Senate Appropriations Subcommittee
on Transportation
Michigan State Senate
P.O. Box 30036
Lansing, Michigan 48909-7536

The Honorable Scott Shackleton, Chair
House Appropriations Subcommittee
on Transportation
Michigan House of Representatives
P.O. Box 30014
Lansing, Michigan 48909-7514

Dear Senator Johnson and Representative Shackleton:

Public Act 162, Section 611 states:

From the appropriations in part 1, the department shall use high-quality marking materials for all state trunkline projects with a design life of 10 years or greater. The department shall coordinate with material suppliers, equipment manufacturers, and application contractors to ensure cost-effective improvements in durability and retro-reflectivity. The department shall identify pilot projects for demonstration of wet reflective characteristics. The department shall submit a report to both the house and senate appropriations committees and the house and senate fiscal agencies by January 31, 2005, that provides a report on the wet reflective pilot projects and the use of high-quality pavement marking materials in coordination with the material suppliers, equipment manufacturers, and application contractors.

The Michigan Department of Transportation, Bureau of Highway Operations, Administrative Services Section has identified the pilot projects in the attached report.

Sincerely,

Gloria J. Jeff
Director

BFA:FOD:EAT:kv

Enclosure

cc: Gary S. Olson, Senate Fiscal Agency
Mitchell Bean, House Fiscal Agency

bcc: R. DeCook
V. Blaxton
M. Frierson
E. Timpf
L. Hank

Report Topic: High-Quality Pavement Marking Materials and Wet-Night Retro Reflectivity Pilot Projects

Section Number 611 of Public Act 162 of 2003

STATE TRUNKLINE FUND

"Sec. 611. From the appropriations in part 1, the department shall use high-quality marking materials for all state trunkline projects with a design life of 10 years or greater. The department shall coordinate with material suppliers, equipment manufacturers, and application contractors to ensure cost-effective improvements in durability and retro-reflectivity. The department shall identify pilot projects for demonstration of wet reflective characteristics. The department shall submit a report to both the house and senate appropriations committees and the house and senate fiscal agencies by January 31, 2005, that provides a report on the wet reflective pilot projects and the use of high-quality pavement marking materials in coordination with the material suppliers, equipment manufacturers, and application contractors."

The Michigan Department of Transportation is committed to using high-quality pavement markings that provide drivers the positive guidance necessary to safely navigate Michigan's roadways.

Wet Night Reflective Pilot Projects

Painted Shoulder Corrugations (Rumble Strips)-

Prior to the passing of PA 162 of 2003 the Michigan Department of Transportation (MDOT) in conjunction with the Michigan State University (MSU) Department of Civil Engineering had begun research involving painted shoulder corrugations (rumble strips). This research has shown a painted rumble strip provides a driver with a cost-effective pavement marking that can be seen at night in the rain. This research led MDOT to conduct a large pilot project. There are now approximately 115 freeway miles of painted rumble strips on Michigan freeways. MDOT is the national leader in this area. Painted rumble strips provide not only wet night visibility, but also protect the paint line from damage due to snowplows. The use of painted rumble strips will continue to expand both in Michigan and nationwide.

3M Stamark 820™ Wet Reflective Tape-

The product, 3M Stamark 820™, commonly called "wet tape", has been used in Michigan since 2002. It has the characteristic of being visible at night in the rain. At this time this is the only product with wet night reflectivity available for use on Michigan roadways other than painted rumble strips. Since snowplow damage to pavement markings is a common problem, the tape is recessed in a shallow groove in the pavement. In January 2004 3M Stamark 820™ wet tape was placed on the MDOT Qualified Products List (QPL). This makes the product available for use statewide.

Wet tape skip lines have been placed in the following locations:

- 2002- Original Pilot I-69 Branch County, Girard Road to Newton Road 5 freeway miles
- 2003 - I-69 Branch County, Newton Road to Dorrance Road 5 freeway miles
- 2003 - US-131 Wexford County, ramp gores and edge lines on the Manton By-Pass
- 2004- I-69 from the Michigan/Ohio state line north to Dorrance Road. 8 freeway miles (Replaced existing skip line with wet reflective tape.)
- 2004- US-131 Kent County, Various ramp gores
- August - November 2004- Projects are scheduled for completion in Livingston and Kalamazoo counties.

Wet tape skip lines are planned to be placed in 2004/2005 in the following locations:

- Any freeway under construction in Wayne, Oakland, Macomb or St. Clair County
- Kent County, M-6 from I-96 to I-196, 18 freeway miles
- Various Single-Point Urban Intersections (SPUIs) to be built in the Grand Rapids and Detroit metropolitan areas.
- Macomb County, Roundabout at 18 ½ Mile Road and M-53

High-Quality Marking Materials

In partnership with Michigan Road Builders Association (MRBA) and members of the Michigan pavement marking industry a definition of high-quality pavement markings was agreed upon. This agreement led to the issuing of a memorandum entitled "Upgrading of Pavement Markings on Future Pavement Construction/ Reconstruction Projects".

Recessed polyurea skip lines and/or edge lines have been placed in the following locations:

- 2002- I-69 Branch County, Girard Road to Newton Road
5 freeway miles
- 2003- I-69 Branch County, Newton Road to Dorrance Road
5 freeway miles
- 2004- I-69 from the Michigan/Ohio state line North to Dorrance Road.
8 freeway miles (Replaced existing skip line with wet reflective tape.)
- 2004- US-131 Osceola County, North of Reed City then North to Exit 162
11 freeway miles
- 2004- M-50 Ionia County, Washington Boulevard to Cemetery Road.
1.5 non-freeway miles
- August – November 2004 – A number of projects in the following counties are scheduled for completion : Oakland, Macomb, Wayne, Washtenaw, Lenawee, Shiawassee and Kent.

Since issuing the memorandum, any project one mile in length or greater fitting the criterion agreed upon with the MRBA has been designed using a high-quality marking system.

Coordination with Material Suppliers and Application Contractors (Note-Equipment manufacturers work directly with suppliers and application contractors.)

- July 2003- Met with polyurea suppliers and application contractors on wording to improve the specification for application of polyurea.
- September 2003- Met with representatives of MRBA and application contractors to develop language for the memorandum entitled "Upgrading of Pavement Markings on Future Pavement Construction/ Reconstruction Projects".
- January 2004- A coordinated evaluation with supplier Epolplex was done. Their polyurea product, LS90, was approved for placement on the QPL.
- January 2004 - A coordinated evaluation with supplier 3M was done. Their Stamark 820 wet tape was approved for placement on the QPL, as were their polyurea products, LPM 1000 and LPM 1200.

These meetings and coordinated evaluations cleared the way for implementation of the upgrading of pavement markings on MDOT construction projects.

MDOT recognizes the need for quality pavement markings. As the population ages, upgraded pavement markings will prove beneficial not only to the older driver, but to all drivers.