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BILL



ANALYSIS

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Senate Bill 879 (as introduced 4-13-16)
Sponsor: Senator Mike Shirkey
Committee: Transportation

Date Completed: 5-25-16

CONTENT

The bill would amend the Michigan Transportation Fund law to do the following:

- **Require the Michigan Department of Transportation (MDOT) to consider the entire life-cycle cost of a project and not just its initial cost in designing and awarding paving projects.**
- **Give MDOT additional options on which to base life-cycle costs when there are no relevant Michigan historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system for comparison.**
- **Allow MDOT to conduct 10, rather than four, pavement demonstration projects each year to evaluate new construction methods, materials, or design for highways, roads, or streets subject to certain restrictions.**
- **Allow a demonstration project to be selected based on pavement designs intended to increase pavement life expectancy in a manner that would lower life-cycle costs.**
- **Increase from 20% to 40% the maximum allowed difference in the total cost of contracts awarded for demonstration purposes between asphalt and concrete paving materials in any two-year period.**
- **Provide that a lack of Michigan actual historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system would not preclude MDOT from conducting a pavement demonstration project.**

The bill would take effect 90 days after its enactment.

Life-Cycle Cost Analysis

The law requires MDOT to develop and implement a life-cycle cost analysis for each project for which total pavement costs exceed \$1.0 million funded in whole, or in part, with State funds. The Department must design and award paving projects using material having the lowest life-cycle cost. All pavement design life must ensure that State funds are used as efficiently as possible. The bill also would require the Department to consider the entire life-cycle cost of the project and not just the initial cost of the project in designing and awarding paving projects.

Under the law, except as otherwise provided, life-cycle cost must compare equivalent designs and must be based upon Michigan's actual historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system, and include estimates of user costs throughout the entire pavement life.

For pavement projects for which there are no relevant Michigan actual historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system, the Department may use actual historical and comparable data for equivalent designs from states with similar climates, soil structures, or vehicle traffic.

Under the bill, the Department could use either of the following as a substitute if there were no relevant Michigan actual historic project maintenance, repair, and resurfacing schedules and costs:

- Actual historical and comparable data for reasonably equivalent designs from another state or foreign country that otherwise complied with Michigan law.
- Pursuant to an express written request from the MDOT Director and subject to legislative approval by passage of a concurrent resolution, sufficiently successful preliminary results from a lawful demonstration project currently underway, as described below.

Additional Pavement Demonstration Projects

Under the Michigan Transportation Fund law, MDOT may conduct up to four pavement demonstration projects each year to evaluate new construction methods, materials, or design. The Department may offer or conduct a pavement demonstration project that may be all or a portion of that project using either concrete or asphalt as determined by the Department. Each demonstration project must include measurable goals and objectives for determining its success. The Department must make a final report for each demonstration project following the demonstration life of the project, which may be shorter than the actual pavement life of the material used for the project, that assesses the cost-effectiveness and performance of the pavement materials and design used in the project and compares the results to the pavement material identified under MDOT's standard pavement selection process.

The bill would increase the number of pavement demonstration projects that may be conducted each year from four to 10. Not more than four could be conducted for pavement designs intended to improve performance, including friction, surface stress, noise reduction, and improvement of ride quality; and comparisons of performance of various types of pavement. The Department would be required to measure the interim success of each demonstration project each year, in addition to making a final report for each demonstration project following the demonstration life of the project.

The bill specifies that a lack of Michigan actual historic project maintenance, repair, and resurfacing schedules and costs as recorded by the pavement management system would not preclude the Department from conducting a pavement demonstration.

Pavement Demonstration Selection Criteria

The Michigan Transportation Fund law requires demonstration projects to be selected using any of the following criteria:

- Pavement designs intended to increase pavement life expectancy.
- Pavement designs intended to improve performance, including friction, surface stress, noise reduction, and improvement of ride quality.
- Comparisons of performance of various types of pavement.

The bill would refer to pavement designs intended to increase pavement life expectancy in a manner that would result in lowered life-cycle costs.

Pavement Demonstration Project Costs

Currently, the total cost of contracts awarded for demonstration projects using asphalt and concrete may not exceed a difference of more than 20% between the respective paving materials in any two-year period. ("Total cost" means the initial engineer's estimated costs of the pavement design portion of the project.)

Under the bill, the total cost of contracts awarded for demonstration projects using asphalt and concrete could not exceed a difference of more than 40% between the paving materials in any consecutive two-year period. The bill specifies that nothing in this provision would require, or could be construed to require, that any individual demonstration project be duplicated with both of the paving materials.

MCL 247.651h & 247.651i

Legislative Analyst: Drew Krogulecki

FISCAL IMPACT

The bill would have no impact on State or local revenue, but could affect the allocation of expenditures across activities. The bill would not alter the amount of money earmarked or appropriated to the Department or any specific activity conducted by the Department, but would allow the Department to increase the number of demonstration projects. To the extent that more demonstration projects were conducted, revenue could be directed away from other activities.

Fiscal Analyst: David Zin

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.