

Traffic Sign Life Expectancy Research Project

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While local organizations have always been encouraged to maintain their traffic signs, a June 2014 ruling now requires public agencies (cities, counties, and the Minnesota Department of Transportation) to develop and implement a comprehensive sign maintenance program. But how long do traffic signs really last? Existing data suggests sign life actually exceeds the manufacturer's warranty. While several sign life analyses have been started, none of the studies has produced conclusive results. To answer this question, the Minnesota Local Road Research Board (LRRB) has funded a new research project to develop expected sign life values, enabling local agencies to better manage their traffic sign assets and implement cost-efficient sign replacement strategies.

As part of the research project, MnDOT researchers have installed a test deck (sample signs with known information including age and previous location) at the MnROAD Research Center. A research team will use this test deck to study retroreflectivity (visibility) and color readings over time to eventually determine the life of sign sheeting material. Initial data collected so far suggests a reasonable sign life expectancy of 12 to 20 years for beaded sheeting and 15 to 30 years for prismatic sheetings. Researchers will continue to update these values and determine a definitive expected sign life as more information becomes available from the test deck. In the meantime, agencies are encouraged to at least adopt a sign maintenance method.

For more information regarding traffic sign life expectancy (including recommendations and best policy practices), please visit the following resources:

- MnDOT Project Site: <http://www.dot.state.mn.us/materials/signretroreflectivity.html>
- LRRB Full Report: <http://www.lrrb.org/media/reports/201420.pdf>
- YouTube Video: <http://youtu.be/f7cDEOu6RMQ>



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