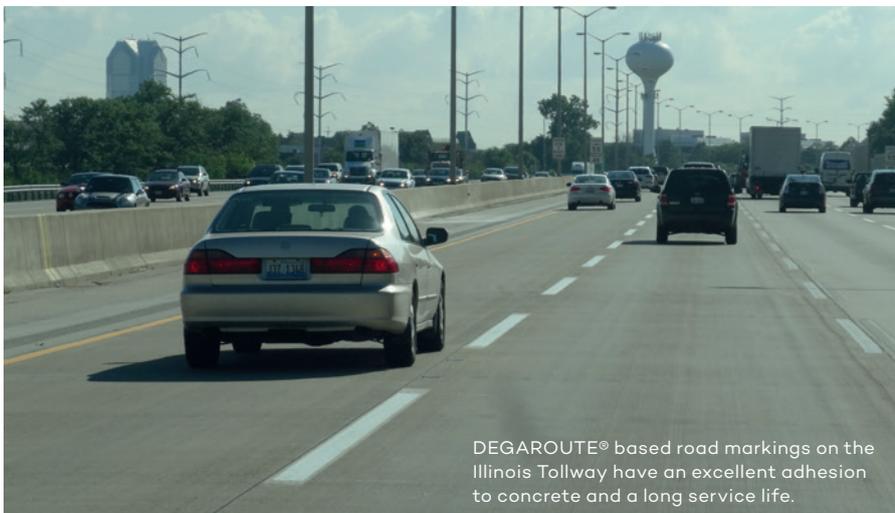


[ON THE ROAD

**DEGAROUTE® BASED
ROAD MARKINGS
FEBRUARY 2016**



DEGAROUTE® based road markings on the Illinois Tollway have an excellent adhesion to concrete and a long service life.

ILLINOIS TOLLWAY EVALUATES HIGH PERFORMANCE SKIP LINE MARKINGS

Out of the total 5,000 miles of tollway roads in the United States, the Illinois State Toll Highway Authority manages a 286 mile network of user financed toll roads in northeastern Illinois, providing travelers with safe and well maintained roadways. As part of the maintenance program for this network of five highways, the Illinois State Toll Highway Authority has partnered with Applied Research Associates, Inc. to manage and monitor the performance of all their current pavement marking programs, providing recommendations for future striping projects.

When searching for a road marking solution that would provide the

benefits of a long service life, cold weather application, excellent adhesion to concrete and asphalt and optimal wet night visibility, DEGAROUTE® based MMA road markings were chosen by the Illinois Tollway Authority for an evaluation. The intention of this project is to assess the performance of DEGAROUTE® based spray and structured markings to determine the durability, dry retroreflectivity and wet recovery retroreflectivity over their entire service life. After only one year of the DEGAROUTE® markings being applied, data collected by Applied Research Associates are already showing exceptional durability.

EDITORIAL



Jochen Henkels
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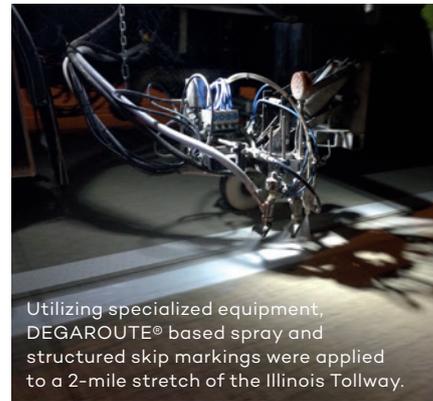
Vincent Venturella
Sales Manager
USA

DEAR READERS,

Meeting high road marking performance expectations at the lowest possible cost – a top priority for road authorities around the globe who are struggling with the effects of decreasing road maintenance budgets. Due to these limited resources, many times authorities are basing their product specification decisions on price, rather than the quality and performance of road safety products. However, some regions in the United States have started to realize the cost-benefit of high performance road markings, leading to performance based specifications that specify a long-term road marking solution that will incur lower costs over their entire service life. In this newsletter, you will learn how the Illinois State Toll Highway Authority has collaborated with Applied Research Associates, Inc. to evaluate the performance benefits of DEGAROUTE® based MMA road markings for specification consideration on future road marking projects.

Jochen Henkels

Vincent Venturella



Utilizing specialized equipment, DEGAROUTE® based spray and structured skip markings were applied to a 2-mile stretch of the Illinois Tollway.

PROVIDING POSITIVE GUIDANCE

Intrigued by the unique structure and optimal wet-night visibility that DEGAROUTE® based MMA road markings could provide, in 2014, the Illinois State Toll Highway Authority worked with Applied Research Associates to apply DEGAROUTE® based spray and structured road markings to a 2-mile stretch of Interstate Highway 88 as an evaluation project to measure the performance of the markings over their lifecycle. The evaluation area comprised of two, 1-mile segments of skip markings, with each mile separately dedicated to spray and structure pattern. In preparation for the application of the DEGAROUTE® based systems, the existing epoxy road markings were ground off the Portland cement concrete surface and grooves were mechanically cut at

a 40 mil (1 mm) depth. One hundred thin film spray skip markings were then applied within the grooves of the first mile of I-88 at a thickness of 30 mils (0,75 mm), measuring 6-inches wide by 25-feet long. Due to the thin application and fast curing capabilities of DEGAROUTE®, the skip lines were completely dry only eight minutes after they were applied. Following the application of the spray skip lines, DEGAROUTE® based structured markings were applied along the second 1-mile stretch of I-88. Applied at the same count and dimensions, the structure pattern skip lines were extruded into the grooves at a thickness of 100 mils (2,5 mm) and were completely cured within 30 minutes of application. The unique pattern of DEGAROUTE® based structure

markings allows for optimal wet-night visibility, utilizing the vertical surface area of the marking to reflect light from oncoming vehicles during inclement weather. Since wet retroreflectivity data values will be measured during the assessment of this project, Applied Research Associates were particularly interested in this application characteristic. Applied Research Associates will perform annual evaluations throughout the entire “service life” of the DEGAROUTE® based MMA road markings, compiling all data into a final report for use by the Illinois State Toll Highway Authority when deciding on products to specify for future striping projects. The final data will include dry retroreflectivity, wet recovery retroreflectivity and overall material presence.

PROOF IS IN THE PERFORMANCE

Since the completion of this application on I-88, Applied Research Associates have been monitoring the DEGAROUTE® based MMA road marking performance and have been impressed with the results after the first full year in service. After enduring a harsh 2014–2015 winter with multiple snowplow events along the Illinois Tollway, the presence of all markings has maintained at a high level. Dry retroreflectivity readings registered at about an average of

400 mcd for the spray skip lines and 550 mcd for the structured skip lines. Overall, the wet recovery retroreflectivity for both applications were reported at about 85 mcd and 100 mcd respectively. “The MMA road marking systems have proven to be every bit as durable as we had heard, looking almost as if they were applied just yesterday” states Carmine Dwyer, Senior Engineer, Applied Research Associates, Inc. Due to the outstanding performance thus far,



Applied Research Associates monitors the durability and retroreflectivity of the DEGAROUTE® based markings.

Applied Research Associates is in discussion with the Tollway to perform an additional test evaluation, applying DEGAROUTE® based road markings to an asphalt-surfaced pavement section.

IMPRINT

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