**Reinforced Asphalt Overlay** 



# Nebo Loop Scenic Byway Utah County, Utah

**APPLICATION:** Utah County, located south of Salt Lake City, used The GlasGrid System featuring GlasGrid® TF (Tack Film), an advanced pavement rehabilitation system, to reinforce and resurface a 5-mile stretch of a scenic roadway named for the tallest peak in the Wasatch Range.

**THE CHALLENGE:** Utah County needed to bolster the byway, which is closed in the winter, with a quality pavement system that protects against reflective cracking and reduces the maintenance and life-cycle costs of the road. The rugged canyon environment and resulting road layout meant that challenging slope, temperature, dampness and directional factors had to be addressed during the project.



Nebo Loop Scenic Byway

SITE CONDITIONS: Longitudinal, transverse, block and some alligator cracking were occurring on the winding stretch of the 24-foot wide Nebo Loop. "It was a pretty broken up road. It is a canyon road, so it has a lot of moisture that migrates under it," said Mark Averett, Project Superintendent for Staker Parson Companies, the general contractor. Also, the incline of the canyon wall meant that the road was exposed to severe run-off, leading to further deterioration of the asphalt surface.

**ALTERNATIVE SOLUTIONS:** Standard mill-and-fill paving fabric was a rehabilitation option for the county road project. "They were open to utilizing the polymeric tack film instead of the typical CSS1-h product," said Tensar Manager Branden Reall. "The tack film was easy to use and not sticky like the standard tack. It provided uniform coverage and is a much better product than the standard CSS1-h product."

THE SOLUTION: Approximately 60,000 square yards of GlasGrid® TF were needed for the 5-mile application on the Nebo Loop, which was performed by a crew consisting of a truck driver, two to three men handling rolls and one on a roller. The high-strength fiberglass interlayer product was then topped with a 2 in asphalt overlay, which uniformly bonds with the GlasGrid product thanks to its pre-installed, top layer of elastomeric polymer film. The pavement reinforcement system provides much greater strength at much lower strain levels, producing better performance. "The fact that you don't have to spray the tack coat out is very good," Averett said. "We didn't really have any problems with the tack film or product coming off. The tack membrane makes all the difference – with the crew not having to add a tack coat, we beat our estimates each day."

# **PROJECT HIGHLIGHTS**

### **Project:**

Nebo Loop Scenic Byway

#### Location:

Utah County, Utah

# Installation:

June 2011

# Product/System:

Glasgrid TF

# Owner/Developer:

**Utah County** 

#### **General Contractor:**

Staker Parson Companies

#### **Materials Supplier:**

Tensar International Corporation

#### **EIGHT YEAR SITE VISIT:**

In October 2019, after 8 years of service in the extreme mountain temperatures, the site was revisited, and the roadway surface is in good condition. Cracking of the old underlying pavement was not observed at the surface of the Glasgrid TF stabilized overlay as seen in the photo on the right.

## THE GLASGRID TF SYSTEM ADVANTAGE

The GlasGrid System featuring GlasGrid® TF offers many advantages over traditional, bituminous tack coats where:

- Uniform coverage is difficult to a In October 2019, after 8
  years of service in the extreme mountain temperatures, the
  site was revisited, and the roadway surface is in good
  condition. Cracking of the old underlying pavement is not
  being seen at the surface of the Glasgrid TF stabilized
  overlay. chieve given present-day application methods.
- Curing time is sensitive to ambient weather conditions, that in turn affect construction schedules.
- Coating materials can be easily tracked onto clean pavement surfaces.



The pre-installed tack film of GlasGrid TF allowed the crew to increase productivity for a savings on labor, time and material cost.

Manufactured by Saint-Gobain – ADFORS and distributed by Tensar International Corporation (Tensar), GlasGrid® TF protects against reflective cracking, while its pre-installed elastomeric polymer film layer effectively bonds to asphalt overlays.



Nebo Loop Scenic Byway during 2011 installation



The Nebo Loop project site was visited again after eight years and cracking was not observed.

With no tack coat emulsion to prepare and apply, owners and installers save on labor costs and project time. The tack film, requires no curing, inhibits grid movement during the paving operation and allows same-day installation of hot mix overlays. The product rolls out and holds up well during installation, which is made easier thanks to its pressure-activated adhesive backing.

For innovative solutions to your engineering challenges, rely on the experience, resources and expertise that have set the industry standard for more than two decades.

For more information on the GlasGrid System or other Tensar Systems, call 800-TENSAR-1, email info@tensarcorp.com or visit www.tensarcorp.com.

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