



## WASHINGTON BOULEVARD EL CAJON, CALIFORNIA

**Application:** The City of El Cajon relied on the GlasGrid® Pavement Reinforcement System and associated design components to fully rehabilitate Washington Boulevard between Avocado Avenue and the city's eastern limits.

**The Challenge:** City engineers needed to resurface Washington Boulevard in a way that would improve the asphalt overlay's performance while reducing life cycle costs. Minimizing inconvenience to area residents was also a major concern.

**Site Conditions:** The existing overlay had significant reflective cracking caused by aging, oxidation and traffic.

**Alternative Solutions:** Reflective cracking is typically addressed by milling and replacing defective sections or overlaying large areas with a new, thicker overlay. However, this approach only provides a temporary solution. Since cracks usually propagate back through to the surface fairly quickly, the overlay's structural life is significantly reduced, prompting frequent maintenance intervals.

**The Solution:** After consulting with representatives from Tensar International Corporation and Road Solutions Inc., the city decided to use GlasGrid 8501 as a full-coverage solution for the road. The product's .5-in. grid aperture and 100 by 100 kN/m of strength provided a cost-effective means of dissipating crack energy over a large area and extending pavement life. It also allowed the city to accelerate work and limit disruption of normal traffic patterns.

"The city's staff had been using the GlasGrid System for about 10 years," says Road Solutions President and Administrator Marshal L. Hughes. "Based on that experience, the city was confident that by incorporating the GlasGrid System's self-adhesive reinforcement mesh into the rehabilitation they could maximize the performance of the overlay, thus extending the maintenance interval significantly."



*The GlasGrid® System accelerated the work schedule.*

### PROJECT HIGHLIGHTS

**Project:**

Washington Boulevard

**Location:**

City of El Cajon, California

**Installation:**

July 2008

**Product/System:**

GlasGrid® 8501 Complete Road System

**Quantity:**

81,654 square yards

**Owner/Developer:**

City of El Cajon, California

**Design Engineer:**

City of El Cajon Department of Public Works

**General Contractor:**

SRM Contracting & Paving

**Installation Contractor:**

Continental Western Transportation

**Materials Supplier:**

Road Solutions, Inc.

CASE STUDY



“The older streets where we have used the GlasGrid System are holding up really well,” says City of El Cajon Associate Engineer, Michael Cardoza, who was in charge of design. “So once we decided to use the GlasGrid System, we didn’t expect to have to go back to that road for many years. In fact, my expectation is that these designs will last throughout my career.”

SRM Contracting & Paving began the installation process by milling and cleaning a designated section of road to a depth of approximately 3 in. SRM’s crew next installed an approximately 1-in. thick asphalt concrete leveling course to create an appropriate surface to receive the GlasGrid 8501 material.

A crew from Continental Western Transportation then applied PG 64-10 hot tack and used a specialized mechanical installer to apply the GlasGrid mesh to the leveling course. Then a top layer of tire-modified asphalt concrete was installed. This incremental process was repeated throughout the work zone until all of the project area was completely rehabilitated.

**The GlasGrid Advantage:** Introduced in 1989, the GlasGrid System consists of stiff environmentally-friendly fiberglass material coated with an elastomeric polymer. The grid is rolled out over a thin leveling course placed before the primary

asphalt overlay. With its pressure-sensitive adhesive backing, installation of the GlasGrid System for reinforcement is easy and generally considered the most expedient installed interlayer system available. The GlasGrid System has been successfully used within asphalt overlays throughout the world to combat reflective cracking initiated by thermal loading, lane widening and asphalt construction joints among many others.

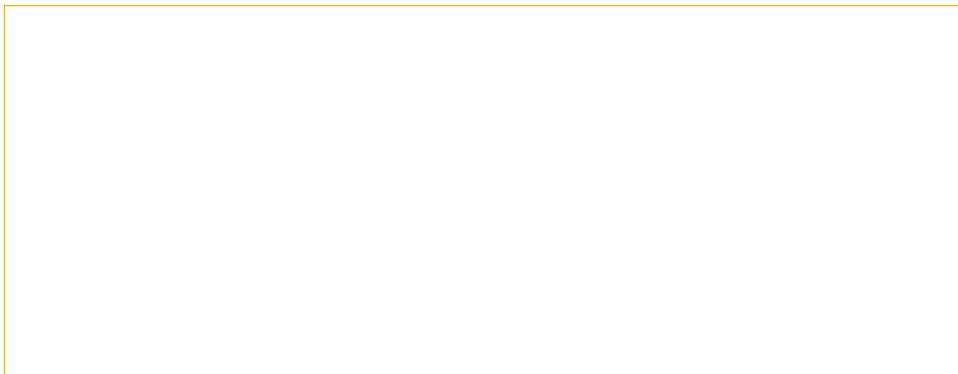
**Additional Information and Services:**

Tensar International Corporation, the leader in geosynthetic soil reinforcement, offers systems for improving structures such as roadways, railyards, construction platforms and parking lots. Our products and technologies, backed by the most thorough quality assurance practices, are at the forefront of the industry. Highly adaptable, cost-effective and installation-friendly, they provide exceptional, long-term performance under the most demanding conditions. Our support services include site evaluation, design consulting and site construction assistance.

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 Pavement Reinforcement System or other Tensar Systems, call **800-TENSAR-1**, e-mail [info@tensarcorp.com](mailto:info@tensarcorp.com) or visit [www.tensar-international.com](http://www.tensar-international.com).

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