

## GLASGRID SYSTEM WORKS BETTER IN THE TRENCHES

When a town grows, so does its need for more utility lines, many of which are buried under paved roads. When the work is done and the trench is repaired, reflective cracking of the pavement is a common consequence.

The problem was all too common in Parker, Colo., a growing town of 42,000 located 20 miles southeast of Denver. The city was confronted with trench repairs increasing in both number and frequency due to accelerated surface failure. To solve the problem, the public works department's streets division self-developed a "T-Lock" installation procedure using the GlasGrid System for pavement reinforcement.

### GRIDLOCK IS GOOD

Introduced in 1989, the GlasGrid System consists of a stiff, environmentally friendly fiberglass material coated with an elastomeric polymer. The grid is rolled out over a thin leveling course placed before the main asphalt overlay. With its pressure-sensitive adhesive backing, the GlasGrid is easily installed. (It is widely considered to be the most expedient geosynthetic interlayer system application available.) The system has been used within asphalt overlays throughout the world to successfully counter reflective cracking caused by one or more of the following:

- concrete pavement longitudinal and transverse joints
- thermal loading
- lane widening
- cement-treated or stabilized layer shrinkage cracks
- lock cracks
- asphalt construction joints



Top: T-Lock repair without the GlasGrid System  
Right: T-Lock repair with the GlasGrid System

### GOODBYE, CRACKS

In and around the town of Parker, the various job sites feature conditions typical of trench repair work, though there is no evidence of unusually soft soils; just reflective cracking. Since late 2005, city crews found the GlasGrid to be just the right solution.

Following utility placement and the addition of flowable fill to the bottom of the existing asphalt layer, asphalt is placed and compacted to meet the milled surface elevation of the T-Lock. GlasGrid mesh is then placed on-center over the top of each trench wall, redirecting the stress to resist migration of the reflective crack. A minimum 1½-inch layer of asphalt is then placed directly onto the reinforcement mesh, bringing the utility cut flush to the existing pavement surface.

According to Ron Martinez, Parker's streets superintendent, the T-Lock repair procedure has greatly reduced the amount of warranty work associated with trench repairs in the city. In addition, use of the GlasGrid System has reduced maintenance expenses while increasing pavement surface life, all at a low installation cost.

The public works department has even modified the T-Lock procedure for pothole repair, cold joints between old and new portions of asphalt on flexible roadways, and patchbacks between concrete and asphalt surfaces. It also uses GlasGrid for repair of longitudinal and transverse cracks, as well as full-width applications in overlay projects.

One look at the photos of T-Lock repairs with and without the GlasGrid System tells the story. To learn more about the Parker project or the benefits of the GlasGrid System, contact your nearest Vance Brothers location for more information.

