

TriAx®

Using Tensar TriAx Geogrids for Landfill Projects

For Subgrade Stabilization, Haul/Access Road Stabilization and Pavement Optimization

THE CHALLENGE

Many times there is great risk associated with constructing over a closed landfill. The unknown composition and degradation of the underlying fill can often be a challenge to assess. Differential and total settlement can cause unwanted problems for structures, pavements, or roads that are built over closed landfills.

THE TENSAR SOLUTION

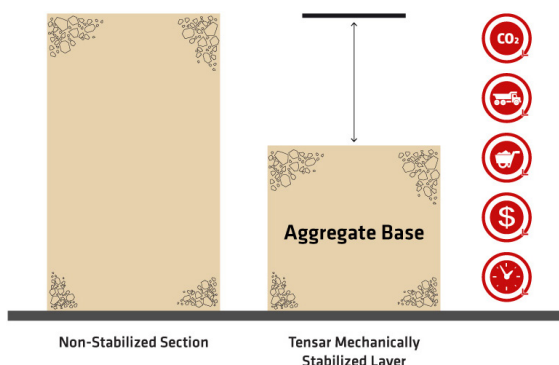
By using Tensar's complimentary design software, Tensar can offer engineered, cost effective solutions to the challenges that building over a closed landfill can bring. This can bring substantial savings to the owners and land developers by allowing the use of a covered landfill site that might have been considered unconstructable. Generally, these properties are cheap and often located in favorable locations.

THE TRIAX ADVANTAGE

- ▶ **Lower Costs:** Using less aggregate with an increased speed of construction yields significant cost savings. These cost savings increase with greater traffic loads and weaker subsoil conditions.
- ▶ **Increased Speed of Construction:** The installation process for geogrids is extremely straightforward. Using less aggregate leads to quicker installation when compared to other solutions that use conventional soil stabilization techniques.



- ▶ **Avoid Over-Excavation:** Traditional stabilization often involves over-excavation and disposal of the uppermost subgrade soils.
- ▶ **Less Aggregate:** The latest Giroud-Han design methodology has demonstrated that the required aggregate thickness can be reduced by up to 60% for roads reinforced with Tensar TriAx Geogrids with no loss in performance.
- ▶ **Eliminate Uncertainties Associated with Chemical Stabilization:** Apart from the obvious environmental concerns, chemical treatment of the subgrade requires that optimum temperatures and dry weather conditions be met. This can lead to delays in the construction process.
- ▶ **Reduce the Potential for Differential Settlement:** Multiple layers of Tensar TriAx Geogrids in a granular layer create a flexurally stiff platform over variable soil conditions.



MAXIMIZE TIME AND COST SAVINGS WITH TENSAR DESIGN SOFTWARE

The Giroud-Han design method was published in the August 2004 edition of the ASCE Geotechnical Journal. The paper reveals the most significant advancement in the design of geosynthetic-reinforced roads within the last 10 years. Tensar developed SpectraPave4-PRO Software in order to offer *Engineered Solutions* compliant with the latest design methodology.

Available free of charge, the SpectraPave4-PRO Software allows the removal of uncertainties associated with the cost and reliability of access road construction. This is particularly important when dealing with heavy loads and weak soils, as it also allows the developer to minimize the cost of these components.

HEAVILY LOADED AREAS

Conventional solutions for stabilizing heavily loaded areas are often expensive, labor intensive and sometimes environmentally unsound. By contrast, Tensar's TriAx Geogrid provides an economical solution to a potentially costly problem. The system has saved developers as much as \$1 million on individual projects.

Tensar TriAx Geogrids create a stiff platform over weak, compressible soils by creating interlock in the aggregate layer. The stiffened aggregate results in an enhanced load distribution beneath the large static and dynamic loads imposed by the heavy loads. This increases the factor of safety against a bearing capacity failure in the subgrade.



EXPERIENCE YOU CAN RELY ON

Tensar International, the leader in geosynthetic soil stabilization, offers a variety of solutions for paved surfaces and roadway projects. Our products and technologies, backed by the most thorough quality assurance practices, are at the forefront of the industry. Our support services include site evaluation, design consulting and site construction assistance.

For more information on Tensar TriAx or other Tensar Systems, please call **800-TENSAR-1**, e-mail info@TensarCorp.com, or visit us online at www.TensarCorp.com.



Tensar®

Tensar International Corporation
2500 Northwinds Parkway, Suite 500
Alpharetta, GA 30009

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www.TensarCorp.com