GSE is a leading manufacturer and marketer of geosynthetic lining products and services. GSE has built their reputation of reliability through dedication to providing consistency of product, price and protection to their global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.
STABILIZATION AND AGGREGATE BASE REINFORCEMENT

Geogrids, offer the most economical, expedient and reliable solutions available to stabilize weak soils or reinforce aggregate base materials. SBx geogrids confine stone and soil particles, preventing lateral shearing. With SBx geogrids, vehicular and other loads are spread over a much broader surface area thus reducing the pressure applied to the subgrade. SBx geogrids do not require any specialized labor or equipment and the effects are immediate.

Base Reinforcement (CBR >4)
SBx geogrids have been shown to enhance the performance of flexible pavement systems. Studies have made it possible to predict service life extensions by as much as six (6) times between reinforced and unreinforced pavement sections of the same thickness.

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Subgrade Stabilization (CBR <4)
SBx geogrids offer money saving solutions to conventional stabilization methods like undercutting or chemical stabilization. Syntec SBx geogrids are quick and easy to install and provide immediate and reliable stability for common working platforms and haul roads.

Compared to deep undercuts, SBx geogrids
- Reduce fill or aggregate thickness
- Reduce excavation depth and haul out
- Reduce labor and equipment hours
- Reduce emissions

Compared to chemical stabilization, SBx geogrids
- Provide immediate stability (no cure time)
- Do not require specialized equipment or crews
- Are not sensitive to weather conditions or soil chemistry
- Provide permanent stabilization
- Reduce cost as much as 50%

Service Life Extension
A flexible pavement section reinforced with SBx geogrids can accommodate up to six times more traffic than the same section constructed without SBx geogrid. The life cycle cost of the pavement is reduced significantly through:
- Decades of extended service life
- Extended maintenance intervals
- Minimize closure impacts

Reduce Costs of Initial Construction
With the use of SBx geogrid, the same number of ESAL’s can be supported by a thinner pavement section vs. a thicker, unreinforced section. The thinner section reduces the cost of construction by allowing for:
- Reduced excavation depth and haul out
- Reduced aggregate thickness
- Reduced pavement thickness

SBx BIAXIAL GEOGRIDS
EFFECTIVENESS

Lateral Restraint
Preventing lateral soil movement beneath the load increases the modulus of the base course thus reducing the pressure applied to the subgrade.

Improved Bearing Capacity
SBx geogrid placed under the aggregate base course shifts the failure envelope from the weaker subgrade soil to the more durable base course material.

Tensioned Membrane Effect
Tensile stress developed during deformation of the geogrid layer improves vertical stress distribution resulting in less pressure applied to the subgrade.

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ROADWORx
Design Prescriptions for Better Roads

ROADWORx calculations are based on decades of comprehensive testing to offer proven and reliable performance. Our exclusive ROADWORx analysis provides a detailed and comprehensive layer thickness evaluation and cost comparisons for paved and unpaved roads.

ROADWORx is exclusive to Syntec Biaxial (SBx) geogrids.