Tensar Earth Technologies Celebrates 20th Anniversary Along with CONTECH® Partnership

Twenty-fifth anniversaries are traditionally commemorated with fine china or platinum — but we’re celebrating ours with polypropylene!

The thermoplastic resin is, after all, the primary component of Tensar® Biaxial (BX) Geogrids, the patented product that has helped build our company, a successful partnership with CONTECH Construction Products, and enough roadway to encircle the earth.

Tensar Earth Technologies’ (TET’s) engineered systems for pavement improvement, along with applications for earth retention, foundation improvement, coastal/waterway development, and waste management account for 30,000 completed projects throughout the U.S., the Americas, and locations in the Middle East. Since our founding in Morrow, Georgia, in the early 1980s, the company has grown to a multi-million dollar business with 30 sales offices, a portfolio of major projects, and a staff of internationally recognized engineering professionals.

From the beginning, TET has been an industry pioneer. We introduced the concept of geogrid soil reinforcement, and we’ve led development of geosynthetic application in retaining walls, landfills, mining sites, and more. Willing to engineer unconventional solutions, TET has earned its reputation as an industry innovator as well.

One company took notice, and the rest is history. In 1985, Armco’s (the American Rolling Mill Company) Construction Products Division began marketing Tensar Geogrids through its distribution network; CONTECH was formed from this division the following year. That partnership continues to this day, stronger and more successful than ever.

“The teaming of our two companies nearly 20 years ago was a tremendous match. Since then, we’ve had a great run,” commented Phil Egan, CEO of Atlantech International, parent company of TET. “TET and CONTECH share a similar vision and many of the same values, the result being a history of success that continues to build upon itself.”

“Our service strategies have always had an overriding objective: to remain out front of our customers’ needs,” said Pat Harlow, CONTECH CEO. “Through this partnership, we’ve been able to provide innovative technologies that have helped secure our position as the country’s premier site solutions company.”

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CONTECH’s plant in Taylor, TX serviced a 80,000 sq yd emergency change order at the President George Bush Turnpike in Dallas in less than 24 hours. Within two days of the verbal release, the Contractor received over three trucks of Tensar BX1200 Geogrid, and the entire order was installed a few days later.
Those sentiments run throughout both companies – and all the way to the job site, said TET’s Director of Biaxial Geogrid Systems Ron Anderson, P.E., who has been with the company since 1984.

“Our relationships go back a long way... they’re important both personally and professionally, with connections that transcend the business,” he commented. “Back then, when structural reinforcement meant steel, even in soil, our polymeric reinforcements represented a leap of faith to many. I credit CONTECH with the vision to partner with us. They understood the value of building a relationship with us and the geotechnical engineering community we knew.”

CONTECH Senior Vice President for Marketing Rick Stepien agrees. “The relationship is incredibly important to us. TET is our largest allied partner, and our companies complement each other extremely well. They fit into our growth strategy with products that have strong value propositions. TET has depth with regard to its technical products, tools, and engineering data. That supports the service ethic we have for our customers.

“From a customer’s point of view, we’re almost a single company — they don’t think of us as separate entities. It’s really unique how well we mesh with each other and with our customers,” Stepien added.

“Together, we’ve created a new market in the construction industry,” said CONTECH’s Vice President for Allied Products Mike Bernauer, P.E., a 17-year veteran of the company whose previous positions include former Tensar specialist. “Early on, CONTECH provided sales and marketing, and TET manufacturing and technology. Today, we thrive on each other. Their evolution into sales and marketing, and ours into management and information systems, have provided the alignment necessary for explosive growth. Our TET business now ranks with the top revenue producers for the company and continues to grow!”

One recent example of that success: the George Bush Turnpike project, a new tollway named for the 41st President, currently being built in Dallas. Two sections underway required highway embankment constructed over closed landfills, solid waste, and low-lying lagoons. Tensar BX1200 Geogrids were installed to stabilize the embankment subgrade and provide a sturdy construction platform. Altogether, the project required 440,000 square yards of Tensar BX and UX (Uniaxial) Geogrids combined.

“We’ve looked out after each other’s interests,” commented Steve Archer, P.E., sales manager for TET’s southwest region, in reference to this project and the TET-CONTECH relationship. “It’s been the essence of teamwork.”

That teamwork is sure to continue as Tensar Earth Technologies begins its next 20 years.

For further information on the George Bush Turnpike project, please visit www.tensarcorp.com/gt04

Launching the New www.tensarcorp.com!

Tensar Earth Technologies launched its new and improved company website in the Fall of 2003 to rave reviews. This new, more user-friendly, dynamic site now gives our customers the capability to get the information they need more quickly and easily.

Some of the biggest changes include: changing the overall design and layout, adding new keyword search capabilities, reorganizing the navigation with drop down menus, and placing all of the Tensar Systems under group headings (such as "Retaining Walls/Slopes"), and adding new sections such as “What’s New” and “Question and Answer”.

If you haven’t had the opportunity to check out our new site since its launch, please visit www.tensarcorp.com/gt04 and see for yourself!
It’s not your typical L.A. makeover. But then, it’s not your typical L.A. icon.

Santa Monica Boulevard, one of Los Angeles’ most historic thoroughfares, is getting the full treatment along 2.5 of its most high-profile miles — and TET’s Spectra Roadway Improvement System is the main act. Developed to simplify roadway construction, reduce required materials, and extend service life, the Spectra System is going all the way to help the road get back into top shape.

The Santa Monica Boulevard Transit Parkway Project, scheduled for completion in August 2005, is the city’s largest paving job in the past decade. The $68.5 million, five-phase undertaking features a reconfiguration and reconstruction of the road between I-405 on the west and the Beverly Hills city limits on the east. The project includes the expansion of both eastbound and westbound traffic from two to three lanes; installation of pedestrian-friendly sidewalks, bike lanes, and landscaped medians; new lighting and traffic signaling systems; and improved access to area businesses and neighborhoods. Altogether, the roadwork will require approximately 300,000 square yards of Tensar BX Geogrid.

Tim Anderson, P.E., now CONTECH’s manager of erosion control systems, made the initial presentation for using BX Geogrids to the city’s Department of Public Works early last year (county, regional, state, and federal agencies are all project partners). Like many upscale makeovers, this one has its share of unique challenges.

Using Tensar BX Geogrid on Santa Monica Boulevard allowed overall savings for the city, as the project was able to stay on grade, and the need to relocate utilities was reduced.

“Santa Monica Boulevard has tremendous bus and truck traffic, and we had the added challenge of having to work around shallow utilities as well,” commented Orion Graham, Tensar specialist in CONTECH’s San Diego office.

The solution? Reinforcing the base course with Tensar BX1200 Geogrids along the entire length of the project to reduce pavement thickness, avoid overexcavation and decrease the quantity of aggregate fill. Further, by keeping the project at grade, the installation has reduced the amount of utility relocation.

Using Tensar BX Geogrids pitched in with subgrade improvement as well. Rather than using a separation geotextile/fabric with 24 inches of aggregate, an additional layer of BX1200 atop 12 inches of fill was installed over areas of soft or saturated subgrade that failed to meet compaction criteria. That reduced excavation and fill requirements in those areas by 50%.

“Our approach has enabled in-field evaluation, decision-making, and execution,” said TET Pacific South Regional Manager Sarah O’Connor. “Our solution accelerated the paving process, a benefit for area businesses, residents, and commuters.”

The success of such a high-profile project reflects the success of the TET-CONTECH partnership as well. “It’s a great working relationship,” said Anderson, “especially in the western U.S., where we’ve all worked so hard to build the business. We really complement each other’s strengths in construction and engineering.”

“We work well together – and sharing information has been key,” added O’Connor. “My colleagues at CONTECH are always willing to assist on getting the project and providing support at the job site. We’ve shared key insights on customers’ priorities with respect to technical, budgeting, and product specifying issues.”
Less than ideal soils can make for a bumpy ride. That was the case two years ago in Pueblo County, where a road serving the Association of American Railroad’s Transportation Technology Center was literally falling apart.

To remedy the situation, the county decided to rebuild the roadway in phases, notes Rich Simpson, project manager for the Pueblo Country Department of Public Works. The work generally involved pulverizing and mixing the existing roadway and base, laying a new base course, and repaving with asphalt. But Phase III of the project, involving 8.5 miles of roadway, included areas with more significant subgrade issues.

“Our design stabilized the majority of the road,” says Simpson. “But we encountered wet and mucky conditions in sections. The mucky areas were pretty much bottomless.”

**DOT Finds Traditional Strategies Too Costly**

To improve the subgrade in these areas, Simpson considered strategies like cut and fill and fly ash stabilization. But analysis showed that these approaches would be costly.

After conducting additional research, Simpson contacted Bob Aurich, the outside sales technician for Vance Brothers, Inc., regional BX Geogrid distributor. “Rich thought TET’s Spectra System might provide a more cost-effective way to tackle the road,” says Aurich. “He wanted to install a few hundred feet as a test section.”

Aurich called Scott Dunn, local sales engineer for CONTECH in Colorado. Dunn offered to provide technical support and two rolls of Tensar BX1100 Geogrid. The 500-linear-foot test section included using Tensar BX1100 Geogrid in the southbound lane and fly ash stabilization in the northbound lane.

**Test Proves BX Geogrid Performance**

“We were confident that Spectra System would increase the performance of the pavement surface,” Dunn says. “Using BX Geogrids help change the dynamics of load interaction with the subgrade and distributes load pressure more evenly. The test section showed no signs of pavement failure despite heavy truck traffic.”

Simpson concluded that the two strategies were equivalent from a performance standpoint, but that the Spectra System provided a more cost-effective option for dealing with Phase III’s subgrade issues.

Construction crews treated the problem areas by following the same break-up and roll process they had used on earlier sections of the roadway. They then leveled and rolled the subgrade and covered it with Tensar BX Geogrids. (Ultimately, the project used 180 rolls of Tensar BX Geogrid.) For reinforcement, the BX Geogrids were overlapped 12 inches and covered with 6 to 8 inches of Class 6 aggregate base course.

The crews completed the installation by applying a 2-inch lift of asphalt. A second 2-inch lift was applied the following spring when conditions were more favorable for paving. The delay between lifts allowed assessment of the geogrid’s performance under traffic loads.

More than two years after the project’s completion, the rebuilt sections are still performing well. “We’ve had no cracking or subgrade failure,” Simpson says. “We’ll definitely use BX Geogrids again when we encounter similar conditions.”
When the Woodrow Wilson Bridge project is complete in 2008, it will provide a new bridge over the Potomac River between Maryland and Virginia and four, new interchanges to ease traffic congestion. Work on one key part of this immense undertaking is being facilitated with the help of the Spectra System and SpectraPave2 Software.

Contractor Looks for Affordable Haul Road Solution

"The contractors planned to use Tensar BX Geogrids in a temporary parking area," notes TET Sales Engineer Mike Stallings. "This foot-in-the-door allowed us to open discussions about the subgrade under the two access roads they needed to construct."

The three-quarter-mile-long roads had to run through an area of very soft soils. Initial testing revealed California Bearing Test (CBR) values of 1.4-1.6. To address these subgrade issues, the contractor considered traditional strategies like soil stabilization, overexcavation, and geotextiles. In each case, there were concerns about cost, construction time, and performance under heavy traffic conditions.

SpectraPave2 Software Reveals Best Design Solution

After assessing the Spectra System, the contractor decided using Tensar BX Geogrids was the best choice for the site’s tough conditions and asked Stallings to develop a solution using TET’s SpectraPave2 Software. Using the software, Stalling developed a design with six longitudinal courses of Tensar BX1100 Geogrids. During construction, each course was installed directly over the native soils and then covered with two, 9-inch lifts of select fill.

"So far, the roadway has required installing 110,000 square yards of BX Geogrids," says Stallings. "That's a large project, and using traditional approaches would have been more time consuming and costly."

All Geogrids for the project were sold through CONTECH and distributed locally by Form Services, he adds.

Stallings also notes that SpectraPave2 is allowing the local contractor to conduct further soil analysis “on-the-fly” during construction. That capability is helping to keep the project on schedule and budget throughout the remainder of its construction.

Based on the Giroud-Han Design Methodology, SpectraPave2 features three analysis modules including: Subgrade Improvement, which indicates required thicknesses for unreinforced and BX Geogrid-reinforced subbases;
Bill Granot, P.E., one of our longest-standing TET distributors selling through CONTECH, has a soft spot for soft soils — and who wouldn’t, with over 3.3 million square yards of Tensar BX Geogrid now installed under south Texas highway projects!

Following a 40-year career that started with Armco, Granot retired from CONTECH to launch his own business as a Corpus Christi-based distributor selling geogrids. His belief in the product and constant persistence with the TexDOT has guided the partnership into one of the product’s most successful operations.

“Back in early 1997, a local engineering firm needed to design a road in the Port of Corpus Christi area,” Granot reflected. “The soils were so soft in some areas that you could literally push a broom handle down several feet into the ground with virtually little or no effort.

“Later on that year, came a two-mile rail project with very soft soils. While these two jobs were in progress, I took one of my TexDOT engineer friends out to see them. He was impressed and then convinced two other key engineers I had been trying to persuade to check out the work. The port chief engineer took them all out, showed them both jobs, and sold them on using Tensar BX Geogrids.”

That led Granot to TexDOT’s district design office and his first DOT sale the next year — 61,000 square yards of BX1100 Geogrid for an existing road crossing over an old burial site. Since then, more than 45 TexDOT projects have followed using Tensar BX Geogrids.

That’s quite an achievement — and through it all, Granot has managed to maintain a solid and steadfast relationship with CONTECH. “It’s been a pleasure working with the company, especially with Jeff Kaman in the Irving office, Merry Mott at the Taylor plant, and Cesar Tijerina, my sales representative. Together, we make quite a team,” Granot added.

We congratulate Bill on his many years of success, and we wish him many more!