

TEXAS FOREST SERVICE

Best Management Practices

- Product and Vendor Guide -

Revised September 2011

This guide consolidates information needed to obtain materials for road and stream crossing construction. The price information in this guide is approximated and may vary with distance from distributors, fuel prices, etc. *All prices are subject to change.*

More contact information for each distributor (except for the fill material distributors) is listed on the last page of this guide. For most products, there are sources available other than those listed.

Detailed information of each product is available from the Water Resources Program. If you need specific information about the use of a product, call Hughes Simpson at (936) 639-8180 or e-mail us at hsimpson@tfs.tamu.edu.

This is not an exhaustive list. If you know of additional sources from which materials may be obtained, please let us know.

The Texas Forest Service does not endorse the use of specific products or vendors listed in the contents of this guide.

TABLE OF CONTENTS

| | |
|---|----|
| GEOTEXTILE FABRICS..... | 3 |
| GEOGRIDS..... | 4 |
| GEOCELLS (GEOWEB)..... | 5 |
| RENO MATTRESS..... | 6 |
| GABION BASKETS..... | 7 |
| CULVERTS..... | 8 |
| - Specs and Prices | |
| - Sizing Chart | |
| TEMPORARY CROSSING MATS..... | 10 |
| - Drag-line Mats (Heavy Duty) | |
| - Laminated Drag-line Mats (Board Road) | |
| - Panel-Lam Skidder Mats | |
| RAILCARS..... | 12 |
| - Tank Cars | |
| - Flat Cars | |
| - Box Car Beds | |
| MISCELLANEOUS PRODUCTS..... | 13 |
| - Portable / Modular Bridges | |
| - Steel Pipe | |
| - Silt Fencing | |
| - Temporary Erosion Control Blankets | |
| - Turf Reinforcement Mats | |
| - Erosion Control Logs | |
| - Paving Fabric | |
| - Hydromulches | |
| - Hydroseeders | |
| - Grass Seed | |
| FILL MATERIALS..... | 17 |
| DISTRIBUTORS..... | 18 |

GEOTEXTILE FABRICS

Application: Geotextiles, often called construction fabric, are the most widely used geosynthetic. They are constructed from long lasting synthetic fibers that are bonded together to form a fabric held together by weaving, heat bonding, or other means. They are primarily used for separation or reinforcement over wet, unstable soils. Geotextile fabrics are typically used in conjunction with geocell or geogrid.

Note: Geotextiles are photodegradable; they must be stored out of the sunlight.

Price Range: \$0.55 to \$0.80 per square yard for non-woven geotextiles.
\$0.65 to \$1.00 per square yard for woven geotextiles.

Quantities: Sold by the roll. One roll will cover 500 to 600 square yards (150 ft. of road) and will weigh 120 to 150 pounds.

Distributors:

CMC Construction Services

(800) 375-4004 or (225) 751-4000

CONTECH Construction Products, Inc.

(281) 893-6012 or (903) 243-8520

GEO-Solutions, Inc.

(512) 330-0796

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or (800) 454-0860

Maccaferri, Inc.

(972) 436-2974

PROPEX Geosynthetics

(281) 725-4230

Seabreeze Culvert, Inc.

(800) 732-7895 or (409) 296-4098

GEOGRIDS

Application: Geogrids are made from polyethylene sheeting that is formed into open grid-like configurations. Geogrids are good for reinforcement because they have high tensile strengths and coarse aggregate can interlock into the grid structure.

Price Range: \$1.60 to \$5.00 per square yard (the higher cost products are made from coated polyester).

Quantities: Typically sold by the roll (13.1' X 164'). May be ordered in specific dimensions. One standard roll weighs 75 to 100 pounds.

Distributors:

CMC Construction Services

(800) 375-4004 or (225) 751-4000

GEO-Solutions, Inc.

(512) 330-0796

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or (800) 454-0860

Maccaferri, Inc.

(972) 436-2974

Seabreeze Culvert, Inc.

(800) 732-7895 or (409) 296-4098

Tensar International Corporation

(214) 937-3690

GEOCELLS

Application: Geocells are made from polyethylene strips 2 to 8 inches high that are bonded to form a honeycomb structure. The product is shipped in a collapsed and compact form. Geocells may be used as a low-water crossing or as a wet-area crossing. It works best in areas with flat approaches to the crossing and with a fairly firm base. Used in perennial and intermittent streams, water may flow over the geocells, which prevents lateral movement of the fill material and provides for a stable base for traffic. It is recommended that a geotextile fabric be installed under the geocells. Type of fill materials will be influenced by expected stream velocities.

Price Range: \$150 - \$400 per unit.

Quantities: Typically sold by the sheet (8' X 20'). Four inch deep sheets are adequate for light traffic (pick-up trucks and small tractors), while eight inch deep sheets are recommended for heavy traffic (large tractors and logging traffic.)

Distributors:

CONTECH Construction Products, Inc.

(281) 893-6012 or (903) 243-8520

GEO-Solutions, Inc.

(512) 330-0796

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or (800) 454-0860

RENO MATTRESS

Application: A reno mattress is comparable to a box spring mattress from a bed. It differs in that it is made from a product similar to chain-link fencing. The mattress is placed in the stream when it is filled up with fist-size rock and the top is wired shut. This product serves to hold rock in place for a low water crossing. It differs from Geoweb in that it does not necessarily need to be installed flush with the bottom of the stream channel. The open characteristics of the wire will allow for water to flow through the mattress as well as over the top. This product comes as galvanized wire or can be coated with PVC to extend the life of the product.

| RENO MATTRESS SIZES AND PRICES | | | | | | |
|---------------------------------------|-----------------|-----------------------|--------------------|---------------------------|---------------------|---------------------|
| Length (feet) | Width (feet) | Thickness (inches) | Number of Cells | Capacity (cubic yards) | Price Galvanized | Price PVC-Coated |
| 12 | 6 | 6 | 4 | 1.33 | \$89.00 | \$132.00 |
| 12 | 6 | 9 | 4 | 2.00 | \$97.00 | \$153.00 |
| 12 | 6 | 12 | 4 | 2.67 | \$102.00 | \$156.00 |
| 9 | 6 | 6 | 3 | 1.00 | \$69.00 | \$105.00 |
| 9 | 6 | 9 | 3 | 1.50 | \$75.00 | \$117.00 |
| 9 | 6 | 12 | 3 | 2.00 | \$81.00 | \$130.00 |

Distributors:

GEO-Solutions, Inc.
(512) 330-0796

Hanes Geo Components
(800) 251-1008 or (713) 957-0200 or (800) 454-0860

Maccaferri, Inc.
(972) 436-2974

GABION BASKETS

Application: Gabion baskets look like chain link fencing material. They are made from both zinc-coated wire and zinc-coated with a PVC sleeve. The baskets are primarily used as retaining structures, and may be appropriate for use in stream crossings. Baskets are typically filled with 6” or larger stones (no fines). One drawback is that rock must be placed by hand.

| GABION BASKETS SIZES AND PRICES | | | | | | |
|--|-----------------|------------------|--------------------|---------------------------|---------------------|---------------------|
| Length (feet) | Width (feet) | Height (feet) | Number of Cells | Capacity (cubic yards) | Price Galvanized | Price PVC-Coated |
| 6 | 3 | 3 | 2 | 2.00 | \$63.00 | \$80.00 |
| 9 | 3 | 3 | 3 | 3.00 | \$91.00 | \$117.00 |
| 12 | 3 | 3 | 4 | 4.00 | \$115.00 | \$147.00 |
| 6 | 3 | 1.5 | 2 | 1.00 | \$43.00 | \$54.00 |
| 9 | 3 | 1.5 | 3 | 1.50 | \$62.00 | \$78.00 |
| 12 | 3 | 1.5 | 4 | 2.00 | \$78.00 | \$102.00 |
| 6 | 3 | 1 | 2 | 0.66 | \$38.00 | \$47.00 |
| 9 | 3 | 1 | 3 | 1.00 | \$54.00 | \$67.00 |
| 12 | 3 | 1 | 4 | 1.33 | \$67.00 | \$88.00 |
| 4.5 | 3 | 3 | 1 | 1.50 | \$54.00 | \$65.00 |
| 6 | 3 | 2 | 2 | 1.33 | \$56.00 | \$68.00 |
| 12 | 2 | 2 | 4 | 1.78 | \$65.00 | \$79.00 |
| 12 | 4.5 | 3 | 4 | 6.00 | \$170.00 | \$210.00 |

Distributors:

CONTECH Construction Products, Inc.
(281) 893-6012 or (903) 243-8520

Maccaferri, Inc.
(972) 436-2974

GEO-Solutions, Inc.
(512) 330-0796

Seabreeze Culvert, Inc.
(800) 732-7895 or (409) 296-4098

Hanes Geo Components
(800) 251-1008 or (713) 957-0200 or (800) 454-0860

CULVERTS

Application: There is a tremendous variation in culvert size and type. Three “main types” that seem to emerge by their use in forestry operations are galvanized steel, aluminum, and polymer-coated galvanized steel. Aluminized, asphalt coated, plastic, and fiberglass are less common types but may also be appropriate.

Specifications:

| <u>Types</u> | <u>Description</u> | <u>Average Life Span*</u> |
|---------------------------|---|---------------------------|
| Galvanized Steel | Most common | 15 years |
| Aluminum | Very light, but easily crushed | 50 years |
| Polymer-coated Galvanized | Relatively heavy; must handle with care | 30-50 years |
| Plastic | Relatively light; gaining Popularity | 30 years |
| Aluminized | Relatively light | 30 years |
| Fiberglass | Very heavy, but inexpensive | 50 years |

*Note that life spans are not definite – they vary with soil type, water and soil acidity, and manufacturer’s claims.

Size/Price*:

| <u>Types</u> | <u>24 inch</u> | <u>36 inch</u> | <u>48 inch</u> | <u>60 inch</u> |
|---------------------------|----------------|----------------|----------------|----------------|
| Galvanized Steel | \$20.00 | \$30.00 | \$39-48.00 | \$59.00 |
| Aluminum | \$32.00 | \$46.00 | \$72.00 | \$128.00 |
| Polymer-coated Galvanized | \$30.00 | \$45.00 | \$49-72.00 | \$72-89.00 |
| Plastic (N12 double wall) | \$20.00 | \$25-39.00 | \$64-81.00 | \$107-119.00 |
| Aluminized | \$26.00 | \$39.00 | \$43-62.00 | \$64-77.00 |

* Approximate prices are for standard 16 gauge per linear foot. Heavier gauges cost more. Some items are priced per order; call for quote.

Other diameters, gauges and materials may also be available.

Other related items may be available - spiral lock seam steel culverts, elbows, tees, Y’s, slotted drains, connecting bands, safety end sections - or may be manufactured with specifications.

Arched Culverts: Culverts vary by shape as well. Arched culverts are “short” and egg-shaped, and work well where sufficient head or fill height is of concern. They may also require use of a heavier gauge to facilitate the arching process, thereby increasing the cost. The cost of arched culverts may generally be calculated by adding 7% to the initial culvert cost.

Culvert Sizing: It cannot be emphasized enough the importance of properly sizing culverts! Cheaper is not always better, and a 6” rain will sure prove it. Refer to the chart below when sizing culverts.

| ACRES DRAINED | Light Soils (Sands) | | | Medium Soils | | | Heavy Soils (Clays) | | |
|-----------------------------------|------------------------|------|-------|--------------|------|-------|------------------------|------|-------|
| | Flat | Mod. | Steep | Flat | Mod. | Steep | Flat | Mod. | Steep |
| Culvert Diameter in Inches | | | | | | | | | |
| 5 | 18 | 18 | 18 | 18 | 18 | 24 | 24 | 24 | 24 |
| 10 | 18 | 18 | 18 | 24 | 24 | 30 | 30 | 30 | 36 |
| 20 | 18 | 18 | 18 | 24 | 30 | 36 | 36 | 36 | 42 |
| 30 | 18 | 18 | 18 | 30 | 30 | 36 | 36 | 42 | 48 |
| 40 | 18 | 18 | 18 | 30 | 36 | 42 | 42 | 48 | |
| 50 | 18 | 18 | 18 | 30 | 36 | 48 | 48 | 48 | |
| 75 | 18 | 24 | 24 | 36 | 42 | | | | |
| 100 | 24 | 24 | 24 | 36 | 48 | | | | |
| 150 | 24 | 24 | 24 | 42 | | | | | |
| 200 | 24 | 30 | 30 | 48 | | | | | |
| 250 | 30 | 30 | 30 | | | | | | |
| 300 | 30 | 36 | 36 | | | | | | |
| 350 | 30 | 36 | 42 | | | | | | |
| 400 | 36 | 36 | 42 | | | | | | |

Flat: 0% - 5% slope
 Moderate (Mod.): 5% - 10% slope
 Steep: 15%+ slope

Distributors:

CONTECH Construction Products, Inc.
 (281) 893-6012 or (903) 243-8520

Rural Pipe and Supply, Inc.
 (409) 384-5800

Seabreeze Culvert, Inc.
 (800) 732-7895 or (409) 296-4098

Wilson Culverts, Inc.
 (800) 234-0084 or (903) 764-5605

TEMPORARY CROSSING MATS FOR HARVESTING OPERATIONS

Application: Temporary crossing mats are used to cross small streams and/or wet areas. They are easily moved from one location to another by a large tractor or skidder. They are relatively inexpensive and prevent the need for fill material associated with culverted crossings.

Drag-Line Mats (Heavy Duty)

Specifications: Mats are constructed of untreated, mixed American hardwoods.

Size/Price Range/Weight: *(In some cases, these mats are only sold by the truck load; higher prices for smaller quantities. Check with distributor.)*

8 Inches Thick, 4 Feet Wide

| <u>Length (ft.)</u> | <u>Cost per Mat</u> | <u>Set of 3</u> | <u>Weight per Mat</u> |
|---------------------|---------------------|-----------------|-----------------------|
| 16 | \$425.00 - 470.00 | \$1,410.00 | 2,800 lbs. |
| 18 | \$475.00 - 520.00 | \$1,560.00 | 3,200 lbs. |
| 20 | \$540.00 - 550.00 | \$1,650.00 | 3,500 lbs. |
| 24 | \$570.00 - 640.00 | \$1,920.00 | 4,200 lbs. |

12 Inches Thick, 4 Feet Wide

| | | | |
|----|-----------------------|------------|------------|
| 12 | \$475.00 | | |
| 16 | \$645.00 | | |
| 20 | \$775.00 - 815.00 | \$2,325.00 | 5,280 lbs. |
| 24 | \$900.00 - 958.00 | \$2,700.00 | 6,300 lbs. |
| 28 | \$1,199.00 - 1,295.00 | \$3,885.00 | 7,400 lbs. |
| 30 | \$1,395.00 - 1,425.00 | \$4,185.00 | 7,900 lbs. |
| 32 | \$1,575.00 - 1,597.00 | \$4,725.00 | 8,400 lbs. |

Manufacturers/Distributors:

Gillespie Lumber Company

(936) 569-6158

Quality Mat Company

(800) 227-8159 or (409) 772-4594

Tanner Services

(409) 246-3573

Laminated Drag-Line Mats (“Board Road”)

Specifications: Mats are designed for light traffic, or heavy traffic in wet-areas with no span. Life span is about five years. Includes cables.

Size/Price/Weight: (sold by the truck load; higher prices for smaller quantities)

| <u>Size</u> | <u>Cost per Mat</u> | <u>Weight per Mat</u> |
|-------------------------------------|---------------------|-----------------------|
| 12’ X 8’ X 6” (or 3-ply) (oak) | \$425.00 - 450.00 | 2,500 lbs. |
| 16’ X 8’ X 6” (or 3-ply) (oak) | \$535.00 - 555.00 | 3,300 lbs. |
| 16’ X 8’ X 6” (or 3-ply) (mixed HW) | \$510.00 - 575.00 | 3,200 lbs. |

Manufacturers/Distributors:

Gillespie Lumber Company
(936) 569-6158

Quality Mat Company
(800) 227-8159 or (409) 772-4594

Panel-Lam[®] Skidder Mats

Specifications: Panel-Lam[®] Skidder Mats provide a method of crossing small streams or wetlands with a skidder or truck without creating unnecessary environmental damage from blockage or silting of the stream. Steel eyes welded on both end plates make convenient attachment points for loading and unloading of the panels and for dragging to the crossing site. They are constructed from 4” X 8” creosote treated timbers. Life span is approximately 5 years.

Size/Price/Weight:

These mats are sized specific to the size equipment to be used. They generally range from 8’ - 40’ long and 4’ - 8’ wide. Thickness is based on the equipment loads. Lifting accessories are also customized for each user. Call for quote.

Manufacturer/Distributor:

Wheeler Lumber Operations
(800) 328-3986 or (952) 929-7854

RAILCARS

Tank Cars

Specifications: Tank cars with the ends cut out. Wall thickness from 1/2 inch to 7/8 inch. Life span is 30-50 years. Appropriate in larger creeks where conventional sized culverts are too small.

Size/Price:

| <u>Diameter</u> | <u>Length</u> | <u>Cost</u> |
|-----------------|---------------|----------------------------------|
| 6'6" – 7'11" | 32' – 40' | <i>Call for delivered price.</i> |
| 8'0" – 8'11" | 32' – 50' | <i>Call for delivered price.</i> |
| 9'0" – 9'4" | 32' – 50' | <i>Call for delivered price.</i> |
| 9'5" – 10' | 40' – 60' | <i>Call for delivered price.</i> |

Flat Cars

Specifications: Appropriate for spanning larger streams. Very inexpensive relative to constructing a bridge.

| | | | |
|---------------------------|-----------------|---------------|---------------------------------|
| Size/Weight/Price: | 10' X 40' | 20,000 pounds | <i>Call for delivered price</i> |
| | 10' X 50' | 25,000 pounds | <i>Call for delivered price</i> |
| | 10' X 60' | 38,000 pounds | <i>Call for delivered price</i> |
| | 8' X 89' | 44,000 pounds | <i>Call for delivered price</i> |
| | 106" X 68 - 89' | 44,000 pounds | <i>Call for delivered price</i> |

Box Car Beds

Specifications: Appropriate for spanning larger streams. Very inexpensive relative to constructing a bridge. Box car beds are box cars with the top cut off. They are lighter than the flat cars.

Size/Weight/Price:

| | | |
|-----------|---------------|----------------------------------|
| 10' X 50' | 27,000 pounds | <i>Call for delivered price.</i> |
|-----------|---------------|----------------------------------|

Distributor:

Railroad Yard
(405) 880-2805

MISCELLANEOUS PRODUCTS

Portable / Modular Bridges

Specifications: Available in spans from 16 feet to over 150 feet; 4 ¼-inch deep steel deck. For temporary installations, can shop-install a timber running surface over the steel deck. Permanent structures can be covered with asphalt.

Size/Price/Weight: *Call for quotes.*

Distributor:

Big R Bridge

(800) 234-0734 or (970) 302-2511 or (817) 225-0851

Steel Pipe

Size/Price:

| | | | |
|-----------|-------------|-----------|--------------|
| 18" X 40' | \$26.00/ft. | 24" X 40' | \$39.00/ft. |
| 20" X 40' | \$31.00/ft. | 48" | \$124.00/ft. |

Distributor:

Rural Pipe and Supply, Inc.

(409) 384-5800

Silt Fencing

Application: Appropriate for use as an erosion barrier.

Price/Size: Standard roll (3' X 100') costs \$30.00 and weighs 55.0 lbs.
Silt fencing backed with wire for \$90.00 for a roll (3' X 100')
Both rolls come with pre-attached posts for installation.

Distributor:

CMC Construction Services

(800) 375-4004 or (225) 751-4000

CONTECH Construction Products, Inc.

(281) 893-6012 or (903) 243-8520

GEO-Solutions, Inc.

(512) 330-0796

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or
(800) 454-0860

PROPEX Geosynthetics

(281) 725-4230

Temporary Erosion Control Blankets

Application: Appropriate for use on exposed soils to prevent erosion, in particular along slopes. Provides stable erosion protection that locks seed and soil in place.

Type/Size/Price:

| | | |
|------------------|----------------------|------------------|
| Single net straw | 100 sq. yd. per roll | \$24.00 per roll |
| Double net straw | 100 sq. yd. per roll | \$28.50 per roll |
| Coconut fiber | 100 sq. yd. per roll | \$70.00 per roll |

Distributors:

American Excelsior Company
(800) 777-7645 or (817) 385-3500

CMC Construction Services
(800) 375-4004 or (225) 751-4000

CONTECH Construction Products, Inc.
(281) 893-6012 or (903) 243-8520

GEO-Solutions, Inc.
(512) 330-0796

Hanes Geo Components
(800) 251-1008 or (713) 957-0200 or
(800) 454-0860

Maccaferri, Inc.
(972) 436-2974

PROPEX Geosynthetics
(281) 725-4230

Seabreeze Culvert, Inc.
(800) 732-7895 or (409) 296-4098

Turf Reinforcement Mats

Application: For applications requiring immediate, long-term erosion protection and vegetative reinforcement. Provides stable erosion protection that locks seed and soil in place.

Price Range: \$9.00 to \$18.00 per square yard (includes installation estimation).

Distributors:

American Excelsior Company
(800) 777-7645 or (817) 385-3500

CMC Construction Services
(800) 375-4004 or (225) 751-4000

CONTECH Construction Products, Inc.
(281) 893-6012 or (903) 243-8520

GEO-Solutions, Inc.
(512) 330-0796

Hanes Geo Components
(800) 251-1008 or (713) 957-0200 or
(800) 454-0860

Maccaferri, Inc.
(972) 436-2974

PROPEX Geosynthetics
(281) 725-4230

Seabreeze Culvert, Inc.
(800) 732-7895 or (409) 296-4098

Erosion Control Logs

Application: Appropriate for use as an erosion barrier.

| <u>Type / Diameter</u> | <u>10' Length</u> | <u>20' Length</u> |
|------------------------|-------------------|-------------------|
| Straw log 9" | \$14.00 | \$21.00 |
| Straw log 12" | \$17.50 | \$28.00 |
| Straw log 20" | \$25.00 | \$50.00 |
| Aspen fiber log 9" | \$18.00 | \$35.00 |
| Aspen fiber log 12" | \$20.00 | \$37.00 |
| Aspen fiber log 20" | \$37.00 | \$72.50 |
| Coir log 9" | \$40.00 | N/A |
| Coir log 12" | 50.00 | N/A |

Distributors:

American Excelsior Company
(800) 777-7645 or (817) 385-3500

Hanes Geo Components
(800) 251-1008 or (713) 957-0200 or
(800) 454-0860

CMC Construction Services
(800) 375-4004 or (225) 751-4000

Maccaferri, Inc.
(972) 436-2974

GEO-Solutions, Inc.
(512) 330-0796

Paving Fabric

Application: Used as a low-cost alternative in strength reinforcement for asphalt paving that helps increase the service life of the roadway and can be milled up in a rehabilitation project.

Specifications: Comes in 12.5' wide and 360' long rolls that cover 500 square yards. With varying thicknesses, cost ranges from around \$185.00 to \$260.00 per roll.

Distributor:

CMC Construction Services
(800) 375-4004 or (225) 751-4000

PROPEX Geosynthetics
(281) 725-4230

GEO-Solutions
(512) 330-0796

Tanner Services
(409) 246-3573

Maccaferri, Inc.
(972) 436-2974

Hydromulches

Application: Slope rehabilitation and stabilization. The products are often used for revegetation after large forest fires as well as stabilizing large road cuts. Probably limited in forestry practices; however, information is available if the need arises.

Quantities: 40 bales per ton

Rates: Average application rates vary but average 800 lbs. of fiber per acre.

Prices: Average price is \$600 per ton. Paper mulch - \$300/ton; 100% wood mulch - \$500/ton; premium product - \$1,600/ton.

Distributors:

American Excelsior Company

(800) 777-7645 or (817) 385-3500

Finn Corporation

(800) 543-7166 or (513) 874-2818

GEO-Solutions, Inc.

(512) 330-0796

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or (800) 454-0860

Hydroseeders

Application: Use in applying hydromulches.

Prices: Prices range from \$8,500 for 300 gallon seeders to \$70,000 for 4,000 gallon seeders.

Distributor:

Finn Corporation

(800) 543-7166 or (513) 874-2818

Grass Seed

Distributor:

Hanes Geo Components

(800) 251-1008 or (713) 957-0200 or (800) 454-0860

FILL MATERIALS

| <u>Distributor</u> | <u>Phone</u> | <u>Product</u> |
|--|----------------|--|
| Lee's Gravel, <i>Linden</i> | (903) 756-5387 | Iron Ore, Washed Gravel |
| Green Rock Co., <i>Alto</i> | (936) 858-4888 | Limestone Road Base |
| Hicks Rock, <i>Alto</i> | (936) 858-7625 | Glauconite (road base), Clay Fill Dirt |
| Transit Mix Concrete & Materials Co., <i>Nacogdoches</i> | (936) 569-9571 | Crushed Limestone |
| East Texas Asphalt, <i>Lufkin</i> | (936) 639-2215 | Crushed Limestone, Washed Limestone, Fill Dirt |
| Jack Alexander, Inc., <i>Lufkin (public sales at Rosevine & San Augustine)</i> | (936) 632-3634 | Glauconite - Road Base, 2x4 Filter Rock, Rip-rap |
| Smith & Company / Pavers Supply, <i>Conroe</i> | (936) 756-6960 | Crushed Limestone, Crushed Concrete |
| N & H Materials and Construction Co. <i>Cut-n-Shoot</i> | (936) 264-3322 | Crushed Concrete, Crushed Sandstone, Fill Dirt, Crushed Asphalt Washed Sand and Gravel, Rip-rap |
| Texas Landscape Products, <i>Magnolia</i> | (281) 252-4651 | Crushed Limestone, Crushed Concrete, Crushed Granite, Decomposed Granite, Aggregate (river rock) |

| <u>Product</u> | <u>Cost Per Ton*</u> |
|---|------------------------|
| Crushed Limestone | \$18.00 - \$50.00 |
| Washed Limestone | \$32.00 |
| Crushed Concrete | \$17.00 - \$32.00 |
| Crushed or Decomposed Granite | \$35.00 |
| Washed Gravel | \$42.50/yard |
| Aggregate (river rock) | \$45.00 |
| Fill Dirt | \$15.00 |
| Crushed Sandstone, Crushed Asphalt, Washed Sand / Gravel, Rip-rap, Iron Ore, Glauconite | Please call for quote. |

* Note that one ton is equal to approximately 1.35 cubic yards. Price does not include tax or hauling fee. Some businesses charge flat rates per mile and some charge hourly fees.

DISTRIBUTORS

American Excelsior Company

850 Ave. H
Arlington, TX 76011
Phone: (800) 777-7645 or (817) 385-3500
FAX: (817) 385-3585
Email: sales@americanexcelsior.com
Website: www.americanexcelsior.com

Big R Bridge

P. O. Box 1290
Greeley, CO 80632-1290
Phone: (800) 234-0734 or (970) 356-9600
FAX: (970) 356-9621
info@bigrbridge.com
www.bigrmfg.com
www.bigbridge.com
Aaron Clauson
Phone: (817) 225-0851
Cell: (970) 302-2511
Email: aaron@bigrbridge.com

CMC Construction Services

Baton Rouge: 18909 Highland Road
Phone: (800) 375-4004 or (225) 751-4000
FAX: (225) 751-0753
Conroe: 2309 N. Frazier
Phone: (936) 441-4450
FAX: (936) 441-4461

CONTECH Construction Products, Inc.

Ken Kennedy, Sulphur Springs
Phone: (903) 885-0673
Cell: (903) 243-8520
Email: kennedyk@contech-cpi.com
Lamar Smith, Houston
Phone: (281) 893-6012
Cell: (281) 740-5995
Fax: (281) 893-6026
Email: smithl@contech-cpi.com
Ken Wunderlich, The Woodlands
Cell: (832) 279-5813
Email: wunderlichk@contech-cpi.com
Website: www.contech-cpi.com

Finn Corporation

9281 LeSaint Drive
Fairfield, OH 45014
Phone: (800) 543-7166 or (513) 874-2818
Fax: (513) 874-2914
Website: www.finncorp.com

GEO-Solutions, Inc.

4417 Burlson Rd.
Austin, TX 78744
(512) 330-0796
Email: grant@geosolutionsinc.com
Website: www.geosolutionsinc.com

Gillespie Lumber Company

Mill: 8211 S. Hwy. 59
Nacogdoches, TX 75964
Phone: (936) 569-6158
FAX: (936) 569-6442
Website: www.gillespielumber.com

Hanes Geo Components

Houston: 1243 N. Post Oak
Phone: (800) 914-0072 or (713) 957-0200
FAX: (713) 957-0215
Austin: 4101 S. Industrial Dr., Ste. 100
Phone: (800) 454-0860
FAX: (512) 670-2035
Grapevine: 615 Westport Pkwy., Suite 300
Phone: (800) 251-1008
FAX: (817) 527-4557
Website: www.hanesgeo.com

Maccaferri, Inc.

Jason Fernberg - Area Manager
1120S. Texas St., Suite F
Lewisville, Texas 75057-4833
Phone: (972) 436-2974
FAX: (972) 219-1639
Email: jfernberg@maccaferri-usa.com
Website: www.maccaferri-usa.com

North American Green

Clyde Windham, Regional Sales Manager
507 Meadowlake Lane
Heath, TX 75023
Phone: (972) 772-4294, ext. 419
FAX: (972) 772-4696
Email: cwindham@nagreen.com
Website: www.nagreen.com

PROPEX Geosynthetics

Quiana Cleveland
Cell phone: (281) 725-4230
FAX: (423) 553-3037
Email: quiana.cleveland@propexus.com
Website: www.geotextile.com

Quality Mat Company

John Penland, Sales Representative
6550 Tram Road
Beaumont, TX 77713
Phone: (800) 227-8159 or (409) 772-4594
FAX: (409) 892-6415
Email: qmat2000@aol.com
Website: www.qmat.com

Railroad Yard

Truman Starr
P. O. Box 473
Elkhart, TX 75839
Phone: (405) 880-2805

Rural Pipe and Supply, Inc.

809 Visador Rd.
Jasper, TX 75951
Phone: (409) 384-5800
Fax: (409) 384-9363

Seabreeze Culvert, Inc.

Ed Meaux, Sales Representative
P.O. Box 6
Stowell, TX 77661
Phone: (800) 732-7895 or (409) 296-4098
Fax: (409) 296-4099
Email: ed@seabreeze-culvert.com
Website: www.seabreeze-culvert.com

Tanner Services

Gary Bryant, Operations Manager North
4527 Hwy. 327
Kountze, TX 77625
Phone: (800) 362-2464
Cell: (409) 767-0075
Email: gbryant@tannerservices.net
Website: www.tannerservices.net

Tensor International Corporation

Stephen Archer, Area Manager
3010 Gaylord Parkway, Suite 170
Frisco, TX 75034
Phone: (214) 937-3690
Fax: (214) 937-3689
Website: <http://www.tensarcorp.com/TriAx/>

Wheeler Lumber Operations

9330 James Ave. South
Bloomington, MN 55431
Phone: (800) 328-3986 or (952) 929-7854
FAX: (952) 929-2909
Email: info@wheeler-con.com
Website: www.wheeler-con.com

Wilson Culverts, Inc.

Steve Webb, Office Manager
H. C. Wilson, President
Terry D. Huffines, VP of Plant Operations
P. O. Box 940
699 FM 1817
Elkhart, TX 75839
Phone: (800) 234-0084 or (903) 764-5605
Fax: (903) 764-2740
Email: wilsonculverts@windstream.net
swebb@dctexas.net