



PERMANENT EROSION CONTROL SOLUTIONS

Erosion Prevention and Protection



Flexamat® Provides Permanent Erosion Control Solutions for a Wide Range of Applications Including:

AIRPORTS

DOT ROADSIDE

DRIVABLE SURFACES

ENERGY SECTOR

INLETS/OUTLETS

LANDFILL/MINE RECLAMATION

SHORELINE

STREAM AND RIVERBANK



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OUR COMPANY

Motz Enterprises, Inc. is the manufacturer of **Flexamat**[®]. The company has been in business for over 30 years and is headquartered in Cincinnati, Ohio.

Flexamat[®] is sold throughout the United States and Canada with material available locally in most areas.

We take pride in our performance and specifying the right product for the right application.

Flexamat[®] is an effective, long term solution. We look forward to working with you.



Learn More About How Flexamat® Is The Best Permanent Erosion Solution!



ABOUT Flexamat®

Permanent Erosion Control

Flexamat® is a permanent erosion control mat utilized for stabilizing slopes, channels, low water crossings, inlet/outlet protection, and shorelines. Tied Concrete Block Mat is a generic term for **Flexamat®**. It consists of concrete blocks (6.5" x 6.5" with a 2.25" profile) locked together and embedded into a high strength geogrid. There is 1.5" spacing between the blocks that gives the mat flexibility and allows for optional vegetation growth. The mat is packaged in rolls, making transporting and installing **Flexamat®** efficient. It is manufactured with various underlayments, determined by onsite conditions.

Vegetated Solution

Flexamat® offers permanent, hard armor protection, with a natural vegetation. **Flexamat®** may be mowed over with commercial mowing equipment or left to grow wild. Besides grass, there are many other types of native plant species that can be planted to grow within the mat. For example, Willow stakes and other native plugs can be planted within **Flexamat®**.

Work With Nature, Not Against

Incorporating perennial vegetation into storm water treatment plans will encourage the benefits of phytoremediation which is the direct use of living green plants for the removal, degradation or containments of contaminants. The establishment of perennial vegetation increases infiltration of storm water runoff into the soil, increased removal of pollutants found in road and parking lots runoff (oils & grease, metals, break dust salt, garbage, nutrients) through filtration and phytoremediation. The perennial vegetation also reduces or eliminates the thermal impacts to storm water runoff by shading the concrete blocks from sunlight and aiding in infiltration and filtering of the runoff, unlike rip rap or other hard armor alternatives.



BENEFITS OF Flexamat®

HIGH PERFORMANCE

The moment its installed un-vegetated capabilities, 19ft./sec. & 24 PSF

EASY MAINTENANCE

Safe to mow over

FAST INSTALLATION

Roll design makes installation efficient

SIMPLE INSTALLATION

Personnel can install with their own equipment

AESTHETICALLY PLEASING

Conforms to landscape

IMPROVES SAFETY

Safe for motorist to drive across

ENVIRONMENTALLY FRIENDLY

Safe for pedestrians and wildlife to walk across

REDUCES CONSTRUCTION COSTS

Low material cost, less labor and faster project completion.

DISCOURAGES GRAFFITI

Vegetated solution rather than poured in place concrete

IMPROVES WATER QUALITY

Offers phytoremediation and reduces thermal impact

LOW-IMPACT DEVELOPMENT (LID)

Helps achieve MS4 permit requirements

Departments of Transportation Roadways Protection

FEDERAL | STATE | MUNICIPAL





Three months after installation.

One year after installation.

Departments of Transportation Roadways Protection

FEDERAL | STATE | MUNICIPAL





One year after installation.



Inlet & Outlet Erosion Protection



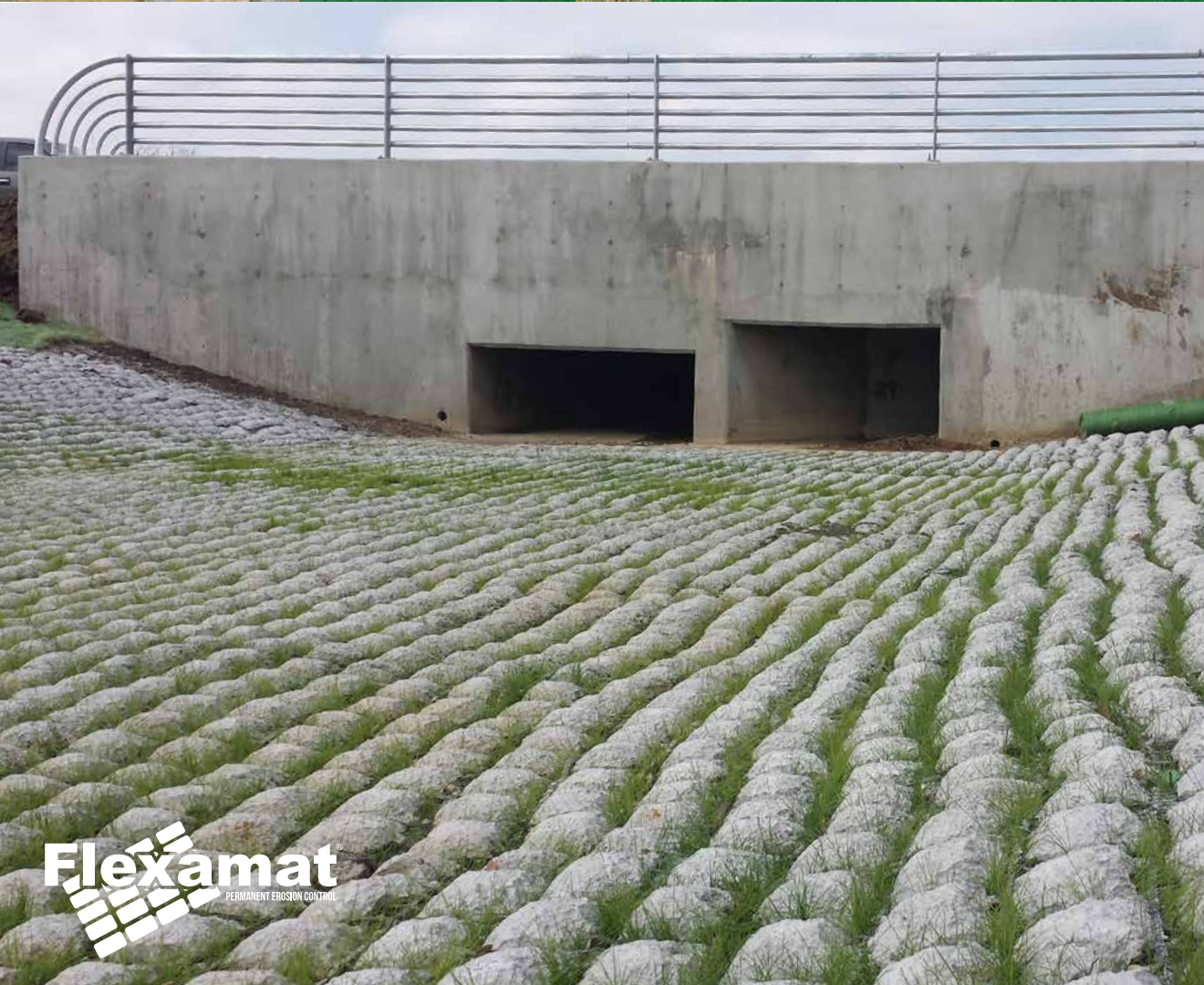
Outlet with failing Rip Rap.



Outlet armored with Flexamat®, 3 years after installation.



Armored inlet.



Griffin, GA - Eroded outlet.



Griffin, GA - Repaired outlet.

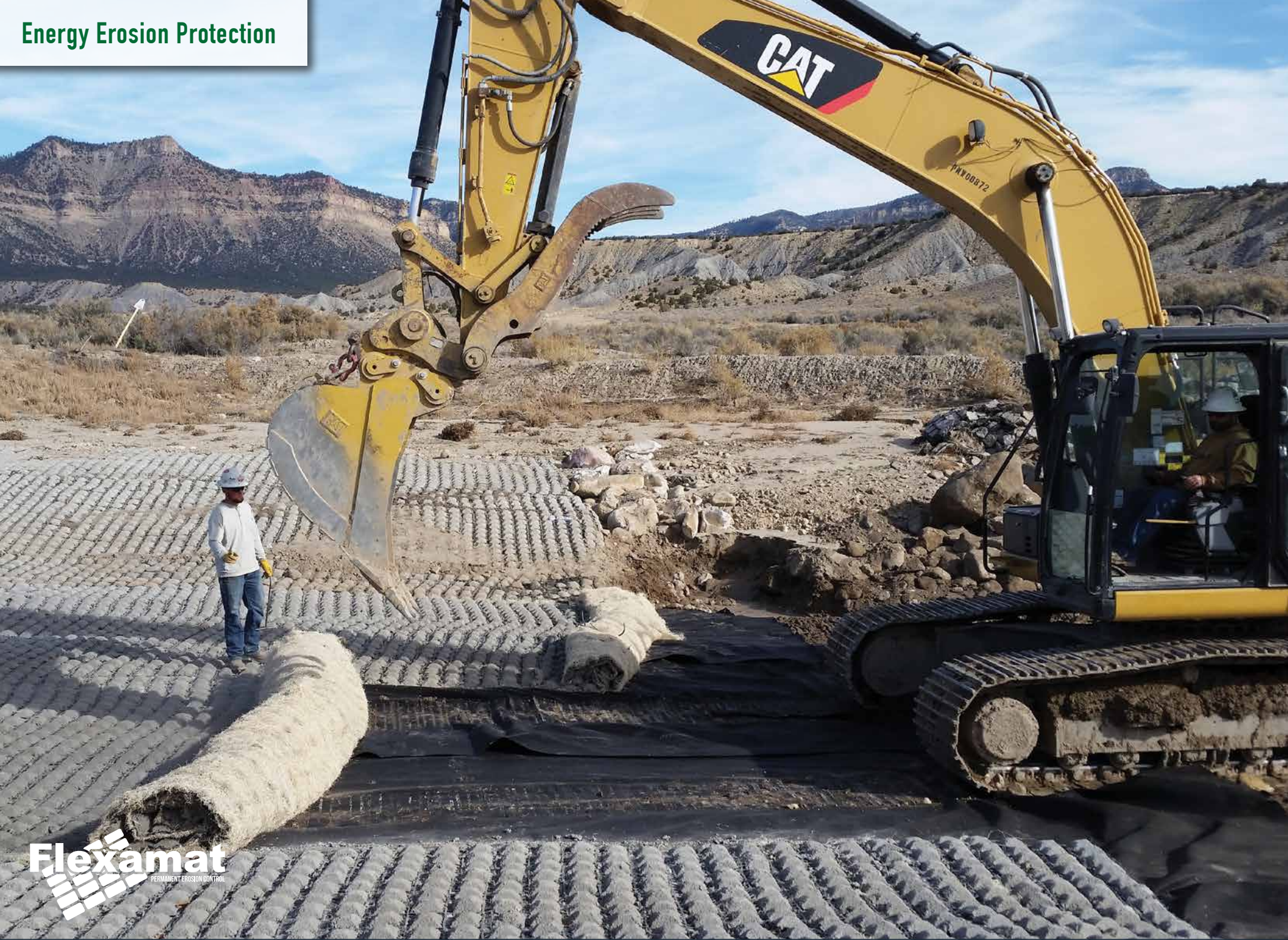


60' wide letdown just installed.



60' wide letdown 4 years after installation.





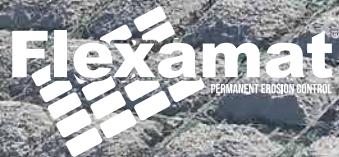


Exposed high pressure gas pipeline.





One year after installation.







Three months after installation.





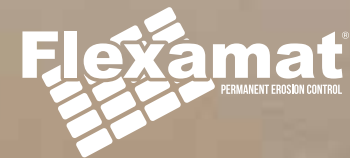
Gas powered driver installation.



Loading anchor with Jack Jaw®

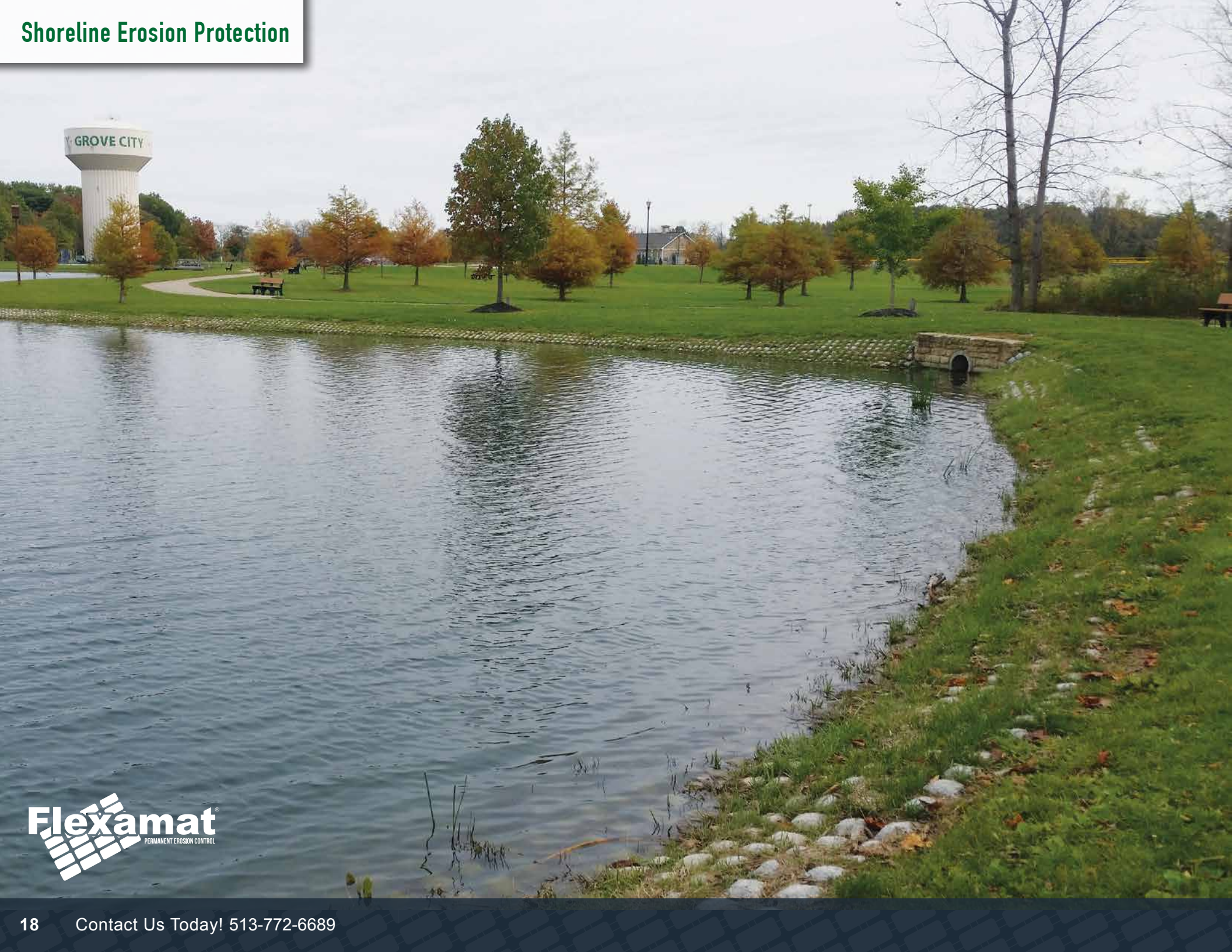


Cutting excess cable.

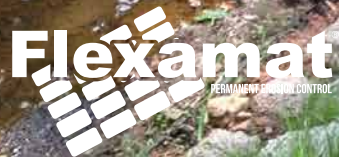














Drivable Surfaces Erosion Protection



Boat ramp.



Gravel infill for residential driveway.



Access road to high school stadium.





Flexamat® Project Check List



Flexamat® Standard with Curlex II® backing



Flexamat® Plus with Curlex II® and Recyclax backing



Flexamat® with non-woven fabric backing

Flexamat® Project Check List:

Here are some suggestions for a successful **Flexamat®** installation:

Decide which **Flexamat®** option is best for the site.

1. Curlex II® 2. **Flexamat®** PLUS 3. Geotextile (10 oz.)

- Order **Flexamat®** (may need up to 5-7% waste factor)
- Have installation crew watch videos on **Flexamat®**'s YouTube Channel
- Plan staging area for **Flexamat®**
- Prepare work prior to installation – remove stumps, rocks, soil, etc – for smooth surface
- Seed and fertilizer, this needs to be done prior to installation of **Flexamat®**
- Clevis shackle of appropriate weight rating. (For connecting to D-ring on bucket.)
- Swivel and rigging with latched sling hooks of appropriate weight rating.
- 3-4 moving hooks (Used for adjusting **Flexamat®** as needed during installation.)
- Lifting straps for large rolls.
- Smooth (toothless) bucket on excavator (refer to install videos)
- May be needed - #3 rebar 18" U-Anchors or Cross Plate Percussion Anchors
- May be needed - Curlex II® or Recyclax® TRM for seams and edges
- Gloves
- Rakes & Shovels
- Clevis
- Swivel and rigging w/ latched sling hooks
- Chop saw if cutting is required





HYDRAULIC DATA

30% Flume Test

Non-vegetated testing on 30% slope over sandy loam soil, results: τ_{limit} FLEXAMAT(std) = 24+ psf
 V_{limit} FLEXAMAT(std) = 19+ ft/sec.



Rectangular Channel Setup



Gravity Flow to Flume



Channel Flow Velocity Measurement (Typical)



Low Flow In Channel



Medium Flow In Channel



High Flow In Channel



Rectangular Channel After High Flow



Channel After Matting Removed (no apparent soil surface disruption)

ROLLS

CORE AND NO-CORE

Flexamat® Standard is delivered without a core. Cores can be added.



Standard Flexamat® (no core)



Flexamat® (with core added)

GENERAL COMPOSITION OF MATERIALS

Blocks	5000 PSI, Wet-cast Portland Cement
Interlocking Biaxial Geogrid	Fornit 30/30 Polypropylene Geogrid with 2,055 lb/ft biaxial strength
Underlayment Options	Standard - Curlex® II ECB Plus - Recyclex® TRM-V & Curlex® II ECB Fabric - 10 oz NW fabric *More options available upon request

MANUFACTURING VALUES

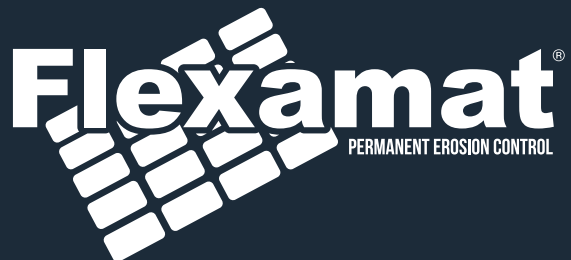
Flexamat® Properties	Values
Roll Width	4' 5.5' 8' 10' 12' 16'
Roll Length	30' 40' 50' /Custom
Material Weight	10 lbs./sf
Block Size	6.5" x 6.5" x 2.25"
Percentage Open Area (POA)	30% min.

PERFORMANCE

Test	Tested Value	Bed Slope	Soil Classification	Limiting Value
ASTM 6460	Shear Stress	30%	Sandy Loam (USDA)	24+PSF
ASTM 6460	Velocity	30%	Sandy Loam (USDA)	19+ ft/Sec



Up to 4800 square feet of material can ship on one truckload.



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