

THE GEOSOURCE UPDATE

Geosynthetics | Erosion & Sediment Control | Stormwater Management | Hardscapes

PROJECT HIGHLIGHT

Flexamat Used on Flood Mitigation Project

Access Road & Erosion Control Solution Supplied by ASP Enterprises

The St. Louis Metropolitan Sewer District needed a solution for their big basin project at their Harlem Cityshed. The basin was created for flood mitigation to protect the surrounding houses and buildings from wet weather surcharging and overland flooding. The goal of the project is to turn the basin into a green, vegetated basin that can serve as a detention area for excess stormwater.

Flexamat was selected as the solution for access roads and water flow lines on this project. Flexamat provides a stable driving surface to stabilize the access roads on this site. It is extremely durable, consisting of 5,000 PSI concrete blocks, which are reinforced with a high-strength geogrid. Additionally, Flexamat can withstand the weight of 80,000 lbs. vehicles. On this project, the Flexamat used for the access roads was infilled with aggregate to differentiate the road from the rest of the basin.

The Flexamat used in the flow lines is locked in place and can't be displaced like rock rip rap. Additionally, the 1-inch gap between the concrete blocks allows for vegetation growth, which helps reach the project goal of a green, vegetated basin. Once vegetated, this solution can be mowed over to maintain it. The Flexamat also allows stormwater infiltration and provides energy dissipation and natural water filtration when water passes over it and through the vegetation.



Flexamat infilled with aggregate for the site access roads.



Flexamat installed in the water flow lines to prevent erosion. The site received a lot of rain after installation, so straw wattles are used to keep the mud off the Flexamat.



The sides of the basin are covered with erosion control blankets to protect the grass seed as the vegetation is established. The bottom of the basin will be covered in ECBs and vegetated as well.

INDUSTRY NEWS

Wildlife Friendly Erosion Control & DOTs

Recently, several DOTs have made some adjustments to erosion control solutions that they use, with the emphasis based on the products being “Wildlife Friendly.” Even the [Texas DOT\(TTI\) is adding “Wildlife Friendly”](#) as a product attribute on their approved products list. In the March issue ([issue #36](#)) of the Kansas DOT Stormwater Update, they discussed at length the reasoning behind transitioning to biodegradable netting and eliminating plastic or photo-degradable netting. Wildlife friendly is a big part of it, but it is also the ease of reworking a biodegradable netting as opposed to the difficulty of re-seeding photo-degradable netting. Clearly, the DOTs are not worried about a 5-10% increase in the blanket cost; the benefits far outweigh the small cost increase. Other state DOTs in the region are also looking at this change as well.

Another aspect of this is looking for “Wildlife Friendly” alternatives, many of which are specified at the DOT and may be a “value engineering” opportunity based on what was specified. Hydraulically applied erosion control materials can be a superior solution in many instances with no adverse impacts on wildlife. In many cases, it is a superior method for vegetating bare soil both from an efficiency standpoint and also from a level of effectiveness.

Obviously, a hydroseeder must be part of the equation and there are certain contractors that do not have this type of equipment. The other key element to keep in mind is that while we have hydraulically applied products like ProMatrix (a BFM) and Flexterra (an FGM), neither product is suitable for concentrated flows. Therefore, if it is a ditch lining or you have concentrated flow beyond 5 feet per second, the solution needs to be a biodegradable erosion control blanket. However, for slopes and other seeding areas, a spray-on product may be ideal.

Feel free to reach out to your local ASP/BCS/CAS/QSC representative or [click here](#) to request more information about our hydraulic products, where they fit and our availability of this material. We have good inventory of both biodegradable erosion blankets and hydraulic solutions in all of our locations. Please give us a call, we are here to help in this transition.

Hydraulically applied erosion control solutions being applied with a hydroseeder.



Photo Credit:
Mervin Lare, P.E. - Kansas DOT

Photodegraded netting clumping up & blowing off the project like a tumble weed. This is now trash that needs cleaned up.



Photo Credit:
Mervin Lare, P.E. - Kansas DOT

Plastic netting that has grown up with the tumble weeds, causing the washout behind the box wingwall.



TECHNICAL TALKS WEBINAR SERIES

Join us for our monthly webinars as we answer questions, share technical information and collaborate on projects. Plus, attendees receive a PDH Certificate for attending. Our goal is to educate attendees on some of the site solutions we can provide.



UPCOMING WEBINAR

Environmentally Friendly & Low Carbon Design Solutions for Green Energy Projects

September 6th, 2023 | 12:30pm-1:30pm CST

[REGISTER HERE](#)



Demand for design and construction of renewable energy (wind and solar) is rapidly growing, driving the need for economically feasible and environmentally friendly best management practices to protect the soil and water. Sustainable and resilient design and construction must deliver hydraulic performance, longevity and a low carbon footprint while minimizing environmental and wildlife impacts. Join Bill Murphy and Ben Campbell from Solmax/Propex as they discuss these important topics.

EMPLOYEE SPOTLIGHT



Derick Pitts

Inside Sales Representative at ASP Enterprises - Kansas City

Derick Pitts joined ASP Enterprises in January 2023 as an Inside Sales Representative at our Kansas City office! Derick spent the last 10 years in education, most recently working at the Lincoln College Preparatory Academy in Kansas City, MO. There he served as a teacher as well as the head wrestling coach, a track coach and an assistant football coach. Looking for a career change, Derick joined ASP and has quickly learned about our product offerings and the construction industry. His positive attitude and willingness to serve customers, make him a great addition to our team.

Outside of work, Derick enjoys spending time with his wife, Alex, and their two dogs, Gia and Ellie. Derick shares, "I am stoked to be working for such a great company in ASP and have learned so much from all of my fellow coworkers."

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ENGINEER'S NOTE



Bill Murphy, P.E.
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From the Desk of Bill Murphy, P.E.

Not All Plastics Are Created Equal

By now we have all heard the concerns about plastic waste polluting our land, waterways and oceans. Those concerns extend to humans and wildlife. The environmental impacts are well documented.

In recent years, many companies have increased or renewed their efforts to use recycled plastics. In the construction industry, we have many erosion control, sediment control and stormwater products made at least in part with plastics. Not all plastics are bad. When looking to replace plastic with another material, we must consider the environmental impacts of those other resources too. Then we must conscientiously choose the best available option. Sometimes that may come at an increased cost.

Our company is committed to offering quality products from quality manufacturers. The professional organizations we participate in are actively researching these concerns. Our friends in the construction industry share their knowledge collectively as we work towards healthier, safer communities.

For example, the Kansas Department of Transportation (KDOT) recently published its Stormwater Update (March 1, 2023), which featured their decision to no longer approve the use of photodegradable plastic netting in erosion control blankets (ECBs). That change is effective this month on all projects that bid July 2023 and beyond.

Biodegradable blankets are still allowed. Erosion control is still required. We have a variety of biodegradable ECBs that satisfy KDOT's stormwater compliance requirements. Several of our manufacturers are also using recycled plastics in their manufacturing. This is something we will continue to pay attention to as we strive to offer the best solutions for you and your environment.



A "Good Plastic"

Citygreen's Stratavault™ soil cell system, made from 100% recycled polymers, is one example of the products we supply made from recycled plastic.



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