

62nd & Bancroft Erosion Control Case Study



The Midwest's Most Trusted Site Solutions Provider

Project: : OPW 5177 – 62nd St.
Drainage Improvements
Location: 62nd & Bancroft St.
Omaha, Nebraska
Application/Solution:
Erosion Control using Flexamat
Market Sector: Municipal

Salesperson: Lynn Ewoldt
Owner: City of Omaha Public Works
Engineer: Olsson Associates
Contractor: Roloff Construction Company Inc.
Installed: May 2014

case study

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Challenge

The Saddle Creek Sewer Separation project is just one in a number of CSO projects that the City of Omaha is executing over the next 10 years. This particular project involved a new sewer outfall through the Arbor St. right of way near 62nd St. The area between the dead end and Arbor St. lies on a steep slope that was overgrown with trees. Massive erosion had taken place and at the homeowners' request, the city was asked to clean it up. The slope was a 1:1 slope about 90' long. During heavy rain events, large amounts of water would pour over the dead end road then over the slope. The trees needed to be cleared and the slope graded to support vegetation.



1 Grading a swale on slope face.

Solutions

One option was to build an inlet at the top of the hill and bury a pipe and daylight it at the bottom of the hill. Due to sheer cost it was not feasible. That is when Eitan Tsabari with City of Omaha Public Works contacted Brian Williams with ASP to take a look at the project. Flexamat was considered to be a reasonable choice. Flexamat is a tied concrete block mat consisting of concrete blocks tied together with a high strength geogrid. Flexamat is tested to handle velocities of 19+ ft/sec and shear stresses of 24+ lbs/SF. With the help of the manufacturers, Motz Enterprises of Cincinnati, OH, a design was drawn using a turf reinforcement mat under the Flexamat and earth anchors to stabilize it on the slope. Seed was broadcast under the Flexamat that will grow through the openings of the block.



2 Anchor trench at the dead end.

Results

"The biggest hurdle we had to jump was the access on the slope and the steepness of the slope," stated Bob Norris, Project Manager of Roloff Construction. "The Flexamat rolls weighed nearly 10,000 lbs. each, so it was tricky. Once we had them in place, the installation was quick. I can definitely see the value in the product and would use it again." After numerous rain events after the installation, no signs of erosion have taken place. The Flexamat is now nearly concealed by the vegetation growth on the slope. Flexamat has proven to be this site's solution.



3 First mat anchored, backfilled and compacted.

Products

Manufacturers included in solutions and product:

Product:
Flexamat

Manufacturer:
Motz Enterprises

Product:
9"x25' Straw Wattles

Manufacturer:
North American Green



4 Geogrid splice and earth anchors to connect mats.



5 Earth anchors used only at geogrid splice area.



6 Coconut erosion blankets on either side of swale.



7 Vegetation establishing on the slope and swale.

Company Information

ASP Enterprises, Inc. and Quick Supply Co. For more than three decades, A.S.P. Enterprises and Quick Supply Co. has served the erosion control industry with integrity and expertise. We provide engineers and landscape contractors the exceptional value for their money and have grown to become the Midwest's full-line distributor of erosion-control, geosynthetics, storm water management products, wall block, landscape pavers, and drainage products.

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