RETAINING WALLS & SOIL REINFORCEMENT

Product: Terramesh & Green Terramesh

The banks of Gruene Road, located in the City of New Braunfels, Texas, are regularly subjected to erosion challenges as a result of flash flooding in the area. The area is characterized by sandy/silty clays. A solution was needed to protect residence and infrastructure in the area, including a bed & breakfast. The project was not without a unique set of challenges that our engineers worked to solve.

Problem
Like many areas in Texas and across the United States, the area is regularly subjected to flash-flooding that carries away the parts of the road banks. This threatens critical infrastructure and businesses, including a bed and breakfast. The solution had to provide stability to the bank, erosion protection, compatible with intense water flows, and had to be vegetated in the upper sections that were to be visible from the bed & breakfast.

The project itself had its own unique set of challenges to overcome. To start, the banks were too steep and would not allow for channel lining. Due to permitting and property limits, anchored solutions or geometric reconfiguration of the site was not possible. In addition to these, the jobsite was only accessible from the creek below and construction could not impact the bed and breakfast; no closure of any kind was allowed.

Client:
CITY OF NEW BRAUNFELS, TX

Main Contractor:
MAKOTA, INC.

Designer:
C.E.C SAN ANTONIO, TX

Products used:
TERRAMESH & GREEN TERRA MESH

Date of Construction:
2012
Solution
Together, Maccaferri and C.E.C San Antonio devised a solution using several of Maccaferri’s products that would overcome the unique design and construction challenges of the project and be able to withstand a major flash flooding event.

The solution utilized our Terramesh System Retaining Wall, with a green Terramesh top. Gabion Mattresses were used to protect the foundations, while standard gabions were used to enclose each end of the structure. Maccaferri Geogrid and NW Geotexties were also utilized for additional reinforcement. Maccaferri was the only supplier that was able to fulfill all requirements set forth by the Engineer-Of-Record to provide a sound solution.

The Terramesh wall successfully withstood the severe floods that dramatically hit Central Texas in 2015, without any issue. The bed & breakfast was protected and could safely continue its business operation without interruptions.

Click here to contact our technical department for assistance on your project.