





Alviso Levee
Alviso, CA
Levee Stabilization
Flexamat

To protect the water side of the Alviso Levee System in Alviso, CA, the US Fish and Wildlife Service has traditionally used rock rip rap to withstand the erosive forces of wave run up. Due to a number of factors, including a limited budget, challenging job site access and the extensive permitting required to transport rock riprap through the Alviso neighborhood, Fish and Wildlife asked their engineer to consider alternatives to riprap for the levee armoring.

Hanes Geo worked with Fish & Wildlife’s engineer, McMillan Jacobs, to propose Flexamat Tied Concrete Block Mat as the best performing and most economical alternative to traditional riprap. A woven monofilament geotextile was used as the Flexamat underlayment to help protect the soil from erosion but still allow for root penetration once the Flexamat was soil filled and revegetated.

Ultimately, more than 95,000 SF of Flexamat was installed in lieu of 24” loose rock rip rap. With an installation rate of more than 3,000 SF per hour, using Flexamat cut the installation time by roughly 60%. Because each truckload of Flexamat covers 4,800 SF, 1 truckload of Flexamat eliminated 30 truckloads of rock traveling through the residential Alviso community to get to the job site.



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