

Shoreline Protection and Enhancement

Twin Rivers Park

Martin County, Florida

Services Rendered

- Topographic, Hydrographic and Seagrass Surveys of Park Shoreline
- Wind/Wave Studies and Site Investigations to Assess Mechanisms of Erosion and Establish Design Loads for Structures
- Shoreline Protection Design Alternatives Including Combinations of Bulkheads, Stone Sills, Revetments, Boardwalks, and Native Wetland Planting
- Conceptual Planning for Temporary Fixed or Floating Wave Attenuation Systems to Allow for Establishment of Planting
- Mangrove Restoration Concept Development and Plans
- Budgetary Construction Cost Estimates for Alternatives
- Presentation of Alternatives to the Martin County Board of County Commissioners
- Modifications to South Florida Water Management District, U.S. Army Corps of Engineers, and Martin County Permits
- Final Design and Development of Construction Documents
- Construction Management and Survey Services

Project Summary

ATM coordinated with the Martin County Parks and Recreation Department to develop engineering alternatives for protecting and enhancing, through living shoreline solution, more than 1,000 feet at the junction of the St. Lucie River and the Intracoastal Waterway. While the primary goal of the project was to prevent further erosion along the county's waterfront park property, the project was also designed to create mangrove habitat and incorporate structures with a natural appearance that would provide picturesque views. Specific benefits, in addition to the structural protection, included the creation of wildlife habitat through native shoreline planting and educational and recreational opportunities for the public from the enhancements made to the park.

ATM provided final engineering design for the selected alternative, including design of the structures, mangrove restoration plans, development of construction documents, plans, and specifications. ATM also assisted the county with bidding and construction administration.

