

Cape Florida Wetlands, Florida

marine environmental



The intention of this project was to restore the upland area within Cape Florida to its natural wetlands condition that existed prior to 1926. A conceptual design was developed by Coastal Systems International, Inc. based on a review of 1926 aerial photography and results of topographic and subsurface investigations. Six wetland areas were established that represented a total of 100 acres.

The first wetland area encompasses approximately 75 acres and restored the tidally connected mangrove with a series of interior canals. In order to provide optimum tidal flushing, the canal system utilized the expected natural tidal water level difference between No Name Harbor and the Pines Canal during flood and ebb tides. The remaining five wetland areas average three acres each and will restore the tidally isolated wetland swales that existed between the sand ridges prior to 1926.

The overall design included the excavation of approximately 640,000 cubic yards of material from the designated areas to restore the topographical variation of the historical wetlands. Of this material, approximately 60 percent contains less than 12 percent fines and will be suitable for use as a construction fill material or for beach nourishment purposes. By recycling the excavated material in these manners, construction costs were cut from \$5.5 million to less than \$2 million.



Cape Florida Harbor & Wetlands



Mangrove Planter & Riprap

Client: Miami-Dade County
Department of Environmental
Resource Management

Location: Key Biscayne, Florida

**Date of
Completion:** 1997

**Construction
Cost:** \$1,500,000

