

# Harbour Isle Development, Florida

marine environmental



Coastal Systems International Inc. designed and developed a plan for a marina as part of the Harbour Isle residential development on Causeway Island. A 63-slip marina is to be located in a dredged harbor basin with a flushing culvert.

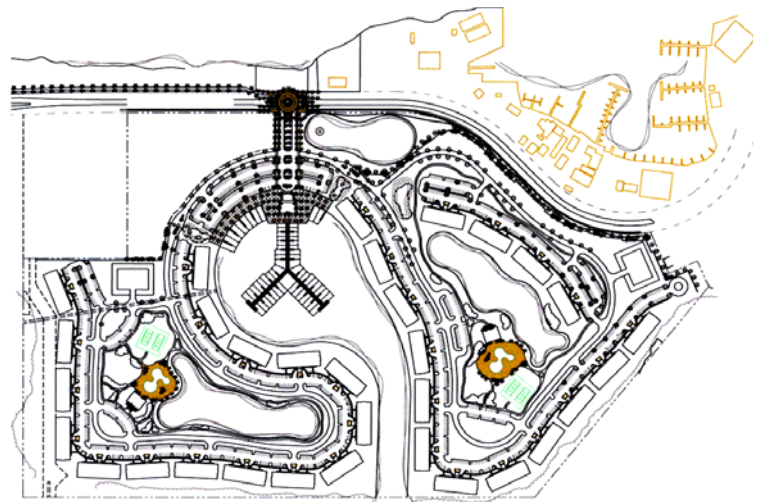
Coastal Systems conducted hydrographic and marine resource surveys of the project shoreline for use in analyzing potential environmental impacts and development of project alternatives with minimization and mitigation of impacts. The hydrographic work extended into the Indian River and Fort Pierce to provide sufficient data required for the design of the proposed basin entrance and flushing culverts.

Coastal Systems secured environmental permits from the U.S. Army Corps of Engineers (USACE) and the South Florida Water Management District (SFWMD) for the marina and associated seagrass and wetland mitigation projects. Coastal Systems, in coordination with sub-consultants, designed the seagrass and wetland habitat projects, which include:

- Filling of a 1.6 acre dredge hole to mitigate approximately 0.4 acres of seagrass impact caused by channel dredge activity. Restoration includes transplanting seagrass from the proposed impact areas and donor sites to the filled dredge hole.
- Onsite creation of 3.4 acres of saltwater marsh habitat to mitigate the removal of 4.6 acres of freshwater wetlands. Onsite exotic vegetation removal and establishment of a buffer between the upland development and wetlands further enhances the function of the restored ecosystem.
- Marina and upland development construction and operational plans designed specifically to avoid and minimize impacts to natural resources.



Marina Construction



Conceptual Design

Client: Beach Co, LLC

Location: Ft. Pierce, Florida

Date of Completion: 2005

Construction Cost: N/A

