

2009 Lido Key Beach Renourishment Project, City of Sarasota, FL



The 2009 Lido Key Beach Renourishment Project consisted of the placement of approximately 460,000 cubic yards of sand along a 1.54 mile segment of Lido Key on the west coast of Florida.

Coastal Planning & Engineering, Inc. (CPE) provided all the engineering services required for the 2009 project including project design, geotechnical investigations, environmental studies, State and Federal permitting, FEMA funding assistance, surveying services and construction oversight required to build the project.

Client:	City of Sarasota, Florida
Cost:	\$5,000,000 (construction) *Cost-shared by City, FEMA & FDEP
Dates:	March 5 - April 13, 2009
Design:	460,000 cy of beach fill 1.54 mile project length
Borrow Area:	New Pass navigation channel and ebb shoal
Key Elements:	Coastal engineering design Delft3D modeling High quality sand source FEMA storm damage repair



High Quality White Sand Placed on Lido Key

The project represents the fourth major nourishment of Lido Key and re-constructed the 2003 beach nourishment project with FEMA support. The high quality white sand for the project was obtained from the New Pass navigation channel and ebb tidal shoal. The project construction cross-section provided for an average berm width extension of 135 feet at a berm elevation of +3.9 feet (NAVD). The northernmost of the two rock groins within the public beach was removed as part of the project as required by the Florida Department of Environmental Protection permit.

The beach of Lido Key is known through the United States as a wonderful beach experience destination and also an important economic asset to both the City and State. The project effectively restored the beaches to the condition prior to the devastating hurricanes of 2004 and 2005. Lido Key beach provides storm protection for the upland roads and buildings, recreational beach area for both residents and tourists, and environmental habitat for nesting sea turtles and shorebirds.

The Federal Emergency Management Agency (FEMA) determined that Lido Key beach, as an engineered beach nourishment project, qualified for FEMA funding to repair the hurricane damage to the beach. FEMA funding was available to address the majority of the costs associated with mobilizing and demobilizing the dredge into the project area, as well as fund replacement costs for the sediment lost due to hurricane activity. In addition, the City opted to place additional sand volume on the beach to address background erosion (non-hurricane related erosion) to restore the beach to its original post-construction 2003 beach width.



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Dredging operations lasted 40 days including weather delays with Weeks Marine using the hydraulic cutterhead dredge *Captain Frank* to construct the project.

“The City has been served well by Coastal Planning & Engineering Inc and we are continuing to work with them on our upcoming renourishment project.”

**- Alexandra DavisShaw, P.E., P.T.O.E.
City of Sarasota, Florida**



January 5, 2010

To whom it may concern:

Subject: Coastal Planning and Engineering, Inc.

Dear Sir or Madam :

The City of Sarasota initially retained the firm of Coastal Planning & Engineering, Inc in 1989 to provide professional engineering services for a Long Range Beach Management and Erosion Control Plan for Lido Beach. The City has continuously contracted with Coastal Planning and Engineering, Inc. since then to provide a multitude of coastal engineering services, including four beaches renourishment/restoration projects and several studies.

The team of professionals lead by Tom Campbell, P.E. and Rick Spadoni, understand the City's needs and have the necessary expertise and experience to implement coastal engineering projects. They also communicate very well with our staff, officials and residents. The City had been served well by Coastal Planning and Engineering, Inc and we are continuing to work with them on our upcoming renourishment project.

If you have any questions regarding this matter, or need further clarification, please feel free to contact our office.

Yours truly,

A handwritten signature in black ink, appearing to read "Alexandra DavisShaw", written over a horizontal line.

Alexandrea DavisShaw, P.E., P.T.O.E.
City Engineer