

Taking ground engineering to a deeper level



TECHNICAL REFERENCE



# Herbert Hoover Dike

Rehabilitation Project  
Reach 1

Lake Okeechobee, Florida

Cutoff Walls



Owner / Engineer:

US ARMY CORPS OF ENGINEERS

General  
& Specialty Contractor:

TREVIIICOS South, Inc.

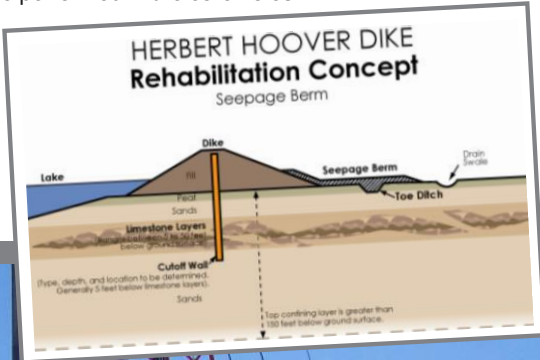


In 2007 the US Army Corps of Engineers (USACE) awarded an Indefinite Delivery Indefinite Quantity (IDIQ) Construction Contract for the Herbert Hoover Dike, Reach 1, Seepage Cutoff Wall, Martin and Palm Beach Counties, to three specialty foundation contractors. The contract was based on performance specifications, and left the selection of the cutoff construction method to the contractors.

**The construction of the seepage cutoff in Reach 1 was awarded by the USACE to the three contractors in eight Task Orders from 2007 to 2011.** TREVIICOS South was awarded the construction of Task Orders no. 3, 7 and 8, for a total of 7.2 miles and 2.56 million sqft of cutoff wall. Each task order included the construction and removal of the work platform, the installation of the seepage cutoff wall, and the coring and testing of the cutoff wall. TREVIICOS South selected the self-hardening slurry method for construction of the seepage cutoff wall. With this method, the 24-in cutoff wall was excavated from the top of the dike with mechanical and hydraulic clamshells through the dike embankment and foundation soil.

The installation of the cutoff through the Miami limestone formation was performed with Hydromill equipment, to a depth up to about 80 ft. This was the first time that the Hydromill technology was utilized in combination with self-hardening slurry in the US.

Acceptance of the cutoff wall included both strength and permeability testing. Verification cores were performed at 28 days through the cutoff wall, at locations selected by the USACE. The cores were evaluated for homogeneity and continuity, and selected core samples were tested in compression. Falling-head permeability tests and borehole televiwer surveys were performed in the core holes. Task Orders no. 3, 7 and 8 were successfully completed ahead of schedule to the full satisfaction of the USACE.



CUTOFF WALL INSTALLED BY TREVIICOS ON REACH 1	
Length:	7.2 miles
Area:	2.56 million sqft
Thickness:	24 in

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