

CITY OF SANTA BARBARA WATERFRONT DEPARTMENT

MEMORANDUM

Date: November 15, 2012
To: Harbor Commission
From: Scott Riedman, Waterfront Director
Subject: **Facilities Management Report**

Federal Channel Dredging

The fall cycle of dredging the Federal Channel will begin after the Thanksgiving day weekend. The dredge contractor, AIS Construction, Inc., has begun mobilization including reestablishing the dredge yard on West Beach. The dredge pipe will be reinstalled across the harbor and the discharge location opposite the Cabrillo ball fields. AIS's contract with the Corps allows for dredging 160,000 c.y. of sand for both the fall and spring cycles. The sandspit is considered a "feeder" beach for the harbor's entrance channel and appears to be relatively large for this time of the year. Early season swells are likely to mobilize the material on the sandspit, which is likely to result in most of the allowable 160,000 c.y. of sand to be removed from the harbor entrance during this dredge cycle. Spring cycle dredging is tentatively scheduled to begin in late February.

The President's FY 2013 budget includes a \$2,240,000 appropriation for dredging Santa Barbara Harbor. Since congress has not approved the budget, a Continuing Resolution has been approved providing adequate funding to proceed with fall cycle dredging. Funding for the spring cycle dredging will be contingent upon approval of the President's budget or a successor Continuing Resolution.

Breakwater Cap Repair Project – Phase 4

Construction started the week of September 24 on Phase 4 of the Breakwater Cap Repair Project. Brough Construction, Inc. began with demolition of eight of the remaining nine panels of sidewalk and parapet wall along the curved section of the breakwater. Demolition was completed in less than two weeks with few problems. Placing reinforcing steel (rebar) for the walkway section was delayed several weeks due to the necessary lead time to coat the rebar with epoxy and a series of high tides with moderate swells washing over the breakwater creating dangerous conditions for the contractor.

Once the rebar was in place, the contractor poured concrete for seven easterly sections of the walkway. The walkway sections in front of the Marina One gangway required demolition of the first slab placed on the original rip rap breakwater constructed in 1930. The contractor has poured several of the wall sections, restoring the much needed protection from coastal storms and large waves that the parapet wall provides. The

final two panels adjacent to Marina One will be reconstructed by the end of November completing the entire project originally begun in 2004 for a total of \$1.9 million.

Marina One East Restroom Improvements

The Marina One east restroom was constructed in 1998 as part of the Marina One Expansion project, which included the addition of Q, R, and S fingers. This floating restroom was installed with a submerged sump tank for the collection of sewage and gray water. The sump tank is pumped into a 4" forced main running along the Marina One headwalk. Upon installation of the restroom in 1998, the submerged sump tank showed signs of failure due to water pressure on the tank causing the sides and bottom to collapse. An internal frame was installed and the bottom of the tank was pumped with concrete to counter the effects of water pressure buoyancy. Over time, the tank developed a slight warp at the underside of the restroom allowing sea water to seep into the tank. Staff worked with some specialized contractors to seal the leak but the leak and associated infiltration of sea water continued.

In 2011, the sump tank was evaluated by Fluid Resource Management (FRM), a firm specializing in wastewater collection and treatment. FRM recommended the sump tank and pumps be replaced. Staff put the project out to bid, but had to eventually reject the low bid due to some design deficiencies. After revising the plans to account for these deficiencies, the project was put out to bid again with Hanley Construction submitting the low bid of \$59,000 to replace the sump tank, 5 hp pumps, and electronic controller.

Hanley constructed a slightly narrower and deeper sump tank out of fiberglass capable of withstanding the water forces that caused the original tank to warp. Removing the old tank and installing the new tank was one of the most complicated projects ever completed at the Waterfront. The contractor was required to remove a large section of the concrete slab to gain access to the original tank. Scuba divers had to cut out the old tank and remove it out the bottom of the floating restroom. The new tank was installed with a large concrete collar at the top and lead ingots attached to the exterior of the tank to counter the buoyancy of the empty (when pumped out) tank. Two new 5 hp pumps were installed with a new electronic controller. The new tank was repeatedly tested for its integrity with respect to sea water infiltration and/or a possible sewer leak. The new sump tank and pump system is a significant improvement over the original design.

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