



Legislation Text

File #: 14-0485, **Version:** 1

Recommendation to receive information and provide direction relative to the geotechnical analysis peer-review report for the Ocean Boulevard (Bluff) Erosion and Enhancement Phase 2 project. (District 3)

On July 9, 2013, the City Council adopted Plans and Specifications No. R-6959 for the Ocean Boulevard (Bluff) Erosion and Enhancement Phase 2 Project (Project) and awarded the construction contract to Drill Tech Drilling & Shoring, Inc.

On April 29, 2014, the City Council voted to: delay the Project for 45 days and directed staff to: (1) conduct an engineering analysis (peer review) of the Bluff; (2) consider other alternatives to Bluff stabilization, other than shotcrete; (3) advise the Council on community improvements to the Bluff that do not involve shotcrete; and (4) report the results of staff's analysis and stabilization alternatives to the City Council and online to the public.

On May 13, 2014, the City Manager provided the Mayor and City Council an update on efforts taken as a result of the City Council's direction (attached). On May 14, 2014, a peer-review committee consisting of three independent geotechnical engineering firms, Leighton Consulting, Inc., Group Delta Consultants, Inc., and Earth Mechanics, Inc., began their examination of the original geotechnical studies, and to examine the available options to determine if the selected method was the preferred method for bluff stabilization at Ocean Boulevard. The report has been completed and is attached.

The peer-review committee has identified feasible geotechnical alternatives to shotcrete for areas that do not currently have the shotcrete treatment; however, these alternatives must be further evaluated and professionally designed by an experienced engineer and landscape architect. The committee does not recommend the removal of shotcrete to implement these biotechnical alternatives. As detailed on page 12 in the peer-review report, removal of shotcrete may impact the integrity of the soil nails, and would require extreme care and labor intensive effort. In addition, "the shotcrete was placed directly on the slope face; removal of the shotcrete will inevitably remove some of the soils on the slope face that adhere to the shotcrete, which will reduce stability of the slope."

The alternative options to shotcrete discussed in the peer-review report, consist of biotechnical techniques that have been used in recent years to improve slope faces. While biotechnical techniques may be more aesthetically pleasing than walls or shotcrete, biotechnical techniques require significantly more maintenance. However, biotechnical techniques, alone, do not provide the necessary deep-seated stability and, as such, they cannot be used as a substitute to soil nails.

A cost and schedule estimate to implement a biotechnical alternative to shotcrete is currently being developed for those areas that have received soil nails (but not shotcrete). Although not recommended, a cost and schedule estimate is also being developed to remove shotcrete from areas that have received the treatment. These estimates will be provided during the City Council meeting, or earlier, if available.

This matter was reviewed by Deputy City Attorney Richard Anthony on June 23, 2014 and by Budget Management Officer Victoria Bell on June 20, 2014.

City Council action is requested on July 1, 2014.

The final fiscal impact for the delay and next steps cannot be determined until further direction is received from the City Council. Upon receiving further direction on the Project, staff will return to the City Council, if necessary, to request an amendment to the contract and/or increase appropriations in the Tidelands Operations Fund (TF 401) for the Project.

Approve recommendation.

PATRICK H. WEST
CITY MANAGER