



**TO:** Honorable Mayor & Members of the  
Fort Lauderdale City Commission

**FROM:** Lee R. Feldman, ICMA-CM, City Manager

**DATE:** December 17, 2013

**TITLE:** Motion to approve Work Orders 4, 5, 6, 7, and 8 with Engineer Control Systems Corporation, in the cumulative amount of \$394,960.12 to perform marine improvements and restoration at various locations – P11827

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**Recommendation**

It is recommended that the City Commission approve Work Orders 4, 5, 6, 7, and 8 with Engineer Control Systems Corporation (ECSC) to perform improvements and restoration at various locations under the City's annual contract for repair to seawalls, walkways, dolphin piles, fixed docks, floating docks and other items related to marine facilities.

**Background**

On December 18, 2012, the City Commission awarded an annual contract to ECSC to repair seawalls, walkways, dolphin piles, fixed docks, floating docks and other items related to marine facilities maintenance.

Work Orders under this contract in a cumulative amount over \$25,000 will be brought back to the Commission for approval in compliance with section 2-179 (5) of the City Code of Ordinances.

Portions of the existing seawall system are in need of maintenance and reinforcement. Areas abutting the seawall have settled and buckled due to erosion and migration of soil into the canal at various locations. Reinforcement efforts will include, but will not be limited to, removals of soil materials and backfilling with concrete slurry. Some of the dolphin piles at Cooley's Landing need to be removed and replaced. Additionally, the concrete pier at George English needs to be replaced.

Furthermore, the City requested the contractor, Engineer Control Systems Corporation to perform full depth restoration of concrete where needed due to the deteriorating condition of the existing George English West piers while onsite during the initial scope of work. This work was not included in the original purchase order but needed to be performed to address the structural integrity and safe use of the pier.

The proposed work orders are as follows:

- Work Order 4 (new work) – Cordova and 9<sup>th</sup> Street – Seawall Repair - \$33,326.56
- Work Order 5 (new work) – Isle of Palm – Seawall Repair - \$244,373.56
- Work Order 6 (new work) – George English East – Replacement of Concrete Pier - \$80,825
- Work Order 7 (new work) – Cooley’s Landing – Installation of Dolphin Piles - \$19,620
- Work Order 8 (work completed, additional quantities associated with previously executed Work Order 1) – George English West – Delaminated Concrete Repair - \$16,815

The scope of work included in the above work orders do not include increasing any sea wall height, but rather encompasses rehabilitation and retrofitting of existing seawalls. The reinforcement and maintenance of the existing seawalls will prevent further erosion and soil mitigation, strengthen the concrete promenade framing systems, and replace utilities supports.

The issue of seawall height and the general approach to how the City regulates public and private seawalls is being reviewed at this time. Given what we now know about sea level rise and its impact on coastal flooding and seasonal high tides, staff is analyzing options and possible modification of existing city ordinances that regulate private and public seawalls to sea wall regulation and height based on section 47-19.3 of the City Code of Ordinance. This information will be presented to the City Commission in early 2014 for a full discussion on storm water and flood management.

#### Work Order 8- Background

The previously executed Work Order 1 included the removal and replacement of the top 1” of the concrete slab at George English west pier. Work Order 1 was in the amount of \$16,178 which was authorized via purchase order; PP132605.

During Construction of work order 01, additional in-situ concrete deterioration was discovered. This was manifested by large chunk of concrete falling down resulting in exposed reinforcing bars.

In order to restore the structural integrity of the pier slab, and to remedy exposed reinforcing bars, and to prevent further deterioration, it was determined by the engineer of the record, Yugal Lall, P.E., that additional quantities of epoxy mortar needed to be added to complete the repair and to protect the exposed reinforcement in a highly corrosive marine environment. The engineer of the record issued a directive to the contractor to proceed with the repairs based on the contract unit price and to document the quantities. At that time, the engineer of record did not have a clear understanding of \$25,000 spending limit for annual contracts as a cumulative amount. The additional scope of work is based on the Annual Contract pricing and amount of \$16,815. The additional remedial work outlined above is defined under work order 8 in this commission memo.

**Resource Impact**

There is a fiscal impact to the City in the amount of \$462,103.34. This amount includes \$394,960.12 for these Work Orders and \$ 67,143.22 for engineering fees.

**AVAILABLE FUNDING:**

FY	FUND	SUBFUND	FUND NAME	INDEX #	INDEX NAME	SUBJECT #	SUBJECT NAME	AMOUNT
2014	343	01	Special Obligation Construction 2008B	P11827.343	Seawall Replacement Along New River	6599	Construction	\$462,103.34
<b>TOTAL</b>								<b>\$462,103.34</b>

**Strategic Connections**

This item is a Press Play Fort Lauderdale Strategic Plan 2018 initiative, included within the **Infrastructure Cylinder of Excellence**, specifically advancing:

- Goal 2: Be a sustainable and resilient community
- Objective 2: Reduce flooding and adapt to sea level rise

Attachment: Exhibit 1 – Work Orders 4, 5, 6, 7, & 8

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