

**Port of Palm Beach
Engineer's Report
Commission Meeting | August 16, 2018**

Berth 17 and Paving Project

Contractor continues to work on the water side of the project. Both piles have been installed and tested. Pile Driving Analysis tests were performed by the contractor's testing firm during the piles installation process, and results were submitted with review and analysis for compression and tension capacity. The south pile (pile #6) meets and exceeds the compression design capacity of 280 kips with an actual capacity of 428 kips, but did not reach the required friction capacity of 436 kips, with an actual capacity of 309 kips. As a solution for pile #6 to meet the required tension capacity, the pile will be filled with concrete. The north pile (pile #5) meets and exceeds the tension design capacity of 140 kips with an actual capacity of 171 kips, but did not reach the required axial capacity of 508 kips, with an actual capacity of 329 kips. After review and evaluation of the pile testing report for pile #5, it was found that LMH did not follow the determined pile driving procedure, by continuing to drive the pile beyond the 115 feet depth, where the capacity dropped below the required 508 kips. Had LMH stopped at a depth below 98 feet and above 115 feet, the pile capacity would have been acceptable and no additional efforts would have been required. AECOM's structural engineering office is performing extended computer analysis, to determine the additional efforts that will be required in order to bring pile #5 and the east dolphin to acceptable capacity parameters. LMH is also retaining the services of a geotechnical engineer to evaluate the data and provide recommendations on how to resolve the issue.

For the repair of the West (inner) Dolphin Structure, the contractor's structural engineer submitted a revised Repair plan procedure which has been accepted by the project engineer of record, AECOM. Contractor still pending to execute the structure repair.

On the upland side, the site subcontractor continues the work related to the sub-base preparation for the asphalt and concrete pavements. Activities related to surface pavements have progressed considerably during the month of August. The pavement area below the sugar conveyor structure has been graded and compacted, with lateral forms installed in preparation for concrete pour of the 8-inch slab. The electrical work related to the installation of the Shore Power Station 5 is still pending to be executed.

The last pay application processed by the Port was the working period of December 2017, which was notarized and submitted by the contractor on July 17, 2018. As of December 2017 pay application, LMH invoices indicate that approximately 88% (\$9,095,521.61 to date / \$1,202,784.48 balance of approved modified Contract amount) of the work is complete to date, and a total retainage to date of \$909,552.16. The draft for the pay application for the working periods of January 2018, February 2018, March 2018, April 2018 and May 2018 have been evaluated by AECOM and returned with comments for final submission. The pay application procedure will continue with the process of the January 2018 pay application, as soon as the contractor provides Partial Lien Waivers for all vendors related to the December 2017 payment.

The contractor's two-week look ahead schedule submitted on August 6, indicates that construction activities continue on time and on schedule, as per Schedule included in the Contract Amendment #1 which indicates a Substantial Completion Date of September 15, 2018, and a new Final Completion Date of October 2, 2018.

MOB Demolition and Cargo Area Improvement Project

Port Staff submitted a complete site plan application to the City of Riviera Beach on July 27, and issued a check for the applicable review fee. The City staff will present the site plan to the Planning and Zoning Board on August

9th and a resolution for site plan approval to City Council on August 15th. CRB will issue a building permit following the August 15th City Council Meeting. City staff will continue review of the previously submitted City building permit application with the goal of building permit issuance following the August 15th City Council Meeting.

Main Rail Spur Improvement Phase 1

Contractor completed the removal of existing rail, completed the subgrade preparation, and installed new concrete ties and rail tracks for Spur #1. A new switch was installed at the connecting location between the FEC and the Port, and the new Spur #1 track was put into service. Once the new Spur #1 was back on service, the Contractor began the work on Spur #2. All removal of existing rail and installation of new track rail on Spur #1 is being performed during Port Rail Non-Operational hours. Contractor will perform and complete the Spur #1 work at night after Rail Operations are completed for the business day.

The contractor also completed the construction and installation of new rail on Spurs #1 and #2, as well as the rail crossing signage equipment on Avenue E. The final electrical connection of the signage equipment by FPL will be completed once the electrical conduit work is certified by the City inspector. Once signage is installed and gate arms equipment is operational, the contractor will remove the old existing signage and apply the new pavement striping at the crossing pavement.

Berth 1 Bulkhead Improvement Project

The Town of Palm Beach's Coastal Program Office has already began coordination with Coastal Eco-Group for the coral transplantation works. The actual weather conditions are not favorable; August's high water temperature will stress the corals beyond the expected transplantation stress and reduce the potential for survival. Transplantation is scheduled to occur in November/December when the water temperatures are cooler. The transplantation will be completed before Berth 1 improvements are scheduled to begin in April 2019.