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URS
 7800 CONGRESS AVE., SUITE 200
 TEL: (561) 994-6500
 FAX: (561) 994-6524
 CERT. OF AUTHORIZ. NO. 1213

**CITY OF
 FORT LAUDERDALE
 MARINA DREDGING PROJECT
 BROWARD CO., FLORIDA**

**COFL ICWW
 MARINA DREDGING
 PROJECT
 SITE SURVEY
 AUGUST 2013**

**EXHIBIT – II
 CAM #14-0001
 JANUARY 22, 2014**

Marina Entrances Dredging Details and Mega Yacht Analysis

Background and Justification

Beginning mid-year of 2014, the Florida Inland Navigation District (FIND) intends to dredge the Intracoastal Waterway (ICW) from Port Everglades to approximately 5,000 feet north of the Las Olas Boulevard Bridge. FIND presented the plan to the City Commission in the spring of 2010 and encouraged the City to dredge the entrances of the Las Olas Marina, the Fort Lauderdale Aquatic Complex and the Bahia Mar Yachting Center to a matching depth of 15' to 17'. Staff was directed to pursue grant assistance and begin the permitting process. Staff has been working to permit the projects in a manner to coincide with the FIND project and achieve economies of scale. While determining the environmental feasibility of expanding the Las Olas Marina, permitting the marina basin was added to the project.

- The proposed City dredging projects will connect each of the three aforementioned facilities to the deepened ICW and dredge the Las Olas Marina Basin.
- FIND has budgeted \$20 million to complete the project.
- In a white paper published on January 8, 2014, based on a 2011 commissioned study, FIND estimates that the total annual economic benefit to Broward County by creating access north of Port Everglades for vessels with drafts of 10 feet and more and lengths ranging from 160' to 280' will be \$266.3 million.

Las Olas Marina - Entrance

Dredging the marina entrance from the ICW to the western edge of the marina will increase the depth of the four face docks of the marina to 15'-17' at MLW. Depths in these spaces now range from 8.5' to 10.5' at mean low water (MLW).

- These four face docks have an annualized occupancy percentage of 73% while the entire marina has an annualized percentage of 69%
- Yacht fee revenue from these four face docks average 23% of total yacht fee revenues for the last 3 years while being generated from 15% of the entire billable linear feet of the marina.
- A minimum of 97 vessels over 100 feet and average drafts of 6.8' to 9.4' were turned away due to depth or occupancy from 2007 through 2013. Cost of business lost totaling \$1,041,000.
 - Vessels longer than 116' are too large to fit within the marina basin and can only utilize the four face docks.
 - A minimum of 62 vessels larger than 116' and an average draft of 8.5' to 9.5 were turned away creating a cost of business lost totaling \$751,880
 - A minimum of 14 vessels larger than 150' and an average draft of 9.4' were turned away creating a cost business loss of \$190,000.

High occupancy percentages of the four face docks result in the majority of vessel turn aways. However, in all size ranges mentioned above, vessel configurations and drafts vary and it is probable that there are a variety of deep and shallow draft vessels which could not be served at Las Olas Marina regardless of

vessel length. An increase in the annualized occupancy percentage of 20% for these four face docks represent an increase in annual yacht fee revenue of approximately \$60,000 and increase in vessel visits of approximately 20.

Las Olas Marina Basin

Permitting the dredging of the marina basin was added to the scope of the project in order to determine the environmental feasibility of expanding and renovating the marina as part of the Sasaki Beach District Redevelopment Plan. If the marina expansion plan moves ahead dredging will be needed. If the marina expansion does not move ahead, consideration to dredge the marina basin should be given for the following reasons:

- The marina will near the end of its useful life in approximately 2025 and will need to be replaced.
- The marina has never been dredged
- DEP permits attached to the submerged land lease for the existing marina contain operational limitations and conditions that will restrict reconfiguring it to expand its capacity, serve an expanded and more modern customer base, and accommodate more large deep draft vessels that are anticipated to visit due to the deepened ICW.
- Dredging permits are valid for 5 years
- Once dredged the City can maintain consistent depths and multiple marina configurations without the added expenses of mitigating environmental impacts.

Fort Lauderdale Aquatic Complex

The primary beneficiary of dredging access to the Fort Lauderdale Aquatic Complex will be the Fort Lauderdale International Boat Show which is owned by the Marine Industries of South Florida. More large deep draft vessels will be able to be placed along this area during the show.

- This area has never been dredged
- Dredging permits are valid for 5 years
- Once Dredged the City can maintain consistent depths without the added expenses of mitigating environmental impacts.
- Leaves room for further expansion of City owned marine facilities without the added expenses of mitigating environmental impacts.

Bahia Mar Yachting Center

Bahia Mar Yachting Center has approximately 3,000 linear feet of dockage which can accommodate vessels of 150' and larger. In its current site configuration, approximately 1,450' is one large linear face dock that can accommodate multiple size ranges efficiently. The facility advertises "vessels up to 250 feet", but an increase in depth would expand Bahia Mar's ability to accommodate vessels that exceed that. The marina is the center of the Fort Lauderdale Boat Show.

- Project includes areas to be dredged which are the shallowest of any part of all project entrances
- Dock Revenues are tied to existing lease agreement with the City
- Creates better access to the marinas south basin
- Once Dredged the City can maintain consistent depths without the added expenses of mitigating environmental impacts.