MINUTES OF
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST
OPERATIONS COMMITTEE MEETING
HELD ON OCTOBER 7, 2010

PRESENT: Louis Wittie, Chair
David Barnes, Committee Member
Timothy Doody, Committee Member
Stephen Estopinal, Committee Member

The Operations Committee met on October 7, 2010 in the Second Floor Hall of the Lake Vista Community Center, 6500 Spanish Fort Blvd., New Orleans, LA. Mr. Wittie called the meeting to order at 9:30 a.m.

Opening Comments: None.

Adoption of Agenda: The agenda was adopted as presented.

Approval of Minutes: The minutes of the August 5, 2010 Committee meeting were approved.

Public Comments: None.

New Business:

A. Discussion of Lakefront Seawall Stabilization Project. (Orleans Levee District)

Walter Baudier, President of Design Engineering, Inc. (DEI), stated that Mr. Doody has been speaking to DEI over the past 18 months about the seawall, which is an important part of flood protection. DEI was requested to provide a presentation at today's meeting on its knowledge of the seawall and of past projects.

Mr. Baudier provided a brief history of the seawall. The seawall was constructed in 1930. Act 292 of 1928 authorized five zones of development and gave the Board of Levee Commissioners of the Orleans Levee District the right to reclaim from the south right-of-way line (ROW) of Robert E. Lee Boulevard to a point three miles in Lake Pontchartrain until such time as the outer line of development was established. The 5.2 miles (27,818 feet) of seawall was constructed and 1,745 acres of property was subsequently reclaimed extending from the south ROW line of Robert E. Lee Boulevard to the seawall. Thus, the shoreline was relocated from the south ROW line of Robert E. Lee Boulevard to the base of the seawall. The outer line of development was never established by a Board resolution; however, the seawall is considered the outer line of development in Zones 1 through 4 (New Basin Canal to the Industrial Canal). Zone 5 begins at the Industrial Canal and extends to Paris Road. The purpose of Act 292 was to create levees, embankments and seawalls for the purpose of flood control and land reclamation. The reclaimed land (1,745 acres) was developed for the purpose of defraying the cost of the seawall construction. The seawall is New Orleans' first hurricane and flood protection system from waters coming from Lake Pontchartrain and

the Gulf. Act 292 also set aside 30 percent of the total reclaimed lands for parks, parkways and places of amusement.

Mr. Baudier explained that in the 1930's or 1940's a sidewall was constructed adjacent to the seawall to prevent erosion from overtopping and for recreational purposes. The seawall was constructed with 690 stepped bays (each 40 ft. in length) and 12-inch steel reinforced concrete slabs with 13 steps (each step is 16-inches wide with 8-inch high risers). The slabs are supported by two rows of piles spaced 8-feet apart with additional batter piles along the rear line (3 every 40 feet). The lake edge of the seawall is supported by continuous rows of reinforced concrete sheet piles, 9-inches thick with lengths up to 38-feet. Drains were placed every third 40-foot bay to provide for overtopping drainage. In 1930 the top elevation of the seawall was 30 C.D. (Cairo Datum) or 9.57 NAVD 88. In surveys taken during the 2005 to 2007 time period, the top elevation varied from 26.68 to 27.43 C.D. or 6.25 to 7.0 NAVD 88. In the past 80 years the seawall and the entire region have subsided. The overtopping of the seawall and the resulting erosion is an on-going problem. Earthen material is moved by wave action from behind the seawall to the roadway and goes into the drain lines. Over the past 15 years Lakeshore Drive was raised to reduce the amount of flooding on the roadway itself. In addition, in 1930 the elevation of Lake Pontchartrain was zero; it is now +1.5-ft.

Mr. Baudier reviewed several systems used in project designs:

- The Tri-Lock System was used in the construction of Reach IB to prevent erosion; however, a picture shown to the Committee demonstrated that the system did not stop the erosion and created additional problems with clean-up. The system consisted of concrete blocks that were tri-locked and pinned in place. Grass was supposed to grow between the blocks; however, the grass never took root inside of the tri-locked systems.
- In the Reach 2 project between Bayou St. John and the Orleans Canal, a cofferdam was constructed and sheet piling was driven in front of the seawall to stop the erosion through the seawall. A concrete cap was poured that attached the sheet piling to the seawall. A system of 36-inch steel piles with connecting PZ sheet pile was put in place in the Rail Street area to absorb forces from Lakeshore Drive due to the raising of the roadway approximately 10-feet at this location. Additional tie-backs for the seawall were used in other areas of this reach where Lakeshore Drive was raised anywhere from 3 to 6-feet. A sidewalk was also put in place along Reach 2 to prevent erosion from overtopping. It was noted that this system worked.
- In the plaza area project constructed near Canal Boulevard and the Mardi Gras Fountain, vinyl sheet piling was placed behind the wall. A reinforced steel, pile supported concrete topping was put in place from the seawall to the back curb of the roadway. It was noted that this system worked well.
- In the earthen system voids are backfilled as they occur and grass is planted. This only lasts for a short time and is the only system allowed by FEMA. After Hurricane Katina, the contractor had a difficult time getting the system in before it was taken out by wave action.

Mr. Wittie commented that in a visit to the Lakefront seawall he observed areas behind the sidewalk that were badly eroded and that a permanent solution is needed to

address this problem. He also noted that the couple of feet of seawall elevation lost to settlement and the increase in lake elevation may need to be regained. Mr. Doody added that the continuation of the work started by the previous board is long overdue. The seawall is the front line of defense at the lakefront.

Mr. Estopinal suggested that a Request for Qualifications (RFQ) for design proposals could be issued. It was pointed out that the cost of construction would depend on the type of system that would be used and various potential project components.

Mr. Baudier stated that DEI had been contracted by the Orleans Levee District over the years for work on Lakeshore Drive and that they had done a number of different analyses and looked at a number of different ways to address this issue. In addition, DEI went through a RFQ process in order to be selected for some recent FEMA work. He offered to work with the Authority to develop a system that it would feel comfortable with in terms of location and method. Mr. Baudier explained that DEI had prepared plans for Reaches 4 and 5 and that bids were to be received for these two reaches on the day after Hurricane Katrina. DEI also prepared plans for the Canal Boulevard project. A number of amenities were included the first time that Reaches 4 and 5 were bid and the bids were substantially more than the former Board wanted to spend. A number of the amenities that had been included in the plaza area project were removed and a much plainer version of the project that simply addressed erosion control was re-bid. This was also done with the Canal Boulevard project. He stated that DEI also has a lot of documentation which dates back about what sections of Lakeshore Drive need to be addressed and how it should be addressed. Mr. Estopinal asked Mr. Baudier was he under contract to the Orleans Levee District when the plans were prepared and was he paid for the plans. Mr. Baudier replied, yes. It was noted that the Orleans Levee District had a copy of the plans.

John Holtgreve with DEI further explained that two sets of plans were prepared. Bids were taken on the more decorative style similar to what was done at the Mardi Gras Fountain, which was too expensive. The former Board requested that DEI put out a second set of documents that limited the length along the seawall to bring the project within a $2.4 - $2.5 million budget. The plans included a pile supported concrete slab from the back of the seawall to the edge of the curb, vinyl piling and the re-routing of some of the drainage. He described the drainage problems in the area. The primary goal was to prevent the loss of material due to overtopping caused by hurricanes and northwesters. He noted that DEI was authorized by the former Board to prepare plans for another section extending from just east of Canal Boulevard to Joe's Crab Shack.

Mr. Estopinal recommended that the existing plans and concepts be reviewed in-house for their appropriateness and that staff provide advice based on their experience with the projects constructed. He offered a motion that the two sets of plans that were in place before Hurricane Katrina be recovered as much as possible and that the O.L.D. Engineer Manager examine the plans and specifications and provide a presentation to the Board at its next meeting. A decision can then be made as to whether the plans can be immediately implemented or whether they need to be modified. The members of the Committee concurred and adopted the motion.

B. Discussion of New Orleans Lakefront Airport Sewer Line Replacement Contract Award. (Orleans Levee District)

Gerry Gillen, Orleans Levee District (O.L.D.) Executive Director explained that the O.L.D. was called upon early in the LPV 105.01 Project to look at the Airport relocations. The U.S. Army Corps of Engineers (USACE) is trying to move away from penetrations underneath levees. Relative to the eight-inch gravity sewer line that services the east side of Lakefront Airport and South Shore Harbor, the initial re-routing plan prepared by URS on behalf of the USACE included a system for pumping to the west side of the Airport. The preliminary figures for this plan were in the $800,000 to $900,000 range. Due to the cost of the initial plan, the USACE offered the option of leaving the line in place and injection grouting to build a seepage barrier. He expressed concern about the age of the line, which was installed prior to the construction of the levee. A video was taken of the line that showed considerable corrosion. The high pressure used in injection grouting could break a hole in the line and fill it with grout. A task order was issued to AECOM to review two options: 1) to place a liner within the line, which was not guaranteed to work, and 2) to jack and bore another gravity sewer line that is offset about 17-feet. He suggested that should another line be put in place that the USACE could injection grout around both lines. The line also goes underneath the railroad tracks and Haynes Boulevard (a State Highway). The relocations are being done on behalf of the O.L.D. Non-Flood Division.

Mr. Estopinal suggested putting a lift station on the Airport and running a force main through the existing gravity line. Ronald Schumann with AECOM responded that this could be an option because of costs and some uncertainties that the contractors are facing because of potential railroad requirements. The issue of the siphon sitting underneath the levee was discussed. Mr. Estopinal requested that Mr. Gillen and Mr. Schuman do a further analysis of the situation.

Mr. Doody requested that Mr. Gillen and Mr. Schumann make the Non-Flood Asset Management Authority aware of this issue at its meeting being held today.

C. Discussion of Outfall Canal Scour Analyses Contract Award. (O.L.D.)

Mr. Gillen informed the Committee that a proposal was received from Ben C. Gerwick, Inc. to monitor and assess the scouring that is taking place in the three outfall canals (Orleans, London and 17th Street) and that he will be executing a task order in the amount of approximately $20,000 for this work. The field monitoring will assist in determining the type of erosion that is taking place. The consultant will also compile the existing data from various agencies, including the USACE and the Sewerage and Water Board, and provide options for proceeding with a solution.

D. Discussion of refurbishment of Franklin Administration Building. (O.L.D.)

Mr. Gillen advised that the safe house build-out in the Franklin Warehouse is about 50 percent complete. A portion of the safe house build-out will be used for the O.L.D.'s hosting of future Board meetings. The breezeway and other areas that will be used by the public to access the build-out, as well as the Administration Building air conditioning

system, are in need of attention. He requested that a RFQ be authorized for an architect for the refurbishment of the Franklin Administration Building.

The Committee approved the placement of an item on the Board agenda to approve the issuance of a RFQ for an architect for the refurbishment of the Franklin Administration Building.

LEVEE DISTRICT REPORTS:

East Jefferson Levee District (EJLD): Fran Campbell, EJLD Executive Director, reviewed the EJLD monthly status report, which is appended to the minutes. The lack of grass growth and the problem of contractors not cutting the grass timely on the earthen levee projects were discussed. Mr. Turner was requested to send a letter to the USACE on this issue.

Orleans Levee District (O.L.D.): Gerry Gillen, O.L.D. Executive Director, reviewed the O.L.D. monthly status report, which is appended to the minutes. The effects of the IHNC surge barrier and the coffer dams constructed for the new gate at Bayou Bienvenue and the IHNC sector gate on water flows and water levels in Bayou Bienvenue and Bayou Dupre were discussed.

Lake Borgne Basin Levee District (LBBLD): Stuart Williamson, LBBLD Executive Director, reviewed the LBBLD monthly status report, which is appended to the minutes.

Mr. Barnes asked whether a part of the coating is scrapped off when coated piling is driven into the ground. Mr. Turner responded that some scratching of the coating may occur, depending on soil conditions; however, James Bushman had indicated that this is not a significant problem in the soils that are in question.
Mr. Barnes asked about the engines that were used in the St. Bernard pump stations. Mr. Turner advised that the engines are German engines and that the levee district is unable to purchase parts for these engines any longer due to the age of the engines.

Robert Turner, SLFPAE Regional Director, advised that the Capital Outlay Requests must be approved by the Board at its October meeting.

There was no further business; therefore, the meeting was adjourned at 11:10 a.m.