AGENDA MEMORANDUM
September 17, 2018
Corpus Christi Business and Job Development Board Meeting

DATE: September 6, 2018

TO: President and Honorable Board Members,
Corpus Christi Business and Job Development Corporation

THROUGH: Samuel "Keith" Selman, Interim City Manager

FROM: J.H. Edmonds, P.E., Director of Engineering Services
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UPDATE
Engineering Services Monthly Project Updates

STAFF PRESENTER(S):

Name	Title/Position	Department
1. Jeff H. Edmonds, P.E.	Director	Engineering Services

OUTSIDE PRESENTER(S):
None.

BACKGROUND:
The current active projects are listed below with the monthly activity shown.

PROGRESS FROM PREVIOUS MEETING:

1. Barge Dock Improvements – A change order to install additional speed humps was executed in August 2018; speed humps and all punch-list items anticipated to be finished in September 2018 (project final completion). The Barge Dock is currently open for parking.
2. Repairs on Marina Breakwater at McGee Beach – Final Basis of Design report received on September 5, 2018; 60% plans due in November 2018.
3. Corpus Christi Museum of Science and History Floodwall – No change since last month; project will be re-RFQ'd, and a new consultant selected.
4. Seawall Capital Repairs – Design contract under negotiations. Anticipate presenting the design contract to the Type A Board in October 2018.
5. Salt Flats Levee Improvements – No change since last month; project will be re-RFQ'd, and a new consultant selected.
6. Kinney and Power Street Pump Station Improvements – Design contract approved by the Type A Board in August 2018; scheduled for City Council vote on September 11, 2018.
7. McGee Beach Nourishment/Boat Basin Dredging – Design contract approved by the Type A Board in August 2018; scheduled for City Council vote on September 11, 2018.

PROJECT SUMMARIES:

1. **Salt Flats Levee Project/ FEMA Mapping:**

Project History:

- In 2012 through 2014, the City submitted a FEMA Certification Guidance Document and began an assessment of the impact of FEMA's new FIRM maps.
- Beginning in 2015, Staff revised the engineer's scope to better adapt a strategy to support identifying existing flood protection deficiencies, corrective actions, and validation of the FEMA FIRM maps in lieu of "certifying" the systems. This is a result of the changes from FEMA moving from the Provisional Accreditation Levee (PAL) to the Levee Accreditation Mapping Procedure (LAMP).
- In 2015, Type A Board and City Council approved an MSA contract with HDR.
- A meeting was held with FEMA on August 26th, 2015 to discuss the LAMP and several task orders were negotiated. (See Task Orders Below)
- Task Order No. 2, a flood protection system vulnerabilities assessment, was conducted by the consultant and completed in 2016, and reviewed at the March 2016 Type A Board meeting. It is possible this can be re-opened at a later date.
- In 2016, the engineer prepared a proposal for Task Orders No. 3, 4, and 5 (see descriptions and project status below).

Project Progress:

- Task Order No. 1 - Update and Finalize Phase 2A Report – Salt Flat Levee Assessment:
  - Completed in previous years.
- Task Order No. 2 - LLPT Participation/Flood Protection System Vulnerabilities Identification:
  - Original scope of work was completed.
  - Additional issues related to the Salt Flats Levee vulnerabilities, such as erosion to the Salt Flats Levee channel that occurred at the location of the Broadway Wastewater Treatment Plant bypass pumping outfall, being addressed through this Task Order.
- Task Order No. 3 - Salt Flats Levee 2D Hydraulic Model:
  - Completed and sent to FEMA for comments in January 2017.
- Task Order No. 4 - Conceptual Design of Improvements for Salt Flat Levee:
  - Completed in Spring 2017. See Item 7 below for the design project.
  - An amendment was initiated and is now complete to verify any impacts from the New Harbor Bridge.
- Task Order No. 5 - Preliminary Design of Floodwall Replacement for Museum of Science and History:
  - Completed in April 2017.
  - See Item 4 below for the design project.

Future Projects:

- The City issued a RFQ to select consultants for six Type A Projects; two of the projects are for design of the improvements recommended thru Task Orders No. 4 & 5 of this project (see also Items 4 & 7 below). The City received RFQ submittals and the Award Letters were sent out in February 2017.

2. Barge Dock Project (Construction):

Project History:

- The August 2012 contract with LJA (RVE) for **$309,870.00**, defined their scope as a forensic assessment of the barge dock and the adjacent sloped seawall to pursue improvements identified in the 2012 CIP. The scope also included collaboration with the Barge Dock stakeholders to determine if the Barge Dock should continue to function as designed or if additional uses should be considered. The future CIP Funds identified at that time totaled **$8,350,000**. The first phase of the assessment was completed by LJA (RVE) and they requested to move forward with the Wave Load Analysis and Structural Stability Analysis. However, because the Barge Dock usage will not change, the City decided to not pursue the Wave Load Analysis and Structural Analysis.
- The improvements originally were planned to include raising the elevation of the barge dock by 2', constructing a relief platform to prevent the new fill from surcharging the existing bulkhead, developing a stepped terrace area to reduce wave run-up onto the adjacent roadways during storms, and developing additional parking and other amenities.
- As of 2015, it was recommended that the deficiencies be corrected, and the major alterations be deferred to allow for more critical flood protection upgrades.
- August of 2015, Engineering Services initiated discussions with LJA (RVE), and developed a scope of work for repairs to address deficiencies identified during the condition assessment. Any further betterments to the barge dock are being put on hold until requirements can be better defined.
- The City received a final condition assessment report from the LJA (RVE). A proposal was also received and approved, and negotiations were finalized for the design phase services to make repairs to the barge dock (2016).
- The project was bid twice, and currently pending approval and award by City Council.
    - The first bids were significantly over budget due to ambiguities that were clarified on the second bid.
    - Second bid opening held on November 8, 2017; six bids were received.
    - Grace Paving & Construction, Inc., was the lowest responsive and responsible contractor with a base bid of $466,115.01.
    - Including the 2 additive alternates brings the total bid to $553,199.17.

2018 Progress:

- Engineering Services recommended award of the base bid and both additive alternates to Grace Paving & Construction, Inc. at the 01/15/17 Type A Board meeting.
    - Type A Board approved scope of improvements and recommending selected contractor.
- Construction contract approved by City Council on 02/13/18.
- Pre-construction meeting scheduled for 03/15/18.
- Construction started on 03/26/18.
    - Contractor and Construction Inspection staff coordinating with ABC staff to coordinate access to the Barge Dock during special events.
    - A change order for the addition of some drainage work was issued, with a revised completion date of mid-July.
- Construction substantially complete on 07/30/18.
- A change order to install additional speed humps was executed in August 2018; speed humps and all punch-list items anticipated to be finished in September 2018 (project final completion).
- The Barge Dock is currently open for parking.

3. McGee Beach Re-nourishment/ Boat Basin Dredging Project (Approval Process):

Project History:

- In 2014, funding was approved and the Coastal Erosion Planning and Response Act Project Cooperation Agreement (PCA) would allow for the GLO to develop a design for the nourishment of McGee Beach.
- In 2015, City staff met with GLO and the design consultant to discuss reducing beach re-nourishment demands to reduce cost and improve beach conditions. Based on the evaluations, McGee Beach re-nourishment could be deferred, and North Beach was scheduled for re-nourishment.
- August of 2015, Engineering Services staff met with GLO's consultant about planning and permitting. The City determined it may assume responsibility for this project from GLO and link it with other area project needs such as the boat basin dredging and breakwater repairs.
- A meeting was held during the month of September 2015 with Cameron Perry (HDR) to formulate a new dredging and beach re-nourishment project.
- In February 2016, HDR recommended that a feasibility study be conducted prior to initiating the design phase.
- Feasibility Study prepared by HDR was distributed to Type A Board in January 2017.
- Govind Development was the AE Selected through the RFQ process to prepare the McGee Beach re-nourishment plans.
- McGee Beach held up well during Hurricane Harvey.
- Monitoring continues; nourishment not currently warranted.

2018 Progress:

- Engineering Services Staff met with Marina staff to discuss the need for dredging within the Marina.
- Recommendation made to amend the Repair on Marina Breakwater at McGee Beach project to include dredging in the Marina.
    - LAN submitted a proposal on 03/29/18.
    - Starting with a new contract will make the project easier to track, since these are separate CIP projects, yet still allows for a more economic and cost-efficient execution of the projects by incorporating the dredging tasks into the plan set with the breakwater repairs.
- Design contract approved by the Type A Board in August 2018.
- Design contract scheduled for City Council vote on September 11, 2018.

4. Corpus Christi Museum of Science and History Floodwall (Re-RFQ):

Project History:

- This recommended improvement is to construct a new floodwall (or a coastal structure) that would extend from the Promenade under the Harbor Bridge to the USACE Bulkhead. This project would also backfill the triangular area between the new wall and existing wall location, to make it function more like a coastal structure, and provide additional land area for future use.
    - AE Selected (HDR)
    - The proposed retaining wall alignment is across Port owned property. City Staff is working with the Port Staff to determine the City's land use options, which may include purchasing the property, leasing it, or a temporary or permanent easement.
- Type A Board unanimously approved the funding for and recommended City Council approve the contract with HDR for the design and construction documents for this project on 9/18/17.

- This professional services contract includes survey, design, permitting, bid and construction phase services, and coordination with USACE.
- Coordination with Port of Corpus Christi Authority (POCCA) and the USACE required.

- Contract was presented to City Council on October 10th and October 17th for review, and the design contract was approved.
- City Council voted on 10/24/17 to reconsider the professional contract they approved on 10/17/17.
  - City Council members expressed concern that:
    - The proposed wall alignment is on POCCA property, and coordination has not been finalized prior to starting design.
    - The estimated construction costs are too high.
- City Staff has already started the coordination process with POCCA staff to determine the City's land options (purchase, lease, or an easement).
  - City Staff met with the POCCA Executive Director and the Deputy Executive Director on 12/18/17.
  - POCCA staff in attendance at the meeting did not foresee any issues with the proposed floodwall improvements in front of the museum.
  - POCCA and City staff agreed that the engineering staff of both entities would collaborate to work out the property use issues.
- Proposed schedule will be updated once the issues raised by City Council are addressed and the project is approved by City Council.

2018 Progress:

- City and POCCA staff met on 02/16/18 to coordinate on this project.
- Selected AE consultant (HDR) requested revisions to contractual provisions. Selected consultant could not come to terms with City standard contract language. Project will be re-RFQ'd, and a new consultant selected.
- The project scope may be expanded.
- City and POCCA staff continue coordination efforts regarding proposed location of floodwall on POCCA owned property.
- City Planning group prepared example renderings that staff plans to share with the POCCA. These renderings show a connection from the Art Center area to the area in front of the Science and History Museum.
- Due to POCCA staff changes, City staff met with new POCCA staff points of contact on 05/22/18 regarding project coordination. City staff provided POCCA staff with the example renderings.

5. Seawall Capital Repairs:

Project History:

- The Corpus Christi Seawall was originally constructed from 1939 to 1942. With the initiation of the Seawall Maintenance sales and use tax, a major project was completed in 2007 to address advanced levels of deterioration of the Seawall system. That project was completed for a cost of $43.4 million. The funding levels programmed in the CIP are anticipated to address routine maintenance issues. A subsequent major reconstruction is shown to occur after the expiration of the current one-eighth cent sales and use tax. This project will assess the seawall and develop and prioritize the maintenance repair activities.
  - AE Selected (Munoz Engineering)

- Engineering Services executed a small design contract with Munoz Engineering on 12/19/17 in the amount of $17,280.
    - Anticipated project schedule is 3 months.
- Project scope includes:
    - Visual inspection of the Seawall,
    - Document findings in a report including photographs and map exhibits,
    - Provide maintenance program and prioritization of repair recommendations, and
    - Prepare Opinion of Probable Construction Costs for noted repairs.

2018 Progress:

- Project Kickoff Meeting held on 01/03/18.
- Consultant inspected Seawall; Preliminary Report submitted 02/12/18.
- City comments provided to the Consultant.
- Final Report submitted 04/06/18.
- Presented inspection findings to the Type A Board at the April 2018 meeting.
- Design contract amendment under negotiations. Anticipate presenting the design contract to the Type A Board in October 2018.

6. Repair on Marina Breakwater at McGee Beach (Design):

Project History:

- Scope and Fee negotiations with the selected consultant (LAN) began in May 2017; placed on hold pending approval of the CIP funding. Previous CIP funding was recommended to be combined into the Bayshore Project to accelerate some of the rehab of the pier and walkway.
- The CIP for FY17-18 includes the remaining recommended improvements and was approved in September 2017.
- Proposed improvements consist of demolishing the existing elevated concrete cap and constructing a new breakwater concrete cap in its place. The existing rock breakwater and concrete cap will be repaired and raised. These improvements will help fortify the seawall against wave attack by preventing failure of the breakwater and excessive erosion of McGee Beach. Construction anticipated to consist of placing rock ballast (smaller stones) to fill gaps between the larger stones and provide a base for the new concrete cap, building the new cap wider (assumed to be 2 ft. wider) and higher (assumed to be 1 ft. higher) than original.
- AE Selected (LAN) through RFQ 2016-06.

2018 Progress:

- Design contract approved by the Type A Board in February 2018.
- Design contract approved by City Council on 03/20/18.
- NTP sent to Consultant on 03/28/18.
- Project Kick-off Meeting held on 04/09/18.
- Recommendation made to amend the Repair on Marina Breakwater at McGee Beach project to include dredging in the Marina.
    - LAN submitted a proposal on 03/29/18.
    - Nourishment/Dredging tasks will be incorporated into this project, but will be approved through a separate, new contract instead of amending the Breakwater contract. This will make the project easier to track, since these are separate CIP projects, yet still allows for a more economic and cost-efficient execution of the projects by incorporating the dredging tasks into the plan set with the breakwater repairs.
    - Nourishment/Dredging design contract approved by the Type A Board in August 2018.
    - Scheduled for City Council vote on September 11, 2018.

7. **Salt Flats Levee Improvements (Re-RFQ):**

Project History:

- The Salt Flats Levee System (originally referred to as the Backwater Levee) is an integral component of the downtown flood protection system. The levee requires improvements and maintenance to ensure that the system will function as originally designed. The levee is susceptible to various models of failure. Based on a preliminary study by HDR, improvements are planned that would be sufficient to be certified by FEMA as a freeboard deficient reach. This means that although the system would not afford the level of protection required to be prevent overtopping in a 100-year storm event, it would not be vulnerable to catastrophic failure. This project will prepare the construction plans for the proposed improvements.
    - AE Selected (HDR) through RFQ 2016-06.

2018 Progress:

- Selected AE consultant (HDR) requested revisions to contractual provisions. Selected consultant could not come to terms with City standard contract language.
- Project will be re-RFQ'd, and a new consultant selected.

8. **Kinney and Power Street Pump Station Improvements (Approval Process):**

Project History:

- The downtown flood protection system relies on two pump stations, Power Street Pump Station and the Kinney Street Pump Station, to service this drainage basin during a significant storm event. Previous design and studies for Downtown Drainage projects included a new storm water concrete interceptor box with new inlets that was constructed in 2007 along Water Street to allow transfer of flows between the two stations, and upgrades of the Kinney Street pump station in 2009. Preliminary studies indicate that a third pump station is required to meet the 100-year event. This project evaluates the capacity of the existing 2 pump station to determine the feasibility of interim solutions to maximize the capacity at the Power Street Pump Station before adding the major investment of the third pump station. The project should include 2D modeling to better define the demands to enhance the reliability and capacity of the downtown storm water pumping system.
    - AE Selected (Urban) through RFQ 2016-06.

2018 Progress:

- Design contract approved by the Type A Board in August 2018.
- Scheduled for City Council vote on September 11, 2018.

ATTACHMENTS:

None