

M E M O R A N D U M

To: Tom Harmer, Town Manager
From: Isaac Brownman, Public Works Director
Report date: October 30, 2020
Meeting date: November 9, 2020
Subject: Beach Projects Update

Recommended Action

None, informational only.

Background

The Town maintains over ten (10) miles of engineered beaches along the Gulf of Mexico shoreline in Manatee and Sarasota Counties. As such, the Town is currently engaging in necessary steps to accomplish beach and canal improvements within Longboat Key. Project status for the four related initiatives are listed below.

Emergency Canal 1A Dredge Project

Scope: The scope of work (“Work”) for this project includes emergency dredging of a 300-foot by 30-foot channel. Adjacent to the Greer Island Spit. The channel will be dredged to a maximum depth of -3 feet and approximately 1000 cubic yards of material will be disposed, upland of the mean high water line (MHWL), along 260 feet of the spit’s shoreline.

- Permitting: Permits in place
- Current Status: Bids opened October 26, 2020 and recommendation for award under review.
- Anticipated Construction Schedule
 - Notice-To-Proceed: December 2020
 - Contract Time: 90-days (60-days to substantial completion + 30-days to final)
 - Anticipated Completion: March/April 2021

North End Structures and Town Beach Nourishment Project

Scope: The Project includes a contractor to excavate, transport, place, and shape up to 810,000 cubic yards (cy) of beach-quality sand from offshore borrow areas to portions of the Longboat Key, Gulf of Mexico shoreline. At least 550,000 cy (Base Bid) of sand, with an option of an additional 160,000 cy (Bid Option 1 or Alternate Segment D), will be excavated from a borrow area located within the Passage Key ebb shoal. Roughly 100,000 cy will be excavated from an ebb shoal channel borrow area at Longboat Pass

(Bid Option 2 or Alternate Segment B). See attached Exhibit A for explanation of Segments. Additionally, the contractor will be responsible for the construction of five permeable, low-crested rock groins along the northern shoreline of Longboat Key. Groin construction will include the delivery and placement of approximately 364 stone-filled marine mattresses, installation of geogrid/fabric composite underlayment, placement of approximately 10,300 tons, of limerock, or equivalent, armor stone. Following the rock groin and beach fill construction along the Greer Island shoreline, the contractor will be responsible for restoring dune plants and mangroves. It is anticipated that the restoration will require roughly 20,000 dune planting units and 240 mangroves.

Permitting: Permits in place

- Current Status: Working through Erosion Control Line Reset; Manatee County Easement request; Technical Specifications/Bid Docs being developed.
- Anticipated Construction Schedule (assumes all above items continue on track towards resolution)
 - Advertise for Bids: December 2020
 - Bids will include Alternates (as follows):
 - **Alternate Segment B** is due to sand source permitted to fill that segment. Only two permitted sand sources exist for this segment, due to the near shore hard bottoms. One is a truck haul project, which is too costly, and the other is the use of Longboat Pass material. We are targeting Longboat Pass to fill this segment, however Manatee County is going to be dredging the Pass to complete their project at the start of the year. A recent survey indicated 200,000 cubic yards in the authorized dredge template, and Manatee County only needs up to 100,00 cubic yards. We hope to utilize the other 100,000 cubic yards to fill Segment B. This would be a great cost savings to the Town. Timing is the only reason this needs to be an Alternate, and not part of the base bid.
 - **Alternate Segment D** would be accomplished utilizing the Passage Key sand and its implementation would come down to funding. If the bids are favorable enough, this segment will be included. It will extend as far as possible based on budget and timing. The remainder of Segment D will be conducted as part of structure maintenance at New Pass and New Pass dredging in FY22. That dredge and fill project will tie in where the Segment D fill ended on this year's project, and continue South to the New Pass groin.
 - Bid Opening: January 2021
 - Notice-To-Proceed: February/March 2021
 - Contract Time: 180-220 days

- Anticipated Completion: September 2021 (can be extended based on weather and/or unforeseen conditions during construction). This also assumes the contractor will conduct the dredge and pump operations 24 hours a day, 7 days a week, as with past projects. It also assumes the contractor would be able to work Monday – Saturday, from 6:30 am - 7:00 pm to construct the rock structures.

Greer Island Spit Management Plan

Scope: In addition to the emergency dredge at the North end of Greer Island (Canal 1A) the Town is also seeking to develop a Greer Island Spit Management Plan. This project proposes a 15-year permit with dredging and placement every four (4) to eight (8) years on an as needed basis. The project proposes initial dredging of approximately 25,000 to 35,000 cubic yards of material from the spit (North and East of the bridge) and approximately 500 cubic yards from within Canal 1A (West of bridge) to -5 feet with sediment placement to maintain the North End Structural Project.

- Permitting: Permits in progress, under agency review (see below)
 - FDEP/U.S. Army Corps Joint Coastal Permit with Biological Opinion
 - FDOT Structures Office to approve work near bridge (includes environmental review)
 - Work to address any objections to permits that may arise
 - Permit Acquisition: up to 1-year*
- Anticipated Construction Schedule (assuming 1-year permitting scenario):
 - Notice to Proceed: December 2021
 - Contract Time estimate: 120 days
 - Anticipate Completion: April 2022 (*These timeframes can be revised to be sooner once the permitting picture becomes clearer).

New Pass Structure Maintenance and South End Nourishment

Scope: This Project is to permit, and construct the maintenance activities needed to repair the groin at New Pass and to dredge approximately 200,000 cubic yards of material out of New Pass. This material will be placed on the beaches just North of the Pass and fill those southerly segments of beach not nourished during the current project.

- Design and Permitting: FY21
- Construction: FY22
- Anticipated 120-day Construction Schedule: As stated previously, this project would complete the nourishment of the island where the previous project had to terminate. The costs associated with this effort would be minimized due to the short distance that this material would need to be pumped into place.

Staff Recommendation

None, informational only.

Attachments

- A. PowerPoint Presentation (Available from Town Clerk's Office)
- B. Exhibit A (Available from Town Clerk's Office)

End of Agenda Item