

Regular Workshop – April 21, 2014
Agenda Item 14

Agenda Item: Wastewater Forcemain Replacement Project Update

Presenter: Town Manager, Staff, and Carollo Engineers

Summary: The Town is planning to replace the existing forcemain that conveys wastewater to the Manatee County wastewater treatment facility. The forcemain was installed in 1973, and is approximately 16,000 lineal feet. Approximately 11,000 lineal feet of the pipeline route is subaqueous across Sarasota Bay.

The Town's consultant, Carollo Engineers, will present a status update on the project and the procurement process.

Attachments: 4-14-14 Memo, Public Works Director to Manager
Presentation, Wastewater Forcemain Replacement Project

**Recommended
Action:** None, informational only.

M E M O R A N D U M

Date: April 14, 2014

TO: Dave Bullock, Town Manager
FROM: Juan J Florensa, Public Works Director
SUBJECT: Wastewater Forcemain Replacement Project

The Town of Longboat Key contracts with Manatee County for wastewater treatment services. The Town pumps its collected raw wastewater from a master pump station on Longboat Key to the Manatee County Southwest Water Reclamation Facility (SWWRF) on the mainland. The wastewater is transported by a 20-inch ductile iron forcemain. The forcemain was installed in 1973, and is approximately 16,000 lineal feet. Approximately 11,000 lineal feet of the pipeline route is subaqueous across Sarasota Bay. Because of the age of the existing forcemain, the Town is planning to proactively replace the existing forcemain through the Wastewater Collection Subaqueous Forcemain Replacement Project. The Town intends to complete this forcemain replacement project with an alternative procurement delivery method.

Because of the extraordinary challenges associated with crossing Sarasota Bay we have determined to deliver this project using the proven Design-Build (DB) method. The more traditional Design-Bid-Build (DBB) method of project delivery is that which the Town typically uses for construction projects. With DBB the Town hires a design engineer to produce plans and specifications. Those plans are then put out to a public bid and typically the responsive bidder (contractor) with the lowest bid price is hired to perform the work. The Town maintains two contracts for the project, one with the design engineer and one with the contractor. This traditional procurement method works well for non complicated well defined projects. Complications with this method arise when unforeseen problems arise during construction. In dealing with the construction problem it is not unusual for the contractor and design engineer to be at odds as to where the responsibility for the problem should lie. This can lead to a contentious situation with the Town (owner) in the middle, missed project deadlines, and budget overruns.

Using the DB delivery method you always have the potential for unforeseen problems, but the contractual framework is different and lends itself to a more cohesive solution. In DB the owner (Town) contracts with one entity that is comprised of the design engineer and the contractor. During design, the engineer has the benefit of the contractor's construction experience to help assist with design decisions. Then when in construction they are working as one team to seek solutions to any unforeseen complications. This cohesive atmosphere works well for larger complicated projects. For particularly complicated projects, such as the subaqueous crossing of the Sarasota Bay, design phases can be built into the DB contractual process to allow the owner flexibility on major decisions.

The goals to any DB project procurement process should be to:

- Attract the best competition from qualified DB teams
- Obtain an acceptable market price for the DB services
- Obtain acceptable contract terms that meet the Town's project objectives and requirements, with acceptable risk allocation and sharing

In order for the DB delivery method to work well it is critical that the owner clearly and succinctly state early in the process exactly what the project is expected to achieve and the parameters the owner determines are important. To that end, the Town has contracted with Carollo Engineers as a Design Criteria Professional to assist in the formulation of the project goals and objectives. Carollo and Town staff are developing the Design Criteria Package (DCP) and Request for Proposal (RFP) documents. These documents are essential to a successful DB project delivery method.

At the April 21st regular meeting, Carollo will give a brief tutorial on the DB procurement process and project update to the Town Commission. Mr. Eric Peters, PE Project Manager and Laura Baumberger, PE Project Engineer with Carollo will make the presentation and answer any questions. A copy of their presentation is attached. If you have any questions related to this memo or presentation, please let me know.

Wastewater Forcemain Replacement Project

Procurement and Project Status Update

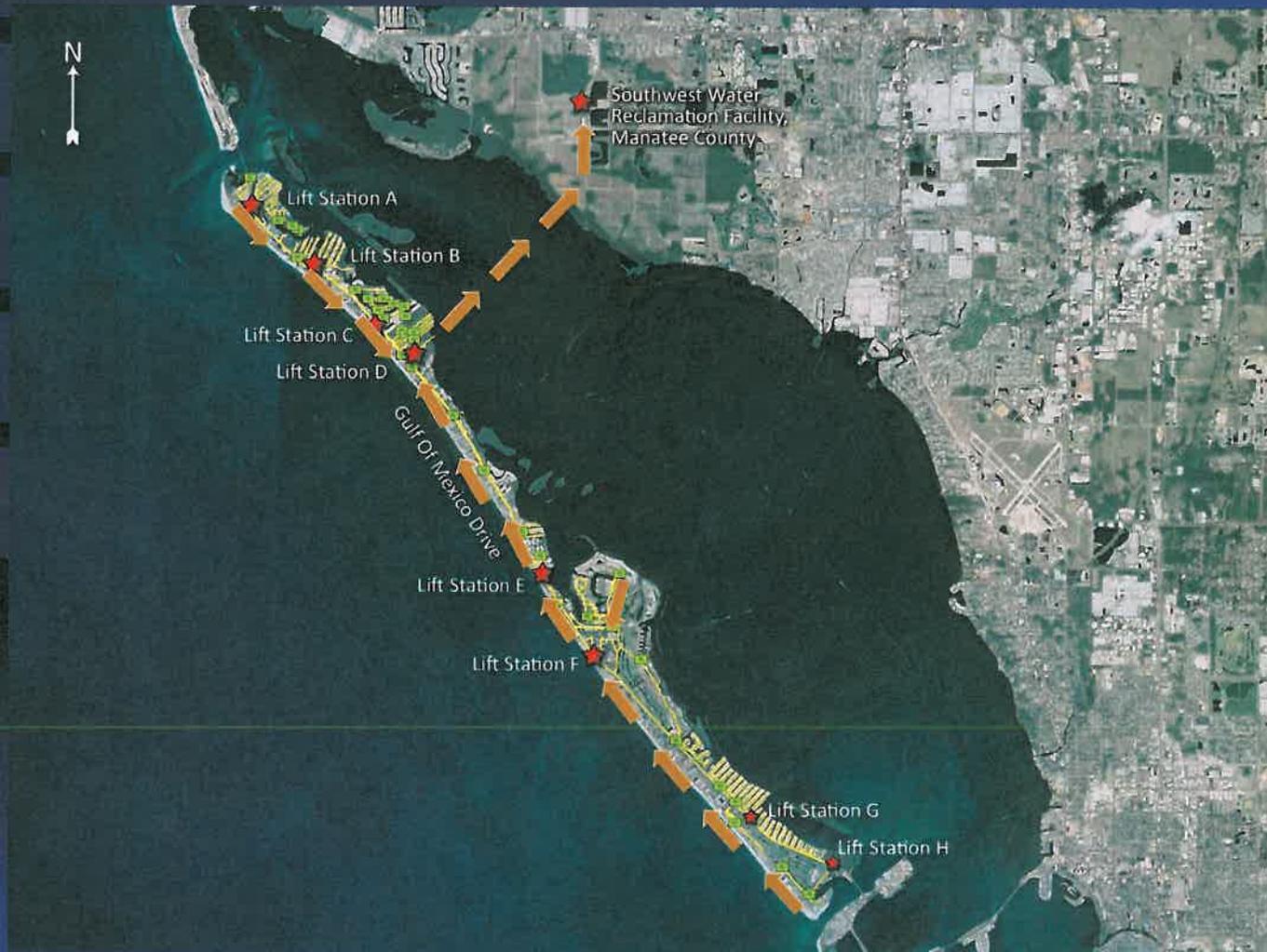
Town Commission Workshop

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Background

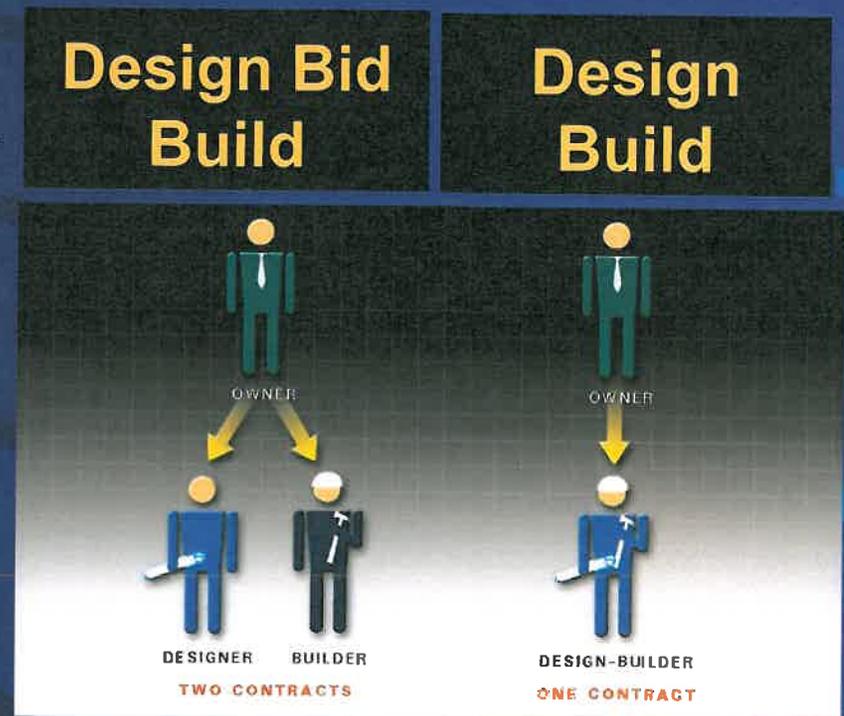
- Existing subaqueous forcemain is 40+ years old
- Single forcemain for wastewater delivery from Longboat Key
- Complicated replacement design & construction
 - Subaqueous Crossing Sarasota Bay
 - Lengthy land route with utility congestion
- Town selected Design/Build method to complete new forcemain

Wastewater Collection System

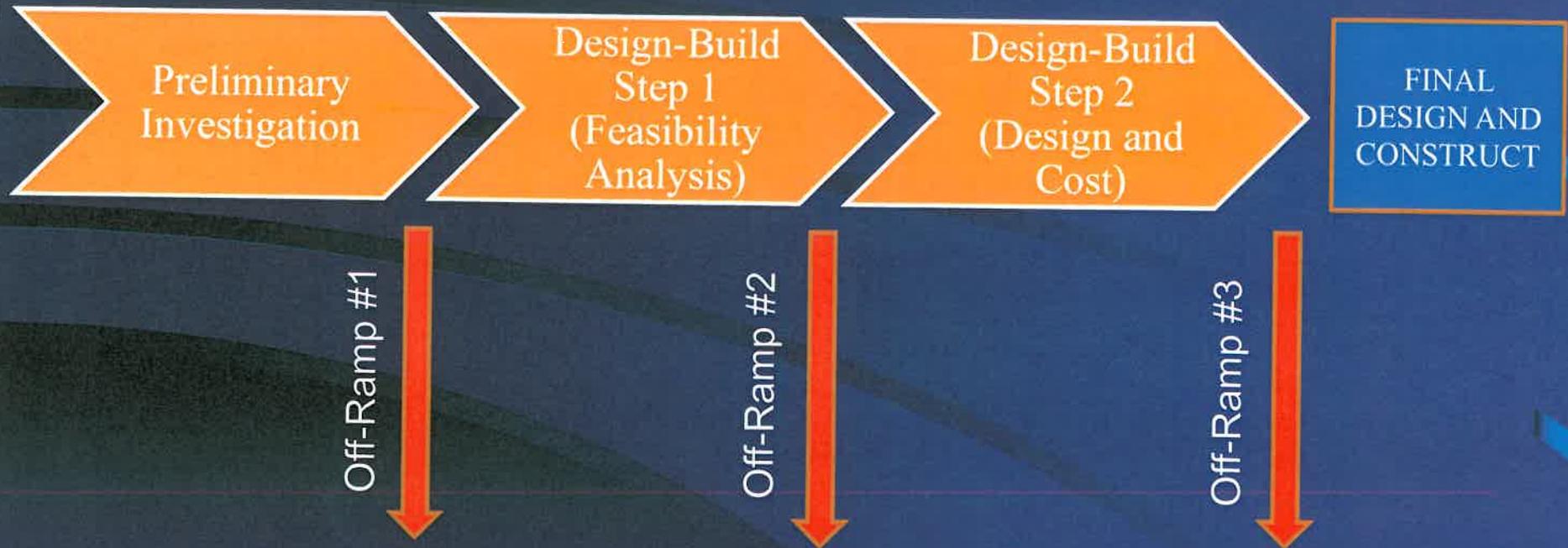


Design/Build Delivery Method

- Qualifications based selection
- Single point of responsibility
- One contract to manage
- Risk allocation
- Phased approach for Owner flexibility
- Contractor input/ideas early in process



Contract Safeguards



Project Mission Statement

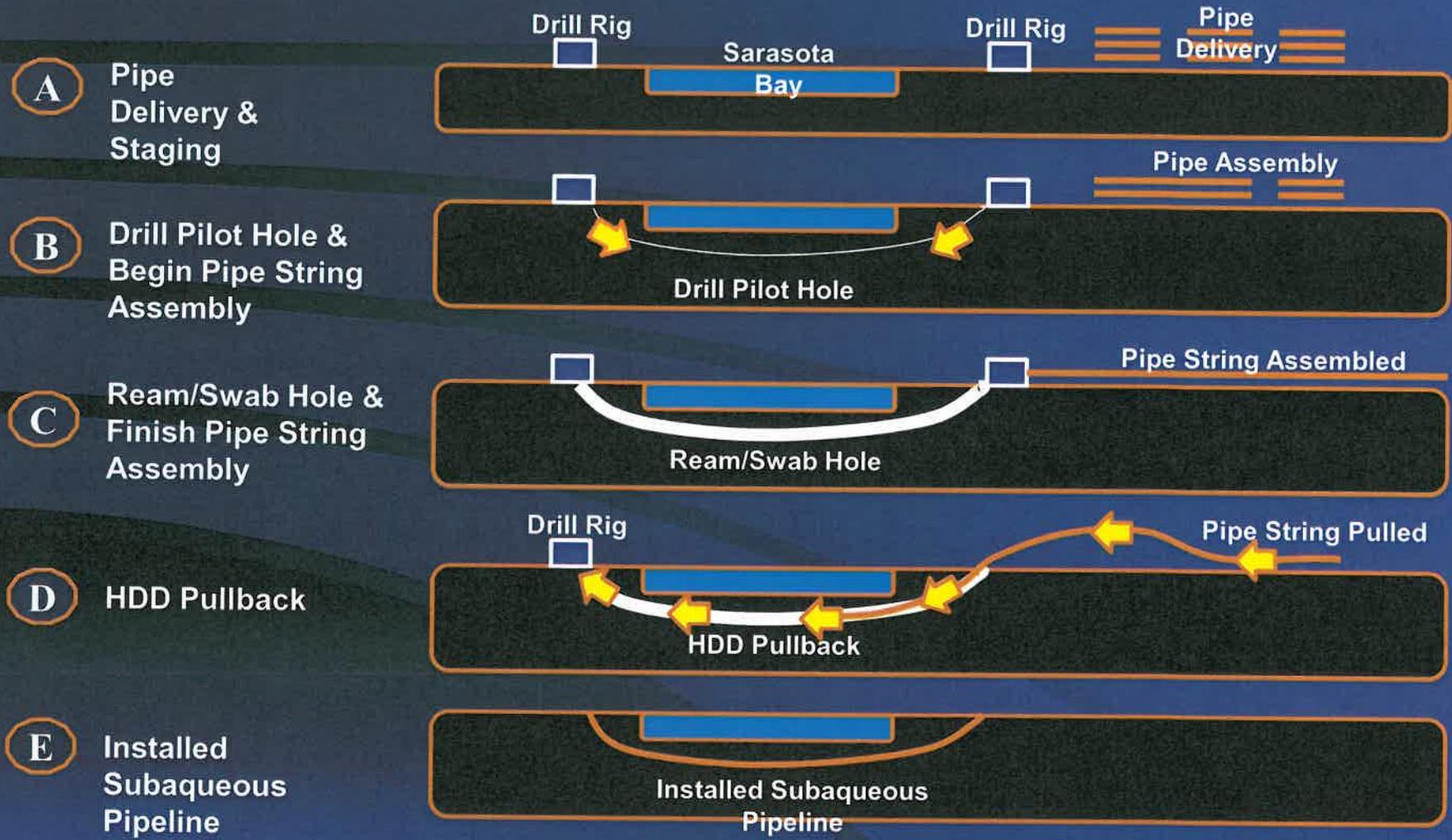
The Town of Longboat Key is committed to cost effectively execute the forcemain replacement project using a proven construction methodology, while employing an approach that minimizes impacts to the public and the environment, complies with regulatory requirements, and completes the project efficiently. The forcemain solution shall be reliable and long-lasting so that O&M impacts are minimal and the pipeline can be monitored for leaks and integrity.

Potential Forcemain Routes

Figure 5
Forcemain Routing Alternatives
 Subaqueous Forcemain Project
 Town of Longboat Key



Horizontal Directional Drilling



Schedule

Activity	Date
Advertise for Design/Build Services	Mid 2014
Select Design/Build Team	Early 2015
Design/Construction Completed	Early 2016

Questions?

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Replacement Project

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End of Agenda Item