

M E M O R A N D U M

To: Tom Harmer, Town Manager
From: Isaac Brownman, Public Works Director
Report date: December 6, 2022
Meeting date: December 12, 2022
Subject: Buttonwood Harbour and Sleepy Lagoon Stormwater and Drainage Assessment Update

Recommended Action

None, informational only.

Background

The Town hired Kimley Horn and Associates, Inc. (Kimley Horn) as a consultant to conduct stormwater and drainage assessments for the Buttonwood Harbour and Sleepy Lagoon (East of Gulf of Mexico Drive) areas, respectively. Town staff and the consultant held public meetings with each neighborhood on April 20, 2022. These were to provide informational updates and progress of the assessment efforts as well as to encourage the communities to participate and provide valuable feedback.

Kimley Horn reviewed, and compiled that feedback and presented an update at the Town Commission's June 20, 2022 Regular Workshop Meeting including preliminary discussion about publicly initiated improvements and options for private property owners to consider.

Since the last presentation to the Commission, Kimley Horn continued compiling comments from the residents while further refining potential neighborhood public improvement projects and developing preliminary costs.

Kimley Horn has produced a final report for each neighborhood that provide conceptual level solutions, a summary report, and planning cost estimates for public improvements that are recommended.

Consultant Recommendations and Preliminary Estimates

For Sleepy Lagoon, due to the extremely low elevations of the roadways, five (5) phases of road elevation and drainage reconstruction have been identified as the optimum manner to address Sleepy Lagoon access flooding and resiliency issues over time. Priority phases and rough order of magnitude construction costs (2022) are as follows:

- Phase 1 – Norton St. - \$1.35 million
- Phase 2 – Bayview Dr. and Penfield St. - \$1.86 million
- Phase 3 – General Harris St and Marbury Ln - \$1.72 million
- Phase 4 – De Narvaez Dr and Juan Anasco Dr - \$1.15 million

For Buttonwood Harbour, due to the diverse nature of the problems and solutions for improving neighborhood drainage and flood resiliency, there are six (6) projects that can

help optimize drainage and access in the area, the first three of which projects ideally would be conducted together. Projects and rough order of magnitude costs are as follows

- Project 1* – Buttonwood and Winslow Reconstruction - \$1.48 million
- Project 2* – Flow Diversion - \$540,000
- Project 3* – Ditch Optimization - \$540,000
- Project 4 – Longview Shoreline Stabilization - \$510,000
- Project 5 – Buttonwood Shoreline Stabilization - \$84,000
- Project 6 – Monroe Street Saltwater Marsh - \$104,000

In addition to the public improvements and as previously mentioned, neighborhood property owners have strategies that can be employed as well to reduce and or mitigate the amount of runoff and tidal flooding impacts on properties. These strategies are as follows:

Tree box filters, bioswales, rain gardens, cisterns/rain barrels, pump stations, and seawall improvements. Pump stations would require minimum height of surrounding grade and seawalls to achieve positive outfall and effectiveness.

Next Steps

Proceed with pursuing outside funding support for the following priorities:

Sleepy Lagoon Phase1 - Norton Street (Road Elevation / Drainage System / Reconstruction)

Buttonwood Project 1 – Buttonwood and Winslow (Road Elevation / Drainage System / Reconstruction), Project 2 – Flow Diversion, and Project 3 – Ditch Optimization.

The Commission previously identified a portion of the Town's ARPA funds to be used to offset costs and help implement recommendations of publicly funded roadway improvements. Staff will work to develop a project plan based on the above-mentioned priorities, available funding and potential grant funding opportunities.

Kimley Horn will present their final recommendations at the Town Commission's December 12, 2022 Regular Workshop Meeting.

Staff Recommendation

None, informational only.

Attachments

- A. PowerPoint Presentation (Available from Town Clerk's Office)
- B. Kimley Horn Stormwater Analysis Reports (Available from Town Clerk's Office)

End of Agenda Item