TOWN OF LONGBOAT KEY *REQUEST FOR LETTERS OF INTEREST NO. 2025-02*

Flood Mitigation/Resiliency – Sleepy Lagoon: Bayview Drive, De Narvaez Drive, and Juan Anasco Drive

January 3, 2025

Jennifer Fehrs, PE, Town Engineer
Town of Longboat Key
600 General Harris Street
Longboat Key, FL 34228

Kimley»Horn

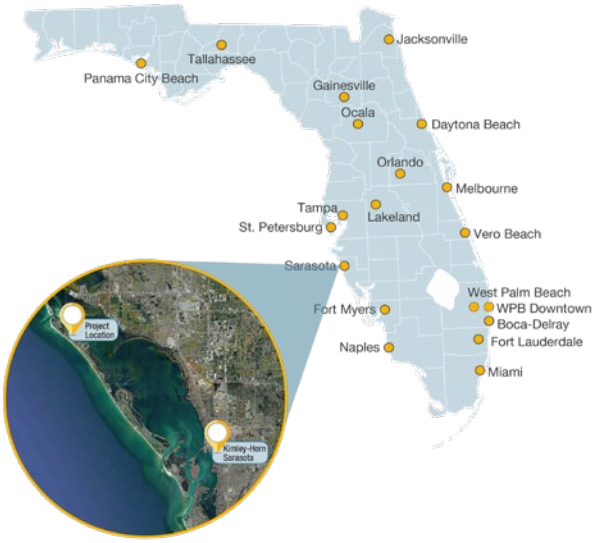
1800 2nd Street, Suite 900, Sarasota, FL 34236
941.379.7600

Re: Request for LOI NO. 25-02: Flood Mitigation/Resiliency – Sleepy Lagoon: Bayview Drive, De Narvaez Drive, And Juan Anasco Drive

Dear Ms. Fehrs and Members of the Selection Committee:

KIMLEY-HORN is pleased to submit this response for the Town's Key's Flood Mitigation/Resiliency project for Sleepy Lagoon: Bayview Drive, De Narvaez Drive, And Juan Anasco Drive. We have curated a team that can deliver the wide range of services necessary to fulfill this contract. Based upon our understanding of your requirements, we can provide you with:

- Knowledgeable and experienced staff with a successful track record coordinating with governmental agencies, utilities, stakeholders, and the public
- A sense of urgency regarding your project schedule and budget controls
- A cohesive team that has worked together in the past and knows how to work with City staff
- An understanding of the effort required, the people involved, and the issues to be addressed



Project Understanding

The Town identified the Sleepy Lagoon community east of Gulf of Mexico Drive as an area of concern since it is prone to sunny day flooding due to high tides and king tides and subject to increasing flood risks due to Sea Level Rise (SLR). The Town contracted with Kimley-Horn Associates, Inc. (Kimley-Horn) to evaluate the impacts of rainfall, tidal events and SLR on the roadways and infrastructure in the area of concern and to identify projects to mitigate impacts.

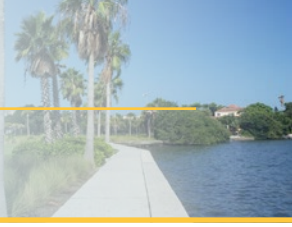
The impacts of rainfall, tidal events, and SLR on the project area were identified through inundation mapping and a preliminary Hydraulic & Hydrologic model (ICPR4 model) developed for the project area. Kimley-Horn developed GIS maps to illustrate the flooding extent for both tidal and rainfall events. These maps utilized ArcGIS Pro and the 2018 Florida Peninsular DEM to create polygons that identify areas of standing water. Inundation maps, or tidal flooding maps, were created to visualize the extent to which the project area was flooding with salt water during various high tide events and the impact of SLR on the community.

Design of the initial phase, Norton Street, is nearing completion and the additional three projects identified in the Sleepy Lagoon Stormwater Analysis Study have been divided into two projects. For this letter of interest, the identified roadway segments, Bayview Drive, De Narvaez Drive, And Juan Anasco Drive, are the Sleepy Lagoon Community roadways which have direct access to Gulf of Mexico Drive, an FDOT maintained right-of-way. The Kimley-Horn team has extensive experience with coordination with FDOT access / driveway permits; drainage connection permits; and construction agreements. The target roadway elevation would be an edge of pavement elevation of 2.4 NAVD88 and a road crown elevation of 2.6 NAVD88 and connection to the Gulf of Mexico Drive right-of-way will require targeted coordination with FDOT. As with the Norton Street project, the design team will maximize the elevation of the roadway, while having no adverse impacts on adjacent low elevation homes to improve the community's resiliency.

Project Approach

During our experience designing the Norton Street improvements, we implemented opportunities for increased efficiency and cost savings. Prior to each submittal, Kimley-Horn performed a detailed internal quality (QA/QC) review. The project has undergone multiple design changes to reduce construction costs, such as switching from a 3-ft to a 2-ft valley gutter and moving the primary stormwater trunkline to the middle of the road to provide separation from the sewer trunkline and to avoid relocating the existing potable water main.

The Norton Street project has been informative for the design team, revealing several avenues for improved efficiency that could be applied to future projects. Given the corridor's constrained nature, the age of existing utilities, and the lack of high-quality as-built plans, acquiring SUE data earlier in the design process could enhance the efficiency of designing the stormwater collection system. For projects of comparable size to Norton Street,



bypassing the 90% submittal and moving directly from 60% to 100% plans could streamline the design process. We will apply all lessons learned from the Norton Street design phase to these design projects. We are confident the design of this phase can be completed in a 12-month schedule concurrent with the 2025-01 project.

Public/Stakeholder Outreach

We understand the importance of community relations to the Town and want to minimize community concerns regarding the project. Our team has partnered with the Town on similar past projects and have had very successful outreach events that have been tailored to residents and community. For the design of the Norton Street Improvements, we had success with implementing a Kimley-Horn proprietary program, SMARTS, which is an online portal accessible by the resident, the Town, and the Kimley-Horn team to establish direct communication with residents providing information, updates, and documents for review and comment regarding the impacts on their specific property. Each property owner has access to just the information for their property. The Town would have information for all properties and residents. The Town and Kimley-Horn project staff can upload pictures and information for communication, coordination with stakeholders, the community, and specifically parcel owners to establish right-of-entry agreements, permanent drainage/utility easements of fee-simple acquisitions that would be a key to the project's success. The existing SMARTS platform used for the Norton Street project can be expanded to include future phases so that all information for the Sleepy Lagoon community is contained in one application.

Required Deliverables

- 15% Line and Grade Plans
- Roadway Design Report
- 30% Design Plans
- Existing Landscape Documentation Plans
- 60% Permitting Plans
- Landscape Restoration Plans
- 100% Plans
- Final Bid Documents
- ICPR4 Modeling / Final Design Electronic Files
- Environmental Resource Permit (ERP) Application for Exemption
- FDOT Permitting
- Technical Specifications (100% and Final Bid Documents)
- Opinion of Probable Cost (30%, 60% 100%, and Final Bid Documents)
- Subconsultant Deliverables:
  - Topographic and Finished Floor / Garage Floor Elevation Survey
  - Geotechnical Report
  - Subsurface Utility Engineering Report and Survey
  - Cultural Resource Assessment Survey (CRAS) Report

Project References

Norton Street Reconstruction Design, *Longboat Key, FL*

Norton Street is approximately 1,900 LF long with a constrained road right-of-way of 25-feet with an additional 2.5-foot-wide utility easement on either side of the right-of-way. The roadway currently is impacted by frequent flooding from rainfall and tidally induced flooding. The existing homes along the street vary in Finished Flood Elevation (FFE) with the lowest FFE at 2.37 NAVD88. With the right-of-way constraints, the project requires temporary right-of-access agreements from every property owner to allow for grading back to existing elevations. The project involved extensive collaboration with the street's residents, and detailed analysis of the privately owned landscape and hardscape in the corridor. In addition to the right of entry agreements, four (4) additional drainage easements were needed to accommodate the two (2) proposed outfalls. Coordination with residents was facilitated by using the Kimley-Horn proprietary software, SMARTS, which allows for information to be shared with individual homeowners and allows for direct communication with the design team.

Contact: Charlie Mopps
Interim Director | Town of Longboat Key Public Works
Ph: 941.316.1988 Ext. 2226
Email: cmopps@longboatkey.org
Project Start: November 2023
Project Finish: January 2025
Status: On-going
Fee: $425,000

The design team carefully examined existing topography and home elevations to design a roadway profile that maximized the elevation of the roadway, while having no adverse impacts on adjacent low elevation homes to improve the community's resiliency. The proposed typical section includes two (2) 9-ft wide travel lanes and a 2-ft wide valley gutter on both sides of the street. Improvements also include utility deflections / relocations, landscape restoration, and a new stormwater collection system including check valves at the outfalls. In addition, Kimley-Horn provided a proactive plan for future addition of stormwater pumps to the corridor by incorporating a wet wall, trash rack, and other miscellaneous pump infrastructure into the stormwater management system that will allow the town to easily add stormwater pumps to the system when they see fit. Additional stormwater modeling was performed to ensure the proposed design provided the most relief possible to the community and to adhere to current community, regulatory and industry standards. A pre-application meeting with SWFWMD was held by Kimley-Horn to expedite

the permitting process. Permit applications were submitted to SWFWMD to acquire an environmental resource permit (ERP) exemption for the project.

Team Members: Molly Williams, PE; Brandon Nichols, EIT; Josie Wiederkehr, EI; Kaleigh Cook; Emily Saidi, EI; Ed Dean, PLA; Jake Hess, ISA, Certified Arborist; Ronnie Van Fleet, PWS

Cranberry Boulevard / Hillsborough Boulevard Intersection Improvements, *City of North Port, FL*

Hillsborough Boulevard traverses the boundary of the City of North Port / Sarasota County and Charlotte County and terminates at the intersection of Cranberry Boulevard. Through an a Interlocal Agreement between the City of North Port and Charlotte County, design and construction will be a collaborative effort. The project limits begin approximately 450 LF south on Cornelius Boulevard and extends across U.S. 41 down Cranberry Boulevard for approximately 850 LF and from Cranberry Boulevard along Hillsborough Boulevard for approximately 1,500 LF. Improvements at the Cranberry Boulevard and Hillsborough Boulevard intersection are designed as a modern roundabout. Roundabout design using the National Cooperative Highway Research Program (NCHRP) 672 Report as a basis for criteria including fastest path analysis, swept path analysis, and sight line triangle evaluation and using a standard WB-50 design vehicle and City Bus for all turning movements provides for a more effective junction.

Contact: Anthony Friedman, PE, PTOE
Interim City Engineer | North Port Public Works
Ph: 941.240.8098
Email: afriedman@northportfl.gov
Project Start: October 2021
Project Finish: January 2025
Status: On-going
Fee: $389,160

Kimley-Horn is providing design, permitting, preparation of a completed set of construction contract documents and incidental engineering services to improve the Level of Service for the intersection. The proposed improvements are designed to accommodate future expansion to a multi-lane roundabout configuration where the drainage system accounts for the full build out conditions. The roundabout design provides dual southbound right turn lanes, a single southbound through lane, a single southbound left turn lane, and dual northbound lanes. The Hillsborough Boulevard leg of the roundabout will consist of single northbound and southbound lane. Eight (8) foot concrete sidewalk will be included on both sides of Cranberry Boulevard south of Hillsborough Boulevard and along the west right-of-way of Cranberry Boulevard to the proposed pedestrian crossing north of Hillsborough Boulevard. The pedestrian crossing north of Hillsborough Boulevard will tie into the existing 12' asphalt paved trail along the north side of Hillsborough Boulevard.

The construction plans include a stormwater management system to ensure positive drainage of roadway improvements and preclude any ponding along the roadway. Drainage design consists of a closed drainage system utilizing curb inlets and ditch bottom inlets. Wet detention and dry retention ponds have been designed for the project area to provide attenuation, floodplain compensation and to meet the required water quality improvements prior to discharge to Cocoplum Waterway. The drainage analysis for the roadway improvements also included inlet / throat capacity, spread calculations, and pipe sizing utilizing the rational methodology for small basins in accordance with the FDOT Drainage Manual. The drainage documentation report includes all engineering calculations including the pre and post conditions hydraulic and hydrologic stormwater modeling for the project using Interconnected Channel and Pond Routing, Version 4 (ICPR4). Permit applications, for an Environmental Resource Permit (ERP) for submittal to Southwest Florida Water Management District (SWFWMD) and FDOT driveway connection and drainage permits in accordance with the guidelines set forth in the FDOT Design Manual in support of the signal timing adjustments to the signalized intersection of U.S. 41 and Cranberry Boulevard and proposed improvements within FDOT Right-of-Way. Kimley-Horn also presented the plans to the City of North Port Commission and the Charlotte County Commission.

Team Members: Molly Williams, PE; Josie Wiederkehr, EI; Kaleigh Cook; Emily Saidi, EI; Ronnie Van Fleet, PWS

Preparation of control survey maps, and right-of-way maps as required for this project in accordance with all applicable City and FDOT Manuals, Procedures, Handbooks, District specific requirements, and Florida Statutes are part of the project. All maps and surveys will be prepared under the direction of a Florida PSM to City size and format requirements utilizing City approved software and will be developed to provide a high degree of uniformity and maximum readability.

Gulf of Mexico Drive Roundabout (GMD RAB), *Longboat Key, FL*

The Town of Longboat Key contracted with Kimley-Horn and Associates, Inc. to design the Gulf of Mexico Drive (GMD) and Broadway intersection as a roundabout (RAB). The intent of the RAB design was to implement the complete street design criteria recently approved by the Town and elevate the new roundabout to address resiliency due to sea level rise (SLR). The project length is approximately 1,900 LF and the RAB design raised the roadway to achieve a minimum pavement edge elevation from approximately elevation 5.0 to 6.0 NAVD88. The RAB was designed and permitted as an exemption (Application ID 845908) with the Southwest Florida Water Management District (SWFWMD).

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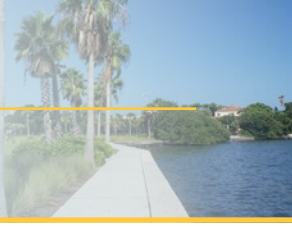


After the initial design, comments from the Florida Department of Transportation (FDOT) led to redesign of the RAB. In the redesign, the existing superelevation was eliminated by designing the roadway to normal crown and widening the bicycle lanes and sidewalk widths to achieve the requirements outlined in the Town's Complete Street Corridor Plan. The proposed Broadway Street and Gulf of Mexico Drive intersection design is a single lane roundabout with 5-foot bikes lanes running north and south. The RAB transitions into a two-lane minor arterial roadway with a combined open and closed drainage system.

The redesigned RAB increases pedestrian safety and traffic calming including 7 ft. bicycle lanes, raised median 6-8 ft. sidewalk on the west side and 12ft. sidewalk on the east side. Design speed for this facility is 40 MPH and the existing posted speed in the vicinity of the project is 35 MPH. Plans and the Opinion of Probable Cost (OPC) for the redesign were developed to the 90% submittal.

Contact information: Isaac Brownman
Assistant Town Manager | Town of Longboat Key Public Works
Ph: 941.316.1999 Ext. 2210
Email: ibrownman@longboatkey.org
Project Start: October 2021
Project Finish: June 2024
Status: Complete
Fee: $301,323

Alterations to the proposed typical section had large scale impacts on the overall design with modifications to the drainage collection system, horizontal layout, and vertical layout. The intent of the drainage design for the Broadway Street and Gulf of Mexico Drive RAB remains the same as with the exempt design. The updated design maintains an open drainage system on the west side of the road, while the east side is now proposed as a closed drainage system. The new closed drainage section will drain runoff from the south to the north, eventual draining directly into the intercoastal waterway, on the east side of Gulf of Mexico Drive. The final discharge for the project is the intercoastal waterway on the east side of Gulf of Mexico Drive. Overall, the proposed drainage design maintains existing flow conditions, while achieving the required FDOT design standards for roadway drainage systems and improving resiliency, reducing impacts from SLR, and improving overall pedestrian safety.

Team Members: Gary Nadeau, PE; Molly Williams, PE; Brandon Nichols, EIT; Emily Saidi, EI

Team Experience

Our Project Manager, **MOLLY WILLIAMS, PE**, will be leading this project with the support of her team, already contracted with the City of Longboat Key under RFP #23-074: Norton Street Drainage Improvements Design and Permitting. Under this contract, Molly and her team are tasked with addressing the flooding issues in the Sleepy Lagoon community east of Gulf of Mexico Drive. The Town of Longboat Key identified this area as prone to sunny day flooding due to high tides and king tides, and subject to increasing flood risks due to SLR. Kimley-Horn and Associates, Inc. evaluated the impacts of rainfall, tidal events, and SLR on the roadways and infrastructure. The proposed road reconstruction will elevate Norton Street to mitigate these impacts, with a stormwater management system designed to improve drainage and reduce flooding risks.

To further support this project, Molly will bring in additional Kimley-Horn specialists in grant services/NEPA, historical resources, landscape architecture, roadway design, and resiliency/stormwater management system design. Additionally, we will engage **DRMP** to handle Subsurface Utility Engineering (SUE) alongside **HYATT SURVEY** and **AREHNA ENGINEERING** who were previously contracted for the Norton Street Drainage Improvements Design and Permitting for Survey and Geotechnical Services.

Subconsultants to Provide Services for this Project

Hyatt | *Survey*

Hyatt Survey Services, Inc. is a full-service, woman-owned professional surveying and mapping company whose staff possess extensive surveying experience. From boundary, topographic, and right-of-way surveying to intricate geodetic, construction, and hydrographic/bathymetric surveying, they can fulfill all your surveying requirements.

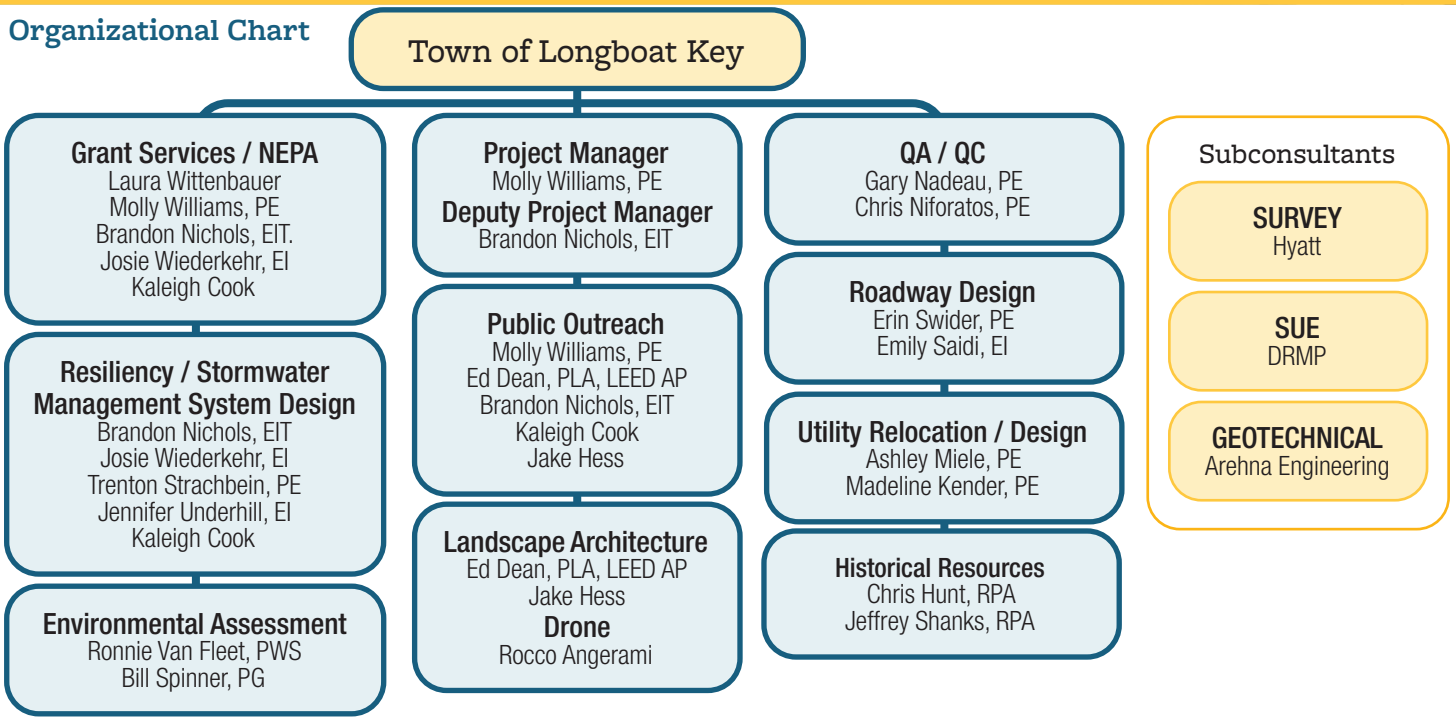
Arehna Engineering | *Geotechnical Services*

AREHNA Engineering, Inc. provides geotechnical engineering and materials testing services. AREHNA's engineers' project experience includes many thousands of geotechnical engineering and materials testing projects, including roadway project under system wide/districtwide contracts. AREHNA has in-house drilling and pavement coring capabilities as well as an AASHTO accredited laboratory located in Tampa.

DRMP | *SUE*

DRMP has expanded to 24 offices throughout Florida, Georgia, South Carolina, North Carolina and Virginia. The firm continues to be ranked annually in Engineering News-Record's "Southeast Top Design Firms" and "Top 500 Design Firms" in the United States and remains focused on the same core principles it was founded upon – expertise, quality, leadership, trust and respect.

Organizational Chart



Additional Information on Our Team's Relevant Expertise/Qualifications to be Used in Performing Services and Availability of Staff to Meet the Project Schedule

STAFF NAME	AVAILABILITY (% OF TIME COMMITTING TO THE PROJECT)	STORMWATER DRAINAGE ENGINEERING DESIGN AND ANALYSIS / RESILIENCY	ROADWAY ENGINEERING	REGULATORY COORDINATION AND PERMITTING SERVICES (LOCAL, STATE, AND FEDERAL)	HABITAT DELINEATION AND ANALYSIS	DESIGN SPECIFICATIONS AND CONSTRUCTION DOCUMENTS	CONSTRUCTABILITY REVIEW	SURVEYING AND MAPPING SERVICES	SUBSURFACE UTILITY EXPLORATION (SUE)	GEOTECHNICAL ENGINEERING SERVICES	CULTURAL/HISTORICAL RESOURCES SURVEY AND ANALYSIS	PUBLIC OUTREACH	LANDSCAPE ARCHITECTURE DESIGN AND ANALYSIS	NATURAL SYSTEMS DESIGN	UTILITY COORDINATION AND ADJUSTMENT DESIGN	STRUCTURAL DESIGN	GRANT APPLICATION DEVELOPMENT AND ADMINISTRATION	DRONE SERVICES AND CONSTRUCTION INSPECTION	RIGHT-OF-ENTRY / EASEMENTS (ACQUISITION AND COORDINATION ASSISTANCE)	MAINTENANCE OF TRAFFIC (MOT) DESIGN	CONSTRUCTION BID SERVICES
Molly Williams, PE	40%	X	X	X		X	X					X		X			X		X	X	X
Gary Nadeau, PE	20%		X	X		X	X					X							X	X	X
Chris Niforatos, PE	20%	X	X	X		X	X					X		X			X				
Brandon Nichols, EIT	80%	X	X	X		X						X		X			X				
Josie Wiederkehr, EI	80%	X	X	X		X						X		X			X				
Kaleigh Cook	80%	X	X														X				
Emily Saidi, EI	50%	X	X	X		X						X									
Trenton Strackbein, PE	20%	X	X	X		X	X					X		X							
Jennifer Underhill	70%	X		X																	
Ed Dean, PLA, LEED AP	30%			X		X						X	X								
Jacob Hess	40%			X									X								
Ronnie Van Fleet, PWS	25%			X	X	X						X		X							
Bill Spinner, PG	25%			X	X	X						X		X							
Ashley Miele, PE	20%			X		X	X					X			X				X		X
Madeline Kender, PE	20%			X		X	X					X			X						
Seth Schmid, PE	25%			X		X	X									X					X
Laura Wittenbauer	40%																X				
Rocco Angerami	50%																	X			
Chris Hunt, RPA	30%										X										
Jeffrey Shanks, RPA	30%										X										
Hyatt Survey	20%							X													
DRMP	20%								X												
Arehna Engineering	20%									X											