Request For Information: Living Shoreline Demonstration in Downtown Miami

1. Background

The City of Miami faces various natural hazards, including sea level rise (SLR), storm surge, urban heat island effect and stormwater runoff, which are expected to worsen as the climate continues to change. Downtown Miami currently generates $45 billion/year in economic output and has a daytime population over 250,000 people. The market value for downtown properties is roughly $39 billion – representing more than 50% of the City's taxable property value. As a result, damage to properties, infrastructure, and human life could have significant fiscal and social consequences.

In 2017, City of Miami residents voted in favor of a $400 million general obligation bond with the majority of the funds earmarked to combat sea-level rise and flooding. The Miami Forever bond aims to make Miami the most resilient city in the world through innovative infrastructure investments and nature-based solutions. Living shorelines are one such green infrastructure technique that utilize native vegetation alone or in combination with offshore sills to stabilize the shoreline. As such, the Urban Land Institute (ULI) recent recommendations include a living shoreline demonstration project within downtown Miami, which the Miami Downtown Development Authority (DDA) is interested in pursuing.

2. Scope

In partnership with the City of Miami, the Miami DDA is seeking a planning & engineering consultant to provide a breakdown regarding the estimated **costs** and anticipated **scheduling/timeline** to fully design, secure permitting, and construct a living shoreline demonstration project at two (2) possible locations:

- North cove of **Maurice A. Ferré Park** located at 1075 Biscayne Blvd, Miami, FL 33132. The north cove cutout has a footprint length of 208 feet and a width of 94 feet, equaling approximately 15,700 total square feet. *(Page 2)*
- Eastern shoreline at the **First Miami Presbyterian Church** located at 609 Brickell Ave, Miami, FL 33131. This area measures 200 linear feet, with an average width of 60 feet, equaling approximately 10,320 total square feet. *(Page 3)*

The design for the living shoreline may include a combination of, but not limited to, mangroves, cordgrasses, rip-rap boulders, sand infill, and a non-motorized gangway dock to allow for easy access to the water's edge. We are looking for natural alternatives to gray infrastructure methods like stone sills or concrete bulkheads. The demonstration project will be designed to include and/or address many of the following features:

- Improved water quality
- Reduction of erosion
- Mitigation of storm surges
- Increase biodiversity of native species
- Additional marine & avian habitat
- Trap Sediment & sequester carbon
- Public accessibility and education
- Attenuation of wave energy and increased life of structural shoreline
- Near Shore Food Web
- Activation of park
- Kayak/Paddleboard Access

If after reviewing this baseline study, https://maps.coastalresilience.org/seflorida/#, if there are any other locations within the Miami DDA boundaries (www.miamidda.com/wp-content/uploads/2019DDA_DistrictBaseMap.pdf) that you recommend, please advise.

3. Responses

Please submit all responses with a narrative overview that outlines a proposed approach for design and permitting, plus an attached **timeline** and **budget** that line items each activity along with an estimate of cost. Responses are due by **February 18, 2020** and both responses and inquiries should be sent to **Neal Schafers** at **schafers@miamidda.com**

Site # 1 - North Cove of Maurice A. Ferré Park

SITE CONTEXT MAP

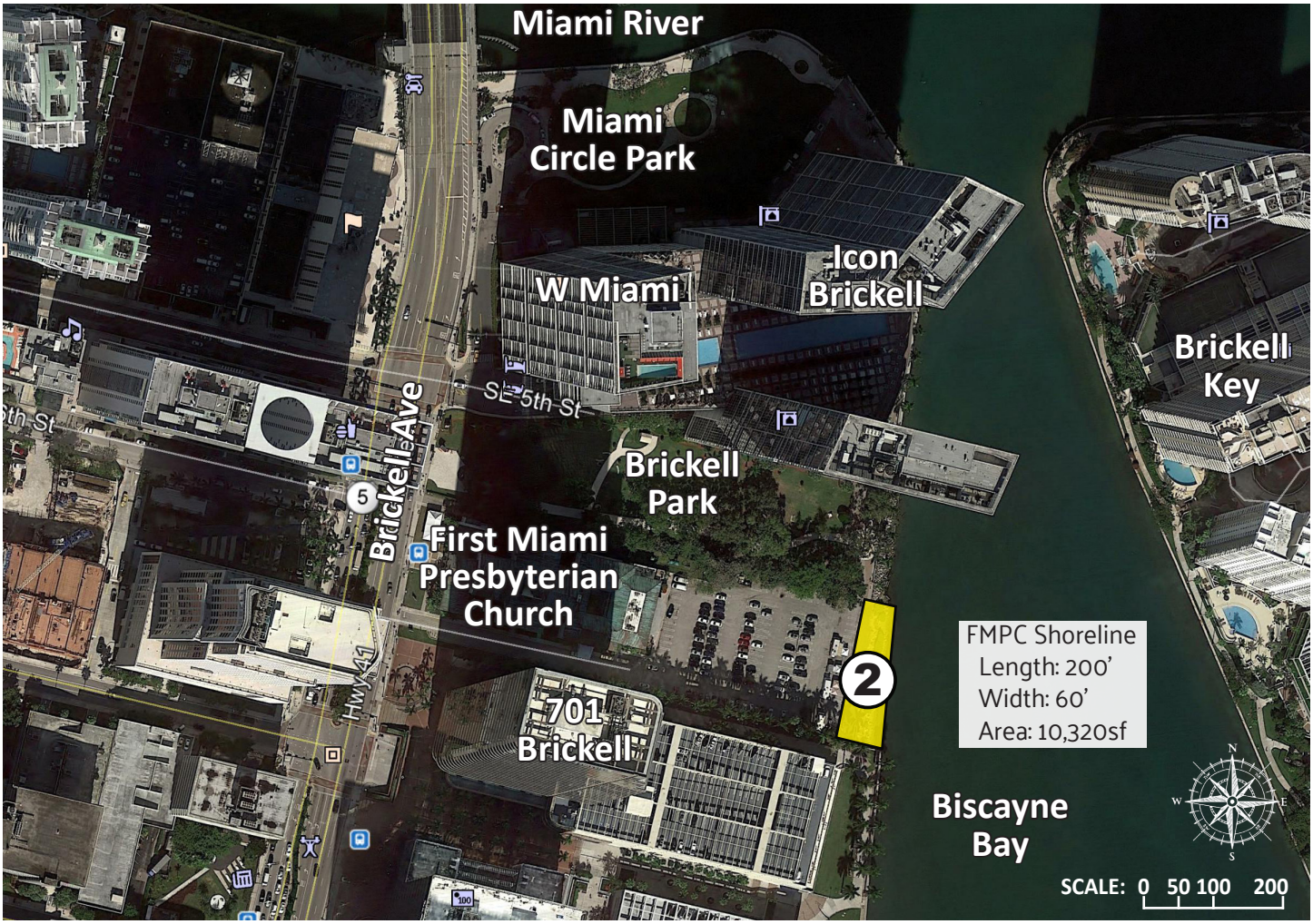
ONSITE IMAGES


Seawall Cutout #1 at Maurice Ferre Park: Looking Northwest


Seawall Cutout #1 at Maurice Ferre Park: Looking Northwest

Site # 2 - Eastern shoreline at the First Miami Presbyterian Church

SITE CONTEXT MAP



ONSITE IMAGE


Looking North at Eastern Shoreline of Presbyterian Church


Snook Islands, Lake Worth, FL, USA

Living Shoreline Projects in Palm Beach County


South Bryant Park, Lake Worth, FL, USA


Claydon Reserve, New South Wales, Australia