MIAMIDDA
DOWNTOWN DEVELOPMENT AUTHORITY

August 19, 2020

U.S. Army Corps of Engineers
803 Front Street
Norfolk, VA 23510-1096
ATTN: Susan L. Conner, Chief, Planning and Policy Branch

Dear Ms. Conner:

The Miami Downtown Development Authority (Miami DDA) is an independent agency of the City of Miami which represents the economic engine, cultural and recreational hub of South Florida. Emphasizing our regional significance, the market value of the properties in Downtown and adjacent neighborhoods is more than $39 billion, which represents close to 40 percent of the City of Miami's taxable property value. With a current population of more than 92,000 that is expected to exceed 110,000 by 2021, Downtown is growing at the rapid rate of 4 percent. Furthermore, our daytime population of more than 250,000 underscores the importance of protecting our built and human assets.

On behalf of the Board of the Miami Downtown DDA, we submit the following comments regarding the US Army Corps of Engineers' Miami-Dade Back Bay Coastal Storm Risk Management Feasibility Study, or "Back Bay" Study, and its most recent recommendations (June 5, 2020) to address storm surge in Greater Downtown. We believe these comments should be addressed in order to ensure strong and unconditional support from downtown stakeholders for the Feasibility Study, the Chief Engineer's Report, and the subsequent authorization and appropriation process with Congress.

- The TSP, or Tentatively Selected Plan, as proposed now, will have an overwhelmingly detrimental effect on the entire waterfront area of Miami DDA district, as well as greater Downtown and the County. A large floodwall running parallel to our waterfront could significantly lower property values, block views, damage the recreational boating, fishing and watersports economy, severely impact the existing coastal environment, exacerbate flooding from large storm events and rainfall, and have catastrophic effects on Miami's brand, image and tourism economy.
- The TSP's implementation of floodwalls south of the river would effectively end the Brickell Baywalk and render existing marinas obsolete.
    - The Brickell floodwall does not protect Brickell Key, which houses more than 5,000 people. Nor does it take into account the Brickell Key Bridge, which is the only ingress and egress for those residents, especially as an evacuation route during large storms.
- The TSP's implementation of floodwalls north of the river would significantly impede connectivity across Biscayne Boulevard from the Central Business District (CBD) to the waterfront parks like Maurice Ferré, Parcel B and Bayfront, as well as Bayside Marketplace and American Airlines Arena.

- Both floodwall proposals are contrary to long established public policy.
- Miami-Dade County is in process of developing a Waterfront Recreational Access Plan (WRAP) which is designed to encourage and facilitate public access to the county's waterways.
    - The floodwall planned for Brickell directly conflicts with the goals of that plan, and public access points for kayak and paddleboard launches will not be possible nor permitted.
- The implementation (and construction) of floodwalls would lead to the loss of marine and benthic life and habitat, which may be compounded over time as a result of wave reflection from the seawall and scouring.
- Due to our porous limestone bedrock, the TSP floodwalls could exacerbate flooding from Sea Level Rise (SLR) and negatively impact our stormwater system by altering existing drainage systems and watershed flow patterns. Heavy rainfall and runoff could be trapped behind floodwalls and the cutoff walls that prevent groundwater flows. Even normal stormwater runoff daylighting to the bay would get their discharge trapped behind the floodwalls exacerbating water quality problems in a reduced area.
- We have not observed that a floodwall solution is supported by anyone in the public.
    - Floodwalls were not a solution that was extensively discussed or vetted at the public input session held at the Miami Rowing Club in 2018.
    - Since that time, we have witnessed widespread opposition to floodwalls from our stakeholders and residents.
- The results of the 2019 ULI Advisory Services Panel Report on Waterfront Resilience (attached) do not appear to be incorporated. Significant public involvement was conducted during this process and the community indicated a strong preference for natural and hybrid approaches (breakwaters, living shorelines, etc).
    - The first recommendation of the study is to: "Embrace the legacy of the waterfront through design to protect from water, live with water, and create value from water." The downtown floodwalls do nothing to "create value"; rather, these monolithic and imposing structures will diminish value and tarnish Miami's waterfront forever.
    - Floodwalls are intrusive, basic and inflexible. They do not reflect upon or use any recent advances in engineering and floodplain management, specifically the Army Corps "engineering with nature" initiative.

Therefore, in lieu of a floodwall running parallel to Biscayne Blvd in the CBD and another floodwall in Biscayne Bay running parallel to the Baywalk in Brickell (and cutting off Brickell Key), we respectfully request that you instead design, engineer and implement a hybrid solution that includes nature-based features, such as breakwaters, living shorelines, nearshore artificial reefs and mangrove fringes in coastal areas, and elevated berms and bioswales in upland areas, with some smaller floodwalls as a layered and tiered defense. This alternative would also be flexible to future adaptations.

- Similar projects have a proven history of success in mitigating storm-driven fetch and dispersing wave energy, enhancing the long-term structural integrity and viability of gray infrastructure like flood gates and upland floodwalls, and increasing environmental and recreational amenities.
- These features should be evaluated as part of the NEPA/EIS process so that the environmental benefit of such features is thoroughly considered and vetted.
- The USACE's Engineering with Nature Strategic Report, provides that: "Shared visioning and steering of project design, planning, and construction have been successfully incorporated to identify, reduce, and mitigate potential barriers to progress and accelerate completion of projects." In tandem, structural and nature-based features will extend the life of the seawall, reduce storm impacts and restore some of our disappearing ecosystems.
- Specific examples of how these benefits can be achieved are provided in the attached

2019 ULI Advisory Services Panel Report on bolstering Miami's Urban Waterfront. The conceptual framework outlined in this study demonstrates different nature-based typologies that deal with the transition from coastal areas to upland infrastructure.

- We have included renderings/images as attachments depicting existing sites along Brickell, the Miami River and the Central Business District, what they would look like with the proposed floodwalls, and what they could look like instead with nature-based features such as breakwaters, living shorelines and mangrove fringes.
    - The layout of the nature and natural-based features depicted in the attached renderings have been designed with preliminary input, particularly in regards to navigational channels, vessel traffic, dredge sites, Florida Power & Light (FPL) mitigation areas, a GIS analysis, and recommendations from coastal engineers. A more thorough and in-depth analysis would be conducted during the next 90% design phase.
    - The breakwaters and upland improvements could be raised over time as sea level rises; i.e. so we could have different projects designed for 2030 and 2050/2060 projections. This will provide much more flexibility, and will allow a gradual phasing of changes so that physical upland adaptation is easier.
    - These renderings also demonstrate the effectiveness of a hybrid approach which incorporates (i) breakwaters and living shorelines to reduce wave heights and wave energy, and to protect the structural integrity of the existing seawall, as well as (ii) smaller upland retaining walls, (iii) landscape berms, (iv) revised FEMA flood zone designations and (v) dry floodproofing, to protect against severe hurricanes and large rainfall evets. When used together, all of these elements can achieve the desired level of flood protection in a much more sustainable way.
- The proposed Sector Gate at the mouth of the Miami River may hold merit as a needed infrastructural component for storm surge mitigation.
    - However, the associated Pump Station should not be located on either the historically and culturally significant Miami Circle Park, nor the nearby and much-utilized Brickell Park.
    - We recommend that any pump station infrastructure be located within the sector gate complex or underneath an existing bridge.
    - Elevated parks/green spaces could be considered in the places these structures are sited to mitigate the visual impact and create recreational space and improve property values.
- In general, the Back Bay Study should be more closely coordinated with the feasibility study examining reauthorization of the Miami-Dade County Beach Erosion Control and Hurricane Protection Project, and the Coastal Storm Risk Management (CSRM) Study for reauthorization of the Federal beach project in Miami-Dade.
    - If these studies are more closely coordinated in a substantive manner, they can result in recommendations which will better protect vulnerable areas and valuable property from damages associated with coastal storm surge.
    - The Back Bay study should also evaluate nearby Virginia Key and its value, as it is essentially the first line of defense and a barrier island which protects the downtown area.
    - The Back Bay Study should also be coordinated with the South Atlantic Coastal Study and the Miami Harbor Navigation Improvement Study to ensure a holistic approach and integrated solutions that comprehensively reflect all of the USACE's efforts in the area.
- The Feasibility Study should incorporate the recently completed Miami Baywalk/Riverwalk Waterfront Design Guidelines (attached) into the design of any coastal floodwalls and ensure that Natural and Nature-Based Features are included as part of the structural solution.
- The Feasibility Study should leverage public rights of way to the fullest extent possible so

that improvements to our streets are made in conjunction with the barriers (both nature-based and concrete) and can address sea level rise and sunny day flooding, as already experienced in our region.

- Upland of Biscayne Bay and the Miami River, implement non-structural measures to all buildings that are in lower elevations; elevating, wet or dry floodproofing and installing flood panels.
- The Feasibility Study should further investigate buyouts and retreat. Where possible, look at relocating structures and replacing them with elevated linear parks that can be inundated during heavy storm events, and percolate/drain over time. This will lead to real estate appreciation adjacent to new green/open spaces versus real estate depreciation behind walls.

Because the USACE Back Bay study is in essence an economic study, we urge you to seriously consider the severe detrimental economic impacts these floodwalls would have to Downtown Miami. The proper design and implementation of nature-based features, built in conjunction with needed flood gates, could have a major positive effect on both our economy and the environment, while protecting downtown's infrastructure, investments and human capital for years to come. This would significantly increase the BCR for the project and make it more likely to be authorized and receive appropriations. To the contrary, the devastating impact to property values and economic activity has not been adequately incorporated into the existing BCR, which as a result represents an artificially high level that will not withstand close scrutiny.

Finally, thank you for taking the time to understand our concerns. We know that Miami represents a growing urban area that involves complex challenges, however we are confident that the USACE will work collaboratively with our stakeholders to ensure infrastructure investments reflect the needs of our thriving population and help bolster our economic resilience long into the future. We look forward to working with you as you advance the Back Bay Study recommendations to construction. In the meantime, please do not hesitate to contact the Miami DDA with any questions.

Sincerely,

Commissioner Manolo Reyes
Chairman

Christina Crespi
Executive Director

cc: The Honorable Rick Scott, US Senator
The Honorable Marco Rubio, US Senator
The Honorable Debbie Wasserman Schultz, US Congresswoman, 23rd District of Florida
The Honorable Fredrica Wilson, US Congresswoman, 24th District of Florida
The Honorable Mario Diaz-Balart, US Congressman, 25th District of Florida
The Honorable Debbie Mucarsel-Powell, US Congresswoman, 26th District of Florida
The Honorable Donna Shalala, US Congresswoman, 27th District of Florida
The Honorable Carlos A. Gimenez, Mayor, Miami-Dade County

Attachments:
Renderings/images no. 1-11
The Urban Land Institute Advisory Services Panel Report: "Bolstering Our Urban Waterfront"
The Miami Baywalk/Riverwalk Waterfront Design Guidelines

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EXISTING CONDITIONS at Brickell Bay Drive


CURTIS + ROGERS DESIGN STUDIO

USACE BACKBAY TSP PROPOSED at Brickell Bay Drive

Rendering 1-close up

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EXISTING CONDITIONS at Brickell Bay Drive

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EXISTING CONDITIONS at Miami River


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EXISTING CONDITIONS at Miami River


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EXISTING CONDITION at Miami River

USACE BACKBAY TSP PROPOSED at Miami River

Rendering 7

EXISTING CONDITION at Miami River

NATURE-BASED I HYBRID ALTERNATIVE at Miami River

Rendering 8

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CUMMINS | CEDERBERG Coastal & Marine Engineering

CURTIS+ ROGERS DESIGN STUDIO INC.

EXISTING CONDITION at Bayfront Park

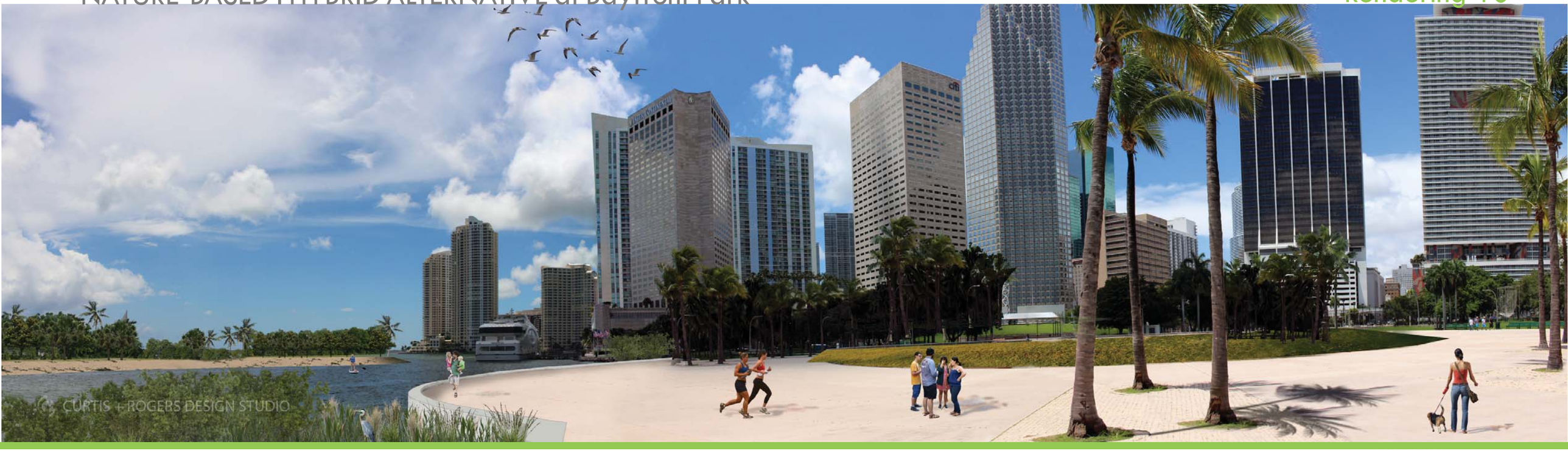
USACE BACKBAY TSP PROPOSED at Bayfront Park

Rendering 9

EXISTING CONDITIONS at Bayfront Park

NATURE-BASED I HYBRID ALTERNATIVE at Bayfront Park

Rendering 10



EXISTING CONDITIONS at Bayfront Park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