



On The WATERFRONT

MIAMI'S FIFTEEN MILE PROMENADE

Jacob Brillhart, principal author with contributions by Victor Santana and Brett Bibeau

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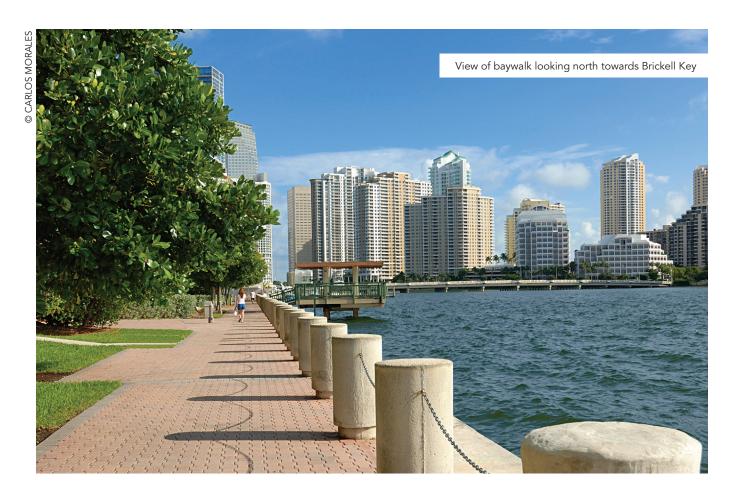
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On the Waterfront–Miami's Fifteen Mile Promenade is a publication intended to bring attention to a remarkable public resource awaiting realization.

ACKNOWLEDGEMENTS

Many hands and minds were involved in this project as it evolved from a student exhibition into a working tool and report for the City of Miami.

This publication grew out of the University of Miami School of Architecture's school-wide study of the Miami waterfront and represents the collective efforts and support of many people. We are grateful to Miami Dade College for hosting the student work exhibition at the Freedom Tower in downtown Miami; and to Victor Santana who responded to community interest in the implementation of some the projects and undertook an analysis of what remains to be done to complete the waterfront promenade. Victor was instrumental in the early stages of the exhibition and in cataloging, digitizing and archiving the student work. He also walked all 15 miles of shoreline with me, documenting current conditions; the photographic analysis would not be what it is without his efforts. In addition, special thanks goes to the graphic design team who assembled all the information, including Ivonne de la Paz, Aaron Aeschliman, Johnson Montoya, and

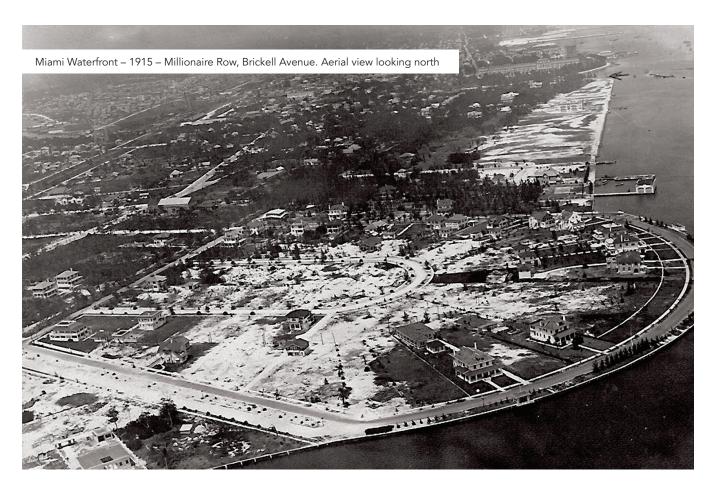
Natasha Alfonso, as well as to Megan Cambell and Monica Socorro. As a result of this collaboration, we are now able to present this expanded report.

To that end, we are also deeply grateful to South Florida Water Management District chairman, Eric Buermann; the Florida Inland Navigational District, Commissioner T. Spencer Crowely III; the Miami River Commission & Greenway Director Brett Bibeau; and especially to the Metropolitan Planning Office (MPO) for its enabling grant and David Henderson, the MPO Pedestrian Specialist.

I would also like to thank Melissa Brillhart for her invaluable support and advice. Special thanks go to Beth Dunlop for her writing and editorial expertise, and unmatched knowledge of the city. Beth helped make this report a reality.

Finally, thank you to Dean Elizabeth Plater-Zyberk for her overall vision of this project and for her steadfast dedication to improving the quality of life in our city.

—Jacob Brillhart





On The WATERFRONT

MIAMI'S FIFTEEN MILE PROMENADE

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Rebuilding the MIAMI WATERFRONT



Miami's waterfront has always played an important role in the development of the city and the region, intertwining public and private interests. From the earliest days of the Royal Palm Hotel with its vast front porch overlooking the water to the latest building boom, public access to the shore has been a civic endeavor. And it has always been a start-and-stop affair. Even today, the sporadic locations of public access prevent us from full enjoyment of what ought to be the city's most celebrated natural asset.

In 1979, thanks largely to the effort of Dan Paul, the attorney who fought tirelessly to protect the public waterfront, the City of Miami passed an ordinance requiring new buildings at the edge of Biscayne Bay to provide a paved and landscaped public walkway in a 50 foot public easement. Within a decade, this concept was extended to include the banks of the Miami River. This vision of a waterfront promenade has been slow to emerge, however, as it depends on an unpredictable sequence of public and private redevelopment initiatives to produce it.

Yet, in a glimpse of what could be, the most recent construction boom has brought to light the great potential of this sleeping vision. With the development of several prominent parcels on the bay and on the river, concomitant pieces of the promenade have appeared, showing that it can be done, and whetting the appetite for completion. There is even a plaza now at the termination of one street that used to be an unpaved dead end.



With the hope of assisting and even accelerating the realization of this vision, the University of Miami School of Architecture undertook a school-wide study of Miami's intended public waterfront. Seeking to explore design opportunities that may not yet have been considered, as well as to discover what impediments may lie in the way, some 350 students working with 30 faculty members proposed a variety of designs for seven miles of the shore of the bay and five miles of the river. Historical and on-site research informed a wealth of proposals for the promenade and buildings along it.

The students' projects offered an array of inventive scenarios, including the 'working' waterfront, the recreational waterfront, landings for a potential water taxi, and mangrove restoration. Several faculty coordinated a composite plan-an elegant long drawing that represents the collective work of many-conceptualizing a waterfront promenade as a continuous series of urban spaces reconnecting Biscayne Bay to the neighborhoods that border it. All the work was placed on exhibit at the Freedom Tower in October 2008, with drawings, photographs, and models presented to the public in conjunction with a panel of local leaders discussing the vision and opportunities.

The pages that follow are a sequel to that public viewing; an additional project taken on by School of Architecture faculty members Jacob Brillhart and Victor Santana, with the support of the Florida Inland Navigational District and the Florida Department of Transportation. This is a documentary analysis of

both the bayfront (between the Julia Tuttle and Rickenbacker Causeways) and the Miami River, showing the shoreline that remains to be redeveloped, and identifying and distinguishing likely levels of complexity related to impediments such as causeway entrances or complex land ownership. This work offers an important advancement of the students' work in an examination of the implementation issues that arose in the first design initiative.

The intent of this analysis is to bring to public attention that part of the vision that is already in place — over one-third of its total length — and to encourage government agencies, civic groups, and property owners to undertake the coordinated effort needed to complete what could become one of Miami's great civic places.

It is our fervent hope that this document will encourage acceleration of the needed improvements and help the Miami waterfront promenade emerge as the unique and grand public space that the city and indeed the region deserves.

> Elizabeth Plater-Zyberk, Dean University of Miami School of Architecture



MIAMI'S Urban Waterfront

PAST, PRESENT, FUTURE

BY JACOB BRILLHART

Miami is a water-based metropolis, sandwiched between the Everglades and Biscayne Bay, sliced by the Miami River, resting above a shallow aquifer, and drenched during rainy summer months. Water has shaped the city's way of life since the Teguesta Indians settled here more than one thousand years ago. The Atlantic Ocean and Biscayne Bay were instrumental in the transformation of Miami from a small subtropical town into a modern city, that growth propelled in part by the businesses and residences fronting the water's edge.

Miami boasts memorable landmarks born out of our water culture, including Stiltsville, the Marine Stadium, and the Seaquarium, among them. Jeanne-Claude and Christo's iconic 1983 Surrounding Islands Project celebrated the ways in which Miamians lived between land and water. And yet despite this historically deep cultural connection to water, there is, in reality, far too little of the waterfront actually accessible to the public. Even now the Marine Stadium sits idle along

the bay; Stiltsville is a relic, and only a handful of restaurants, public parks, and civic spaces grant public views of the crystal blue waters that help define Miami's national image.

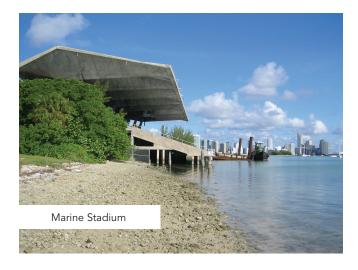
So how do we reconnect with our past to transform our future? How do we reclaim and recapitalize on our greatest natural asset? A number of American cities with urban waterfronts (including our own neighboring coastal cities) have embraced this challenge, in part as a response to the resurgence of urban life in downtowns. Chicago, New York, Boston, as well as Fort Lauderdale, West Palm Beach and Miami Beach have all invested heavily to restore and reinvent the public realm as it relates to public waterfront access. Largely, this work has been championed by local and civic-minded public officials (as well as planning and design professionals nationwide) who recognize that active waterfronts increase health and wellness, increase property values, generate economic growth and improve the urban quality of life.

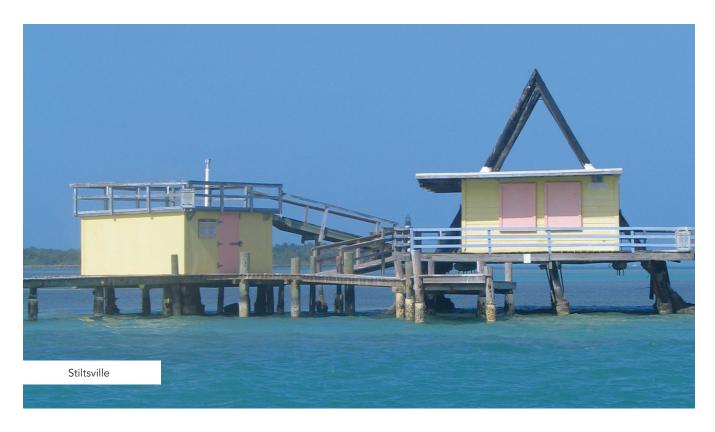
EARLY HISTORY OF THE SHORELINE

By 1896, Julia Tuttle recruited Henry Flagler to extend his Florida East Coast Railroad to Miami, ensuring industrial support to the backbreaking work of settling the mosquitoinfested tropics. With his involvement, the railroad arrived, and Miami was incorporated in 1896. Flagler would go on to build the Royal Palm Hotel and dredge the shallow Biscayne Bay from Cape Florida to Miami allowing for greater access to the Miami River. Three years later, to further encourage maritime trade and ferry passenger service in the city, Flagler teamed up with the Peninsular & Occidental, more commonly known as P&O Steamship Company, to build a new port on the shore of Biscayne Bay.

Flagler's infrastructural lifelines would literally pave the way to a century of residential and industrial growth along the water's edge. With the introduction of the port came progress, a real economy, and federal funding. A new 900-foot-wide channel, known as Government Cut, was dredged in 1902. This infrastructure project (which created spoil banks that would later become Dodge Island, Fisher Island and Lummus Island), meant that a portion of the city's most beautiful waterfront property would be given over to the port and its heavy machinery, industrial activity, and pollution — creating years of controversy and public questioning of where the port should be located.

Other venues developed along the bay, including the city's oldest yacht club, the Biscayne Bay Yacht Club, which for the first several decades of the twentieth century had a clubhouse downtown, and then in 1930 moved to a site along the Miami River before eventually settling in Coconut Grove. In those early years, Else Pier (an amusement destination), docks and fisheries appeared along the bayfront, all to be followed by more intense coastline development in later decades.





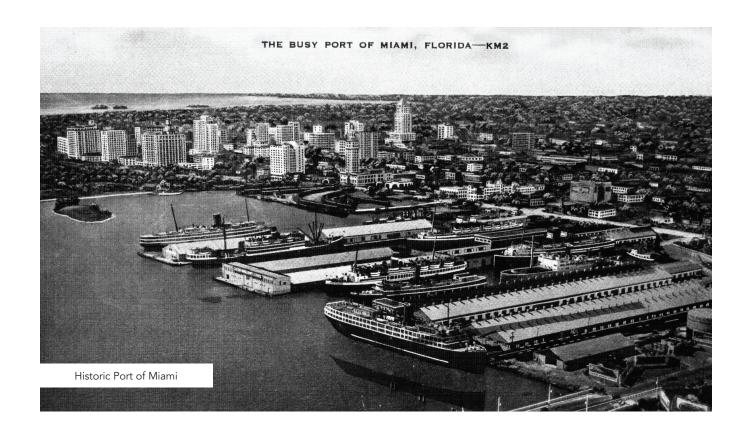
At the same time that Government Cut was dredged, the Intracoastal Waterway, which eventually was to run three thousand miles along America's Atlantic and Gulf Coast shorelines, was completed between Miami and St. Augustine. The full connection between Biscayne Bay and the larger network of waterways was finally realized in the 1930s. Chalk's Airline established its seaplane terminal on Watson Island along Government Cut in 1926. By 1934, Pan Am had built the nation's most sophisticated sea plane base at Dinner Key. The cruise ship industry was firmly established following the end of World War II, when the P&O Steamship Company resumed cruising to Havana, Nassau, the Dominican Republic, and the West Indies.

LATER GROWTH ALONG THE SHORELINE

Miami's bayfront port soon became outdated. At that time, many major American cities were building modern ports away from the city center, given the unsightliness, scale, and industrial nature of port complexes. In 1959, the city determined that its new port would be built along Government Cut on what was called Dodge Island, essentially the spoils bank left from previous dredging projects. This new port on Dodge Island opened in 1964, finally quelling a decadeslong controversy of where it belonged.

By 1965, what to do with the old port site, which was located in the heart of downtown, became a new focus of attention. At the same time the Brickell neighborhood long an enclave of large private houses — began experiencing new growth as apartment buildings began to transform the downtown skyline. In 1968, the Four Ambassadors Towers were erected, setting the precedent for the high rise financial and residential corridor of Brickell over the next forty years. A cyclical pattern of growth and decline would unfold, with Brickell development dipping in the 1980's and then returning again in the 1990's, to then be outdone by the great condo boom of the first decade of the Millennium. Expanding outward from Brickell and up and down the coastline, fifteen new high-rise condo towers would change the skyline along the Miami River as would another eighteen towers along Biscayne Bay. Since 1979, almost every new building built would include a section of the waterfront walkway, though, due to security concerns, access to the public waterfront was discouraged by a number of means including chain link fences.





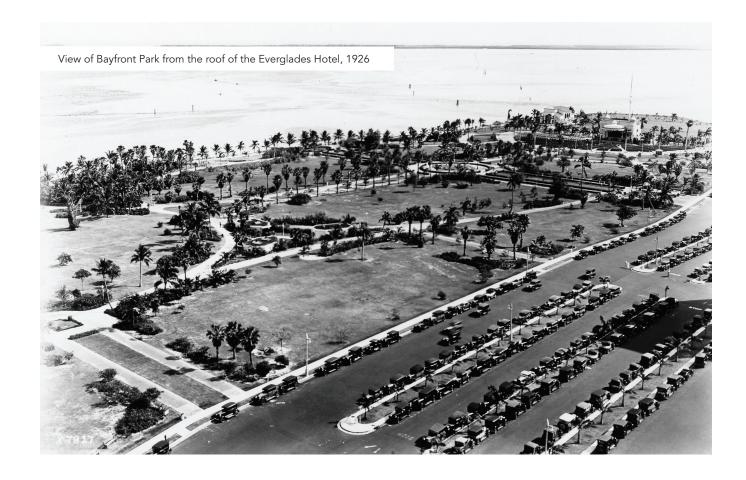
PLANNED PUBLIC SPACE ALONG THE WATER'S EDGE: BAYFRONT PARK AND BICENTENNIAL PARK

While industrial and residential development dominated Miami's downtown shoreline for more than a century, there have been two major downtown parks built along Biscayne Bay. The first was Bayfront Park, created in 1924. As the location of the port had sparked public controversy from the onset in 1922, in response to the city's need to balance recreational needs with infrastructural growth, the city purchased the strip of land that is Bayfront Park from Florida East Coast Railway and moved the port a few blocks north.

In 1924, Warren Henry Manning, a notable landscape architect who apprenticed under Fredrick Law Olmstead, was hired to design Bayfront Park. The intent was to create a public waterfront amenity at the terminus of Flagler Street and connect the city to the water's edge. The construction of a new seawall in the bay allowed for expansion. With extensive backfill, enough land was created to complete the park just one year later, becoming the city's most important civic space where major public gatherings took place, such as concerts, religious events and political appearances, including one famously made by Franklin D. Roosevelt in 1933, when a gunman attempted to assassinate the president-elect and succeeded instead in killing Chicago Mayor Anton Cermak.

The United States military forces occupied the park during World War II, constructing a series of hangar-like buildings that would later become a public auditorium when the war ended and the park was returned to the city. As the damaged park was restored, architect Harold McNeil designed a new band shell that opened in 1950 to glowing public reviews. Building in the park continued with the construction of a new public library (1951), which severed the visual link between Flagler Street and the water's edge. The library was demolished in the 1980s.

As South Florida growth spread into new suburbs (increasing dependence on the automobile) the conditions of Miami's downtown began to change. Like most American cities at that time, Miami's thoroughfares such as Biscayne Boulevard became auto-dominated, further separating Bayfront Park from the city center. Downtown civic life suffered. In 1964, in an attempt to re-energize downtown and reintegrate the waterfront back into the city's fabric, Mayor Robert High King hired Greek architect Constantinos Doxiadis to develop a waterfront plan. Echoing the infrastructure projects of that era, the design was tough and man-made. Little reference was made to the natural world. A formal and highly programmatic scheme, suppressing Biscayne Boulevard under a raised



concrete pedestrian plinth to reconnect Flagler with the water, sparked opposition from the public and environmental critics alike and eventually stalled. Though never put into effect, this plan nevertheless brought attention to the automobile's divisive effects on downtown and the city's relationship to the water.

Then in 1980, renowned sculptor and landscape architect Isamu Noguchi was hired to redesign Bayfront Park. Included in Noguchi's scheme were a central fountain, two new amphitheatres, and three sculptures, the Slide Mantra, the Challenger Memorial and the Light Tower. To carry out this plan and reconnect the water to the park, the library was demolished, thus re-establishing the central path of circulation and drawing upon the strength of Manning's initial concept in 1924.

In 1976, the city inaugurated its second major downtown bayfront park, naming it Bicentennial Park (now Museum Park), on the thirty-acre tract that had been the port. Designed by landscape architect Edward Durell Stone Jr., it was envisioned as passive park space. However — disconnected from major residential and commercial activity, without a selfpolicing general public, and with few programmatic reasons

to visit — Bicentennial Park never provided the utility needed to become a successful public amenity. Attempts to bring users to the park, including constructing a Metromover station there in 1994 failed; the transit service to the park was eventually halted because of public safety concerns over increased crime and general lack of use.

In February 2001, the city hired Dover, Kohl & Partners to lead a Bicentennial Park design charrette. Community residents, local stakeholders, and planning staff worked to create a shared vision for the site, which would result in three proposals outlining options for open space, mixed use, commercial development and the possibilities of a cultural center containing the Miami Art Museum and the Miami Science Museum. Subsequently, the New York firm Cooper Robertson and Partners produced the final master plan, which was officially approved in 2008. The park was renamed Museum Park; still the object of controversy. (Some felt the site should house the Marlins' baseball stadium; others hoped for lively recreational familyoriented activities; while others commented that situating museums in the park was anti-urban. Others worried about taxpayer dollars being used in a down economy.)

The two museums frame the new park. The new Miami Art Museum, designed by the Swiss architectural firm of Herzog and de Meuron, speaks directly to the seamless indoor/ outdoor nature of the sub-tropics. London-based Grimshaw and Partners designed the Miami Science Museum, a hightech, environmentally conscious building focused around a "living core" of aquatic exhibits. A plaza connecting the buildings and looking out onto the park is the design of the landscape team Arquitectonica Geo and James Corner of Field Operations.

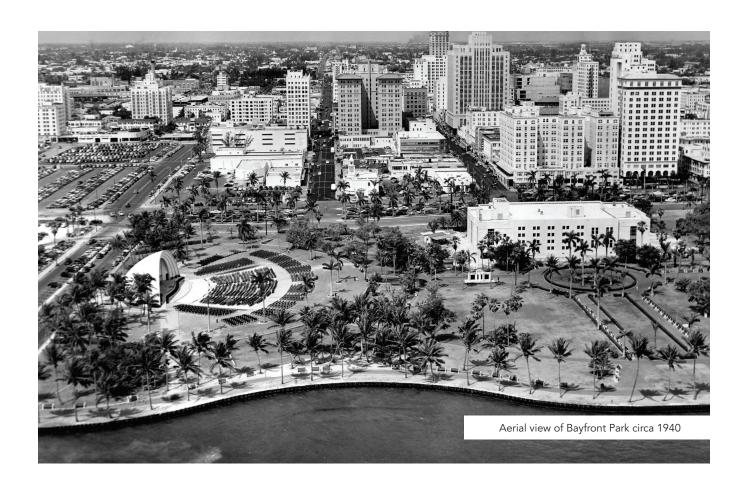
UP THE RIVER

While the Miami River arrives at the bay in the heart of Downtown, the riverfront's industrial character has made it less of a focus for public space. Now, with more than fifteen new high rise condominiums and apartments joining industry along the river's edge, new attention has been brought to the implementation of the Miami River Greenway, a riverwalk that already includes Lummus Park, Miami Circle Park and Jose Marti Park. Collectively, these moments of public space provide necessary recreational retreats for a growing residential population.

These most recent efforts to provide public waterfront amenities on the bay and the river draw upon the city-wide open space master plan developed by Boston firm Goody Clancy in 2007. This master plan underscores the city's need for more parks and public spaces, better access to Biscayne Bay and the Miami River, safer pedestrian and bike circulation, and the planting of additional trees to add more shade.

With a history of resident efforts, buoyed by the expectations of the populace, and reinforced by the requirements of the city's setback ordinance, one can hope for a future waterfront where a civic-based agenda prevails. The visionary roadmap that reconnects city life to the water has long existed, and its realization is within reach.

Bibliographical note: Two texts/articles informed this essay. Dr. Paul George's "Miami's Bayfront Park: A History" http://www.bayfrontparkmiami.com/pages/history/historyessay.html (September 24, 2012), and Arthur Chapman's "Watch the Port of Miami", Tequesta, No.53 (1953):81-96.







A Semester's EFFORT

ASSESSING THE POTENTIAL

In 2008, the University of Miami School of Architecture undertook an ambitious school-wide study of the Miami downtown waterfront, exploring future architectural possibilities for a largely inaccessible shore. More than three hundred fifty students and more than thirty faculty in thirty-three different design studios participated. Each studio offered proposals for better public access to the water's edge and designs to improve resident quality of life. The students' projects presented inventive solutions for both the working and the recreational waterfront, including landings for a potential water taxi, mangrove restoration, new parks, markets, cafes, libraries, housing, and entertainment. The students conceptualized a waterfront promenade as a continuous series of urban spaces that reconnects Biscayne Bay and the Miami River to the neighborhoods that border them.

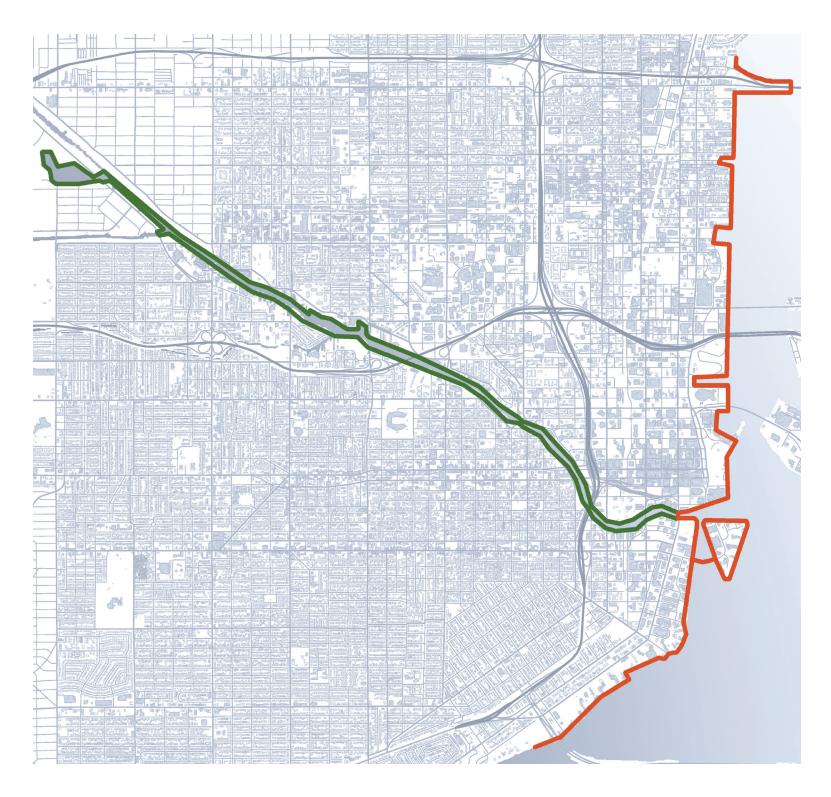
That work was placed on exhibit at the Freedom Tower in October 2008 with more than two hundred drawings, photographs and models presented to the public in conjunction with a panel of local leaders discussing the vision and the opportunities for their city.

Following that semester's study, select faculty members re-assembled the student work, taking the intellectual concepts and ideas to draw a continuous uninterrupted 9.5 mile bayfront promenade. The faculty drawing on pages 16 - 19 shows a range of ideas from realistic proposals for the promenade with landscape and paving to highly imaginative

public art installations and environmental restorations with new islands. This trajectory of ideas moves from the real to the ideal and in between are schemes of great variety showing new public spaces between existing buildings, as well as new building developments that facilitate public access to the water's edge.

The examples of student work on pages 20 and 21 similarly range from the real to the ideal. Schemes show new public spaces, new building developments, and site specific projects such as water taxi stations, floating walkways, fishing piers, boat launches, ampitheaters, and athletic fields. Other suggestions include tiered seating, shade trees, kayak launches, and manatee viewing spots.

One goal of this effort was to offer an opportunity to visualize true public access to the water through a completed and continuous promenade that seamlessly integrates the Baywalk and Riverwalk. While the original series of student projects included only the first mile of river banks, the analysis of current conditions that follows includes a longer section of the river. The Miami River Greenway Plan created by the Miami River Commission (MRC) has mapped out the 5.5-mile length of the Riverwalk. The greenway's route can be seen outlined in green on the facing page. The MRC promotes its fundraising, design and construction. The Baywalk, on the other hand, has neither an officially recognized plan nor an organization to promote its development.



 ${\bf Diagram\ showing\ extent\ of\ proposed\ Baywalk\ and\ Riverwalk}$

The 1979 amendment to the Miami City Charter, often known as the "Dan Paul" amendment after the late attorney who tirelessly campaigned to gain and preserve public access to Biscayne Bay, states that as new waterfront developments arise, they must be set back 50' to allow public right of way along the water's edge — ensuring that the waterfront will be de-privatized over the long-term, allowing access in front or behind newly constructed buildings. Thus, over the past two decades a number of pieces of the Baywalk have been put into play, though in piecemeal fashion.

In addition to presenting those sections that have recently been built, on-site research identified major obstacles and opportunities for the promenade. The text that begins on page 22 investigates ways to resolve existing waterfront impediments and implement future public amenities. It also addresses issues of feasibility so as to provide a scaffold for organizing and planning further discussion and development.

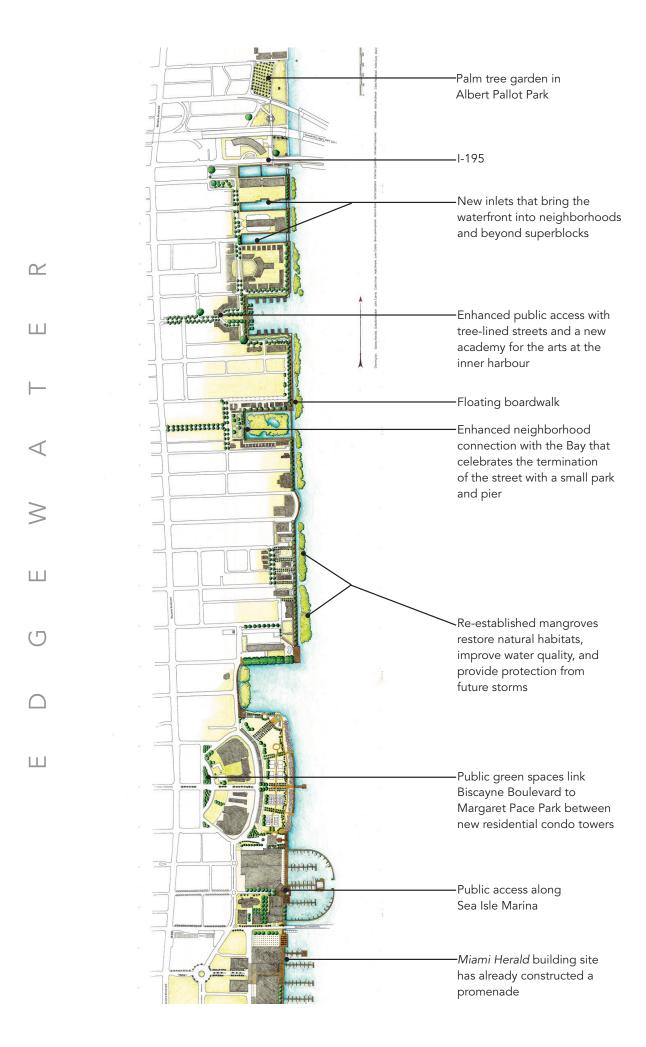
The Baywalk offers Miami an opportunity for true place-making, but only if careful attention is paid to the relationship between land and water, and each opportunity for public access and public activity is made specific to its place. The Baywalk could foster public health, economic growth and even tourism by unlocking locations for walking, fishing, boat rentals, manatee viewing, dining and shopping.

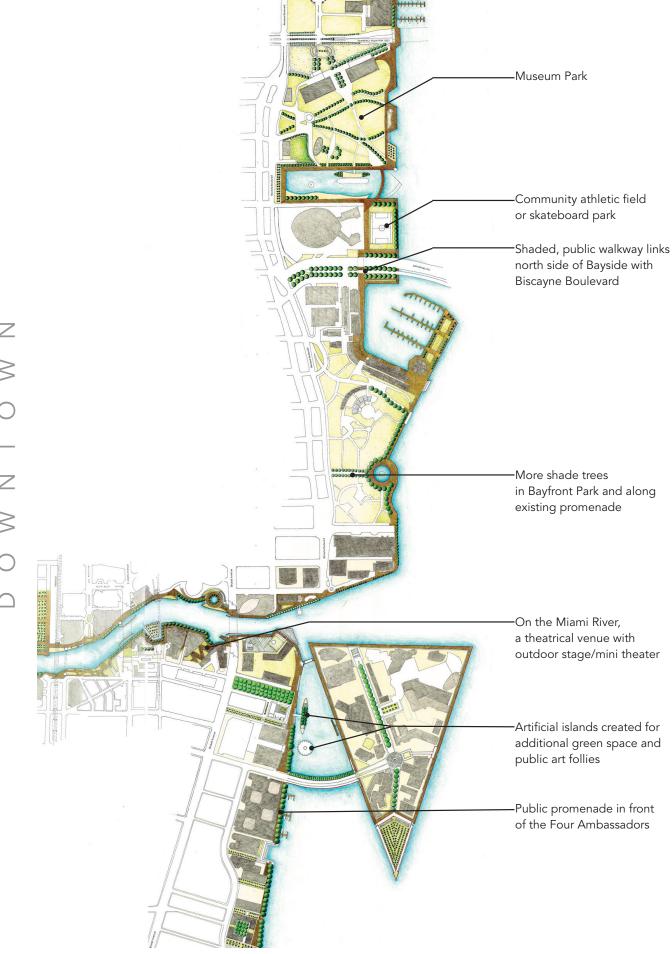
Completed, the Baywalk and Riverwalk will become an interconnected series of special places through the center of Miami that will not only increase property values but also spur economic growth and foster civic community activity. This research hopes to outline the Baywalk's possibilities, provoke and inspire public support, and encourage property owners and government agencies to realize its potential.

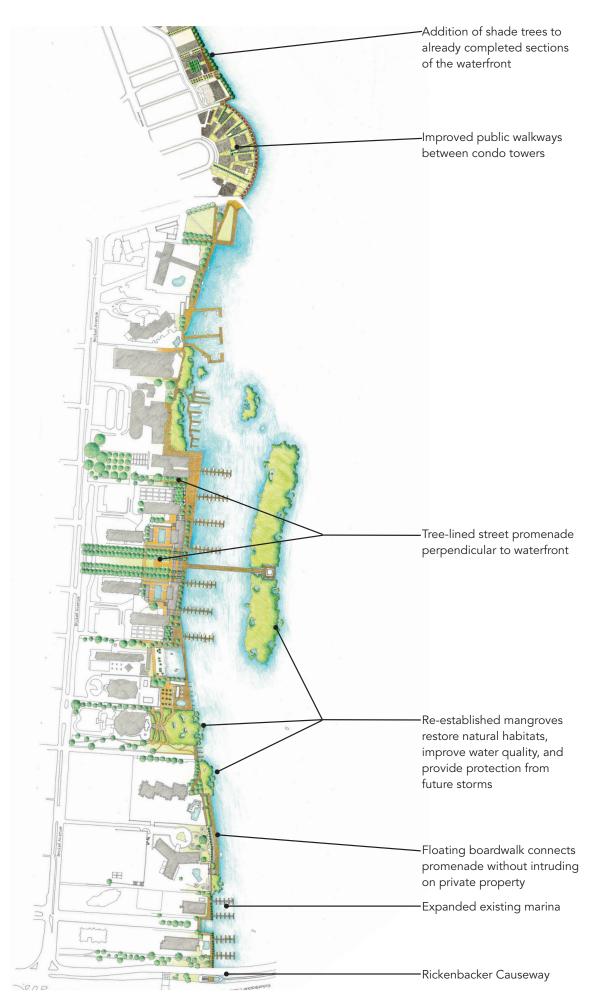
Studies have shown that certain kinds of urban interventions and urban design help foster a healthy lifestyle. The completed Baywalk with public, protected space for biking, walking, running, yoga and other forms of exercise could be explemplar in this respect. For most of the population, walking is the most accessible form of physical activity.

Optimally, the Baywalk and Riverwalk should have pedestrianfriendly streets and broad avenues leading to them and a mix of adjacent residential and commercial uses encouraging walkability. The role of the Baywalk and Riverwalk in linking neighborhoods, parks, and services is an important contributor to enhanced walkability, general health and well-being. With a strong Downtown job base and a growing number of residents, one can even imagine commuting to work on foot. And such a grand civic space will be an important contribution to fostering a sense of community.



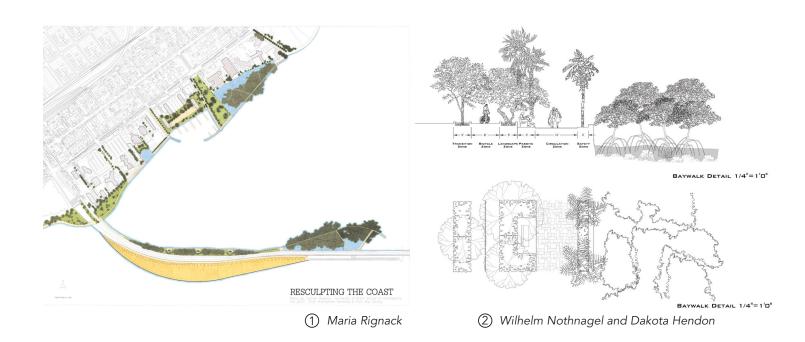






Positive VISIONS

SAMPLE OF STUDENT INTERPRETATIONS

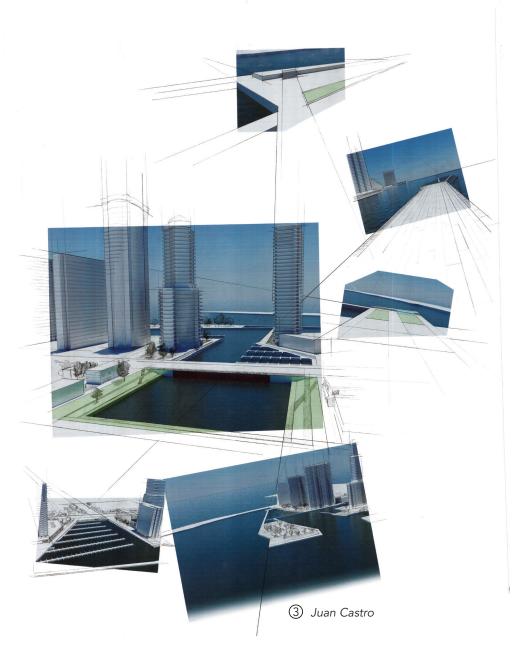


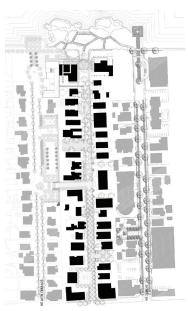
STUDENT PROPOSALS

The student drawings completed during the School-wide semester long focus on the waterfront range in approach from real to ideal, from practical proposals with specific dimensions for the promenade with landscape and paving to highly imaginative public art installations. Schemes of great variety showed new public spaces among existing buildings, new building developments that facilitate public access to the water's edge, and site specific projects such as water taxi stations.

Six student projects are shown here as a sample of a larger production. They include:

- 1. Re-establishment of mangroves at the water's edge and a natural buffer for hurricane flooding with a boardwalk
- 2. Detail of a pedestrian walkway and bike way along restored mangroves



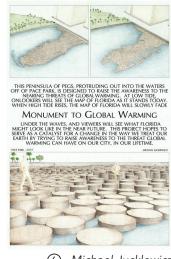


(4) Brendan Roy

- 3. These drawings suggest developing a compelling water's edge with small islands, pavilions, harbors, bridges and viewing platforms, all placed perspectively
- 4. Proposal to re-establish historic neighborhood scale, celebrating the termination of the street at the bay with a small park and a pier
- 5. An arched gateway at the shore of Margaret Pace Park terminates a green axis that begins at the historic Miami cemetery three blocks to the west
- 6. This public art proposal creates a map of Florida with concrete pylons at an elevation that shows a measure tidal rise and fall, storm flooding, and sea level rise



⑤ Guillermo Alfaro



6 Michael Jucklewicz



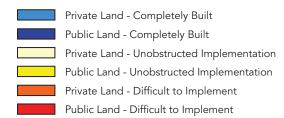
The CURRENT Conditions

FEASIBILITY

In total, the City of Miami has 18.5 miles miles of bay and river front. However, this study focuses on the more urban and public 15-mile stretch of Downtown waterfront. The Miami River Greenway has been mapped, planned, largely funded and is well under way. The Baywalk, on the other hand, is without plan: there is neither a vocal advocate nor a civic organization championing it.

Detailed research has been done to document the promenade's fragmented segments. That research — carried out by walking and documenting the entire urban bay frontage, plus both banks of the river, and carefully examining aerial images — identifies those portions that have been already completed and those that are easy (and not-so-easy) to build.

The photographs on the facing page provide examples to illustrate the work. There is a color key linked to an image that demonstrates a particular condition along the bay's edge. Each of these specific conditions identifies either the state of completion or the feasibility level of future construction of the walkway. The Google Earth images that accompany the close analysis also exhibit this color code to provide a photographic outline that shows the existing conditions along the bayfront and identifies the impediments to completing a fully accessible Baywalk.





PRIVATE LAND-COMPLETELY BUILT

Baywalk / Riverwalk — completely built — on private land Owned by an individual corporation or a condominium association.



PUBLIC LAND-COMPLETELY BUILT

Baywalk / Riverwalk — completely built — on public land Owned by the City of Miami, Miami Dade County, the State of Florida, or the US Government.



PRIVATE LAND-UNOBSTRUCTED IMPLEMENTATION

Baywalk / Riverwalk — not built — on privately owned land The current existing condition allows for unobstructed access and rudimentary construction and implementation procedures.



PUBLIC LAND-UNOBSTRUCTED IMPLEMENTATION

Baywalk / Riverwalk — not built — on public land The current existing condition allows for unobstructed access and rudimentary construction and implementation procedures.



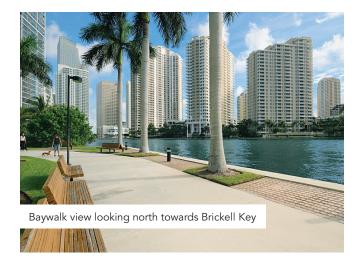
PRIVATE LAND-DIFFICULT TO IMPLEMENT

Baywalk / Riverwalk — not built — on privately owned land The condition presents obstructed access along the shoreline, requiring extensive design and construction procedures required for implementation.



PUBLIC LAND-DIFFICULT TO IMPLEMENT

Baywalk / Riverwalk — not built — on publically owned land The condition presents obstructed access along the shoreline, requiring extensive design and construction procedures for implementation.



The BAYFRONT

A WALK BY THE WATER

The following pages outline some of the great possibilities of the Baywalk with the intention of inspiring public support and encouraging government agencies to help realize its potential.

The research combines both empirical evidence gleaned from hands-on documentation and the more visionary scenario of what this promenade could be. This study has also assembled a range of programmatic ideas for the urban waterfront, prescribing a variety of hybrid solutions for a promenade to link disconnected neighborhoods and draw residents and visitors alike to the water's edge.

The promenade is envisioned as a new living walkway that integrates plant life, aquatic life, and urban human experience — a series of moments that would invite people to slow down, with episodes that engage the senses of sight, smell, touch, and sound. This linear park can be a place of respite and reflection upon the city's urban evolution and its historical and constant connection to the water.

While the following pages provide the roadmap for physical connections, the goal of a vibrant waterfront should include larger interventions. Among the possibilities are: floating walkways along the Edgewater and Brickell shorelines; inlets of water or palm courts that terminate the vistas of primary streets; restored mangroves; small artificial islands with green space and public art follies; an athletic field or skate park (in the space available behind the American Airlines Arena); fishing piers; water taxi locations; boat launches; lookouts and observation points; pavilions for commercial use; bridged walkways; vertical circulation connecting bridges with the lower riverwalk below; mixed-use marinas large enough to accommodate mega yachts; media stations; outdoor movie theaters; and much more.

Meanwhile, the simple integration of basic instruments-hardscapes, asphalt, concrete, permeable pavers, wood and pea stone, thoughtful and well-connected pedestrian crossings, wayfinding signage, lighting, a range of landscaping, street furniture, bike racks, dog runs and parks, public art, pop-up cafes and food trucks (which would necessitate access), and internet hot spots — can all contribute to making this an active public space.

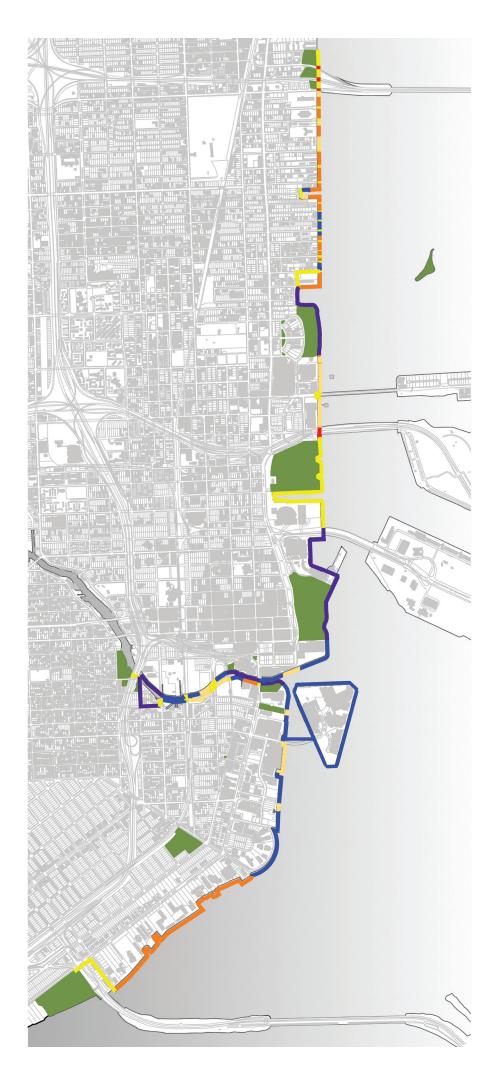
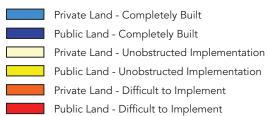
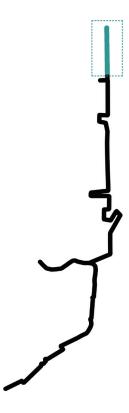


Diagram of the current conditions of the Bayfront



EDGEWATER

Albert Pallot Park to Northeast 31st Street



The Baywalk begins in Albert Pallot Park and Martel Park just north of the Julia Tuttle Causeway (I-195) between Northeast 38^{th} and 39^{th} Streets. There is low or no head clearance under the span and exit ramps of the causeway, which means pedestrian crossing is a challenge. To accommodate this, the Baywalk would skirt the perimeter of the causeway, slip under the first large span, and return back towards the shore on the south side.

Immediately south of the causeway are large condominium buildings including The Charter Club on the Bay, Hamilton on the Bay, Bay Park Towers, and Bay View Tower. These present a challenge for continued access along the water's edge. Pool decks, parking garages, and tennis courts do not allow enough space along the water's edge to construct a land based Baywalk. In addition, residents of structures pre-dating public access ordinances may not be eager to dedicate land to public access. To respond to these issues, a series of floating walkways or peer-supported docks could run parallel to the seawall in the water.



Private Land - Completely Built Public Land - Completely Built Private Land - Unobstructed Implementation Public Land - Unobstructed Implementation Private Land - Difficult to Implement Public Land - Difficult to Implement



1 View south from Albert Pallot Park



2 View south from NE 35th Street



3 View south from NE 34th Street



4 View north from NE 31st Street

Private Land - Completely Built Public Land - Completely Built Private Land - Unobstructed Implementation Public Land - Unobstructed Implementation Private Land - Difficult to Implement Public Land - Difficult to Implement



1 View north from NE 27th Street



2 View north from NE 26th Terrace



3 View south from NE 26th Terrace

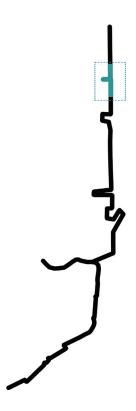


4 View south from NE 23rd Terrace



EDGEWATER

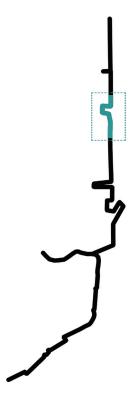
Northeast 31st Street to Northeast 23rd Terrace



The Baywalk confronts similar difficulties at a number of points between NE 30th Street and NE 26th Terrace. Pool decks, private back yards, and low-rise apartment buildings close to the sea wall prevent a possible land-based Baywalk. However four sections of the Baywalk recently have been built: in front of Moon Bay on NE 29th Street, Electra on the Bay at NE 26th Street, Onyx at 665 NE 25th Street, and in front of Star Lofts at 700 NE 25th Street. These new stretches of Baywalk range from four feet to eight feet wide and are surfaced with concrete and brick pavers. In all of these new residential high rise locations the seawall has been repaired and landscaping and lighting have been installed. Unfortunately though, the narrow width of the walkway does not leave enough room for benches, instead only accommodating walking traffic or a single bicycle lane.

EDGEWATER

Northeast 23rd Terrace through Margaret Pace Park



In this section of Edgewater, Biscayne 21 Condominium, located on the inlet just south of NE 22nd Street, presents a major hurdle. Its private swimming pool and parking lot sit at the bay's edge, thus obstructing a land-based public walkway. One option for circumnavigating Biscayne 21 is to construct an inland access path west along Northeast 22nd Street then turning south on the eastern side of North Bayshore Drive in front of Paramount Bay. Just south of Paramount Bay, the sidewalk should be widened to create a better connection to Margaret Pace Park.

The Baywalk is currently complete through Margaret Pace Park with a five-foot-wide concrete and brick paved pathway along the perimeter with benches and limited landscaping. The park is bisected by a central path that directly connects to Northeast 18th Street — to the north is open space and to the south is a playground for children, a basketball court, volleyball courts and tennis courts.



Private Land - Completely Built Public Land - Completely Built Private Land - Unobstructed Implementation Public Land - Unobstructed Implementation Private Land - Difficult to Implement Public Land - Difficult to Implement



1 View south from NE 23rd Street



2 View south from NE 22nd Street



③ View northeast from NE 21st Street



4 View southeast from NE 21st Street





1 View north from The Venetian Causeway



2 View south from The Venetian Causeway



3 View south from The Venetian Causeway (Miami Herald on right)

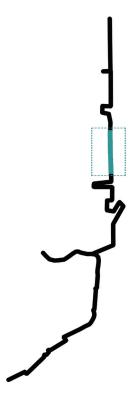


4 View north at I-395



SOUTH EDGEWATER

Omni, Northeast 17th Terrace to The MacArthur Causeway (I-395)



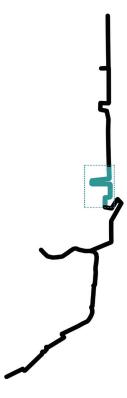
Just south of Margaret Pace Park is the historic Miami Women's Club. The building is set back from the bay, allowing for a Baywalk link to be constructed up to the Sea Isle Marina at Northeast 16th Street. Sea Island Marina fronts the Doubletree Grand Hotel, Marriott Hotel, and 555 Venetia Condominium. This complex currently has a bayfront walkway; however its access has been kept private and is secured for hotel and marina use only.

Immediately south is the Venetian Causeway where a safe pedestrian crossing could be implemented with a traffic light or a pedestrian bridge. There is a walkway in front of The Miami Herald, but it is not publicly accessible; however, conditions will change here with the recent property sale. Its redevelopment provides a major opportunity for the private sector to make a major contribution to the public realm.

The passage under the MacArthur Causeway (I-395) is one of the most complex and problematic of the un-built sections of the Baywalk. A walkway built out over the water under I-395 some distance from the seawall to achieve headroom is required to provide the link to Museum Park.

MUSEUM PARK AND THE AMERICAN AIRLINES ARENA

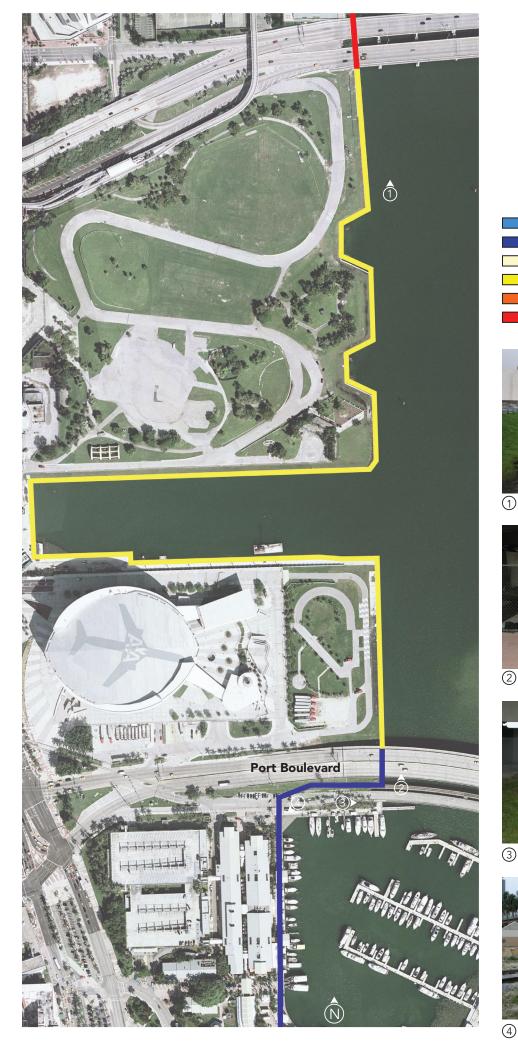
I-95 to Port Boulevard



The Baywalk is part of the Museum Park master plan by Cooper, Robertson & Partners. The plan positions the Miami Art Museum (MAM) designed by Herzog & de Meuron and the Miami Science Museum by Grimshaw Architects on the northern side of the park. The Miami Science Museum anchors this cultural complex to the city with its proximity to Biscayne Boulevard while MAM engages the water with a large front porch that overlooks the bay. Planned in the center of the park is a great lawn for large public events and civic gatherings. On the southern side of the park, a more densely programmatic plan includes restaurants, public bathrooms, bamboo gardens, a children's garden, pavilions, and event spaces while the Baywalk lines the entire perimeter.

To the south of the park sits the American Airlines Arena, home to the NBA basketball team, the Miami Heat, and host to concerts and other large audience events. Though the north and east coastlines abutting the American Airlines Arena are accessible, the Baywalk has not yet been built there. This edge requires lighting, benches and shade trees. The boat slip between the park and the arena requires a seawall to enable the connection for the promenade.

A crossing under Port Boulevard exists, merely requiring the removal of fencing to function as intended.





1 View north at I-396 in Museum Park



2 View north under Port Boulevard



3 View east along and under Port Boulevard



4 View south across Port RR line towards Bayfront



1 View east in Bayside Marketplace



2 View south leaving Bayside



3 View north towards Bayside

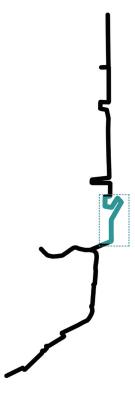


4 View south from Bayfront Park



BAYFRONT PARK

Bayside Marketplace to the Mouth of the Miami River



While the promenade is complete in this area, some functional enhancements are required. Pedestrians can walk south through Bayside Marketplace along the water. However pedestrian safety needs to be addressed behind Bayside Marketplace and the Hard Rock Café where there is currently a loading zone for large trucks and cars; pedestrians are required to cross parking lots and asphalt to rejoin the Baywalk in Bayfront Park.

This precinct between the Port Bridge and Bayfront Park could be improved with a pedestrian way-finding system that includes clear signage and dedicated lanes separating bicyclists, runners, and pedestrians. Bikes and faster moving pedestrians need a route that leads around Bayside Marketplace, possibly along Biscayne Boulevard, and then turns back to the shore at Bayfront Park.

Bayfront Park provides public access to the bay linking to the Baywalk in front of the Intercontinental Hotel. Turning southwest into the mouth of the Miami River, One Miami Condominium has fully built out a 14 foot wide section of Baywalk with permanent public art installations, multi-colored pavers and tiles, a new seawall, extensive landscaping, benches, and overhead and surfaced mounted path lighting.

BRICKELL

North Brickell



The Baywalk turns west to run along the north side of the Miami River to the Brickell Bridge. At the time of this writing, clear passage is interrupted by the Epic Condominium Sales Center. The connection needs to be made from One Miami and the Brickell Bridge with both a walkway and stairways (even an elevator for those unable to navigate stairs) to climb to the top of the bridge and cross the river. Bicyclists again might need a separate path marked clearly with a way finding system. The stairways on each end of Brickell Bridge would directly connect the Baywalk to the elevated bridge deck and allow for continuous north-south access.

On the south side of the Miami River, the Baywalk continues around the Miami Circle Park and links to Icon Brickell's completed walkway, a meandering path of colored brick pavers that is furnished with benches and lighted at night. The Baywalk then turns the corner south to a small and accessible, yet incomplete, stretch behind the First Presbyterian Church that requires simply turning a patch of grass into a paved walkway.

Heading south, the sections in front of the Bank of America building at 701 Brickell Avenue and the Sun Trust parking garage along Brickell Key Drive are completed as are the sidewalk connections on the bridge to Brickell Key. The section in front of the Four Ambassadors Hotel was built in the 1970's and serves a private marina. This segment of the Baywalk should be refurbished with landscaping, seating and lighting, and opened to the public.





1 View south from Brickell Park



2 View across SE 8th Street



3 View south in front of the Four Ambassadors



4 View west along the Four Ambassadors



1 View north towards the Four Ambassadors



2 View south at SE 12th Street



③ View north at SE 13th Street



4 View south at Brickell Bay Drive & SE 15th Road



BRICKELL

Southeast 10th Street to Southeast 15th Road



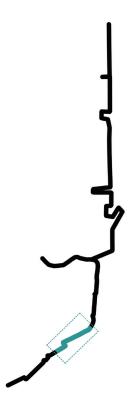
South of the Four Ambassadors complex, the Baywalk is nearly complete all the way to Southeast 15th Road. These sections have been built individually over time with each property's development. This incremental construction resulted in an assortment of pavers, surface patterns, seawall conditions and landscaping elements, making the pedestrian experience all the more dynamic.

One section that still needs to be constructed is on a privately owned vacant tract between Southeast 12th and 13th Streets. This lot has a new seawall and no major obstructions to future Baywalk construction.

Further south along Brickell Bay Drive, one of few streets fronting Biscayne Bay, the Baywalk is part of the streetscape with a five-foot wide concrete sidewalk with landscaping, lighting, and two pieces of public art. Lining this walkway is street parking for local residents and a nautically themed chain railing running along the water.

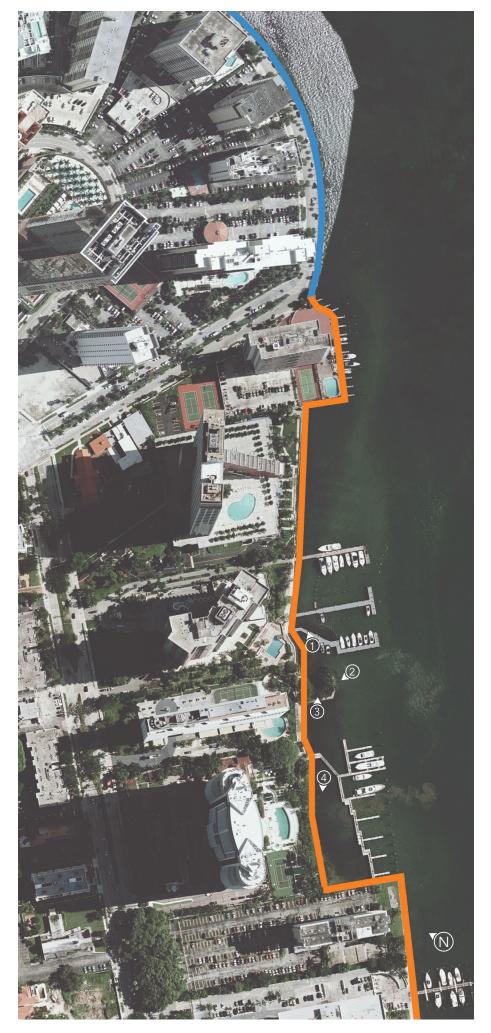
SOUTH BRICKELL

Southeast 15th Road to Santa Maria Brickell Condominium, 1643 Brickell



Public access to the shoreline along the southern end of Brickell is non-existent as the bayfront has been effectively privatized by fourteen consecutive condominium complexes. Many of these properties have extensive docks and waterfront infrastructure that could be modified to accommodate public access running along the water's edge. Some, like the Palace, near 15th Road, were developed with the requisite walkway, but even these remain separated by fences. Here, waterfront docks and walkways are packed with private amenities that include small marinas, swimming pools, and tennis courts. To skirt these conditions a new cantilevered or floating walkway would be the most viable option, thus allowing the existing shoreline and private amenities to remain.

Building the Baywalk here is a challenge that will require a special effort, a public-private partnership and significant investment in infrastructure including the separated walkway. The existence of a natural shoreline, however, suggests the opportunity for environmental recovery, including mangrove restoration through which a boardwalk could be threaded.





1 View looking north from the Imperial



2 View looking west at Santa Maria Condo



3 View looking north in front of the Imperial



4 View looking south from the Imperial



1 View north from Brickell Place



2 View south from Brickell Place



3 View west of the Atlantis

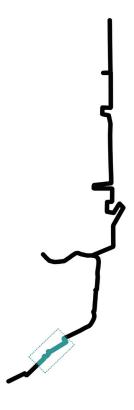


4 View south from the Atlantis



SOUTH BRICKELL

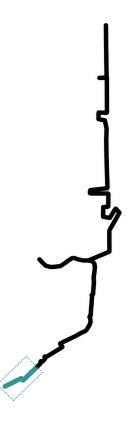
Brickell Place (Southeast 16th Street) to Brickell Bay Club, 2333 Brickell



The construction of a Baywalk along this section of Brickell is even more complicated due to the shoreline's inconsistent character. Some properties contain seawalls, others do not. There are marinas, decks cantilevered into the bay and more. The five-tower complex of Brickell Place actually has a walkway along its entire 1200 feet of water frontage as well as a marina. The walkway remains private. The Atlantis and Bristol Tower both have a natural edge and thus would require an offshore walkway. The Skyline, which was completed in 2004, was allowed to build a two hundred foot-wide platform over the bay with a tennis court, pool and marina, thus requiring the future offshore walkway to make a steep detour into the bay. Likewise, Brickell Mar has a cantilevered deck containing a pool and small marina over the water. The Brickell Bay Club has a seawall and walkway abutting a pool and tennis courts set back only twenty feet from the water's edge. Here again, a floating walkway or offshore boardwalk coupled with mangrove restoration may be the best solution.

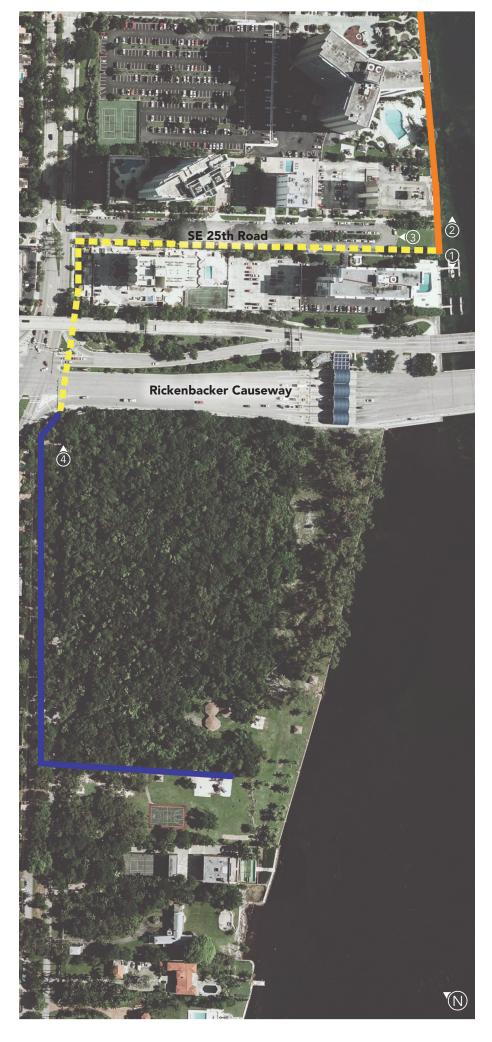
SOUTH BRICKELL

Southeast 25th Road to Alice Wainwright Park



In this southernmost section, the shore is a seawall with private walkways, running 560' from in front of the Brickell Townhomes to Southeast 25th Road. This manmade edge abuts pool decks of the Brickell Townhomes and 175 Southeast 25th Road restricting public passage, requiring an offshore boardwalk.

Due to the low clearance under the Rickenbacker Causeway that makes access underneath impossible, an alternative route is suggested to run west on Southeast 25th Street and then south on Brickell, crossing the Rickenbacker Causeway at grade, and entering Alice Wainwright Park along old Brickell Avenue.





① View towards Rickenbacker Causeway



2 View north at SE 25th Road



③ View west of SE 25th Road



4 View north from Alice Wainwright Park





The Miami River flows from the Florida Everglades through Miami's city center and into Biscayne Bay. First settled by the Tequesta Indians 2000 years ago, the banks of the river have long been a nexus of trade and commerce. Although it still is home to shipping and cargo terminals, boatyards, fisheries, and commercial marinas, in recent years, both sides of the river have gentrified with high rise apartments, hotels, offices and corresponding uses such as restaurants, bringing a new street life to the Downtown and Brickell areas.

The City of Miami and Miami Dade County are jointly implementing the Miami River Greenway, a public walkway that intermittently weaves in and out of city streets along the banks of the Miami River. The Riverwalk is intended to contribute to a pedestrian-friendly way of life for the residents of Miami, uniting diverse neighborhoods and providing public access to one of the city's most historic assets.

The Miami River Commission (MRC), established in 1998 by the Florida Legislature, is charged with implementing the Miami River Greenway Action Plan and coordinates planning and construction of the Greenway. The plan — adopted in 2001 by the City of Miami and Miami Dade County has successfully guided 3.25 miles of built Greenway, with two more miles currently under construction and fully funded, leaving 4.75 miles that still need funding, plans, and construction.

The plan focuses on providing safe, scenic, mixed-use public walkways for pedestrians and bicyclists. Recent improvements include landscaping, benches, street and walkway lighting, way-finding signage, historic markers, informational kiosks, and decorative trash receptacles.

The plan identifies three distinct segments of the river lower, middle and upper characterized by differing use mixes.

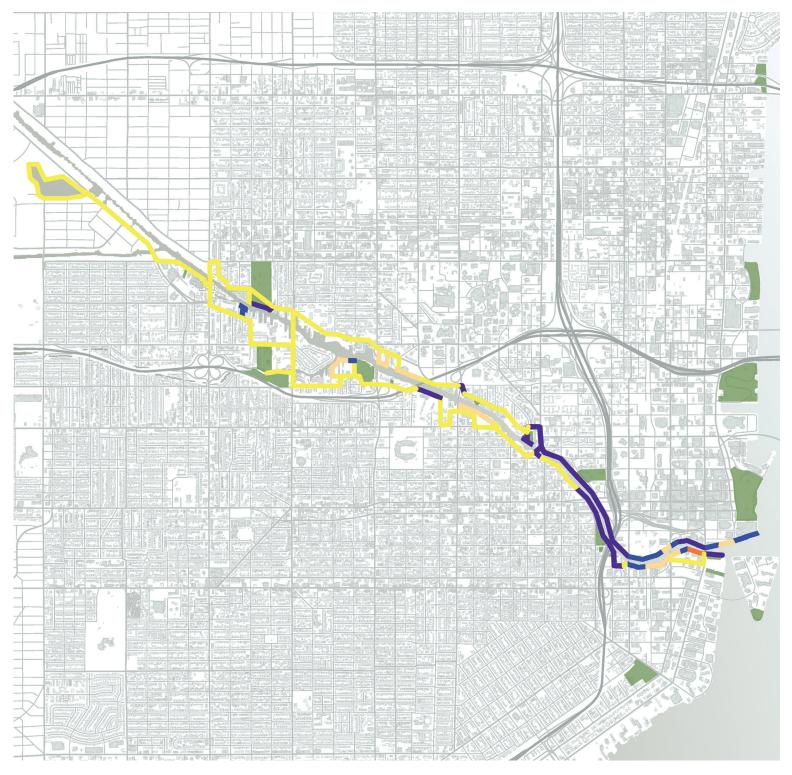
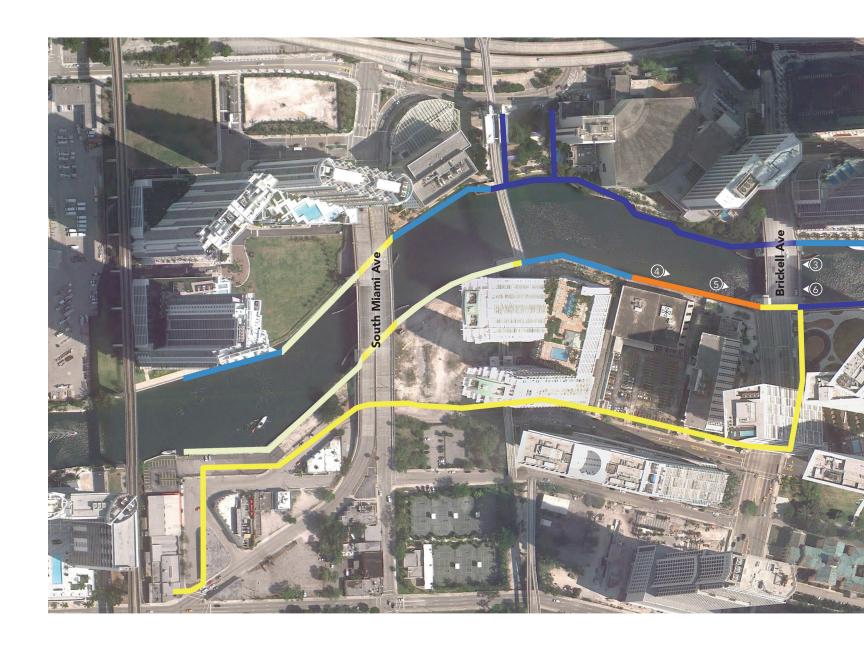


Diagram of the current conditions of the Riverfront







1 View west along the river at Biscayne Boulevard Way



View west along the river under Brickell Bridge



3 View west from Miami Circle (Brickell Bridge)

LOWER RIVER





The Miami River Greenway begins just east of the Brickell Bridge at the mouth of the Miami River. At the Brickell Bridge, to connect the north and south banks of the river to the Riverwalk, the addition of stairs on both sides would improve access. The walkway exists on the north side. The Miami Parking Authority has completed construction documents to build the greenway at the southern bridge abutment of the Brickell Bridge. The next adjacent section on the south side at the existing Rivergate Plaza requires walkway completion.

Just west is the United States Customs facility with fenced-off public access along the river. There is a walkway that can be refurbished with new railings, lights and landscaping and opened to the public.

For the south bank west of Brickell, just under seven hundred linear feet of Riverwalk remain to be completed to fill the gap up to Neo Vertika on SW 1st Avenue. On the northern bank of the river, a large portion of the walkway exists. The missing pieces lie in front of the phase two towers of the developments Wind and Epic.





(4) View east (US Customs at right)



(5) View east from parking garage at Brickell Bridge



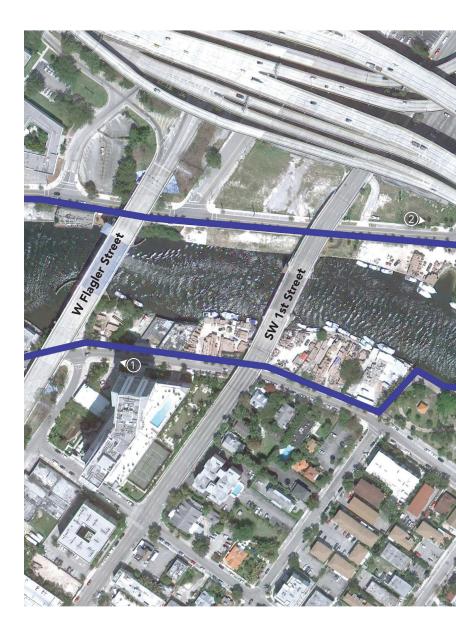
6 View through Brickell Bridge (access possible)

This section of the river is lined with a variety of mixed use developments. The high-rise apartment buildings, Neo Vertika and Latitude, provide a block-long promenade on the south bank between SW 1st and 2nd Avenues. City of Miami Riverside Center and the Florida Power and Light Electrical Substation anchor the northern bank, I-95 spans overhead and the walkway continues along North River Drive.

Construction documents have been completed and funding has been procured to construct both north and south shore sections of the Greenway under the Metrorail as well as along the south bank west of Latitude to make the connection under the Northwest Second Avenue Bridge.

The section under the elevated span of I-95 has been completed on the south, linking Finnegan's on the River with Jose Marti Park. West of I-95 the northern bank has been completed up to Lummus Park at NW 3^{rd} Street, and the southern bank, up to NW 1^{st} Street, running along South River Drive.







(1) View northwest towards W Flagler Street Bridge

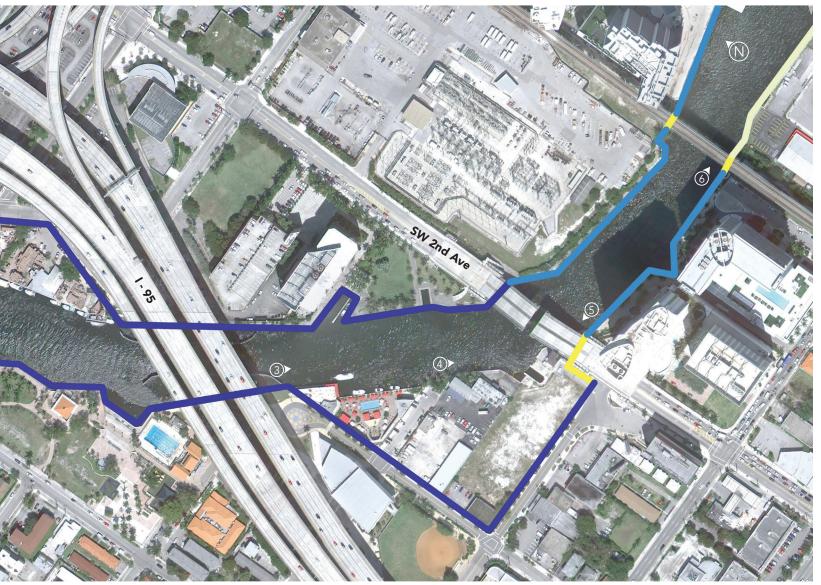


(2) View southeast towards I-95



(3) View east from José Martí Park







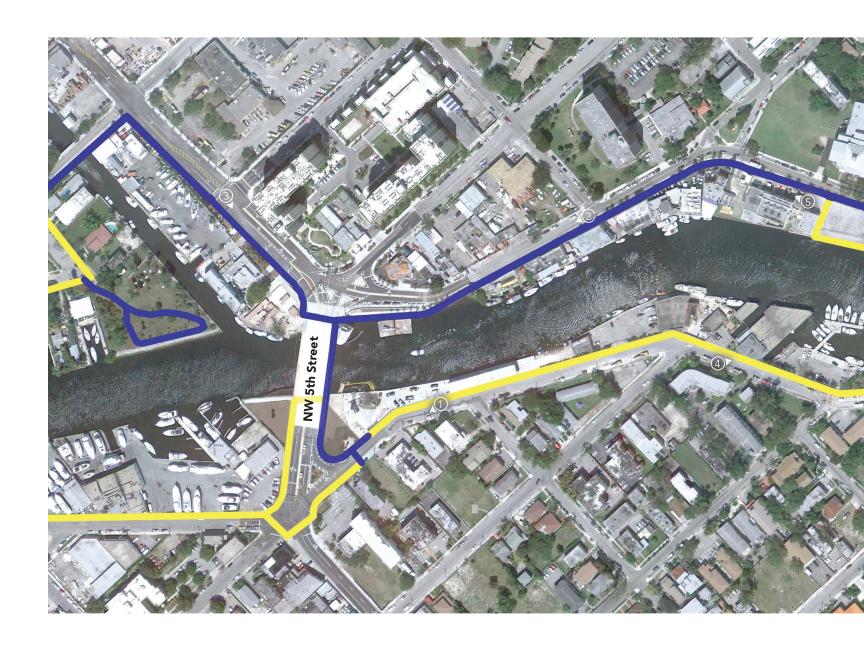
(4) View east between SW 5th & 6th St (2nd Avenue Bridge)



(5) View west under 2nd Avenue Bridge



(6) View east under Metrorail at SW 1st Court





1 View northwest towards NW 5th Street Bridge

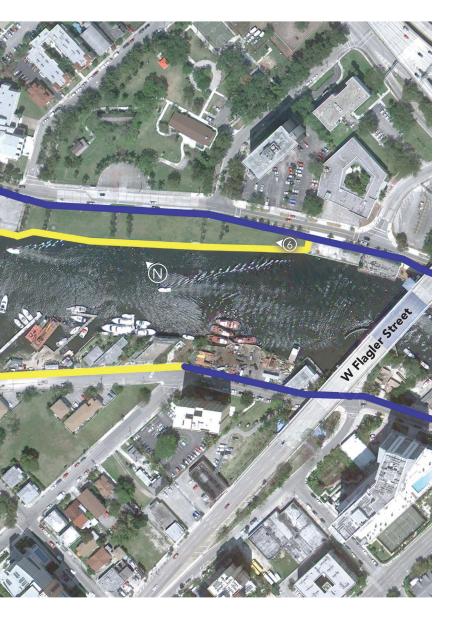


2 View northwest towards NW 5th Street Bridge



③ View southeast along NW North River Drive

LOWER RIVER WEST FLAGLER STREET TO POINT PARK (SPRING GARDEN)



This stretch of the Greenway is considered its historic epicenter, with Lummus Park, home to the 1856 Wagner Homestead, the oldest house still standing in Miami Dade County, and Fort Dallas, built in 1844. The section of the Greenway just west of Lummus Park on NW North River Drive, behind the Miami Dade County Pump Station, Garcia's Seafood Grille & Fish Market, and Casablanca Seafood Bar & Grill, has full funding and engineering documents as of this writing.

On the south, the Greenway runs along South River Drive behind commercial buildings that include fisheries, Manny Seafood Corporation, P & L Marine Towing, International Yacht Group, and the 5th Street Marina. The recently rebuilt Northwest Fifth Street Bridge caps off the "Lower River" section of the Greenway.

West of the Northwest Fifth Street Bridge, the Greenway runs along NW South River Drive in back of Norsemans Shipbuilding Company and Las Americas Marine and is to be constructed by the City of Miami in 2012.

On the north bank of the river the Greenway will cross Northwest North River Drive to Northwest Seventh Avenue behind Campeones Boatyard and continue over the Seybold Canal Bridge (Northwest Seventh Street) to reach Spring Garden's Point Park.





(4) View southeast along SW South River Drive



(5) View northwest of Garcia's Seafood & Fish Market



(6) View of Lummus Park

This part of the river is dominated by the low density historic neighborhood of Spring Garden to the north and Little Havana's industrial/marine district to the south. Spring Garden's numerous private riverfront residences required the Greenway, completed in December 2011, to be routed inland along NW North River Drive.

On the South bank, the Greenway is to run along South River Drive, behind Haiti Shipping Lines, up to a large vacant lot (a project called Rio Miami has received city approval on this site) where the Greenway will either continue to run along the street or will go north to the river's edge up to the NW 12th Avenue Bridge.







1 View south along NW 12th Avenue Bridge



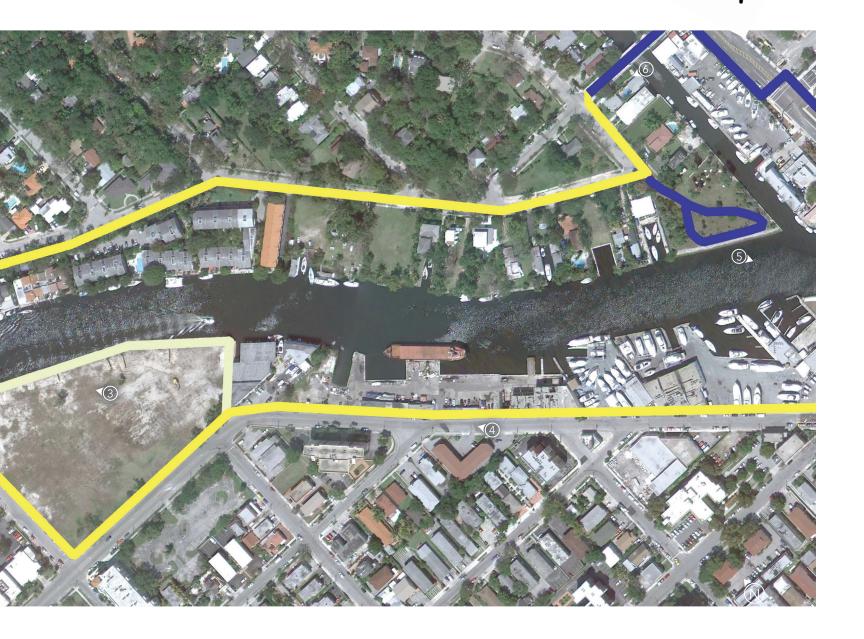
② View west under NW 12th Avenue



3 View west towards Spring Garden

MIDDLE RIVER

POINT PARK (SPRING GARDEN) TO NORTHWEST 12TH AVENUE





4 View west along South River Drive



(5) View east from Point Park



6 View over Seybold Canal Bridge





1 View northwest along NW North River Drive



 \bigcirc View west from Sewell Park



3 View northwest towards Mahi Temple

MIDDLE RIVER NORTHWEST 12TH AVENUE TO NORTHWEST 22ND AVENUE

 $\overline{(N)}$

Only two short sections of the Greenway have been constructed in this mid-section of the river.

The north shore includes large parking lots, marine based-businesses, and mid-rise residential housing. From the NW 12th Avenue Bridge underpass, the Greenway is to continue behind Merrill Stevens' dry docks, along the river under the Dolphin Expressway, in front of the Mahi Shrine Auditorium and back out to NW North River Drive, where the Greenway will remain all the way up to the NW 22nd Avenue Bridge. This area connects to the Health District and Civic Center, which is home to institutions that provide 15,000 jobs.

On the south bank, the Greenway is to run under the NW 12^{th} Avenue Bridge, south on NW 12^{th} Court out to NW 7th Street, traveling back north on NW 13th Avenue alongside Robert King High. At the Haley Sofge Towers it proceeds along the river's edge, connecting with South River Drive under the Dolphin Expressway. From here the Greenway runs through the single-family neighborhoods of Grove Park and Durham Park, behind Sewell Park, connecting to Terrazas River Park Village and then running west along NW 11th Street behind marine boatyards to NW 22nd Avenue. There are opportunities to bring the Greenway closer to the river as sites redevelop.





(4) View northwest from NW North River Drive



(5) View northwest towards the Dolphin Expressway



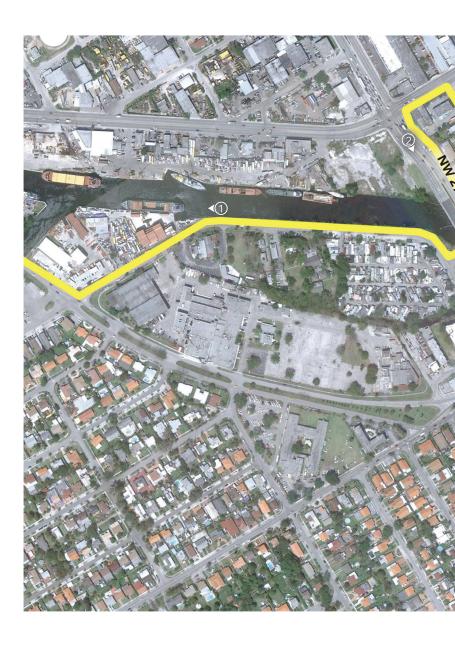
(6) View southwest towards Haley Sofge Towers

Along the upper river, the Greenway continues largely along streets still to be improved, rather than along the river's edge. Adjacent uses include low density residential housing and marine industrial cargo shipping terminals, recreational boatyards, marinas, and Curtis Park, which already has a public riverwalk, along with a boat trailer ramp, basketball and tennis courts, and other recreational fields. Residential development surrounding Jest Island and the North Fork of the Miami River further require the Greenway to run along streets that do not see the river.

On the north bank west of NW 22nd Avenue, the Greenway is to run along NW North River Drive behind multi-family residences, through Curtis Park, behind Jest Island and the Isla Del Mar Condominium, eventually terminating at the NW 27th Avenue Bridge.

On the south bank, the Greenway is to run along NW 14th Street behind Florida Detroit Diesel-Allison, north on NW 24th Avenue, and west on NW 16th Street behind River Run Condominiums and Miami River View Apartments, up and across NW 27th Avenue, continuing along the riverfront along NW Southwest River Drive. At the intersection with NW 20th Street, the Greenway continues past the Tamiami Swing Bridge along South River Drive towards Palmer Lake.







(1) View northwest along NW South River Drive

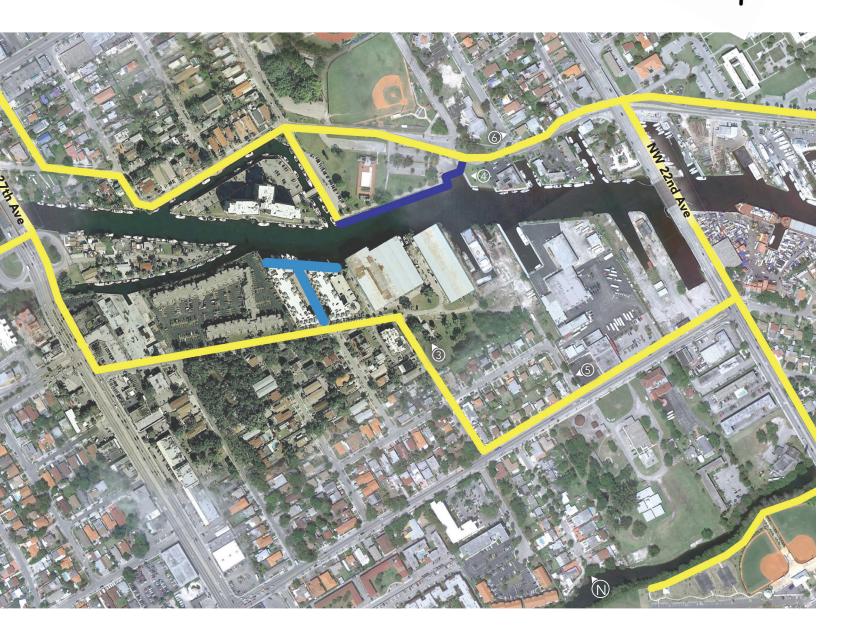


View south under NW 27th Avenue Bridge



(3) View north along NW 24th Avenue

UPPER RIVER NORTHWEST 22ND AVENUE TO NORTHWEST 30TH AVENUE





4 View northwest towards Curtis Park



(5) View southwest along NW 14th Street



6 View east towards NW 22nd Avenue Bridge





1 Corner of NW 20th Street and NW South River Drive

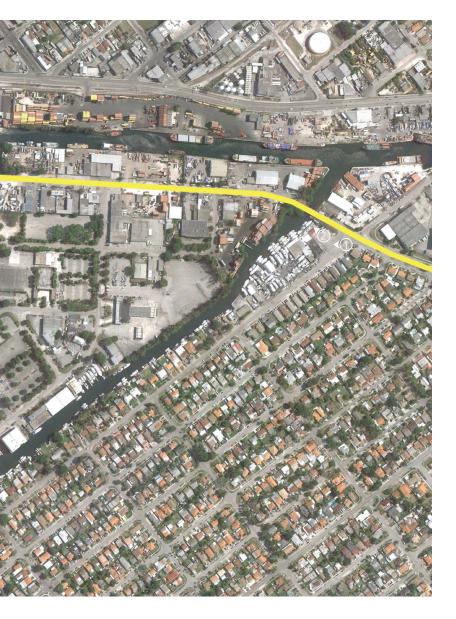


2 View west on NW South River Drive



3 View of Palmer Lake

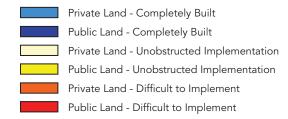
UPPER RIVER NORTHWEST 30TH AVENUE TO PALMER LAKE



The final section of the Greenway is in unincorporated Miami Dade County, in an area largely industrial, adjacent to the Miami Intermodal Center. As of this writing, construction documents have been completed for this section of the Greenway, including for a new Tamiami Swing Bridge. The Greenway is to run along NW South River Drive behind many marine and cargo shipping businesses, and surrounding Palmer Lake, with a potential link to the Miami Intermodal Center.

The completed Greenway will provide significant public riverfront access, along and through Miami's distinctive neighborhoods. It will connect Downtown and Brickell with East Little Havana, Overtown, Spring Gardens, Allapattah, Grapeland Heights and Palmer Lake and the Miami Intermodal Center adjacent to Miami International Airport. Seven established parks interspersed throughout these neighborhoods will be connected by the Greenway: Miami Circle Park, Jose Marti Park, Lummus Park, Point Park, Sewell Park, Fern Isle Park, and Curtis Park, providing a variety of public amenities including athletic fields, playgrounds, dog runs, public swimming pools, and canoe and kayak launches.

The Miami River Greenway in aggregate represents a valuable neighborhood resource as well as a city-wide destination.





(4) Intersection of NW South River Drive and NW 28th Street



(5) View of Palmer Lake



(6) View east along NW 25th Street



Case Studies

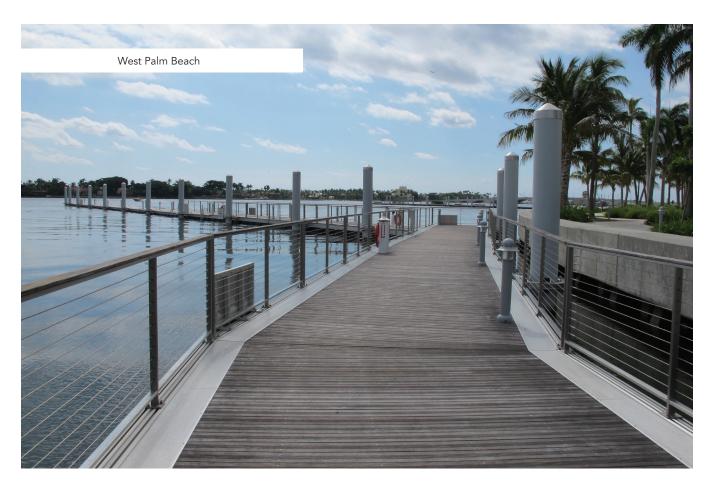
LOCAL

In recent years, American cities such as New York, Boston, Chicago, Portland, San Antonio, Charleston, and Providence have launched intense redevelopment initiatives rebuilding their waterfronts and securing a pedestrian friendly urban landscape. These cities have all had to navigate the intersection of public policy, history, industry, and urban infrastructure, and now they provide national models for redevelopment.

Boston's "Big Dig" has suppressed 3.5 miles of Interstate 93 and other major city arteries underground in exchange for more than 15 acres of new elevated greenway. Known as the Boston Harbor Walk, this new public park — at this writing 80% complete — is to provide 46.9 linear miles of waterfront parkland to the public. Chicago has completed Millennium Park, a 24.5-acre Art Park on the Chicago lakefront, with sculptures by Anish Kapoor and Jaume Plensa as well as a bridge and pavilion designed by the architect Frank Gehry that joins a network of waterfront public parks, including Grant Park, Lakeshore Drive, and the Chicago Harbor.

In New York, Staten Island's Fresh Kills Park is about to open with the first phase of the eventual 2200 acres of natural habitat on the western shoreline of Staten Island — becoming the largest park in New York City. On the lower West Side of Manhattan, Battery Park City is nearly complete after twenty years of incremental redevelopment that now successfully connects it to The Hudson River Park. The elevated linear park called The High Line reclaimed the city's old elevated train right-of-way, running continuously from Gansevoort Street to West 30th Street marrying preservation and landscape architecture with innovation — making the urban experience more meaningful.

Closer to home, Miami Beach, Fort Lauderdale, and West Palm Beach have also engaged in projects that provide enhanced access to the waterfront and improved the quality of urban life. These projects have increased property values forging a more dynamic, sustainable urban experience. The following examples suggest what can be learned from our neighboring cities with designed public waterfronts.









MIAMI BEACH

Miami Beach boasts a beachfront promenade that runs though not yet continuously — from the base of the MacArthur Causeway at The Icon South Beach to just north of the Eden Rock Resort in the 4600 block of Collins Avenue, as well as from 64th to 79th streets. The city recently completed the first two stretches of baywalk between Sixth and Seventh streets and Fourteenth and Sixteenth Streets. The longstanding Miami Beach Boardwalk occupies 1.68 miles from the Eden Roc south to the Gansevoort Hotel. With spectacular views of the water, the Boardwalk offers a pedestrian alternative to Collins Avenue and Ocean Drive.

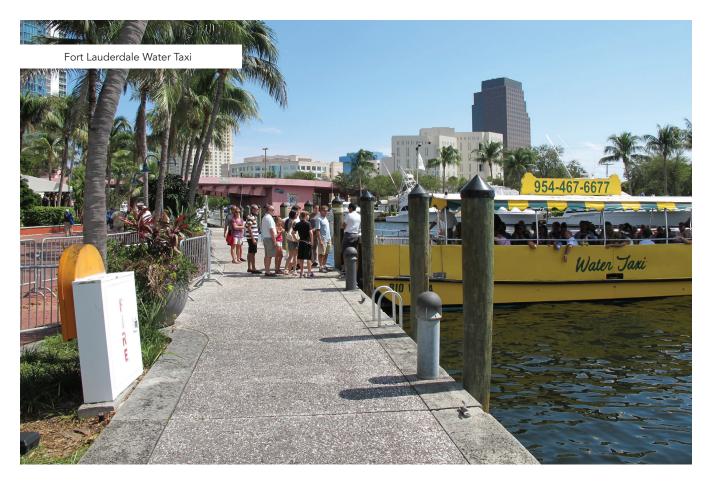
South Point Park, designed by Hargreaves Associates, anchors the South Beach neighborhood on the edge of Government Cut. A raised serpentine land form allows for panoramic views of the ocean, the park's own tropical gardens, and passing cruise ships. Within the park, the architect William Lane designed a public pavilion containing public restrooms and an observation deck. At 22nd Street, the promenade links to Collins Park, newly redesigned by MC Harry & Associates to provide long formal vistas and access to the Bass Museum, the Miami Beach Public Library and the Miami City Ballet.



The Fort Lauderdale Riverwalk flanks both sides of a milelong stretch of the New River in downtown Fort Lauderdale linking Los Olas Boulevard and the Museum of Art with Himmarshee Village, the Museum of Discovery and Science, and the Broward Center for the Performing Arts on the north side and various boating, commercial, and residential uses on the south side. This promenade begins on the east at a historically significant site, the home of Frank Stranahan, the city founder, and it terminates at Cooleys Landing Park and Marina at Southwest Seventh Avenue where there is a boat launch with parking. The Riverwalk is also the front yard for Fort Lauderdale's Himmarshee Historic District, which includes the Philemon Bryan House, the King-Cromartie House, and the Bryan Homes.

Designed by EDSA Landscape Architects, the Riverwalk includes raised pavilions, wooden cantilevered walkways over the water and ground-based walkways supported by a permanent seawall that allows for adjacent deep water docking and stopping places for the city's water taxis. The city has also built several waterfront parks, including Esplanade and Bubier Parks, along the Riverwalk. Most notably, the park features many large old growth trees that create much needed shade and an "old Florida" experience.







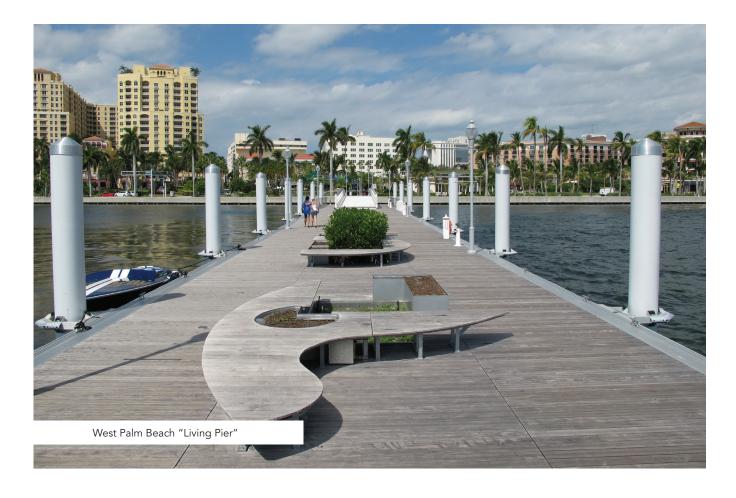




BEAC

In 2010, the City of West Palm Beach completed the first phase of its waterfront revitalization plan. Of the city's sevenand-a-half miles of publicly accessible waterfront, more than a half mile of downtown parkland has been transformed by the landscape designer and artist Michael Singer into City Commons, a pie-shaped waterfront park with water gardens, boat piers, walkways and what Singer calls "living piers," made up of Spartan grass and native mangroves. This sensitive and ecological design approach has produced a vibrant urban playground while helping to restore South Florida's natural habitats, improve water quality and encourage native flora and fauna to take root, all the while educating visitors about the environment.

Other unique landscaping and hardscaping details include a meandering path of concrete pavers, as well as wooden walkways brought to life with native landscaping, lighting and distinctive seating areas. A network of floating docks has been organized around the central "living pier" for boats and pedestrians. Along the length of the waterfront, the walkway is a narrow concrete sidewalk with sparsely planted palms that promotes pedestrian circulation and safety.





SHORT-TERM

Summary and Analysis

THE COMPLETED + UNBUILT SECTIONS OF THE BAYWALK FROM MARGARET PACE PARK TO SE 15TH ROAD

One part of the full length of the Baywalk offers the opportunity for early completion of a continuous multi-mile waterfront promenade.

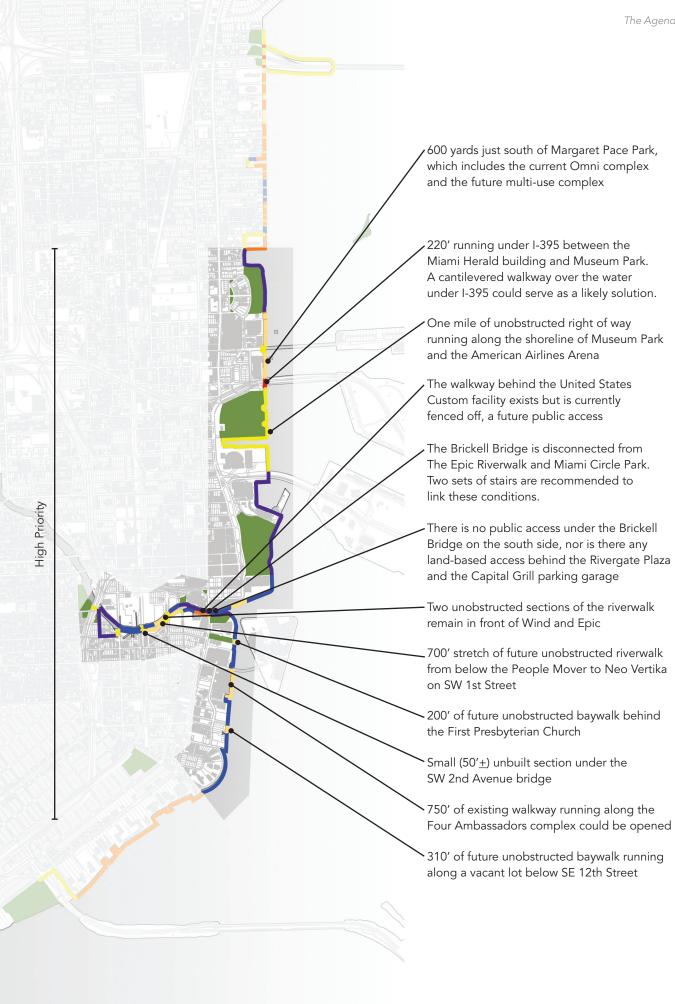
The plan on the opposite page provides a guide to creating a five-mile stretch of Baywalk by building and repairing sections from Margaret Pace Park all the way to the intersection of SE 15th Road and Brickell Bay Drive. The color coding shows the completed portions of the Baywalk outlined in blue. The sections of the Baywalk outlined in yellow are not yet built but are in locations where implementation should be fairly straightforward.

Much of the land outlined in yellow is publicly owned by the City of Miami, Miami Dade County, the State of Florida, and the federal government; much of this land requires only

rudimentary construction and simple implementation to connect the missing pieces. Implementation priority should be placed on these areas first. This analysis proves how close Miami is to realizing a true public waterfront amenity in the heart of the city.

Completeing this first five-mile continuous stretch can begin quickly as it does not involve individual private land owners, businesses, or condominium boards. Only initiative and funding are needed.

Among the easiest infrastructure work involved in implementing this section is the design and construction of the terminus of several streets where they dead-end at the bay or river, with new seawalls, sidewalks, crosswalks, curb cuts, railings, lighting, landscaping, concrete pavers and street furniture.





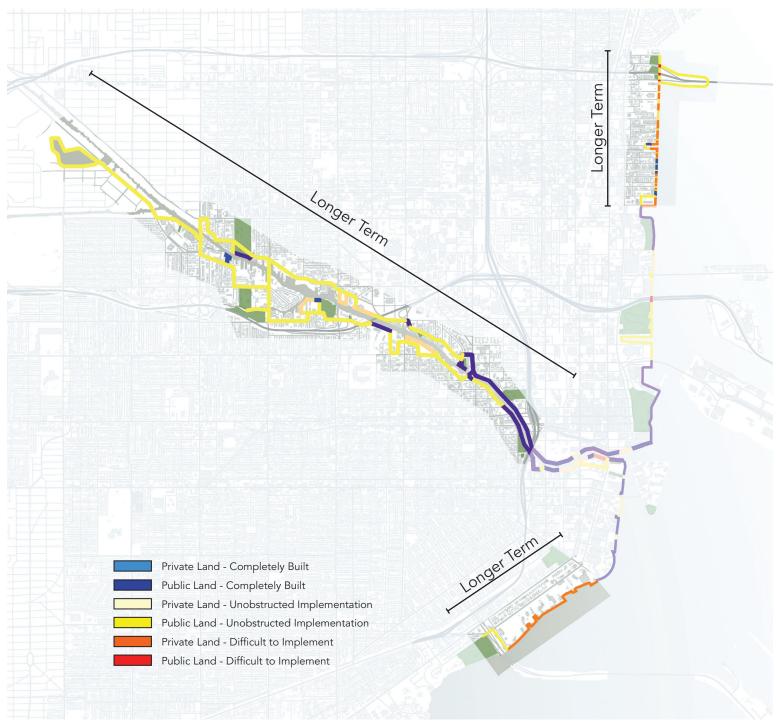
LONGER-TERM

Summary and Analysis

UNBUILT SECTIONS + OBSTRUCTED ACCESS IN EDGEWATER, SOUTH BRICKELL, MIAMI RIVER

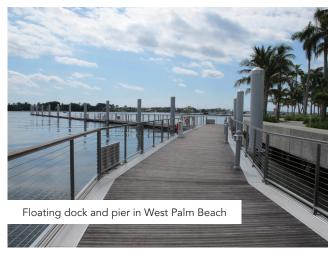
Other parts of the bayfront pose greater difficulties. A significant length of privately owned waterfront properties totaling almost three miles — will prove more difficult for the implementation of a public waterfront walkway, most particularly in the residential corridors of Edgewater and Brickell. In addition, the portion of the Baywalk that would cross the Julia Tuttle Causeway poses a difficult problem that should probably be addressed with a construction strategy such as the pedestrian walkway under the Port Bridge. These sections are noted on the map on the page opposite in red and orange.

For difficult private water-frontage situations, one solution that could be implemented is a floating dock system or a boardwalk set among restored mangroves. An example of this solution is shown in the discussion of the West Palm Beach waterfront. Inventive engineering could address walkways cantilevered over the bay. As a last resort, well-marked detours could take walkers, runners, and bicyclists on a safe path inland. The balance between the need for residential privacy and public access requires negotiation, but with governmental initiative and citizen participation, solutions should not elude us.





Pedestrian underpass below Flagler Bridge in West Palm Beach



The COLLECTIVE Vision

Exactly how will we connect with the waterfront? Can the urban edges of Biscayne Bay, together with the Miami River, become an authentic, contemporary place where people live, work and play? How do we balance the historical identity of the waterfront with the conflicting needs of industry, housing, and tourism, while also accommodating issues of rising sea levels and fragile ecosystems? It is time for the city to take the lead in what could be the next great civic project on the water by completing this much needed public artery.

Time, we have learned, is the most authentic means of place-making. This report's collective vision for the continuous promenade illustrates a great range of program and design ideas: a variety of walkway conditions and experiences that link disconnected neighborhoods and places. This comprehensive proposal is not a final solution, but it is an important step.

The ideas generated in this study set the stage to answer the questions above and suggest inventive opportunities for growth. The goal is to create a linear park of varied experiences between land and sea. Interventions such as floating boardwalks and bridged passages, along with vertical circulation, will make the built-up shorelines of Edgewater and Brickell more accessible and allow pedestrians to walk the perimeter of Downtown Miami. Palm courts can terminate the vistas of primary streets. Restored mangroves; fishing piers, water taxi locations, boat launches, lookouts, and observation points can bring us to a closer connection with the water.

We should not eliminate the all-important messiness of accidental urbanism and strive to not completely erase what previously existed, a collective memory. In an ironic way, the Baywalk will have benefited from the long period of creation as we now have a palimpsest — fragments and sections of older waterfront — a layered history that adds to the richness of waterfront experience that we may wish to keep to read with the new sections.

The stage is set, built examples point the way, and the needed legislation is in place. With construction by the city and its residents, this collaborative, time-lapsed event will produce an authentic built reality.

— Jacob Brillhart

This illustrated photo montage shows possibilities for the Baywalk.



