PORT OF MIAMI TUNNEL PROJECT
Overview of Prior Studies-Fact Sheet

This summary was provided on July 29, 2003 by Jeff V. Easley, PE, Vice President of Reynolds, Smith and Hills as background information for the Public Affairs Team of the current Port of Miami Tunnel Study. Mr. Easley was the project manager of the previous Port of Miami Tunnel PD&E Study, which concluded in December, 2000 resulting in the granting of Location Design Approval from the Federal Highway Administration.

In **June 1979**, an Application for Development Approval for a Development of Regional Impact (ADA-DRI) was prepared for the Port of Miami Master Development Plan. Based on projected cruise passengers, as well as cargo traffic, the report concluded that the existing Port access (Port Boulevard) must be improved to provide additional capacity for future growth. The report recommended that the existing 2-lane bascule bridge over the Intracoastal Waterway be replaced with a 4-lane high-level fixed-span bridge. In addition, several proposals for alternate access to the arterial road network were given a cursory review. These proposals only included bridge alternatives. The report recommended that Port Boulevard be grade-separated over Biscayne Boulevard.

The Seaport Development Order (DO) issued by the City of Miami in **December 1979**, following the approval of the ADA-DRI, required that vehicular access to the Port be examined in detail. This examination was to have two primary objectives: 1) defining an environmentally acceptable truck route from the Port to S.R. 836 and 2) reconsidering the routing of Port Boulevard across Biscayne Boulevard so that the alignment is responsive to the Bicentennial Park expansion, Bayfront Park and Biscayne Boulevard.

In **July 1981**, a Draft Executive Summary of a Vehicular Access Study, which evaluated alternate methods of providing additional capacity between the Port of Miami and the mainline, was prepared for the Metropolitan Dade County Seaport Department. Four corridors were evaluated as alternate means of providing the needed direct access between the Port and the freeway or major arterial street system. The four corridors were as follows:

Alternative A - Port/I-395 (adjacent to Bicentennial Park, parallel to shoreline)
Alternative B - Port/Central Business District (CBD) (several alignments)
Alternative C - Port/Watson Island
Alternative D - Port/I-95 Extension via Dupont Plaza

Alternative C was rejected early in the preliminary analysis due to design constraints for either a bridge or tunnel, potential development of Watson Island and potential capacity restraints with the existing bascule bridge on MacArthur Causeway over the Intracoastal Waterway. In addition, Alternative D was rejected because of the cost of the bridge structure, existing and proposed development in the Dupont Plaza area, and capacity restraints during peak hours on the I-95 connector.

One possible alignment within Corridor Alternative A and three possible alignments within Corridor Alternative B were evaluated as follows:

Alternative 1 - At-Grade at Biscayne Blvd, follow 6th Street.
Alternatives 2 & 3 - Grade - Separated at Biscayne Boulevard, follow 6th Street.

Alternative 4 - Curve at Biscayne Blvd and follow shoreline with structure.

These four access alternatives were evaluated as to their feasibility, effectiveness in providing access, and impacts on the surrounding community. No recommendations were made.

The following agencies and corporations were asked to comment on the alternatives evaluated in the Draft Executive Summary:

- City of Miami
- Florida Department of Transportation (FDOT)
- Downtown Development Authority (DDA)
- South Florida Regional Planning Council (SFRPC)
- Dade County Office of Transportation Administration (OTA)
- Dade County Public Works Department (DCPWD)
- Dade County Department of Environmental Resources Management (DERM)
- Metropolitan Dade County Transit Agency (MDTA)
- Florida East Coast Railroad (FEC)
- Venture Development Corporation (Freedom Tower Owner)
- Dade County Metropolitan Planning Organization (MPO)
- MPO Transportation Planning Committee (TPC)

Because of the complexity of the alternatives, and the variety of agencies involved, the TPC, acting as the coordinating body for countywide transportation projects, accepted the leadership role in coordinating the process of access alternative review and plan selection. In **October 1981**, the TPC established the Port of Miami Access Task Force. The Task Force contained members from DCPWD, Dade County Planning, OTA, City of Miami, DDA, FDOT and SFRPC. This Task Force adopted the following objectives and goals at its first meeting on **December 16, 1981**:

Objectives

- To improve access to the Port to satisfy present and future requirements, and
- To develop a plan that can be implemented in stages to meet the growing traffic needs of the Port.

Concurrent Goals

- To eliminate Port traffic from the CBD by diverting it more directly to the Interstate highway system,
- To harmonize traffic flows with the Park West plan,
- To improve air quality in the CBD by eliminating stops and slow Port traffic, and
- To ensure that the new facility is compatible with the Bayfront Park/FEC/Bicentennial Park plans.

In **January 1982**, the Task Force prepared a Progress Report, which summarized the review comments on the Draft Executive Summary Vehicular Access Study and explored additional alternatives. Five additional alternatives were developed based on a two-phase plan. For each alternative, Phase I is the construction of a new high-level bridge from the Port of Miami to Biscayne Boulevard.

The Task Force basically eliminated Alternatives 1, 2 and 3 (as described earlier) and expanded on Alternative 4 which was an elevated structure running parallel to the shoreline adjacent to Bicentennial Park. Alternatives 1, 2 and 3 were eliminated due to the potential impacts to the CBD. A tunnel alternative was introduced as Alternative 9.

The 2-lane tunnel alignment would run just east and parallel to Biscayne Boulevard and cross over I-395 and merge with I-395.

The Task Force recommended to the MPO that the access needs of the Port of Miami be met in the following three phases:

Phase I - Improvements to intersections and streets now used by Port traffic. These improvements were primarily in the 5th and 6th Street and 1st and 2nd Avenue corridors including the intersection of Biscayne Boulevard.

Phase II - Construction of a new high-level bridge on Port Boulevard over the Intracoastal Waterway. Two additional ramps at the I-95/S.R. 836 interchange.

Phase III - Ultimate improvements for Port of Miami access to the mainline and direct freeway access.

In **March 1982**, the MPO adopted the plan recommended by the Task Force. Following approval of the plan, at the request of Metropolitan Dade County and the City of Miami, the Task Force was asked to identify the ultimate (Phase III) solution.

In **January 1983** the Task Force completed their Second Progress Report, which developed and evaluated Phase III alternatives. The report addressed the Phase III program in an effort to identify an acceptable solution to the long-range access problem. The document outlined the possible Phase III options to provide a direct link from the Port to the Interstate highway system and, consequently, to eliminate Port traffic from the downtown street network.

A series of alternatives were developed that included bridge and tunnel alternatives. The three basic corridors that were evaluated were as follows:

Corridor 1 - From the new high-level bridge curve north and run parallel to Biscayne Boulevard and connect to I-395. Variations of the alignment through or adjacent to Bicentennial Park including a tunnel and connections to I-395 were developed and evaluated.

Corridor 2 - From the new high-level bridge stay elevated through the FEC right-of-way running parallel to 6th Street. Variations of connections to I-95 and I-395 were developed and evaluated.

Corridor 3 - Start in the middle of the Port, go under Government Cut Channel via a tunnel and connect to MacArthur Causeway in the middle of Watson Island. This alternative recommended that the existing bascule bridge on MacArthur Causeway over the Intracoastal Waterway be replaced with a new high-level bridge.

The Task Force recommended four alternative alignments for further detailed evaluation. The four alternatives were as follows:

Alternative 1 - This alignment would begin with two 2-lane ramps from the high-level bridge and stay elevated through the FEC right-of-way. In the FEC right-of-way, the structure would be built over the railroad in order to permit continued railroad operations. At N.W. 1st Avenue, the ramps would turn to the north and stay within the railroad right-of-way. At I-395, the outbound ramp would go over I-395 and terminate in the Midtown Interchange.

Alternative 2 - This alignment would provide access to the Port from I-395 by means of a 2-lane bridge that would begin at the high-level bridge and run parallel to the shoreline in Biscayne Bay and end with the ramp connection to I-395 just east of Biscayne Boulevard.

Alternative 3 - This alignment would begin with two 2-lane ramps from the high-level bridge and go to a tunnel on the east side of Biscayne Boulevard. At I-395, the ramps would turn to the west with the outbound lanes going to I-395. The ramps would run along both sides of existing I-395 and connect to I-395 and the Midtown Interchange.

Alternative 4 - This alignment would start in the middle of the Port, go under Government Cut Channel via a tunnel and connect to MacArthur Causeway in the middle of Watson Island. The existing bascule bridge on MacArthur Causeway over the Intracoastal Waterway would be replaced with a high-level bridge.

In **June 1983**, a Feasibility and Cost Study of Tunnel Alternatives for Vehicular Access to the Port of Miami was completed. Three basic alternate tunnel crossings were evaluated as follows:

Alternative 1 - A tunnel running parallel to the existing Port Boulevard bascule bridge and connecting to Biscayne Boulevard.

Alternative 2 - A tunnel running parallel to the existing Port Boulevard bridge and curving to the north and running adjacent and parallel to the shoreline and connecting to I-395.

Alternative 3 - A tunnel from Port of Miami crossing diagonally under the Main Channel and connecting to MacArthur Causeway on Watson Island.

On **August 24, 1984**, the Metropolitan Dade County Board of County Commissioners approved the following three-phase Port of Miami Transportation Improvement Plan (TIP) which was subsequently the subject of an agreement between the City of Miami and the County:

Phase I - The improvements of existing intersections in the vicinity of Biscayne Boulevard and Port Boulevard.

Phase II - The construction of a new 5-lane, high-level bridge to replace the existing bascule bridge.

Phase III - The construction of a 4-lane underwater/underground tunnel to provide direct access from S.R. 836/I-395 to the Port of Miami.

On **May 5, 1988**, an Advance Notification Package for the Port of Miami Tunnel PD&E Study was sent to the State Planning and Development Clearinghouse for distribution. The project is a comprehensive planning study for the development of Phase III of the Port of Miami Transportation Improvement Plan.

In **June 1988**, an update of the Port of Miami Master Development Plan was completed.

On **October 10, 1989**, the Port of Miami Tunnel PD&E Study contract was executed between FDOT and PBS&J, Inc. The primary objective of the study is to develop and

evaluate cost-effective alternatives to link the Port of Miami to the adjacent Interstate highway system.

The study began with a literary search of all the documents completed for the Port of Miami access improvements as discussed above. The corridor alternatives developed in the previous studies were evaluated in more detail along with other corridor alternatives identified as part of this study.

A total of eight corridor alternatives were developed and evaluated in the initial stages of this PD&E Study. Corridors considered tunnel and/or bridge alternatives where feasible. The alternatives were evaluated based on the most current engineering, environmental and socio-economic information, as well as the updated Port of Miami Master Plan.

To assist in the development and evaluation of the corridor alternatives, Technical and Community Advisory Committees were organized as part of this project. The members of the committees as coordinated with FDOT and the Port of Miami are as follows:

Technical Advisory Committee (TAC)

- FDOT
- Port of Miami
- FHWA
- MDTA
- DCPWD
- DERM
- Florida Department of Environmental Regulation
- MPO
- Dade County Planning Department
- City of Miami
- U.S. Corps of Engineer
- SFRPC
- U.S. Coast Guard
- FEC

Community Advisory Committee (CAC)

- Beacon Council
- Tropical Audubon Society
- Marine Council
- Downtown Development Authority
- Greater Miami Chamber of Commerce
- Chalk's International Airlines
- Dade Helicopter
- Watson Island Fuel & Fishing Supplies
- Greater Miami Convention and Visitors Bureau
- Friends of the Everglades
- South Florida Coordinating Council
- Downtown Miami Business Association
- Congressman Lehman's Office
- Latin Chamber of Commerce
- The Miami Herald
- Bayside Management Company

On **April 3, 1990** the first TAC and CAC meetings were held to discuss the development and evaluation of the corridor alternatives. The preliminary corridor alternatives were presented to the committees along with an informational handout. Questions and comments were recorded and used in the preparation of the Corridor Analysis Report.
On **June 22, 1990**, a coordination meeting was held in Tallahassee between FDOT District 6, FDOT Central and FHWA to discuss the corridor alternative analysis. The eight corridor alternatives were presented and the evaluation matrices to be used in the Corridor Analysis Report were discussed.

The alternatives for which a bridge facility is feasible are limited, due to the constraints associated with crossing the Intracoastal Waterway and the Main Channel of Miami Harbor. In addition, the Port of Miami is almost entirely surrounded by heavily-used deepwater shipping channels.

Two potential bridge alternatives were evaluated in the corridor analysis stage of this project. The bridge alternatives are as follows:

Alternative 4 (Shore Line) - Starting at the westernmost end of Dodge Island, this corridor parallels the new Port bridge, then curves to the north and runs parallel to the shore line or the inland edge of the FEC tract and Bicentennial Park. It then joins the I-395 corridor via another curve.

Alternative 5 (FEC Railroad) - This corridor starts at the westernmost end of Dodge Island and parallels the new Port bridge, continuing west along the FEC railroad alignment to I-95.

The bridge alternatives were eliminated from further consideration for the following reasons:

- Inability to connect with the existing freeway network in a safe, cost feasible manner,
- Total incompatibility with Miami CBD development plans, and
- Political opposition.

On **July 12, 1990**, a coordination meeting was held with FDOT and FHWA to discuss the draft Corridor Analysis Report. Based on this meeting with Mr. Greg Schiess, FHWA the following conclusions were noted:

1. All potential **viable** alternatives were given considerable evaluation in the Corridor Analysis Report to enable a consensus determination by meeting attendees that **Alternative 1 (Watson Island)** is the preferred alternative, and can be stated as such in the final Corridor Analysis Report.

2. In preparation of the Preliminary Engineering Report (PER) and Environmental Impact Statement (EIS), further analysis of alternatives will be limited to emphasizing and documenting the undesirability and elimination of Alternatives 2, 3, 4, 5, 6, 7 and 8. **Alternative 1 (Watson Island)** will be further developed with alignment refinement and typical section alternatives to be studies.

On **July 18, 1990**, the second TAC and CAC meetings were held to present the findings and recommendations of the Corridor Analysis Report. The committees were informed

that the preferred corridor alternative was **Alternative 1 (Watson Island)**. The committee members were requested to review the recommendations and provide comments.

On **July 30, 1990**, a meeting was held with the City of Miami to discuss the project and the proposed City of Miami Development plans for Watson Island. The City of Miami representatives were provided a copy of the TAC/CAC handout summarizing the Corridor Analysis Report findings and recommendations.

The Watson Island Master Development Plan was prepared and approved by the City of Miami in 1989. This plan presents the public purpose goals for the island. The incorporation of the tunnel portals on Watson Island is included in the plan's recommendation for vehicular circulation and is presented on the Access Circulation and Parking Master Plan.

The City of Miami stated that they would provide FDOT with a letter confirming the status of Watson Island and that the location of the tunnel portal on the island is consistent with development plans for Watson Island. This letter will provide the confirmation required by FHWA to grant approval of the preferred corridor alternative. The letter was received on August 23, 1990.

On **September 27, 1990**, official documentation was received confirming that **Corridor Alternative 1 (Watson Island)** was selected as the preferred corridor for the project.

On **October 23, 1990**, a joint TAC/CAC meeting was held to discuss the preferred corridor alternative. Alignment and construction alternatives within the preferred corridor were presented and discussed in detail.

The proposed tunnel alignment was similar to the tunnel alignment first introduced by the Port of Miami Access Task Force in 1983. This alignment consisted of a tunnel from the Port of Miami crossing diagonally under the Main Channel and connecting to MacArthur Causeway on Watson Island. This alignment would be fine tuned and evaluated for preparation of the pre-draft PER and pre-draft EIS.

On **March 21, 1991**, a joint TAC/CAC meeting was held to present the project status and discuss the pre-draft PER and EIS. The committees were informed that FDOT, FHWA, the Port of Miami and the City of Miami had endorsed the preferred **Corridor Alternative 1 (Watson Island)** which makes the tunnel a viable project with potential for implementation.

On **February 12, 1992**, a joint TAC/CAC was held to update the committees on the project status and discuss the draft PER and draft EIS. The critical engineering, environmental and socio-economic issues were discussed in order to fine tune the preferred alternative.

On **December 10, 1992**, a presentation was given to the Florida Department of Environmental Regulation (FDER) to discuss the project status. Critical project issues pertaining to potential environmental impacts were discussed in details

During the week of **March 1 - 5, 1993**, a comprehensive value engineering (VE) review was conducted for the project by a seven-member multi-disciplinary team of professionals. During this value engineering review, the Port of Miami introduced an

updated Master Plan concept, which included a cargo truck control facility proposed to be located on Port Boulevard in the area of the tunnel portal. As a result of this information, the value engineering team recommended a revised tunnel alignment. The new alignment would begin at basically the same location on Watson Island and cross perpendicular to the Main Channel and connect to Port Boulevard west of the proposed cargo truck facility.

The new alignment was fine tuned and evaluated. Once the alignment concept was approved by FDOT, FHWA and the Port of Miami, the draft PER and draft EIS were updated to include the engineering, environmental and socio-economic analysis of the revised tunnel alignment.

On **June 8, 1994**, a joint TAC/CAC meeting was held to update the committee members and discuss the progress of the project. The committee members were presented the revised alignment and updated project schedule.

The updated Draft PER and Draft EIS (DEIS) were submitted to FDOT District 6 for review on **July 25, 1994** and **August 1, 1994**, respectively.

On **September 21, 1994**, a joint TAC/CAC meeting was held to present the findings and recommendations of the Draft PER and DEIS. In **February 1995**, all reports were submitted to FDOT Central and FHWA for initial review. All comments were received from FHWA by **September 11, 1995**. On **December 15, 1995**, all revised reports were submitted to FDOT District 6. On **February 28, 1996**, all reports were formally submitted to FHWA for approval. The DEIS was signed by FHWA on **April 10, 1996**.

The project Public Hearing was held on **June 12, 1996** at the Port of Miami Terminal 10, 1303 Africa Way, Miami, Florida. A video was prepared and presented to the audience. FDOT and PBS&J representatives were available to answer questions. Approximately 50 people attended.

Due to comments received from the Florida Department of Environmental Protection concerning potential impacts to Biscayne Bay due to blasting and dredging, the proposed tunnel construction method for the main channel portion was reevaluated for the use of a tunnel boring machine. In May 1997, FHWA downgraded the project environmental determination from an EIS to an EA/FONSI. The project documents were revised to reflect the tunnel boring machine (TBM) construction method. The EA/FONSI was approved by FHWA on November 29, 2000 and the project received Location and Design Concept Acceptance from FHWA on **December 13, 2000**.