



PORT EVERGLADES MASTER PLAN

APPENDIX H PEOPLE MOVER CORRIDOR REPORT BY LEA + ELLIOT TEAM





***Broward County Intermodal Center and
People Mover System***

***FORT LAUDERDALE-HOLLYWOOD
INTERNATIONAL AIRPORT
AND
PORT EVERGLADES***

Phase –II: PD &E

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CORRIDOR REPORT

Rev-1

***By
Lea+Elliott, Inc.
for***



***URS/AEP &
Broward County
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1. INTRODUCTION

1.1 Purpose

In 2002, Broward County, in its 2020 Vision Plan, outlined a framework for future development at Fort Lauderdale-Hollywood International Airport (FLL), Port Everglades (PEV) and elements that would promote regional transportation and transit improvements. The key elements of the 2020 Vision Plan are the Intermodal Center (IMC) and People Mover. The IMC and People Mover Project was further examined for the June 2004 Feasibility Report, which sought to identify operational issues and concept level financial feasibility for the proposed system and corridors. Together, these reports comprise the prior planning documents referred to throughout the document.

In April of 2005, the Broward County Board of Commissioners elected to proceed with the Project Development and Engineering (PD&E) Phase of the Broward County Intermodal Center and People Mover (later known as the SunPort PD&E Study, or “The Project”). This Corridor Report seeks to provide a comprehensive analysis of the corridors studied to-date for the SunPort PD&E study and during prior planning efforts, with the specific goal of identifying those corridors to be carried forward for further study. Corridors identified for further study will be carried forward for alignment-level analysis in further iterations of the PD&E process, as well as eventual National Environmental Policy Act (NEPA) compliance review for the Federal funding process.

The necessary analysis for this effort was determined to be a Level IV analysis, (Per Florida Department of Transportation (FDOT) PD&E Manual, Section 9-2.3.7), as the proposed project would travel along an entirely new alignment between the airport and the seaport.

1.2 Project Description

The SunPort PD&E Study area encompasses an approximately 4.5 square mile (mi²) portion of Broward County. The study area limits to the north are bound by S.E. 17th Street, while the southern limit of the study area is airport access roadways (north of Griffin Road). The western limit of the study area is the Florida East Coast Railway tracks and the landside access roads of the Airport and the eastern limit is Port Everglades.

The SunPort PD&E Study has two distinct elements:

People Mover: The People Mover element will provide additional and effective transportation capacity between the regional transportation network, the Airport and the Seaport. Primary benefits of the system include:

- provision of convenient access to the Airport and the Seaport for Airport and Seaport Employees, local travelers, and others using the regional transportation network;
- an increased level of service and convenience for multi-day cruisers utilizing the Airport to access cruises at the Seaport;



- and reduced traffic and congestion along port and airport roadways, due to additional transportation capacity between the two facilities.

This corridor report evaluates a variety of corridor options for the transportation element of the project. Defined corridors are intended to support new alignments with dedicated (at-grade or elevated) lanes for buses, Automated People Mover systems and Rail options. These corridors will be evaluated with “No-build” and Transportation System Management (TSM) as two baseline conditions per the requirements of PD&E process.

Intermodal Center: The Intermodal Center (IMC) serves as a transfer point between the people mover and the elements of the regional transportation network, including other projects undertaken by FDOT and county’s bus route improvements by Broward County Transit (BCT). A no-build scenario, and various build alternatives in a variety of locations in the general vicinity of US-1 will be evaluated. Each IMC option includes provisions for interfaces with the people mover and provides a transfer point (station) for commuters using regional transportation network users. In addition the IMC will provide features such as kiss-and-ride (for curb side drop off of transit users), and remote parking to providing additional capacity for Port and Airport employees and patrons.

1.3 List of Acronyms

APM	Automated People Mover
CRCC	Consolidated Rental Car Center
FDOT	Florida Department of Transportation
FEC	Florida East Coast Railway
FLL	Fort Lauderdale-Hollywood International Airport
FPL	Florida Power and Light
IMC	Intermodal Center
LAPC	Local Area of Particular Concern
LPA	Locally-preferred alternative
NEPA	National Environmental Policy Act
PD&E	Planning Development and Environmental Study
PEV	Port Everglades
SFRTA	South Florida Regional Transportation Authority (Tri-Rail)
T&E	Threatened and Endangered Species



Additional Definitions used in the Report

Kiss and Ride

Use of a transportation facility for the purpose of curbside drop-off by friend and family member of a commuter. Thus the programming for IMC or similar location should include roadway access with convenient drop-off curb for such commuters who would use the facility to access transit.

Regional Transportation Network

The term regional transportation network is used throughout this document to describe the system of roadways as well as potential high capacity transportation and transit projects, that are under study in Broward county, including the South Florida East Coast Corridor Analysis, the Central Broward East West Transit Analysis and service improvements for Broward County Transit, as well as this project (SunPort PD&E).

Transportation System Management (TSM)

Relatively low cost improvements; such as intersection streamlining, monitoring and use of other technologies to improve the capacity of an existing roadways and transportation system.



1.4 Methodology of Corridor Analysis

The methodology of this report generally follows the corridor analysis component laid out in the FDOT PD&E manual's Section 9-2.3.7. This report evaluates corridors that have been identified in prior planning reports, and seeks to validate and/or evaluate them based on the PD&E criteria set forth in Sections 2.2 and 3.2 of this report.

This analysis was then presented to the primary Stakeholders of the Project; Airport, Port and FDOT during a workshop on November 6, 2006. A copy of the workshop presentation and list of attendees is attached in the Appendix A.

2. PEOPLE MOVER CORRIDOR ANALYSIS

This section documents the development of the corridors connecting Fort Lauderdale-Hollywood International Airport (FLL) and Port Everglades (PEV) that were developed in prior planning documents.

Broward County, in its adoption of the Vision 2020 plan and decision to move the study beyond feasibility study, defined certain criteria as the guidelines (described in section 2.1) for this study. The County also intends to complete the PD&E process leading to a locally preferred alternative (LPA). Therefore in addition to the County's guidelines the evaluation of the corridor was based on the FDOT PD&E Manual's stated guidelines (Section 9.2.3.7) as described in Section 2.2.

2.1 People Mover Corridor Development

Based on the current evaluation of the traffic and need for increasing the capacity of the primary access roadways into the Airport and Port, to meet current and future growth of these facilities, the following "Goals and Objectives guidelines" emerged from the County as priorities for development of the project:

- *Provision of a Connection to the Regional Transportation Network*
Because of the multiple projects currently under study in the area, including the South Florida East Coast Corridor Analysis, and the Central Broward East West Transit Analysis, among others, the ability of the project to interface with the regional transportation network was considered highly important in corridor development.
- *Provision of additional capacity between port and airport*
Corridor options were chosen which provide additional capacity between the two facilities to support growth of these two significant economic engines for the County and the Region.
- *Reduction of congestion on existing airport and port roadways*
Congestion along airport and seaport roadways is extremely high. Corridors were developed with an eye to congestion relief along the individual facility roadways.
- *Greatest use of existing County rights-of-way*
In order to minimize project costs, project options were chosen that optimize the use of county-owned properties.
- *Level of Service for System Users*
Options were chosen that appeared to offer shorter, more direct trips between facilities.
- *Adequate Consideration to Proximity to Hazardous/Sensitive Areas*
As the preeminent petroleum point of entry for South Florida, the degree to which the option minimized the proximity to hazardous and sensitive petroleum areas was considered.
- *Safety and Security*
Post 9/11 security requirements and processes have restricted access to Port Everglades adding to the congestion at port entrances. Options were developed for their ability to

function within these restrictions and criteria, while still providing an improved experience for system users.

2.2 People Mover Corridor Evaluation

The Criteria for evaluating the merits of the various corridors was derived directly from the FDOT PD&E manual, as described in Section 9.2.3.7. A corridor evaluation matrix appears in Table 2.2. Criteria evaluated in the evaluation matrix included:

- *Construction and Engineering Costs*
The cost and complexity of the option was considered. Options that required significant interaction with adjacent projects or existing buildings, or inordinately extensive infrastructure costs were appropriately rated.
- *Right of Way Costs and Business Damages*
The degree to which the corridor option maximized use of existing rights-of-way, and minimized use of private property, was evaluated. This results in reduced cost of acquisition.
- *Relocation Estimate*
The impacts of relocations for private property owners were considered, although it is important to note that few options evaluated involved impacts to private property, due project being substantially within the Port and Seaport property boundaries, both facilities owned by Broward County.
- *Environmental Impacts*
Environmental Impacts (including impacts to wetlands and other environmentally sensitive areas encountered by the corridor options), as well as impacts caused by operation, such as noise and air pollution.
- *Operational Effectiveness*
Operational effectiveness evaluation of the various corridor options was subdivided into criteria further described below.

The “Operational Effectiveness” criteria, was further developed and defined beyond PD&E manual guidelines to support needs specific to the SunPort Project. As such, the following sub-criteria were identified and used. These sub-criteria address the County’s Goals and Objective guidelines for the project as listed in Section 2.1.

- *Provision of a single connection to the regional transportation network*
Specifically, corridors were evaluated with the intention of providing convenient connections to projects proposed by FDOT and SFRTA, including:
 - Provision of connections for the regional system for two main trip generators, Port Everglades (PEV) & the Fort Lauderdale-Hollywood International Airport (FLL)

- Connection to proposed Central Broward East West Transit Analysis project
 - Connection to possible North South Connector (South Florida East Coast Transit Corridor) in the vicinity of the Florida East Coast Railroad tracks
 - Provide an alternative location for cruise ship bus shuttles coming from Miami to drop off passengers (instead of Airport Access Roadways).
- *Provision of additional capacity between port and airport*
The degree to which the option provided additional capacity between the two facilities to accommodate anticipated growth.
 - *Reduction of congestion on existing airport and port roadways*
The degree to which the corridor provided actual congestion relief along the primary arterial roadways for airport and port was evaluated.
 - *Greatest use of existing County rights-of-way*
In addition to the right-of-way evaluation above, options were evaluated for the degree to which they used existing Broward County rights-of-way, further minimizing right-of-way acquisition costs.
 - *Level of service for users*
Options that provided the shortest and most direct transport for system users were rated higher.
 - *Proximity to contamination*
The sensitivity to areas of either contamination or hazardous materials of particular concern, such as petroleum storage, was considered.
 - *Safety and Security*
The degree to which the option was able to maintain and comply with the framework of increased restrictions on Port Access was considered.

2.3 Criteria Not Categorically listed for Corridor Screening

Some criteria customarily evaluated in corridor reports under Environmental Impact were considered to be equal across the board for all corridors due to the small geographical area of the project and land-use specific to the impacted area.

These included evaluations for economic benefits, social and cultural impacts, and historical and archeological impacts. These criteria are likely not to differ between the various corridor options due to the small project area. Impacts of these specific criteria will also be addressed in the Environmental Assessment (EA) documents, as part of the project alignment alternative analysis.

2.4 Description of Corridors

To facilitate analysis of the corridor options and evaluate their appropriate responses to the evaluation criteria, it was decided to divide the project area into three segments; Airport, Port and area in between the Port and the Airport. Thus, the project area was divided into three segments, and then further analyzed for corridor options within the segments.

The three segments are:

On-Airport Segment: An on-airport segment, from on the airport to the “doughnut” of the airport access roads and US-1. **Two** corridor options were studied in this segment.

Airport to Port Segment: Between the “doughnut” of the airport access roads (Proposed IMC Location 1) and the entrance to the port. **Four** corridor options were studied in this segment.

On-Port Segments: Once on the port property, **six** corridor options were studied.

Some corridor options shared the routes with other corridors due to the site specific conditions and are further illustrated in Figure 2.1. Their evaluation is described in the following sub-sections (2.4.1 thru 2.4.3) with summary of evaluation in Tables 2-1 & 2.2.

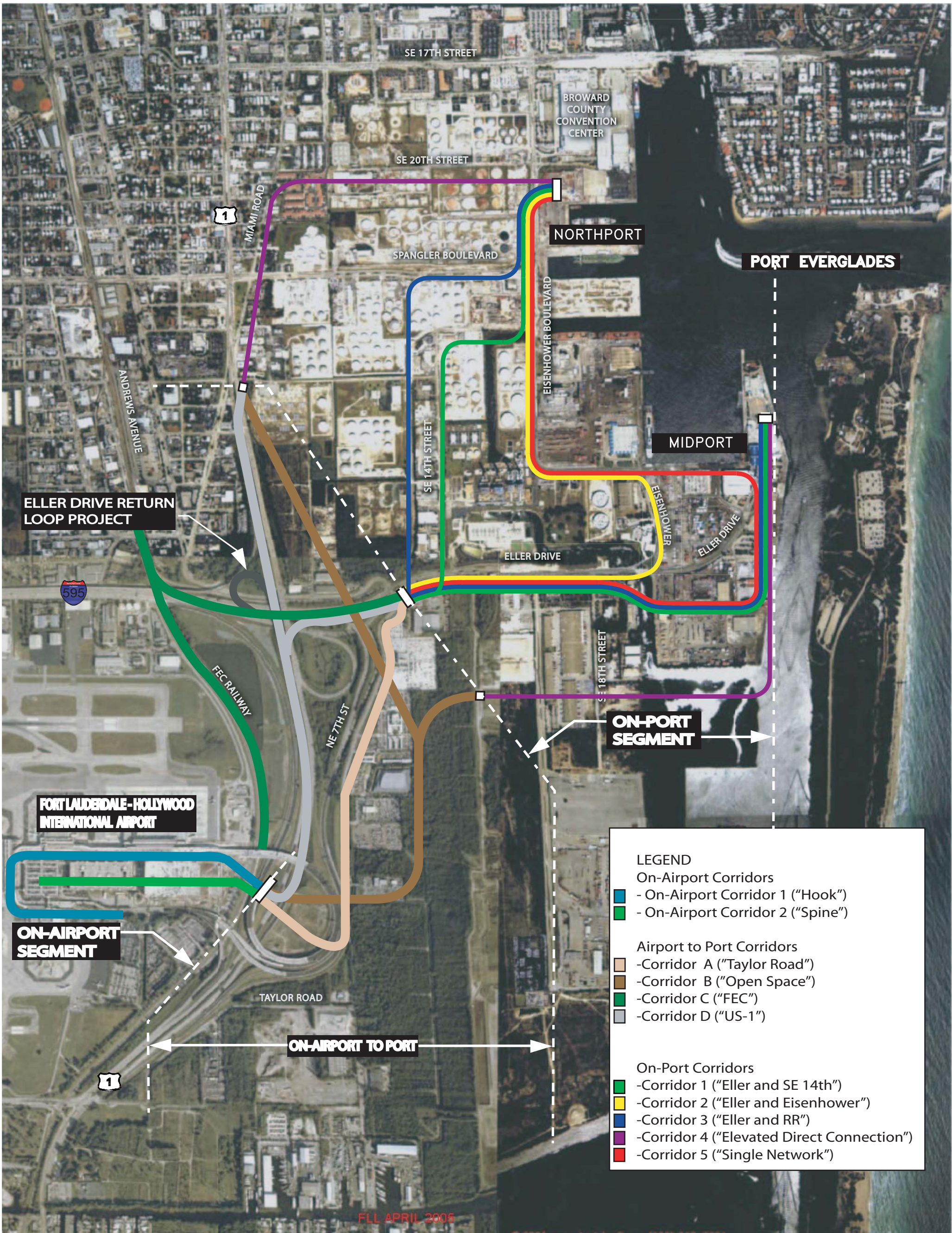


FIGURE 2.1 Corridors Evaluated

2.4.1 On-Airport Segment

On Airport Corridor 1 (Hook Corridor): This corridor travels from the proposed IMC location 1 west to the airport, and follows Terminal Drive, ending at Terminal 4. Stations would be built at each terminal. The corridor option would be situated in the space between the garages and the roadway, and utilize tie-ins already programmed into the planning and construction of the Consolidated Rental Car Center.

The option would be compatible with future updates to the FLL Master plan.

Drawbacks to this corridor option include the difficulty of setting the structural elements in complex existing conditions of an active airport with a need to ensure continuity of operations and access through construction.

On Airport Corridor 2 (Spine Corridor): This corridor travels from proposed IMC location 1 west through the “spine” of the airport, and includes stations in the Palm and Hibiscus Garages, as well as the Consolidated Rental Car Center.

Drawbacks to this option include differing floor heights between the garages and Consolidated Rental Car Center, requiring potentially costly re-configuration, changes to each structure, as well as the proximity and potential impacts to the fueling equipment in the CRCC.

2.4.2 Airport to Port Segment

Corridor A (Taylor Road Corridor) Corridor A travels north from proposed IMC location 1 along Taylor Road, entering PEV at Eller Drive, using the general right-of-way of county-owned Taylor Road.

Drawbacks to this option include construction and engineering costs that would result from a longer route with tighter curves, and some concerns regarding solutions to avoiding high voltage FPL power lines at Eller Drive and NE 7th Ave. The elevated structure also requires coordination with FLL glidepath.

Corridor B (Open Space Corridor option): Corridor B travels directly east from proposed IMC location 1, curving north approximately at what would be the south extension of SE 14th Avenue. It would continue northward for approximately a mile before splitting into Northport and Midport corridors.

Drawbacks to this corridor include two crossings of the high voltage FPL lines, as well as environmental impacts to wetlands from crossing the environmentally sensitive areas to the east of the airport that have been designated as Local Areas of Particular Concern (LAPC) by the county and are also areas of particular concern to USFWS and FHWA. Additionally, this

corridor would be least reliant on county right of way, resulting in potentially higher relocation and right-of-way costs.

Corridor C (FEC, at-grade Rail Corridor): Corridor C proposes an option utilizing the right-of-way of the Florida East Coast Rail Corridor, connecting to on-airport options to the west of US-1. The corridor would follow the existing Florida East Coast Railway beyond 1-595 to a wye before returning along a port spur track to enter Port Everglades on Eller Drive. Although corridor analysis does not specifically address vertical alignment, the option of at-grade operations in this corridor segment utilizing existing track was considered most likely.

Drawbacks to this corridor include the operational and engineering difficulties that would come from having to negotiate a reverse wye in the system between PEV and FLL. Without a direct curve, use of the current wye introduce a 20-minute delay to accommodate the FRA-mandated check that are necessary to reverse the train. This is a substantial impact on headways and level of service. Engineering a new wye and tunneling below 1-595 to keep trains from changing direction could raise construction and engineering costs. Finally, in the best case, the system would be restricted to a speed of 15mph due to sharp curves. Right-of-way and business impact considerations would include the potential impact on the operations of FEC and related business-level negotiations with FEC.

Corridor D (US-1 Corridor): Corridor D would utilize the existing US-1 corridor to serve the IMC to Port Segment. The segment would start at IMC Location 1, following US-1 north branching to the east just south of I-595 to meet the On-Port options. A northern branch would continue north along US-1 beyond I-595 to meet, and then follow, Miami Road. The branch would continue along SE 20th to reach the Northport station area.

Drawbacks to this corridor include the complexities of spanning 1-595 (if elevated) to complete the northern branch, as well as potential coordination issues with US-1, a State of Florida Right-of-Way and coordination with right-of way for Central Broward East West Transit Project's locally preferred alternative, which identifies the use of the median of US-1.

2.4.3 On-Port Segment

The following corridor options for the system within Port Everglades were evaluated. Generally, these options describe a branch serving Northport and a branch serving Midport. With the exception of Corridor 4, each corridor option starts at Eller Drive, and could be matched with any of the on-airport or Airport to Port segment options.

Corridor 1 (Eller and SE 14th Corridor): Corridor 1 serves Midport with a branch that curves from Eller Drive at S.E. 18th Ave, continues east, then continues north in coordination with future PEV Masterplan reconfiguration plans. To serve Northport, this corridor would curve

north from Eller Drive at SE 14th Avenue, proceed east on S.E. 26th Street, and north on Eisenhower Boulevard.

Drawbacks include needs for coordination with leaseholders along the Midport branch. Additionally, the corridor (specifically the Northport corridor) traverses in close proximity to the Fuel tanks storage area.

Corridor 2 (Eller and Eisenhower Corridor): Corridor 2 serves Midport with a branch that curves from Eller Drive at S.E. 18th Ave, continues east, then continues north in coordination with future PEV reconfiguration plans. To serve Northport, this corridor would curve north from Eller Drive along Eisenhower Boulevard to the Convention Center.

Drawbacks include needs for coordination with leaseholders along the Midport branch. The corridor was originally planned to meet draft PEV Master Plan assumptions of 2000, which will be reviewed and will require coordination with upcoming PEV Master Plan Update. The corridor will also require two independent operations in a network with one set supporting Northport, and another for Midport.

Corridor 3 (Eller and RR Corridor): Corridor 3 serves Midport with a branch that curves from Eller Drive at S.E. 18th Ave, continues east, then continues north in coordination with future PEV reconfiguration plans. To serve Northport, this corridor would curve north from Eller Drive along a railroad corridor one block west of S.E. 14th Avenue. It would follow the railway corridor to Eisenhower Boulevard.

Drawbacks to this corridor option include impacts on operational agreements for FEC cargo operations. The new at-grade railroad track to Midport, train frequency and operations would impact current operations and circulations of port and its tenants. Additionally placement of a new at-grade track and station would require additional right of way.

Corridor 4 (Elevated Direct Connection Corridor): Corridor 4 incorporates the On-Port segments that correlate to Corridors B & D for the Airport to Port Segment. Both Corridor B & D would utilize the Northport options of Corridor 4. Only Corridor B, however, would use Corridor 4's Midport option. Corridor 4 would serve Midport with a branch south of Eller Drive, traveling due east to curve north along the spine of PEV's proposed Midport Cruise complex.

The corridor would serve Northport with a branch traveling northwest to Miami Road (out of PEV), which it would follow to S.E. 20th Street. The branch would then travel east to Northport and the Convention Center.

Drawbacks to this corridor include the high right-of-way costs associated with a route outside of the port. This option was originally planned to include a central cruise passenger processing facility to process cruise passengers, an option that was later dropped due to incompatibility with other port planning.



Corridor 5 (Single Network Corridor/Eller-Eisenhower Corridor): Corridor 5 is a hybrid of several options, with one branch following Eller Drive at S.E. 18th Ave, continuing east, then continuing north to a Midport station sited in coordination with future PEV reconfiguration. Instead of continuing north, the corridor would curve west to Eisenhower Boulevard, and follow Eisenhower Boulevard to Northport.

Drawbacks to this corridor include less direct service from each port (specifically Northport) to FLL and proposed IMC, although this is compensated with a simpler system that could potentially lower engineering costs, and reduce user confusion at the airport and IMC.



Table 2.1: Corridor Evaluation Matrix

	On-Airport Segment		Airport to Port Segment				On-Port Segment				
	1	2	A	B	C	D	1	2	3	4	5
Construction and Engineering Costs	●	○	●	○	●	○	●	○	○	○	●
Right of Way Costs and Business Damages	●	●	●	●	○	●	●	●	○	○	●
Relocation Estimate	●	○	●	●	○	●	●	●	●	○	●
Environmental Impacts	●	●	●	○	●	●	●	●	●	○	●
Operational Effectiveness											
Provision of a single connection to the regional transportation network;	●	●	●	●	●	●	●	●	●	●	●
Provision of additional capacity between port and airport	●	●	●	●	●	●	●	●	●	●	●
Reduction of congestion on existing airport and port roadways	●	●	●	●	○	●	●	●	○	●	●
Greatest use of existing County rights-of-way	●	●	●	●	○	○	●	●	●	○	●
Level of Service for Users	●	●	●	●	○	●	●	●	○	●	●
Proximity to areas of contamination concern	●	○	●	●	○	●	○	●	○	○	●
Safety and Security	●	●	●	●	●	●	○	●	○	○	●
Summary	10 B 1 N 0 W	5 B 3 N 3 W	7 B 4 N 0 W	5 B 4 N 2 W	3 B 2 N 6 W	5 B 4 N 2 W	5 B 4 N 2 W	6B 5 N 0 W	2 B 3 N 6 W	3 B 1 N 7 W	7 B 4 N 0 W

Scale Legend		
Best (B)	=	●
Neutral (N)	=	○
Worst (W)	=	○

Note: See Table 2.2 for Rating Criteria

Table 2.2: Corridor Rating Criteria

Constructability Criteria	Rating	Basis
Construction and Engineering Costs	○ (Worst)	Option has unavoidable interactions with adjacent structures, roadways, or infrastructure resulting in substantial added cost.
	● (Best)	Option encounters few other structures and projects that could add to project complexity and cost.
Right of Way Costs and Business Damages	○ (Worst)	Option would require substantial new right-of-way, or could impact existing access / operations of existing business.
	● (Best)	Option would require little new right-of-way, or few impacts to existing access / operations of existing business.
Relocation Estimate	○ (Worst)	Option would require substantial relocation of businesses or other Airport and Port Tenants.
	● (Best)	Option would require little or no business relocation
Environmental Impacts	○ (Worst)	Option would have either environmental concerns (noise or air pollution) or substantial proximity to areas of biological concern (wetlands, threatened and endangered species)
	● (Best)	Option would have minimal environmental concerns or minimal proximity to areas of biological concern.
Operational Effectiveness Criteria	Rating	Basis
Provision of a single connection to the regional transportation network;	○ (Worst)	Option would require multiple or indirect connections to the proposed regional transportation network (FEC, CBEWTA, SunPort)
	● (Best)	Option would provide connection for all elements of the regional transportation network in one place.
Provision of additional capacity between port and airport	○ (Worst)	Option would not provide additional capacity, or would reduce existing capacity.
	● (Best)	Option would provide additional capacity.
Reduction of congestion on existing airport and port roadways	○ (Worst)	Option would not improve, or would add to existing congestion problems on Port and Airport roadways.
	● (Best)	Option would make significant improvements to congestion problems on Port and Airport roadways.
Greatest use of existing County rights-of-way	○ (Worst)	The county makes little use of County rights-of-way, instead relying on private or State owned properties.
	● (Best)	The option makes extensive use of County rights-of-way, minimizing the difficulty of establishing right-of-way.
Level of Service for Users	○ (Worst)	The option makes few improvements to the process of transporting end users of the system both within and between the port and airport, and to the regional transportation system.
	● (Best)	The option significantly improves the experience for users transferring of the system both within and between the port and airport, and to the regional transportation system.
Proximity to areas of contamination	○ (Worst)	The option travels in proximity to areas of known contamination concern.
	● (Best)	The option avoids proximity to areas of known contamination concern.
Safety and Security	○ (Worst)	The option has extensive exposure to secured petroleum storage areas.
	● (Best)	The option has minimal exposure to secured petroleum storage areas.

○: Denotes "Neutral" : Rating denotes no impact, OR impact that falls between best and worst.

3. IMC SITE ANALYSIS

3.1 IMC location Development

The general intent of the Intermodal Center is to provide the following features:

- Regional Transportation hub to enhance and facilitate use for Broward County Transit, Downtown Connector Rail using FEC Corridor, Central Broward East West Transit, and connection to the Airport and Port using the people mover.
- Provide remote parking for Airport and Port for “off-site” parkers to relieve congestion at the access roadways for these facilities.
- Potential level of service “concession” for transit passengers.
- Kiss & Ride drop-offs for Airport, Port and other transits.

It was determined in the feasibility phase of the project that the IMC would not include FIS/Customs and Border Protection (CBP) functions due to duplication of services, security mandated requirements, and associated costs.

3.2 Criteria/IMC Location Evaluation

IMC Locations were evaluated for their advantages and disadvantages as described in the previous sections. Although the PD&E manual does not identify specific criteria for IMC-type use, the following criteria were developed to meet the needs of a corridor level-analysis.

- *System functionality with People Mover corridor option alternatives*
Options with higher ratings were options that were compatible with the greatest number of options from the People Mover component of the project.
- *Property Impacts*
The right-of-way acquisition necessary for a proposed location was factored in, with location entirely on public lands lending to a high rating, and locations requiring property acquisition scoring lower.
- *Inter-modality*
The ability of the option to connect to other elements of the regional transportation system was evaluated.
- *Environmental Impacts*
The degree to which the proposed location impacted wetlands or undeveloped areas or posed impacts to T&E species was evaluated.
- *Security Issues*
The ability of the location to function within the increased restrictions of port access were considered, as were the amount additional infrastructure necessary to make any given option comply with the increased restrictions.

- *Viability & Space for IMC Egress and Access Elements*
The feasibility of incorporating the ramps, roadways, and other infrastructure necessary for any potential IMC was evaluated.
- *Project Constructability*
The ability to build the project in a cost effective-way without infeasible encumbrances from nearby roadways, projects and buildings was considered.

3.3 Potential IMC Locations

Four locations for a potential IMC were investigated. Potential IMC locations were identified based on the locations that are logical alternatives and can be served by one or more people mover corridors. These locations were evaluated on their ability to function with the various People Mover corridors, to minimize security impacts and environmental concerns, and the feasibility of construction. Potential IMC locations are described below. A schematic level map is shown in Figure 3.1.

Location 1 (East of Airport): This location would site the IMC in the area encircled by the Airport access roads. This location is compatible with the broadest number of corridors. Additionally, this location easily serves and interfaces with Broward County Transit along US-1, as well as other potential future transit systems along US-1, such as the Central Broward East West Transit Analysis project's Locally Preferred Alternative. The location also maintains a very close proximity to the FEC Corridor, which is being analyzed for a north south regional connection called SFECC Transit Analysis.

Drawbacks to this location include a certain level of difficulty of access from ground roads such as US-1, Airport access ramps and Taylor Drive and drainage challenges related to the site.

Location 2 (595 & FEC Corridor): This location would be sited immediately north of I-595, at the point where the FEC railroad branches to the east with a spur into Port Everglades. The site is adjacent to the current Eller Drive (west) / US-1 (South) Return Loop project.

Drawbacks to this location include:

This location serves the most limited number of corridor options -- only corridors that utilize the Off-airport Corridor C option (the FEC track corridor).

The Return Loop Project mentioned above is underway and would substantially reduce the available area and complicate the layout of access and egress ramps, and this location also impacts several existing businesses.

Finally, this option proves to be an unattractive intermodal option, as access to and from other transit service would be difficult.



Location 3 (Dynergy Site): This location is situated along US-1, just north of the US-1/595 Interchange. Of the people-mover options, it would most efficiently serve the Corridor B of the On-port segments above. This location is perhaps most optimal in terms of ease of construction and coordination with other projects.

Drawbacks include:

The location serves as a traffic generator on US-1 in close proximity to the intersection of Spangler Drive and US-1, on one of the two main cargo/petroleum routes for Port Everglades.

The proximity of this location to the Port's petroleum and LPG storage areas provides somewhat of a negative rating for this location. The location, however, is being studied by the County as a site for remote employee-parking and would be further coordinated.

Location 4 (Stiles and Frazer Properties): This location would situate the IMC to the southeast of the intersection of US-1 and I-595, near the entrance to the port at Eller Drive. Like location 1, this corridor option serves a broad number of corridor options.

Drawbacks to this option include greater difficulty interfacing with other components of the regional transportation system due to the locations' distance from US-1. Additionally, placement of the IMC in this location could create traffic along Eller Drive, one of the Port's two main cargo/petroleum routes, thereby creating a possibly negative impact on the future needs and growth of the Port.

Finally, this site is in proximity a currently undeveloped private parcel to the north of Eller drive, with potential environmental concerns due to wetlands identified in this area. The site may also have a high level of impact from Eller Drive Overpass final design that is on-going, by FDOT.



Figure 3.1: IMC Locations Evaluated

Table 3.1: IMC Location Evaluation Matrix

Criteria	Location Alternatives			
	1	2	3	4
System functionality with People Mover corridor option alternatives	●	○	◐	◑
Property Impacts	◐	○	●	○
Inter-modality	●	◐	◐	○
Environmental Impacts	◐	◐	◐	○
Security Issues	●	●	○	◐
Viability & Space for IMC Egress and Access Elements	◐	◐	◐	○
Project Constructability	◐	●	◐	◐
Additional Considerations		Serves FEC corridor, deemed not viable		
Summary	3 B 4 N 0 W	2 B 3 N 2 W	1 B 5 N 1 W	0 B 3 N 4 W

Scale Legend		
Best (B)	=	●
Neutral (N)	=	◐
Worst (W)	=	○

Note: See Table 3.2 for rating criteria

Table 3.2 - IMC Evaluation Criteria

Criteria	Rating	Description
System functionality with People Mover corridor option alternatives	○ (Worst)	IMC location serves only a single people-mover corridor option
	● (Best)	IMC location works with a broad spectrum of people-mover corridor options
Property Impacts	○ (Worst)	IMC location would require large amounts of non –county property acquisition
	● (Best)	IMC contained within county land
Inter-modality	○ (Worst)	IMC does not connect with other modes of transportation
	● (Best)	IMC provides connection other modes of transportation
Environmental Impacts	○ (Worst)	IMC poses environmental impacts (Wetland / T&E / contamination)
	● (Best)	IMC would not pose environmental impacts (Wetland / T&E / contamination)
Security Issues	○ (Worst)	Location of IMC would require additional security infrastructure
	● (Best)	Location of IMC would not require additional security infrastructure
Viability & Space for IMC Egress and Access Roadway Elements	○ (Worst)	Project site introduces difficulties (to existing roadways and future ramps) for site egress and access.
	● (Best)	Project site poses no major difficulties for egress and access.
Constructability Issues	○ (Worst)	Location of IMC would involve substantial and complex coordination with existing arterial roads and major projects.
	● (Best)	Location of IMC involves minimal coordination with existing roads or major projects.

○: Denotes “Neutral” Rating denotes no impact, OR impact that falls between best and worst.

4. SELECTION OF VIABLE CORRIDORS

Comprehensive information on the corridors collected, was discussed and evaluated at the Project Corridor Evaluation Workshop held on November 6, 2006. The relative advantages and disadvantages to the various corridors were reviewed and finalized as described in the rating matrices. Non-viable corridors and IMC locations were identified during the workshop.

Remaining viable-corridors, as well as viable-IMC locations, are shown in Figure 2.5.

Non-Viable Corridors and IMC Locations

Based on the input received at the Corridor Workshop, the following corridors were considered not viable:

- **Airport Corridor 2 (Spine Corridor).** This option was determined to have too many technical and structural constraints that could add risk and cost to the design and construction of a viable alternatives (reconfiguration of the varying floor levels of the airport garages and RCC would cause high construction costs and large scale disruption of existing facilities for example) as well as adverse operational impacts on the current facilities and People Mover system.
- **IMC-PEV Corridor B (Open-Space Corridor option)** This option, which crosses directly into the Port from the center of the 'doughnut' at US-1, was determined to have too many potential environmental impacts as a result of crossing the LAPC (Local Area of Particular Concern) to the east of the airport and impact on T&E species in the area. (Disqualification of this option includes disqualification of those on-port options that tied in, such as a portion of on-port Corridor 4).
- **IMC-PEV Corridor C (FEC Corridor).** This option was determined to have potentially costly interactions with the existing operation of the FEC railway, a low level-of-service, as well as the need to construct an at-grade extension at the Midport, with adverse congestion impacts to the Port.
- **On-Port Corridor 3 (Eller and RR Corridor).** On-Port Corridor 3 was determined not to be feasible as it relies on "FEC Corridor" that was considered not viable.

Non-Viable IMC Locations:

- **IMC Location 2 (595 & FEC Corridor):** IMC Location 2, to the west of the US-1 and I-595 Interchange, was determined not to be feasible due to the distance between its location and the location of the viable corridors. Only Corridor C, the FEC Corridor, would be able to utilize this location, a corridor that was determined to be non-viable.

- **IMC Location 4 (Stiles and Frazer Properties):** This location, although well suited to some corridor options, was determined to have a high level of impact from the in-progress Eller Drive Overpass project as well as large impacts to two large private businesses along the corridor. This location would possibly increase traffic along Eller Drive, creating a negative impact on one prime criteria for the project.

Viable Corridors and IMC Locations

Viable Corridors and IMC Locations carried forward for further analysis included the following Corridor options:

- **On-Airport:** The Hook Corridor is identified as viable corridor for an on-airport People Mover system. This corridor runs between the airport roadways and the garages. This option avoids the complexity that accompanied a center spine corridor option. Additionally, this corridor's possible corridor option has been coordinated with the Consolidated Rental Car Facility. Additional coordination with FLL Master Plan update is feasible and on-going.
- **Off-Airport (IMC-PEV)** In the Off-airport (IMC-PEV) segment, the Corridor Options A and D, (The Taylor Road and the US-1 corridors, respectively) are considered the viable, as both enter PEV through Eller Drive, are compatible with Port and Airport corridor options, and utilize existing rights-of-way.
- **On-Port:** With the exception of Corridor option 3, and a portion of option 4, each of which utilized an IMC-PEV corridor that was eliminated. All other On-Port corridor options for the system were determined to be viable.

Additionally, the following IMC Locations are being carried forward for further study:

- **IMC Location 1.** IMC Location 1, in the "doughnut" of the Airport Access Roadways at US-1, was determined to be compatible with all potential corridors being carried forward.
- **IMC Location 3 "Dynergy Site"** This IMC location provides access to corridor options utilizing Eller Drive. It also provides a potential connection to the regional transportation system along US-1, and will be carried forward in light of the county's decision to evaluate use of this location for remote (off-site) parking and employee parking.

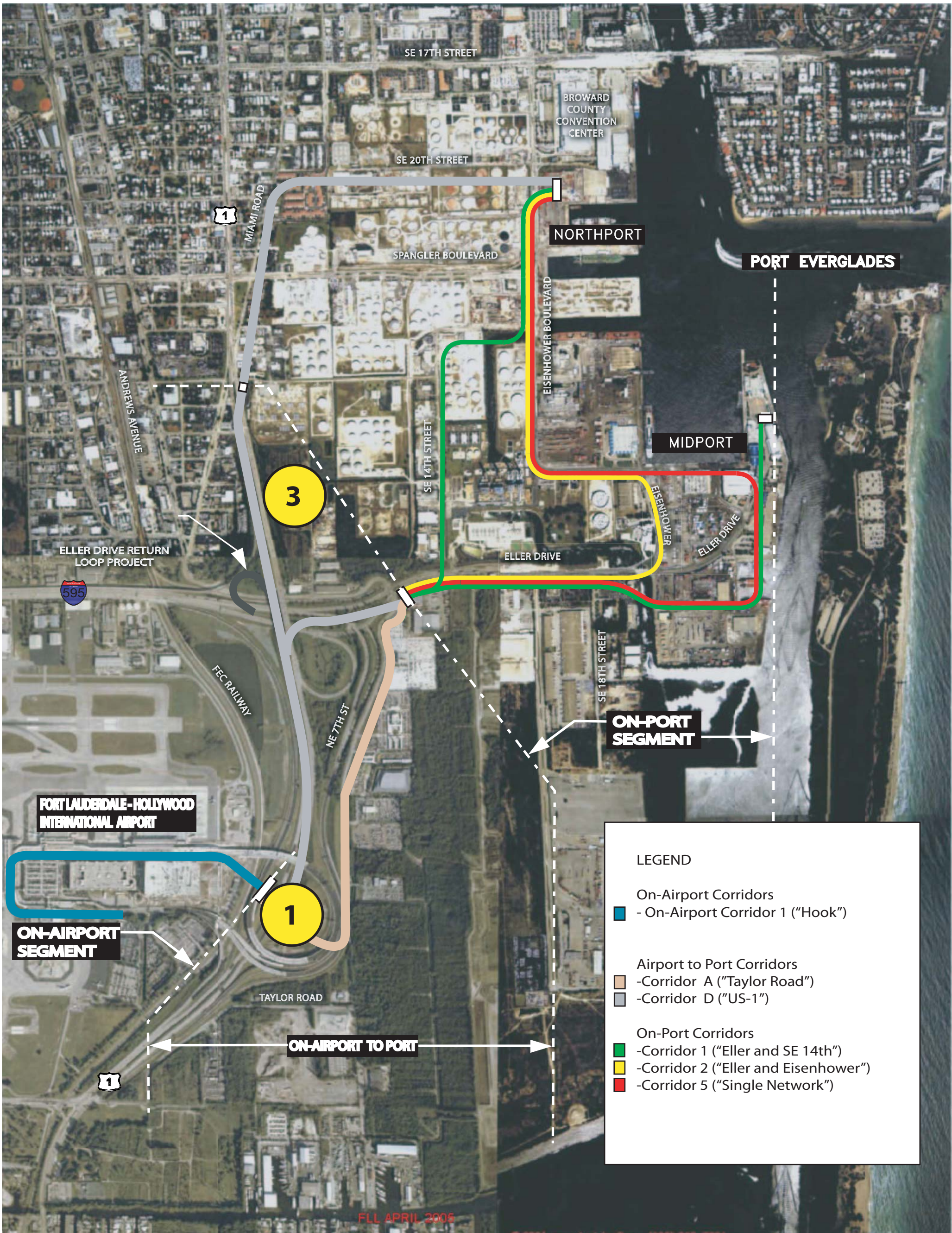


FIGURE 4.1: Viable Corridors



5. NEXT STEPS

As part of the PD&E process, this report sought to identify those corridors that had been studied in development of corridor options for the Broward County Intermodal Center and People Mover project. Following this report, corridors identified as viable corridor and viable IMC locations will be evaluated as alignment alternatives in the Preliminary Engineering Report, which will be used to determine a locally preferred alternative. Alignment analysis will include analysis of horizontal and vertical alignments, station locations, cost-benefit, and analysis of operational issues.



APPENDIX-A

Workshop Notes

PROJECT CORRIDOR EVALUATION WORKSHOP

Date/Time: November 6, 2006, 1.30 pm (EDT)

Attendees: Phillip Allen, Director, Port Everglades (PEV)
Bob Bielek, Director, Fort Lauderdale-Hollywood International Airport (FLL)
Bob Flint, PEV
Karl Eckhardt, PEV
Peg Buchan, PEV
David Anderton, PEV
Richard Heidrich, DMJM Harris (PEV Masterplan Update Consultant)
Bolfi Posadas, BCAD
Marc Gambrill, BCAD
Michael Nonnemacher, BCAD
John O'Hara, BCAD
Todd McClendon, URS/AEP
Dwayne Vaughn, URS/AEP
Amie Goddeau, FDOT Dist. 4
Scott Seeburger, FDOT Dist. 4
Sanjeev Shah, Lea+Elliott
Sambit Bhattacharjee, Lea+Elliott
Larry Coleman, Lea+Elliott
Bill Bascus, Lea+Elliott

Prepared By: Sambit Bhattacharjee, Lea +Elliott, Inc

**Subject: Broward County Intermodal Center (IMC) & People Mover PD&E
Workshop for Evaluation of Project Corridors**

The purpose of the workshop was to discuss and evaluate various corridors that are being considered for the project.

Corridor Alternatives Review:

These notes are intended to document workshop and its outcome. The information items that were shared and discussed during the workshop are included here as attachments:

Attachment -1:

A copy of all the handouts is included. These were provided to the attendees and invitees, in advance of the meeting.

- a) Write-up for Workshop Intent.
- b) Copy of workshop handouts – Corridor Graphics and Corridor Evaluation Criteria.
- c) Copy of the Presentation.

Attachment -2:

A copy of workshop sign-in sheet is included.

Attachment -3:

A copy of “Viable-Corridors” graphics is attached. This is based on the agreement and outcome from the workshop.

Based on the discussion during the workshop, certain corridors for people mover and some locations of the IMC were considered “not viable.”

- The People Mover Corridor 2 (spine alignment for on-airport segment) and Corridors C (FEC route) and B (thru LAPC/ wetland areas) and their respective segments for on-port connections were considered not-viable.
- IMC location 2 (west of US-1 and I-595) and location 4 (Stiles and Frazer property) were also considered not-viable.

The Viable corridors will be carried forward for development of alignment.

Other Issues Discussed:

Some of the other items discussed during the workshop included queries and concerns related to operational issues of the System, raised by the Airport and Port.

These issues would be considered, addressed and resolved as a part of alignment development and further project analysis:

- a. Security requirements for the system,
- b. Coordination with the Masterplans,
- c. Need for passenger walkways from Midport terminals that are far away from people mover station,
- d. Circulation within the Airport and need /replacement of CRCF shuttles by the people mover,
- e. Locations for surveyors during the administration of Origin and Destination survey, and
- f. Consideration for the system to accommodate Bus in the initial phase, but switch to APM later.

Next Steps and Action Items:

- A-1 Based on the above discussions, it was decided that Lea+Elliott Team will document the discussion in a Corridor Report Format (per PD&E Manual requirements). The Report would be submitted to County, Airport and Port for review by end of November 2006.
- A-2 The viable corridors will be carried forward by Lea+Elliott Team for development of alignments, engineering and environmental analysis. This will facilitate determination of Locally Preferred Alternative (LPA) by the County.

The above meeting minutes are the author's synopsis of what was stated. The program will rely on these minutes as the record of all matters discussed and conclusions reached during this meeting unless written changes are sent to the author within seven calendar days of receipt of these minutes.



Attachment -1

Broward County Intermodal Center & People Mover Project

Workshop for Project Corridor Evaluation

November 06, 2006

Project Information:

The County is currently conducting a Project Development and Environmental Study (PD&E) for a proposed Intermodal Center (IMC) and People Mover. A PD&E Study is a Federal Highway Administration (FHWA) / Florida Department of Transportation (FDOT) guided process to address the project planning in line with the requirements of Department of Transportation (DOT) and in compliance with the National Environmental Policy Act (NEPA). Conformance to NEPA is essential to maintain eligibility of a project for Federal and State funds.

Corridor Evaluation:

Per Section 9-2.3.7 of the FDOT PD&E Manual, one of the steps in the process is to prepare Corridor Analysis for a new transportation system and facilities. In this study, analysis of potential corridors for a people mover and potential locations for the IMC is required.

Per the PD&E guidelines, the review is to be based on the following criteria:

- Construction and Engineering Costs
- Right of Way Costs and Business Damages
- Relocation Estimate
- Environmental Impacts
- Operational Effectiveness (*the PD&E Manual allows the project to customize the details within this category*)
- Safety and Security

Intent of the Workshop

As outlined in the presentation material attached, the intent of the Corridor Analysis Workshop is to obtain input from County regarding the evaluation of the following:

- Alternative Corridors for a People Mover
- Alternative Locations for an IMC

Anticipated Outcome from Workshop

- Identify Corridor(s) with “low-viability” or “not likely to be viable.”
- Carry the other “viable corridors” for detailed analysis to Support County’s Selection of Locally Preferred Alternative (alignment) (Later in the Project).

Figure 2.1a Potential Corridors

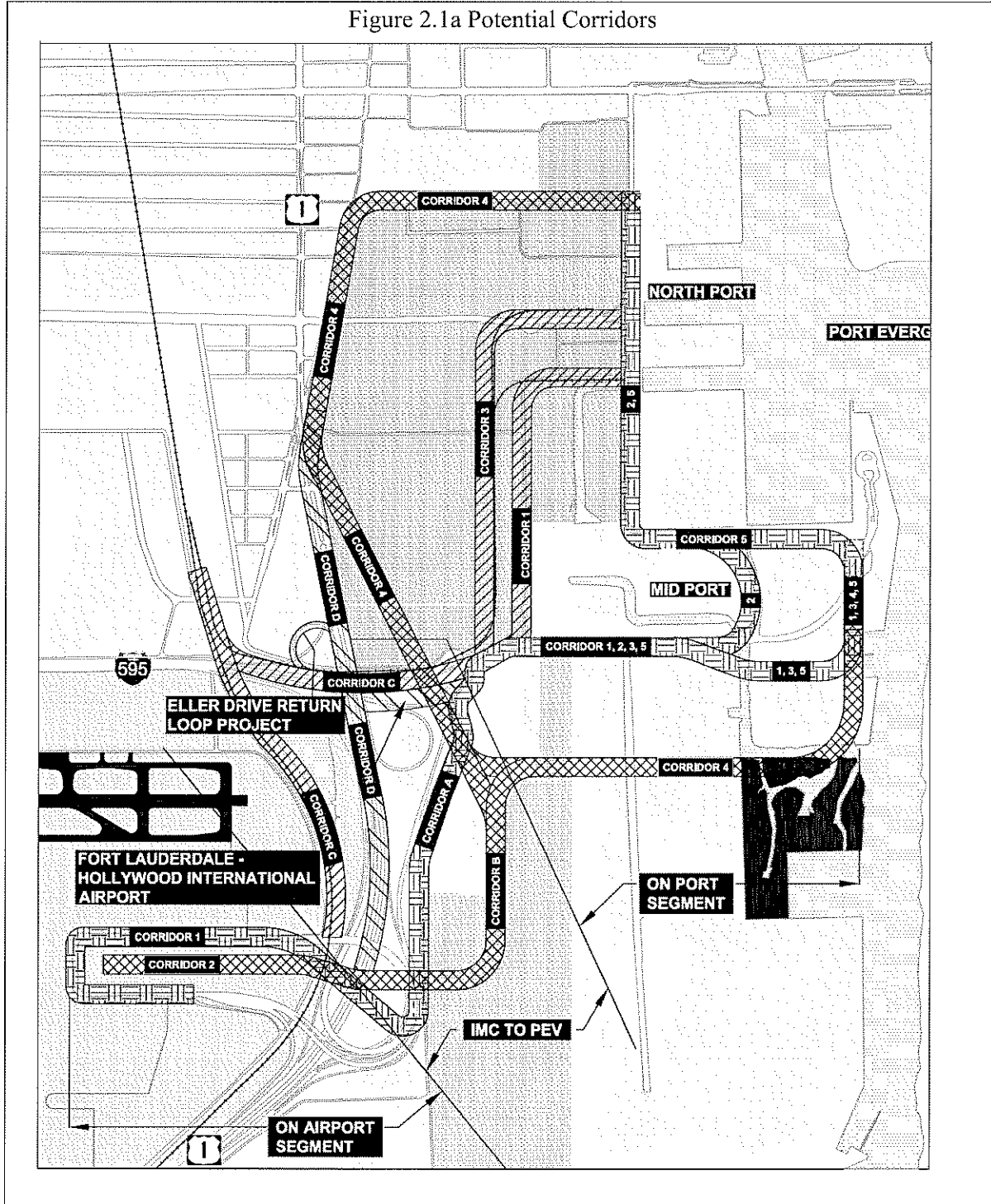


Figure 2.1: Potential Corridors with Site Context

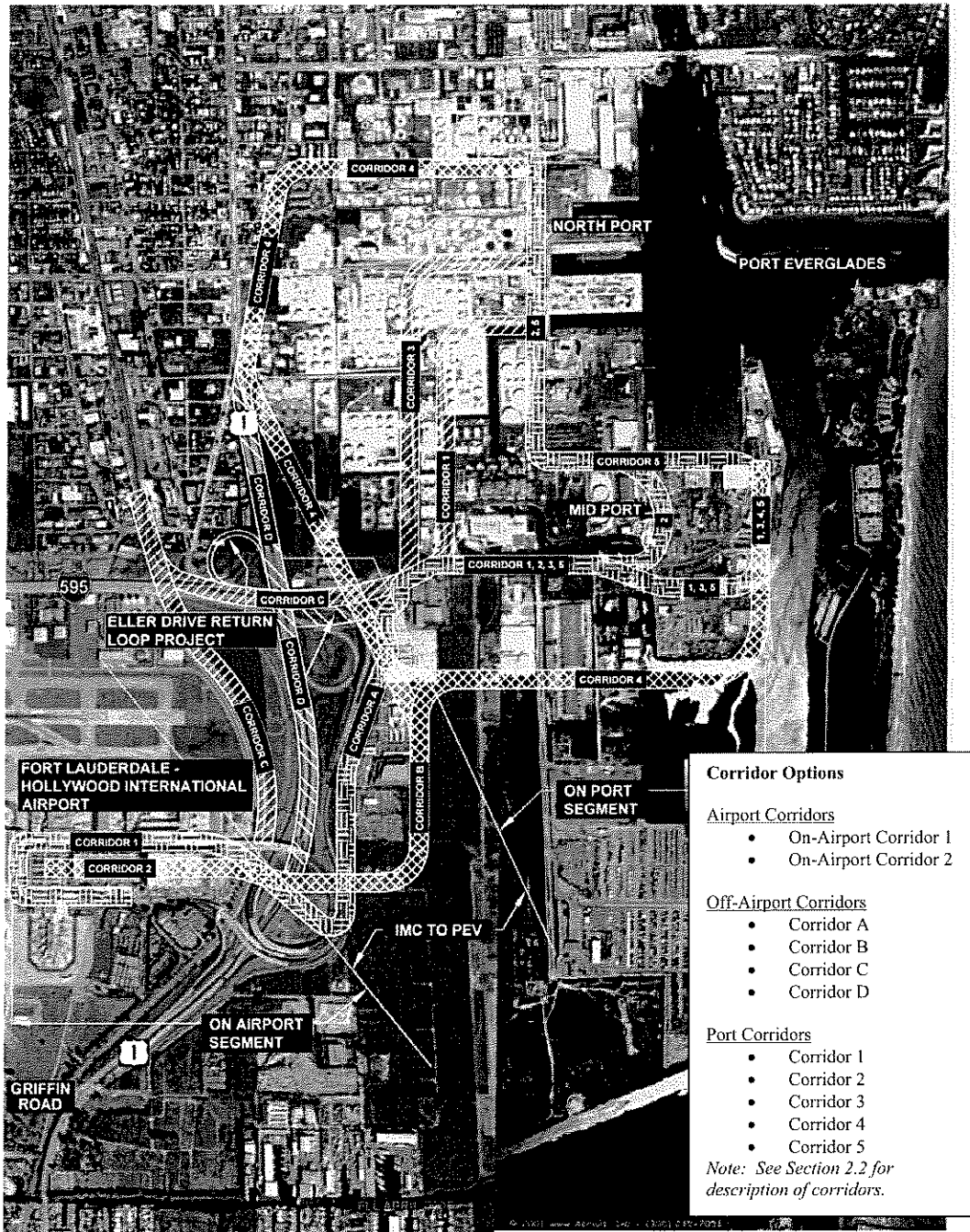


Figure 2.2a: Corridor Evaluation Criteria

Constructability Criteria	Rating	Basis
Construction and Engineering Costs	○ (Worst)	Option has unavoidable interactions with adjacent structures, roadways, or infrastructure resulting in added cost.
	● (Best)	Option encounters few other structures and projects that could add to project complexity and cost.
Right of Way Costs and Business Damages	○ (Worst)	Option would require substantial new right-of-way, or could impact existing access.
	● (Best)	Option would require little new right-of-way, or few impacts to existing access.
Relocation Estimate	○ (Worst)	Option would require the relocation of businesses or other Airport and Port Tenants.
	● (Best)	Option would require little or no business relocation
Environmental Impacts	○ (Worst)	Option would have substantial proximity to areas of either contamination or biological (wetlands, threatened and endangered species)
	● (Best)	Option would encounter few areas of biological (wetlands, endangered species) or contamination concern
Operational Effectiveness Criteria	Rating	Basis
Provision of a single connection to the regional transit network;	○ (Worst)	Option would require multiple connections to the proposed regional transit network (FEC, CBEWTA, SunPort)
	● (Best)	Option would provide connection for all elements of the regional transit network in one place.
Provision of additional capacity between port and airport	○ (Worst)	Option would not provide additional capacity, or would reduce existing capacity.
	● (Best)	Option would provide additional capacity.
Reduction of congestion on existing airport and port roadways	○ (Worst)	Option would not improve, or would add to existing congestion problems on Port and Airport roadways.
	● (Best)	Option would make significant improvements to congestion problems on Port and Airport roadways.
Greatest use of existing County rights-of-way	○ (Worst)	The county makes little use of County rights-of-way, instead relying on private or State owned properties.
	● (Best)	The option makes extensive use of County rights-of-way, minimizing the difficulty of establishing right-of-way.
Level of Service for Users	○ (Worst)	The option makes few improvements to the process of transporting end users of the system both within and between the port and airport, and to the regional transit system.
	● (Best)	The option significantly improves the experience for users transferring of the system both within and between the port and airport, and to the regional transit system.
Proximity to areas of contamination	○ (Worst)	The option travels in proximity to areas of contamination concern.
	● (Best)	The option avoids proximity to areas of contamination concern.
Safety and Security	○ (Worst)	The option has extensive exposure to secured petroleum storage areas.
	● (Best)	The option has minimal exposure to secured petroleum storage areas.

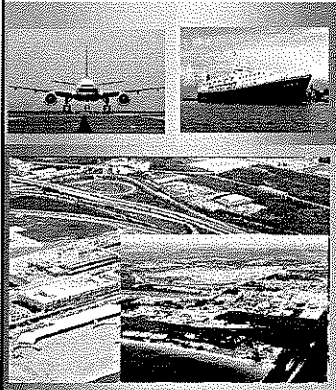
○ : Denotes Neutral

Figure 2.3a - IMC Location Evaluation Criteria

Criteria	Rating	Description
System functionality with People Mover alignment alternatives	○ (Worst)	IMC location serves only a single alignment
	● (Best)	IMC location works with a broad spectrum of alignments
Property Impacts	○ (Worst)	IMC location would require large amounts of non –county property acquisition
	● (Best)	IMC contained within county land
Inter-modality	○ (Worst)	IMC does not connect with other modes of transportation
	● (Best)	IMC location provide possibility of interface with other modes of transportation
Environmental Impacts	○ (Worst)	IMC poses environmental impacts (Wetland / T&E / contamination)
	● (Best)	IMC would not pose environmental impacts (Wetland / T&E / contamination)
Security Issues	○ (Worst)	Location of IMC would require additional infrastructure and monitoring
	● (Best)	Location of IMC would not require additional security infrastructure
Viability & Space for IMC Egress and Access Roadway Elements	○ (Worst)	Project site introduces difficulties (to existing roadways and future ramps) for site egress and access.
	● (Best)	Project site poses no major difficulties for egress and access.
Constructability Issues	○ (Worst)	Location of IMC would involve substantial and complex coordination with major roads or road projects.
	● (Best)	Location of IMC involves minimal coordination with other roads or projects.

○ : Denotes Neutral

Broward County Intermodal Center And People Mover



Project Corridor Evaluation Workshop

November 6, 2006

Workshop Presentation Structure

- Background of Project
- Intent of Workshop
- Project Needs
- People Mover Corridors and Analysis
- IMC Location Options and Analysis

Project History & Evolution

- Project Study
 - Phase - I : Feasibility Phase completed in 2004
 - Phase -II : Project Development and Environmental Study (PD&E Study Phase) currently on-going
- PD&E Study :
 - Comply with Federal and State Criteria (NEPA)
 - Maintain Eligibility for Federal and State Funding
- Expected Outcome (from this Study)
 - County's selection of Locally Preferred Alternative (LPA)
 - Federal acceptance with Record of Decision (RoD) or Finding of No Significant Impact (FONSI)

PD&E Study

- Federal Highway Administration: Lead Federal Agency
- FDOT (Dist. 4): Lead State Agency
- Advance Notification: Completed - (Mar – May '06)
 - Minimal to Moderate for Impacts
 - General Enhancement to the Area
- County's Input necessary for
 - *Corridor Analysis (This Workshop)*
 - * *Corridors for People Mover*
 - * *Location of IMC*
 - Selection of Locally Preferred Alternative

Workshop Intent

- Corridor Analysis (Per PD&E Manual):
 - Construction and Engineering Costs
 - Right of Way Costs and Business Damages
 - Relocation Estimate
 - Environmental Impacts
 - Operational Effectiveness
 - Safety and Security

(Based on PD&E Manual Section 9-2.3.7; the basis and criteria will be discussed in details in subsequent slides)

- **Intent:**
Identify Corridor(s) with “low-viability” or “not likely to be viable”

Evaluation Criteria

People Mover

- Construction and Engineering Costs
- Right of Way Costs and Business Damages
- Relocation Estimate
- Environmental Impacts
- **Operational Effectiveness**
 - o Provision of a single connection to the regional transit network
 - o Provision of additional capacity between port and airport
 - o Reduction of congestion on existing airport and port roadways
 - o Greatest use of existing County rights-of-way
 - o Level of Service for Users
 - o Proximity to areas of Contamination Concern
- Safety and Security

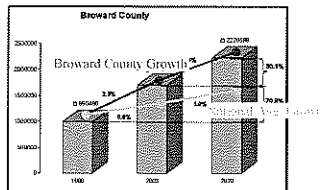
Intermodal Center

- System functionality with People Mover alignment alternatives
- Property Impacts (Right of Way Costs, Business Damages & Relocation Estimate)
- Inter-modality
- Environmental Impacts
- Security Issues
- Viability & Space for IMC Egress and Access Elements
- Project Constructability

Broward County Growth

Population Growth - Annual		
	Past Trends (from 1980 to 2003)	Future Projections ⁽¹⁾ (from 2003 to 2020)
Broward County	2.3%	1.6%
State of Florida	2.2%	1.7%
US	0.9%	1.0%

Broward County Population (2003) : 1.70 M^(1,2)
Broward County Population (2004) : 1.754 M⁽²⁾



Airport Facts

- 95% of the FLL passengers are O&D, thus using the landside access/egress points.
- FLL contributes \$2.3 billion to local economy and employs 31,500 either directly or indirectly.

Port Everglades Facts

- 55%-65% of the multi-day cruisers use FLL, however, they use the landside access/egress points of FLL and PEV.
- PEV contributes \$2.4 billion to local economy and employs 19,000 either directly or indirectly.
- PEV entry point for significant amount of the petroleum and bulk cargo/freight for South Florida.

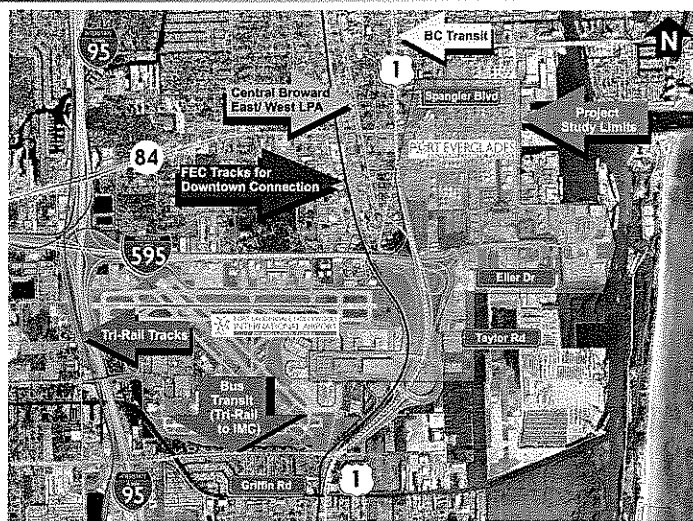
M: Million

Source:

1. State of Broward Economy 2004 Wrap-up/2005 Outlook – Broward County Department of Urban Planning and Redevelopment
2. US Census Bureau

Project Area Overview

Airport & Seaport

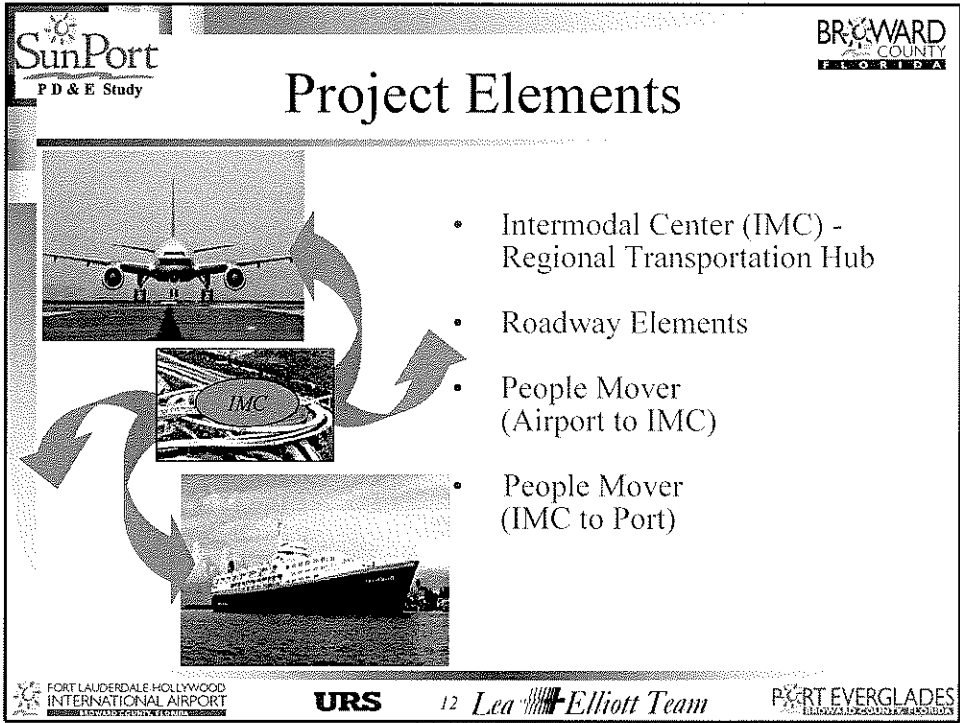
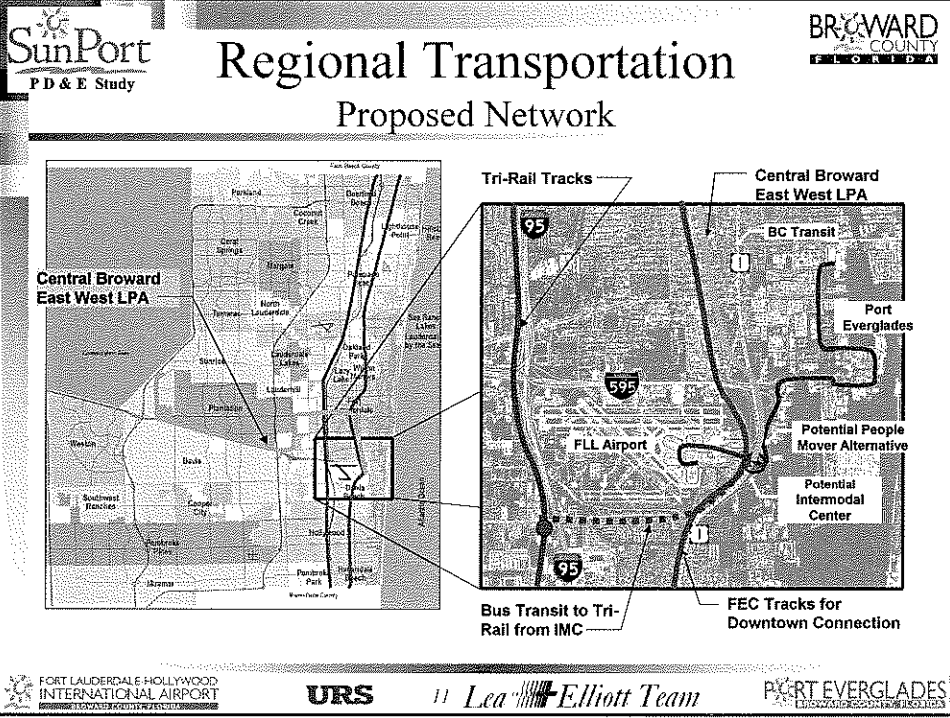


SunPort PD & E Study **Existing Condition – FLL Airport** **BROWARD COUNTY** FLORIDA

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT URS 9 *Lea Elliott Team* PORT EVERGLADES

SunPort PD & E Study **Existing Condition- Port Everglades** **BROWARD COUNTY** FLORIDA

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT URS 10 *Lea Elliott Team* PORT EVERGLADES



SunPort
P D & E Study

BROWARD COUNTY
FLORIDA

Intermediate Center Location Option

On-airport segment

Corridor Options:

- At-grade Rail
- At-grade/Dedicated Bus
- APM/Dedicated Bus 1
- APM/Dedicated Bus 2

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

URS 13 *Lea* **Elliott Team**

PORT EVERGLADES
BROWARD COUNTY, FLORIDA

SunPort
P D & E Study

BROWARD COUNTY
FLORIDA

People Mover Corridor Evaluation

- PD&E requires analysis of new alternatives with:
 - No-Build,
 - TSM (Transportation System Management)
- Corridor Analysis (specific to new alternatives)
- People Mover Corridors (3 Segments)
 - On-Airport
 - Off-Airport
 - Port

FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT

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PORT EVERGLADES
BROWARD COUNTY, FLORIDA

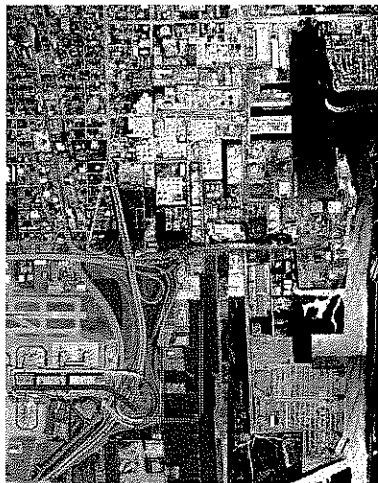
On-Airport - Corridor Evaluation



On-Airport Corridor -1: (Hook Corridor)


- Airport Right-of-Way (County Owned)
- Use space between Access Roadways and Garages
- Currently programmed to tie into CRCF and Pedestrian Bridges
- Further coordination with FLL Masterplan update is viable
- Elevated System


On-Airport - Corridor Evaluation



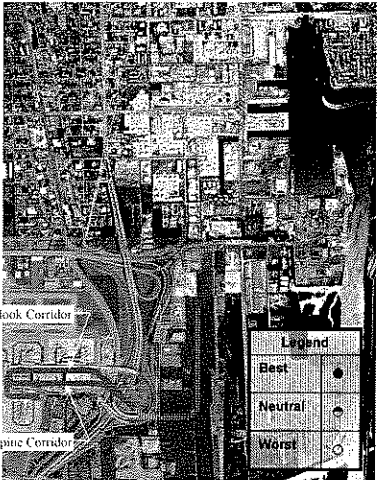
On-Airport Corridor -2: (Spine Corridor)

- Airport Right-of-Way (County Owned)
- Straight Alignment over the center of FLL Garages
- Existing Garages and CRCF have different roof elevation, height
- Impacts CRCF (customer lobby and fueling center on ground floor) and Garages
- Elevated System






On-Airport - Corridor Evaluation




1. Hook Corridor


2. Spine Corridor


On-Airport Options	1	2
Construction and Engineering Costs	●	○
Right of Way Costs and Business Damages	●	●
Relocation Estimates	●	○
Environmental Impacts	●	●
Operational Effectiveness		
Provision of a single connection to the regional transit network	●	●
Provision of additional capacity between port and airport	●	●
Reduction of congestion on existing airport and port roadways	●	●
Greatest use of existing County rights-of-way	●	●
Level of Service for Users	●	●
Proximity to areas of Contamination Concern	○	○
Safety and Security	●	●






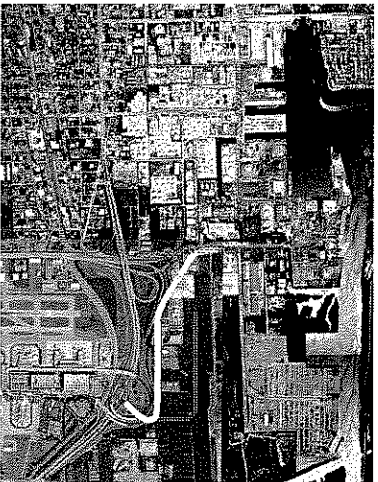
17 *Lea Elliott Team*









Off-Airport - Corridor Evaluation




Off-Airport Corridor -A
(Taylor Road Corridor)

- Existing County Right-of-Way
- Follows Roadway Right-of-Way
- Could be Elevated (Busway or APM guideway) System






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SunPort
P D & E Study

BROWARD COUNTY
FLORIDA

Off-Airport - Corridor Evaluation



Off-Airport Corridor -B
(Open Space Alignment)

- Existing County Right-of-Way
- Follows open space with FPL easement for transmission towers.
- Severe environmental (biological) impact per USFWS and FHWA
- Elevated (Busway or APM guideway) System

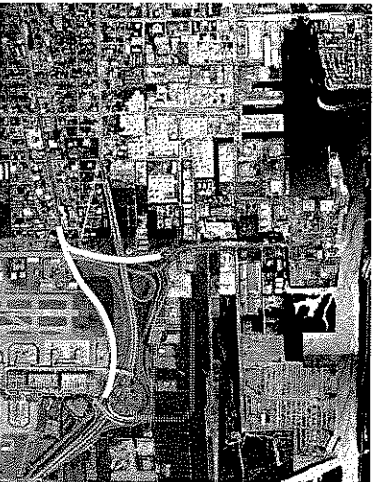
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PORT EVERGLADES

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FLORIDA

Off-Airport - Corridor Evaluation



Off-Airport Corridor - C
(FEC, at-grade Rail Corridor)

- FEC Right-of-Way (not County's)
- Current FEC tracks with reverse 'Wye' to Port tracks, with FRA process and requirements
- Business impact and negotiations with FEC required
- Corridor suitable only for at-grade rail solution with forced transfer for "On-airport" connection.
- At-grade rail option, requires port track extension to Midport

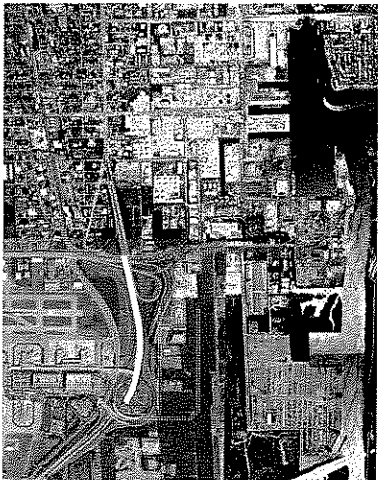
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PORT EVERGLADES

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P D & E Study

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FLORIDA

Off-Airport - Corridor Evaluation



Off-Airport Corridor - D (US-1 Corridor)

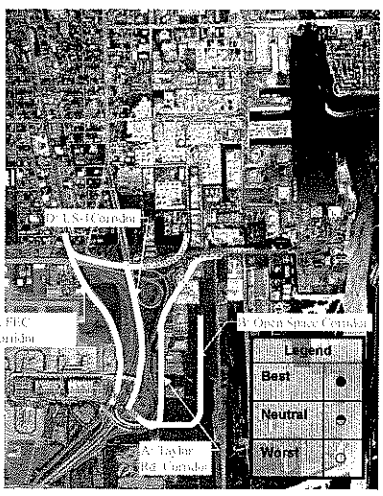
- State Right-of-Way (not County's)
- New alignment along US-1 (requires coordination with FDOT for US-1, 595 ramp & traffic ops.)
- Coordination with 595 / US-1 interchange
- Requires coordination with CBEWTA (their LPA use US-1 median)
- If, elevated, will be limited by Runway Glidepath

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
URS 21 *Lea Elliott Team*
PORT EVERGLADES

SunPort
P D & E Study

BROWARD COUNTY
FLORIDA

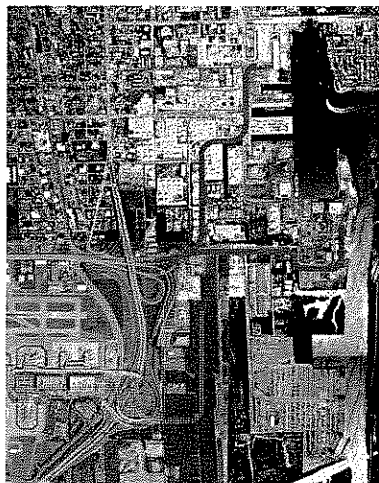
Off-Airport - Corridor Evaluation



IMC/PEV Options	A	B	C	D
Construction and Engineering Costs	●	○	●	○
Right of Way Costs and Business Damages	●	●	○	●
Relocation Estimate	●	●	○	●
Environmental Impacts	○	○	●	○
Operational Effectiveness				
Provision of a single connection to the regional transit network	●	●	●	●
Provision of additional capacity between port and airport	●	●	○	●
Reduction of congestion on existing airport and port roadways	●	●	○	●
Greatest use of existing Countyrights-of-way	●	●	○	○
Level of Service for Users	●	●	○	●
Proximity to areas of Contamination Concern	○	○	○	○
Safety and Security	●	●	●	○

FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT
URS 22 *Lea Elliott Team*
PORT EVERGLADES

Port - Corridor Evaluation

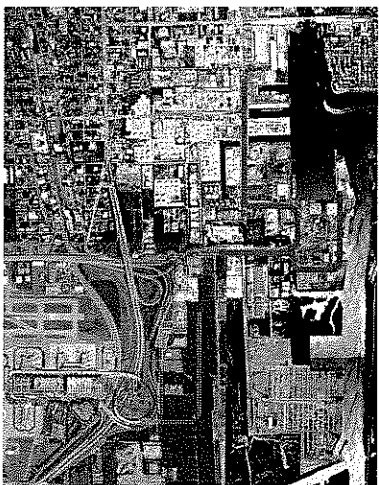


Port Corridor - 1

(Eller and SE 14th Corridor)

- Existing County Right-of Way (Port roadways)
- Midport Connection thru Eller Drive. Northport connection thru SE 14th Ave
- In close proximity to Petroleum Storage areas
- Further coordination with PEV Masterplan update is viable
- Network Type Operation: Separate Systems for Northport and Midport Destinations

Port - Corridor Evaluation

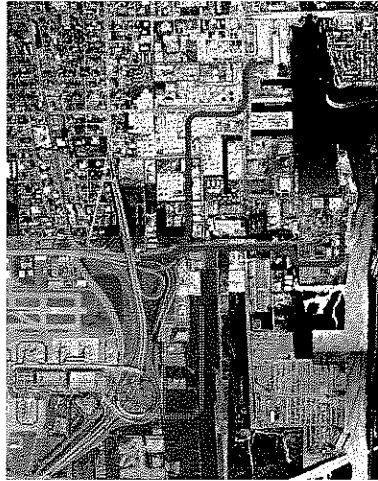


Port Corridor - 2

(Eller and Eisenhower Corridor)

- Existing County Right-of Way (Port roadways)
- Midport Connection thru Eller Drive. Northport Connection thru Eisenhower Blvd.
- Further coordination with PEV Masterplan update is viable
- Network Type Operation: Separate Systems for Northport and Midport Destinations

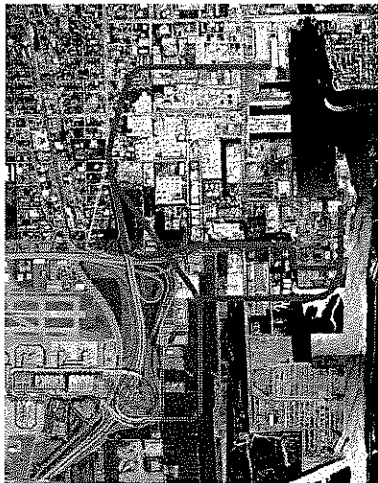
Port - Corridor Evaluation



Port Corridor - 3 (Eller and RR Corridor)

- Existing Port Track (County owned) with operational agreement with FEC.
- Requires Extension of Port tracks to Midport. Northport Connection thru Current Port RR corridor
- Corridor for At-grade rail works with Off-Airport Corridor C.
- Network Type Operation: Separate Systems for Northport and Midport Destinations

Port - Corridor Evaluation



Port Corridor - 4 (Elevated Direct Connection Corridor)

- Right-of-Way Partially Owned by County.
- Severe environmental (biological) impact per USFWS, and FHWA
- Corridor for Elevated (Busway or APM guideway) System
- Further coordination with PEV Masterplan update is viable
- Network Type Operation: Separate System for Northport and Midport Destinations

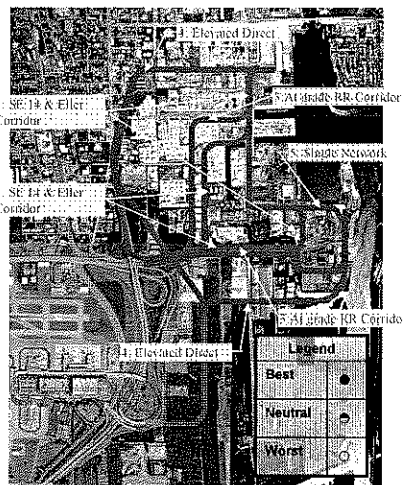
Port - Corridor Evaluation



Port Corridor - 5 (Single Network Corridor) (Eller and Eisenhower Corridor)

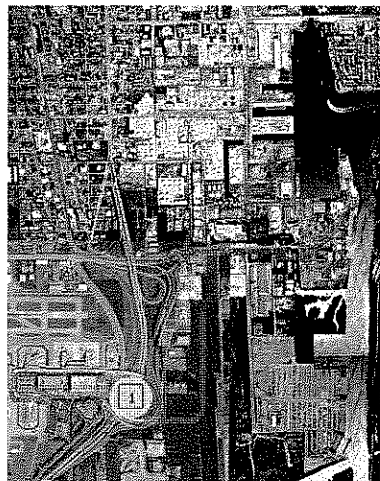
- Existing County Right-of Way (follows Port roadways)
- Midport and Northport connected thru Eller Drive and Eisenhower Blvd
- Corridor for Elevated (Busway or APM guideway) System
- Further coordination with PEV Masterplan update is viable
- Single Network Operation

Port - Corridor Evaluation



On-Port Options	1	2	3	4	5
Construction and Engineering Costs	●	●	○	○	●
Right of Way Costs and Business Damages	●	●	○	○	●
Relocation Estimate	●	●	●	○	●
Environmental Impacts	●	●	●	○	●
Operational Effectiveness					
Provision of a single connection to the regional transit network	●	●	●	●	●
Provision of additional capacity between port and airport	●	●	●	●	●
Reduction of congestion on existing airport and port roadways	●	●	○	●	●
Greatest use of existing County rights-of-way	●	●	●	○	●
Level of Service for Users	●	●	○	●	●
Proximity to areas of Contamination Concern	○	○	○	○	○
Safety and Security	○	○	○	○	○

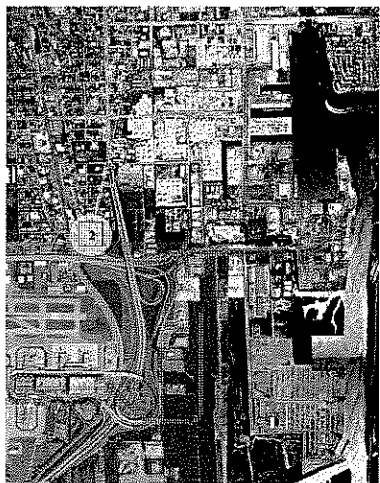
IMC Evaluation



IMC Location -1 (East of Airport)

- Space between FLL Access Loop Roadways on US-1
- State of Florida Right-of-Way
- Supports all Corridors
- Supports connection to other transit projects: FEC, CBEWTA, BCT and People Mover, as regional transportation hub

IMC Evaluation



IMC Location -2 (595 & FEC Corridor)

- North-West Corner of 595 and US-1
- Private Ownership, with several Private Businesses impacted
- Space Impacted by Eller Drive to US-1 return loop
- Supports connection to some transit projects: FEC, BCT and People Mover, as regional transportation hub

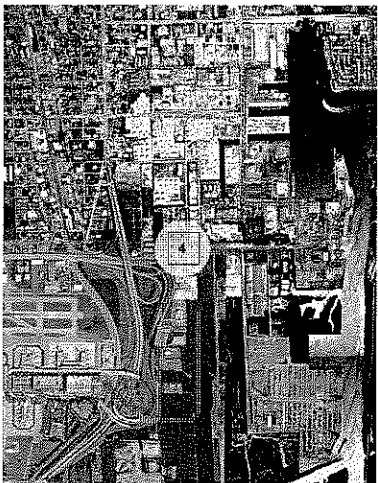
IMC Evaluation



IMC Location -3 (Dynergy Site)

- Dynergy Site (on US-1 north of 595 interchange)
- County owned, Consideration on-going for employee parking
- Certain proximity to petroleum storage
- Proximity to Spangler and Eller Drive (Port's Key Truck Route)
- Supports connection to some transit projects: US-1 corridor for CBEWTA, BCT and People Mover as regional transportation hub

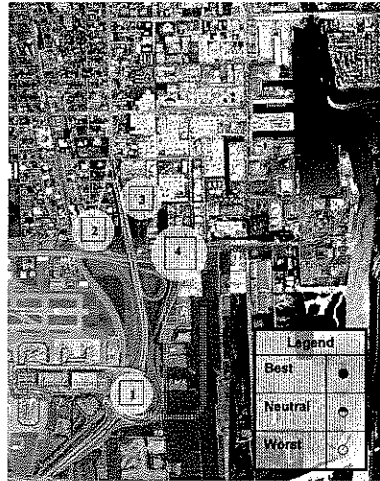
IMC Evaluation



IMC Location -4 (Stiles & Frazer Property)

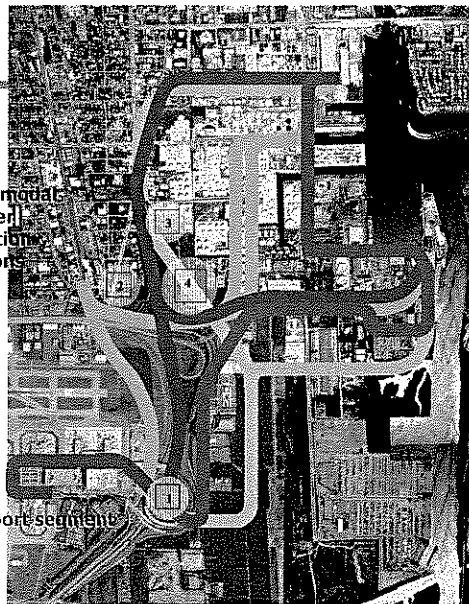
- Private Ownership (north and south of Eller Drive at Taylor Road)
- Certain wetland areas included.
- Space Impacted by Eller Drive Overpass Project
- On Eller Drive (Port's Key Truck Route)
- Indirect connection to some transit projects using Eller Drive, for regional transportation hub

IMC Location Evaluation



IMC Location Options	1	2	3	4
System functionality with People Mover alignment alternatives	●	○	●	●
Property impacts	●	○	●	○
Inter-modality	●	●	●	○
Environmental impacts	○	○	○	○
Security Issues	●	●	●	●
Viability & Space for IMC Egress and Access Elements	○	○	○	○
Project Constructability	○	●	○	○

Intermodal Center Location Options



Questions



Attachment -2

SIGN-IN SHEET

PROGRAM TITLE: Ft. Lauderdale-Hollywood Int'l Airport Expansion Program

PROJECT: Intermodal Center – People Mover Project

ACTIVITY: "Sunport" PD&E Study/Staff Workshop

DATE: November 6, 2006

TIME: 1:30 PM

Place/Room: BCAD/Auditorium

PLEASE CHECK THE BOX and FILL IN YOUR INFORMATION

NAME	AGENCY	PHONE #	EMAIL
Dwanye Vaughn	URS/NEP	954-359-2239	dvaughn@aepfl.com
Amie Goddeau	FDOT	954-777-4343	amie.goddeau@dot.state.fl.us
BOB FLINT	PEV	954-765-4049	RF.LINT@BROWARD.ORG
Karl Eckhardt	PEV	954-765-4646	keckhardt@broward.org
RICHARD HEIDRICH	DMJM HARRIS	954.745.7261	richard.heidrich@dmjmharris.com
Phillip ALLEN	PORT	954-468-3516	faller@broward.org
Bob Bielek	BCAD	954-359-6118	rbielek@broward.org
Peg Buchan	Port	954-468-3501	pbuchan@broward.org
David Anderson	Port	954/468-0144	DavidAnderson@broward.org
Bolfe Pasados	BCAD	954/359-6182	Bpasados@broward.org
Michelle Nonnemacher	BCAD	954-359-7222	mnonnemacher@broward.org
MARC GAMBRILLE	BCAD	954-359-2343	mgambille@broward.org
John Aha	BCAD	954-359-1271	JohnAha@broward.org
GAMBIT BHATTA	Lea Elliott	305 500 9390	Gambitb@leaelliott.com
Larry Coleman	Lea + Elliott	305 500 9390	Lcoleman@leaelliott.com
Bill Bascos	Lea + Elliott	305 500 9390	wbascos@leaelliott.com
Scott Seeborn	FDOT	954 777 4632	Scott.Seeborn@dot.state.fl.us
Sanjeev Shah	Lea Elliott	305 500 9390	sushah@leaelliott.com
Todd McClendon			



Attachment -3

VIABLE CORRIDORS

