TABLE OF CONTENTS

Title **Page**

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS

ACOE	U.S. ARMY CORPS OF ENGINEERS
BOARD	BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS
CIP	CAPITAL IMPROVEMENT PLAN
DR-CAFTA	CENTRAL AMERICA FREE TRADE AGREEMENT WITH THE DOMINICAN REPUBLIC, BELIZE, EL SALVADOR, HONDURAS, NICARAGUA, GUATEMALA, AND COSTA RICA
DRI	DEVELOPMENT OF REGIONAL IMPACT STATEMENT
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FLL	FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL
FPL	FLORIDA POWER AND LIGHT
G	GRANTS
I	INTERNAL REVENUE
ICTF	INTERMODAL CONTAINER TRANSFER FACILITY
IMC	BROWARD COUNTY INTERMODAL CENTER
ICW	INTRACOASTAL WATERWAY
LOA	LENGTH OVERALL
NPV	NET PRESENT VALUE
P	PRIVATE INVESTMENT
P&G	PURVIN AND GERTZ
PD&E	PROJECT DEVELOPMENT AND ENVIRONMENTAL
PLAN	PORT EVERGLADES MASTER PLAN
PANAMAX VESSEL	VESSEL WHOSE DIMENSIONS (BEAM, LENGTH, AND/OR DRAFT) ALLOW IT TO TRAVERSE THE PANAMA CANAL
POST-PANAMAX VESSEL	VESSEL TOO LARGE TO TRAVERSE THE PRESENT CONFIGURATION OF THE PANAMA CANAL
POV	PRIVATELY OWNED VEHICLE
RFP	REQUEST FOR PROPOSAL
RLI	REQUEST FOR LETTERS OF INTEREST
RO/RO	ROLL-ON/ROLL-OFF (USED TO DESIGNATE CARGO THAT IS ROLLED ON AND OFF A VESSEL RATHER THAN BEING LIFTED ON AND OFF
ROI	RETURN ON INCREMENTAL INVESTMENT
RTG	RUBBER TIRE GANTRY CRANES
TEUS	TWENTY-FOOT EQUIVALENT CONTAINER UNITS
U	POTENTIAL DEBT

EXECUTIVE SUMMARY

Introduction

The Broward County Board of County Commissioners (Board) retained the services of the DMJM Harris Consultant Team to prepare a new *Port Everglades Master Plan* (Plan) and issued a notice to proceed for Phase I in August 2006 and for Phase II in April 2007. In preparing the Plan, the Consultant Team assessed the changes that have occurred regionally, nationally, and internationally since 2001, when the Port prepared a 2020 Vision Master Plan, whose adoption was interrupted by the events of 9/11.

The goal of this Plan, whose planning horizon is 2026, is to

> *Create a plan to maximize market share and revenue through a realistic 5-year facility development program within a framework of 10- and 20- year vision plans*.

Once the Plan is approved by the Board, the Consultant Team will update the Deepwater Port Component of the Coastal Management Element of Broward County's Comprehensive Plan as well as Port-related goals, objectives, and policies in the Transportation Element, consistent with the mandated requirements of Chapter 163, Florida Statutes.

A guiding principle of this Plan is that it should consistently reflect the Port's mission statement:

> *The mission of Port Everglades is to manage the County's Port-related assets to maximize the economic benefits to the citizens and businesses of Broward County and of the State of Florida. The Port will manage the County's assets in a financially responsible, environmentally sound manner, consistent with local, state, and federal rules and regulations which govern international and domestic trade, transportation and the Port industry*.

> ***"We know that reaching a balance between financial stability, capital development, and security operations is achievable. Our goal is that the updated Port Everglades Master Plan will plot a course for how we can expand and enhance existing facilities in the most economical and efficient manner."***
>
> Port Everglades Director
> Phillip C. Allen

This planning assignment comprises the following key work products:

- Existing Port facility assessment.
- Market assessment for containerized cargo, non-containerized cargo, liquid bulk (petroleum), and cruise operations.
- 10- and 20- year Vision Plans.
- 5-year Capital Improvement Plan.
- Business, financial, and asset utilization strategies.
- Updated Deepwater Port Component of the Coastal Management Element in Broward County's Comprehensive Plan and Port-related goals, objectives, and policies in the Transportation Element.

These work products have been organized into three phases. The results of the Phase I and Phase II tasks are included in this document; Phase III, the Comprehensive Plan update, is scheduled for completion following Board approval of this Phase I and Phase II document.

Public Outreach Program

The Public Outreach Program for this master planning initiative was developed to invite input into the planning process from all parties/stakeholders interested in the Port's growth and expansion. The program, comprising an aggressive schedule of participation, was designed to dispense information to the public, tenants, governmental entities, regulatory agencies, and other stakeholders and to encourage their participation and comments. Through workshops and one-on-one interviews conducted by the Consultant Team as an essential part of Plan preparation, the input and concerns of all interested stakeholders have been recorded and taken into account to the maximum extent possible.

Public Meetings. Three public meetings were held at the Broward County Main Library during the planning initiative; two of these meetings were held in Phase I and one in Phase II. The purpose of these meetings was to inform the public about the intended goals, planning process, and progress of Plan development, and receive input. To encourage awareness and participation, advertisements appeared in local newspapers, postcards were mailed to homeowners groups and community publications, and television and radio stations were contacted. Audio and video tapes have been made of these public meetings. The Power Point presentations made during the meetings are available on-line through the project website.

Tenant, Stakeholder, Municipality, and Agency Meetings. A kick-off meeting and subsequent update meetings and workshops/charrettes were also held with Port tenants and stakeholders, including public agencies. These included two Phase I meetings and a third workshop/meeting conducted in Phase II, all held at cruise terminals on the Port.

In addition to these meetings, the Port Director organized "Focus Group" workshops whose participants were individuals from each of the Port's business sectors; these participants were asked to advise the Director on the progress and content of the Plan.

Meetings were also held during Phase I with representatives of the municipalities within the Port Everglades Development District: the City of Fort Lauderdale, the City of Hollywood, and the City of Dania Beach.

Two 2-day System of Intensive Team Effort (SITE) meetings were held with the Port's key decision-makers, the first at the start of the planning process and the second once the series of market assessments had been completed.

One-on-One Interviews with Port Tenants and Stakeholders. In addition to the group workshops, one-on-one interviews were held with most of the Port's terminal operators, tenants, and other stakeholders to gather information regarding their current operations, future plans, and any concerns. Additional interviews were held during the Phase II Plan refinement process.

Workshops with the Board and County Administration. Two workshops were conducted with the Board; one was held in Cruise Terminal 18 at the completion of Phase I and one was held in Phase II at the Broward County Governmental Center. Comments and input received

from Board members were incorporated into the Plan. Workshop meetings were also conducted with Broward County Administration to discuss project progress.

Website. To both present accurate information to those interested in this planning process and receive their comments, the Consultant Team created and continues to host a project website. The project website address is www.portevergladesmasterplanupdate.com. The website has proved to be a valuable tool that gives stakeholders an opportunity to check current meeting schedules, and access meeting presentations they may have missed or wish to review. They may also communicate their questions, comments, and concerns via an email link. All questions submitted are answered, and general questions are posted on the FAQ page of the website. The website is also a vehicle by which Port Everglades can convey additional information concerning this project.

Summary. Through the Public Outreach Program, everyone who has a stake in Plan development has had an opportunity to participate in the planning process. Port Everglades recognizes the impact the Port has, not only on its tenants and users, but also on the surrounding communities. Addressing and resolving issues and concerns throughout the planning process have fostered an effective working relationship and consensus between the various stakeholders' interests and the recommendations contained in the ultimate Plan.

Phase I Summary

The specific tasks completed in Phase I include the following:

Assessment of Existing Facilities and Infrastructure Assets at the Port. In conducting this assessment, the Consultant Team looked both at on-Port facilities and at the connecting intermodal network. Specifically, the Consultant Team evaluated the deepwater facilities as well as the cargo, cruise, and petroleum storage infrastructure; and reviewed the Port's Interstate highway, freight rail, and airport connections and synergies.

Market Assessment for Containerized Cargo, Non-Containerized Cargo, Petroleum, and Cruise. Specialized sub-consultants on the Consultant Team assessed the markets for the Port's core cargo and cruise businesses.

Forecast of Unconstrained Infrastructure Needs Based on the 2026 "Goal Line" Established by the Market Assessments. The Consultant Team integrated the results of the respective market assessments for cargo and cruise businesses with the results of one-on-one tenant and stakeholder interviews to identify the ideal number of berths and the terminal areas needed to achieve the forecasted throughputs by the 2026 planning horizon.

Application of Site-Specific Physical Constraints, based on the Infrastructure Assessment, to Identify Potential Opportunities to Reach the 2026 "Goal Line." Keeping in mind the Port's mission statement, with its emphasis on economic benefit and environmental stewardship, the Consultant Team looked at the physical opportunities and constraints within the Port area to develop realistic infrastructure improvement concepts.

Identification of Cargo and Cruise Needs to Meet Market Forecasts. The previous tasks, performed in an iterative process and facilitated by frequent workshops with the Port's senior

staff, resulted in the Consultant Team's identifying the key parameters of Port development. These include:

- Containerized Cargo
  - Add longer/flexible berths to accommodate ships carrying up to 6,800 twenty-foot equivalent container units or TEUs.
  - Increase yard utilization; use higher density stacking equipment.
  - Add gantry cranes, including post-Panamax cranes, that is, cranes able to load and unload the ships that cannot traverse the Panama Canal in its current dimensions.
  - Deepen and widen the Port's approach channel and inner harbor.
- Non-Containerized Cargo
  - Add crushed rock aggregate as a potential major import commodity.
- Petroleum
  - Increase receiving-system efficiencies.
  - Add berth efficiencies and safety for larger vessels.
  - Deepen and widen Port's approach channel and inner harbor.
- Cruise
  - Increase berth lengths to handle 1,100-foot ships, the type of vessel used for planning purposes.
  - Address parking needs.
  - Increase the Port's cruise season and weekday use, as practical.
  - Continue the dual use of berths for cargo and cruise, as feasible.

Interface with On-Going Programs of Sister County Agencies and Other Stakeholders. Planning for Port Everglades' future development and expansion cannot occur in a vacuum as several of the entities located in proximity to the Port are engaged in their own concurrent planning initiatives. Consequently, the Consultant Team, in conjunction with Port staff, maintained frequent contacts with these entities to address issues of mutual interest and coordinate planning efforts. In many cases, these planning efforts will not be concluded in the same timeframe as the Port's Plan, so outcomes may not be determined by the end of this planning process. The summary below notes the issues the Consultant Team identified during the interface with these entities:

- Fort Lauderdale-Hollywood International (FLL) Airport Master Plan. FLL is preparing a new Master Plan. In coordinating its efforts with the Broward County Aviation Department, the Consultant Team focused on issues of common interest, including:
  - Consideration of a potential shared Airport/Seaport facility on the Dynegy property, located east of U.S. 1, north of Eller Drive.

- Evaluation of obstacle clearances associated with current and future air and sea operations

- Broward County Intermodal Center -- Sunport -- and People Mover Study. The Florida Department of Transportation (FDOT), Port Everglades, and FLL, with Broward County as the project sponsor, have been addressing opportunities to develop an Intermodal Center (IMC) and a People Mover system to provide a regional transportation hub that will, among other uses, provide a direct connection between the Airport and the Seaport. The outcome of the Project Development and Environmental Study (PD&E) for this initiative is not yet known; but the Consultant Team determined that the 20-Year Vision Plan for the Port has the flexibility to accommodate alternative corridors, alternative locations for the IMC, and potential seaport station locations. A seaport station for the new People Mover system would be located at each of the two cruise passenger intermodal centers: one would be at Northport and the other at Midport.

- Railway Initiatives. The Consultant Team assessed the market potential and physical requirements of implementing an Intermodal Container Transfer Facility (ICTF) in Southport to accommodate both international containerized cargo movements and the potential addition of imported crushed rock and other bulk products used in the cement and ready-mix concrete industry. In addition, to ensure that the design criteria of the Eller Drive Overpass, which FDOT is implementing, accommodate the potential rail operations if the ICTF is constructed, the Consultant Team facilitated discussions with Port staff, FDOT, and potential rail providers.

- U.S. Army Corps of Engineers (ACOE) Dredging and Widening Program. The ACOE is currently preparing a *Feasibility Study/Environmental Impact Statement* to evaluate a dredging and widening program for the Port. The Consultant Team took the parameters of this program into consideration in developing the 20-year Vision Plan, and coordinated the ACOE's channel and inner harbor deepening and widening findings with the Plan.

- Calypso Pipeline Proposal. Regulatory agencies have considered two proposals to develop natural gas pipelines off the South Florida coast. The potential location of the tunnel shaft for the Calypso pipeline, one of the proposals, was coordinated with the infrastructure improvement options identified in the Vision Plan. AES, the proposer for a second pipeline, abandoned the initiative during Phase II of this planning process.

- Broward County Convention Center Master Plan. The Convention Center is looking at future expansion and is committed to mitigating traffic on adjacent roadways. As part of its collaborative efforts during the planning process, the Consultant Team worked with Port staff and the Convention Center's planners to achieve mutual agreement on appropriate land use, traffic circulation, and security modifications. These efforts resulted in public access concepts for the Convention Center to facilitate its future development opportunities while maintaining the Port's security perimeter, as required by federal and state law.

Conducting a Business, Financial, and Asset Utilization Strategy Workshop. The Consultant Team met with the Port's senior staff to discuss potential business, financial, and asset utilization strategies to achieve the optimum productivity and benefit from the Port's existing assets.

Preparation of Conceptual 20-year Vision Plans. As the culmination of the Phase I planning process with Port senior staff, a series of 20-year planning alternatives were developed and refined. The Consultant Team participated in a workshop with the Board on February 20, 2007, presented the conceptual 20-Year Vision Plan, and received input and direction prior to proceeding to Phase II.

Phase II Summary

The following tasks were completed in Phase II:

Meetings and Workshops with Tenants and Other Stakeholders to Gain Input on the Conceptual 20-Year Vision Plan. After the February 2007 workshop with the Board, the Consultant team conducted a series of meetings and workshops with the Port's senior staff, tenants, and other stakeholders to obtain their thoughts and comments on the Conceptual 20-Year Vision Plan.

Refinement of the 10- and 20-Year Vision Plans. With the input from the above meetings, the Consultant Team engaged in an iterative process of Plan refinement to address the concerns of Port stakeholders.

Identification of the Economic Impact of Port Operations. The Consultant Team analyzed the impact of Port operations. This analysis identified the employment, employee earnings, business revenue, and state and local taxes attributable to those operations.

Development of Financial Strategies for Plan Implementation. To assist the Port in Plan implementation, the Consultant Team worked with staff to create mechanisms for identifying project benefits. From this collaboration, a Project-Decision Matrix was created which provides the Port with a tool to assess the environmental, economic, and other aspects of a given project.

Preparation of a Cost-Feasible 5-Year Capital Improvement Plan. The Consultant Team worked with Port and other County staff to identify the various types of funding available for the projects needed in the first five years of Plan implementation.

Phase III Summary

Upon approval of the Plan presented in this document, the Consultant Team will update the Deepwater Port Component of the Coastal Element in the Broward County Comprehensive Plan and the relevant Transportation Element goals, objectives, and policies. This task will be conducted in cooperation with the Broward County Urban Planning and Redevelopment Department. The updated document will be transmitted for review and approval to the Florida Department of Community Affairs and the other regulatory state and local agencies charged with commenting on the Plan.

Master Plan Elements

This Phase I and Phase II Master Plan document contains six elements. The contents of each element are summarized below.

Element 1: Existing Conditions Assessment

Element 1 of the Plan presents an overview of the Port, including land uses, planning opportunities and constraints, berthing and capacity analyses, on-port traffic circulation and parking, the intermodal transportation network, and environmental conditions.

Port Everglades, portions of which are located in the Cities of Fort Lauderdale, Hollywood, and Dania Beach, and in unincorporated Broward County, encompasses an area of approximately 2,190 acres adjacent to the Intracoastal Waterway (ICW). With its containerized cargo, liquid and dry/neo- bulk commodities, and cruise activities, the Port is one of the most diversified in Florida. The Port's cargo and cruise operations are expected to grow significantly over the next several decades.

Port Everglades ranks among the top 12 U.S. container ports, moving more than 864,000 TEUs in Fiscal Year (FY) 05/06.[1] This container throughput is expected to surpass 1 million TEUs in the next two to three years. The Port is pursuing aggressive strategies to deal with this projected growth, including the potential development of an intermodal complex to increase container capacity and the potential construction of a people mover to connect FLL with cruise ship facilities at the Port.

In FY 05/06, the Port handled 26.6 million tons of cargo (2.6 million tons of exports and 12.5 million tons of imports as well as 11.4 million tons of domestic cargo, predominantly petroleum[2]). The Port is the primary storage and distribution seaport for refined petroleum product in South Florida. Every day, about 12.5 million gallons of petroleum product are delivered on oceangoing tankers to Port Everglades for distribution to facilities in a 12-county area, including jet fuel to the area's three major airports as well as smaller regional airports.

A recent analysis of the economic impacts of the Port's diverse operations identified 27,528 direct, induced, and indirect jobs as well as an additional 160,576 related user jobs throughout the state, for a total of 188,203 jobs. The value of the Port's economic activities totals $16.9 billion; these activities generate $6.4 billion in total personal income and $589 million in total state and local taxes.[3]

The Port's Foreign-Trade Zone No. 25 extends to several non-contiguous sites, including acreage in Davie, about six miles west of the Port, and farther west in the Miramar Park of Commerce. These off-port locations help diversify and spread the economic opportunities and jobs generated by Port operations. Broward County is considering other sites for Foreign-Trade Zone designation.

[1] Unless otherwise indicated, the information in this section is based on FY 05/06 data.
[2] Total does not add because of rounding.
[3] Additional details about the economic analysis conducted in September 2007 are presented later in this Executive Summary.

In addition to its substantial cargo operations, Port Everglades also serves more than 40 cruise ships, which made more than 1,700 ship calls and embarked and disembarked 3.2 million multi-day and one-day cruise passengers in FY 05/06. With its continuing capacity expansion to serve industry growth, the Port expects to accommodate approximately 4.7 million cruise passengers per year by FY 10/11. Based on a recent survey, approximately 65 percent of these passengers fly through South Florida airports to and from their cruises.

Element 2: Market Assessment

Element 2 of the Plan presents the findings of the market assessments conducted for each of the four core businesses at the Port: containerized cargo, non-containerized cargo, liquid bulk, and cruise. In conjunction with the forecasts of containerized cargo and dry bulk cargo, the Consultant Team also considered the potential development and utilization of an ICTF.

Containerized Cargo Assessment. Port Everglades, as part of the South Florida "Gateway to the Americas," has significant trade with the countries in Latin America and the Caribbean. In 2006, approximately 85 percent of Port Everglades' container activity was dedicated to this trade. With respect to containerized imports, the geographic position and resulting limited inland reach of the three South Florida ports -- Port Everglades, the Port of Miami, and the Port of Palm Beach -- have hindered their growth beyond a regional port status, serving the South and Central consumption markets. A summary of the containerized market analysis in which Port Everglades competes follows.

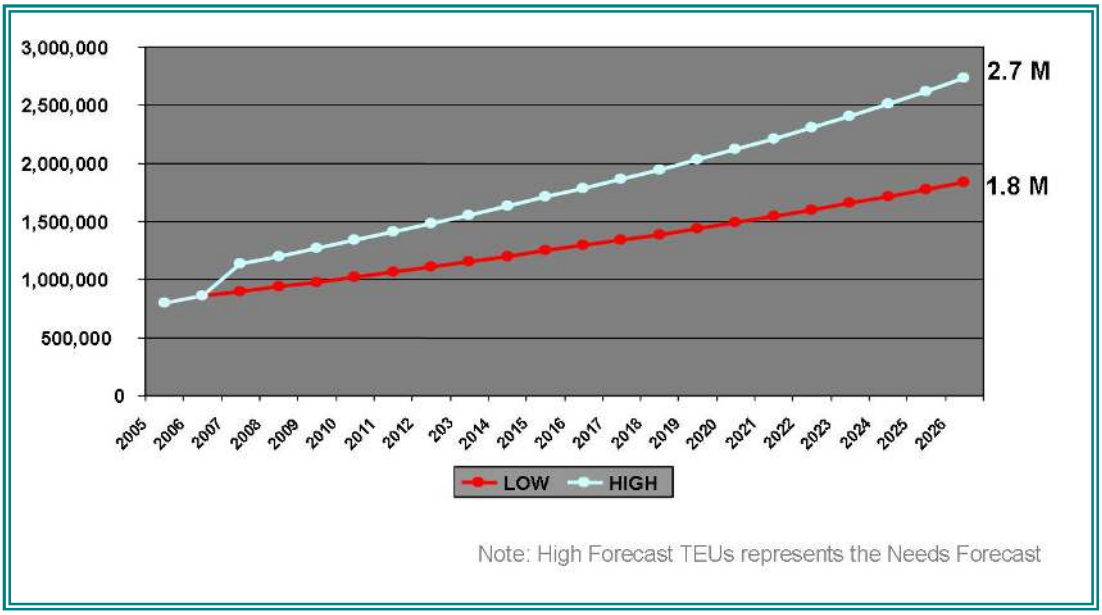
- Growth in Asian Import Market - The growth in the U.S. container trade – 10.5 percent annually since 1994 - has been fueled by import cargo from Asia. The West Coast ports have historically dominated this market. Events -- including the impact of 9/11 on the distribution supply chain, the 2002 West Coast port shutdown, and major congestion issues that arose in 2004 -- have, however, resulted in increased diversification of containerized cargo via various U.S. East Coast ports.
- Asian growth is likely to remain in double digits in the near-term, and growth in all-water service to the South Atlantic port range will continue. It is also likely that a significant share of Asian cargo consumed in Central and South Florida will be moved intermodally via the West Coast ports; this cargo represents an additional all-water service market to target. Furthermore, the Port of Savannah is penetrating into the Central and South Florida markets, primarily due to the growth of all-water services calling at Savannah. This penetration is also an area for Port Everglades to target. The Port should continue to market global carriers that participate in this trade and target the Central and South Florida accounts that are currently moving through the Port of Savannah, as well as using intermodal service via West Coast ports.
- Distribution Center Growth – The containerized import growth exhibited by the Virginia and the Georgia Port Authorities (Norfolk and Savannah, respectively) are closely related to the regional development of distribution centers in those areas. While interest has been shown in developing distribution centers in Broward County, the market is essentially land-constrained from an industrial development perspective due to scarce and relatively expensive land. The majority of the distribution center development that

will serve Central and South Florida will most likely occur along the I-4 Corridor. The primary competition to Port Everglades in this market will be the Ports of Miami, Jacksonville, and potentially Tampa. An inland port or intermodal logistics center in the Palm Beach County area is currently under study; its implications for Port Everglades are as yet undetermined.

- Latin American and Caribbean Export Market – The South Florida ports have historically dominated the Latin American and Caribbean export markets. This has been facilitated by the concentration of Latin American- and Caribbean-related businesses located in South Florida. Furthermore, the vast export distribution and consolidation centers, along with the strong local truck market, continue to provide Port Everglades and the Port of Miami with the necessary support infrastructure to maintain market share in the Latin American and Caribbean export markets. It is likely that Port Everglades and the Port of Miami will remain strong and compete directly for these export cargos. Furthermore, free trade agreements with Chile and DR-CAFTA (the Dominican Republic, Belize, El Salvador, Honduras, Nicaragua, Guatemala, and -- most recently-- Costa Rica) strengthen and sustain the Latin American and Caribbean economies that rely on this U.S. export market. New agreements with Peru and Colombia, if approved, should continue this trend.
- Port Everglades' Competitive Position – A port's competitive position is defined by the total delivered cost per box, which includes ocean voyage costs, port charges, terminal charges, and inland freight rates. The base tariff rates and terminal charges are relatively competitive between Port Everglades, the Port of Miami, and the Port of Jacksonville. Because of these competitive rate structures, the inland freight rate becomes the deciding factor in port selection. The Port of Tampa holds a freight rate advantage to the Central Florida I-4 Corridor market which will emerge as the key competitive environment.

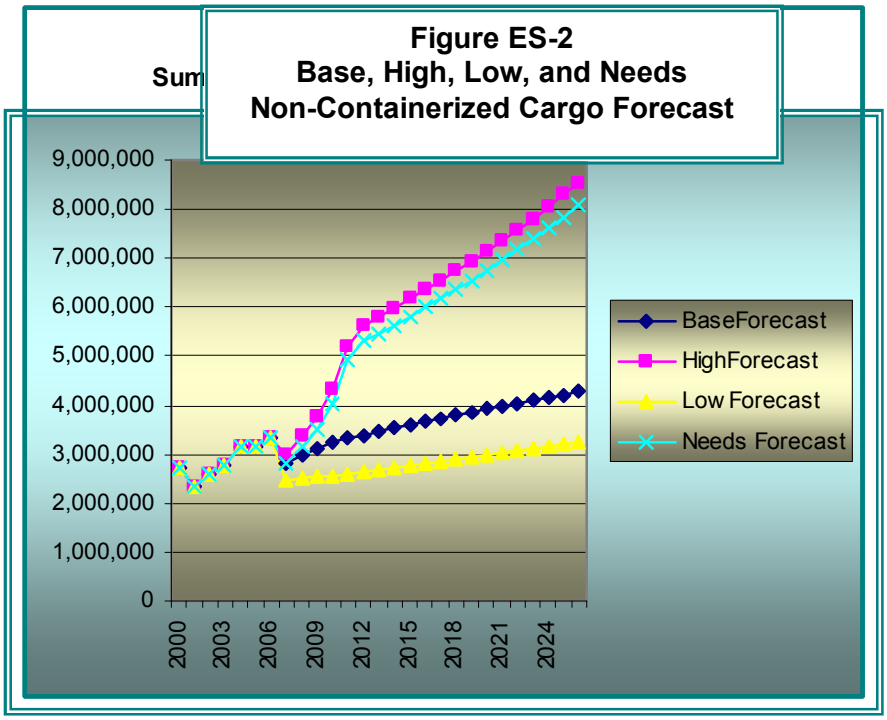
Port Everglades' Containerized Cargo Forecast – The Port will continue to exhibit growth in import and export markets, driven by the increase in population and demand for consumer goods as well as the strengthening Latin America and Caribbean economies. The base forecast is in the 3.9 percent range, reaching just over 1.8 million TEUs by 2026. The high-unconstrained forecast incorporates shifts in throughput resulting from new South American, Asian, and Northern European services likely to come on line in 2007. Any new tenants the Port signs would result in step-wise throughput increases. The annual growth rate over the planning horizon is expected to reach 5.9 percent or approximately 2.7 million TEUs by 2026, as shown by the high container forecast in Figure ES-1.

Figure ES-1
Low/High Container Forecast

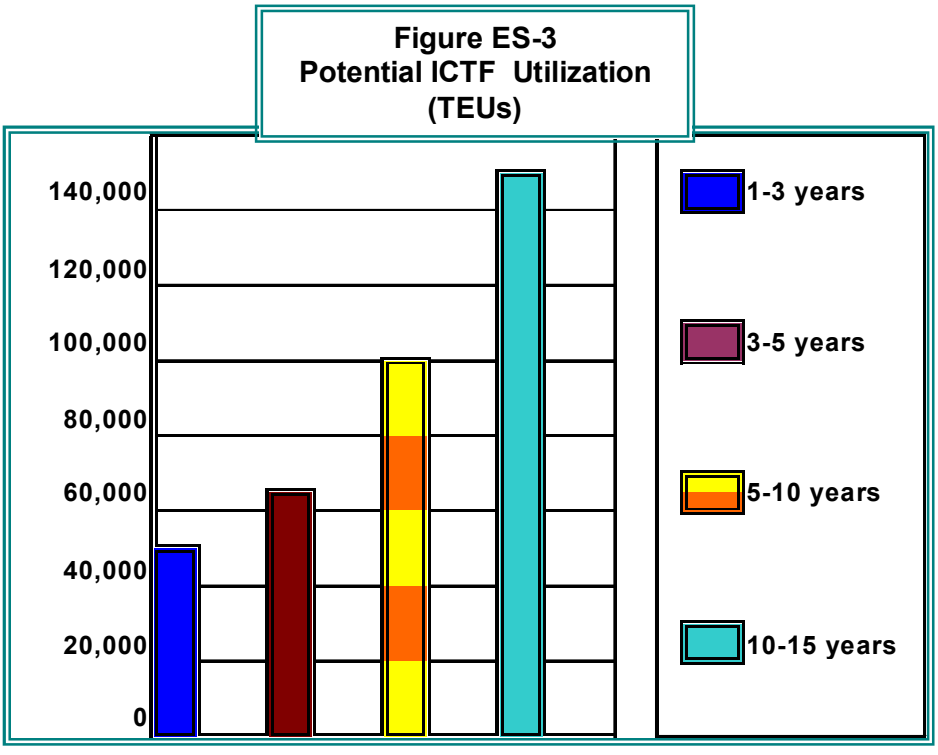


Non-Containerized Cargo: Dry Bulk and Neo-Bulk Assessment. Forecasts of dry bulk and neo-bulk (also called break-bulk) cargos included commodities such as cement, aggregates, steel and lumber. The low forecast for these commodities remains below the 2006 tonnage of 3,328,696 throughout the forecast period with a 2026 tonnage of 3,238,080. The baseline forecast increases to 4,276,566 tons by 2026, mostly due to the slow, but steady growth in cement. The high forecast reaches 8,541,482 tons in 2026, primarily due to the added growth of crushed rock aggregate combined with increases relative to the baseline forecast in selected other commodities such as slag and plywood/lumber.

Port Everglades Non-Containerized Cargo Forecast. Figure ES-2 shows the base, high, and low forecasts for the dry bulk and neo-bulk cargos at the Port, through the 2026 planning horizon. The needs assessment forecast, which is the one used in assessing the Port's future requirements to serve these commodities, is slightly below the high forecast at 8,078,035 tons in 2026. This reflects the combination of the baseline forecast and the contingency for a decision to handle a substantial increase in crushed rock aggregate.



Intermodal Rail Market/ICTF Utilization. The Port is considering implementation of a near-dock ICTF for the rail transport of international cargo. Potential rail providers assessed the market potential of such a facility and provided information as to the estimated cargo volumes they envision the ICTF would serve incrementally over a 10- to 15-year period from the onset of operations. Figure ES-3 shows these projections for combined northbound (imports) and southbound (exports) rail movements.



Implementing a near-dock rail facility at the Port would have several potential advantages. These include

- Increased freight throughput beyond the local market.
- Further leverage of Latin American and Asian markets.
- Enhanced menu of services offered to shipping lines.
- Reduced truck congestion on the I-595 and I-95 corridors.
- Reduced drayage on Port moves associated with the Florida East Coast Railway, which serves the Port.
- Enhanced opportunities once the Panama Canal expansion is completed by 2016, or even before.
- Expanded exposure to rail land bridge routes.
- Reduced air emissions.

To make the near-dock ICTF a reality, the Port will need shipping line support. The ICTF could, however, be implemented through a combination of public and private funding.

As included in the assessment of the Port's dry bulk opportunities, development of a facility to import and handle crushed rock aggregate has been proposed.[4] The potential operators wish to use the near-dock rail to transport their crushed rock aggregate commodities to market. The anticipated mutual advantages of this bulk facility to the Port, potential rail providers, the aggregate importer, and the region would include:

- The proposed state-of-the-art facilities would provide a strong new Port revenue stream.
- The proposed imports would diversify the Port's cargo mix.
- The facility, with its underground enclosed conveyor system, would cause minimal impact to current Port users and maintain a dust-free environment.
- The facility would integrate into Florida's Strategic Intermodal System program.
- With Port Everglades as the starting point for northbound cargos, shipments would avoid over 100 at-grade rail crossings between the current rock quarries in south Miami-Dade County and the Port.
- The facility would take hundreds of trucks a day off local and regional highways, reducing congestion and air emissions.
- The proposed ICTF layout would accommodate unit trains for crushed rock aggregate.

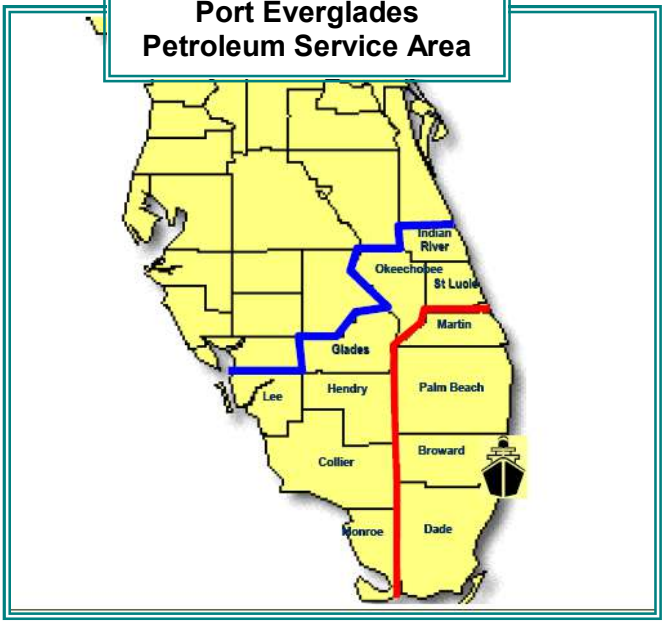
"Rush hour" conditions, which continue the entire day on local roads, underscore the need to explore opportunities to divert movements from truck to rail and improve intermodal connectivity. Identifying and implementing these opportunities will help preserve and enhance the significant regional economic benefits generated by trade and tourism.

[4] The domestic supplies of crushed rock aggregate, which is used in construction, have been dwindling and imported crushed rock is required to compensate for the loss of this important commodity.

Liquid Bulk Assessment (Petroleum Products). For the most part, the information contained in this section has been derived from the *Petroleum Sector Strategy Study,* Purvin and Gertz (P&G), Inc., prepared for the Port in 2005. Additional specifics derived from the Consultant Team's interviews with several of the Port's petroleum operators and updates through FY 05/06 supplement the P&G information.

The P&G study provides insights about the facilities the Port needs to meet the petroleum industry's expected growth in South Florida through 2020 and beyond. It includes an analysis of market conditions and the physical capabilities of the Port's petroleum infrastructure as well as projections of likely volumes of product that will move through the Port.

Figure ES-4
Port Everglades
Petroleum Service Area



The petroleum sector has been and will remain vital to the future success of Port Everglades and the region as a whole. The Port literally fuels the growth of the extended South Florida region, supplying 87 percent of the gasoline demand in the region and 37 percent of Florida's gasoline requirements. Petroleum products moving through the Port thus support the region's diverse transportation demands and facilitate its economic development.

The Port's petroleum sector has grown significantly over the years as South Florida's population and commerce have expanded. The Port receives and distributes a variety of fuels, including gasoline, diesel, and jet fuel to a 12-county market of 7 million people (outlined in blue in Figure ES-4), which represents close to 40 percent of Florida's 2006 population of 18 million. Over 30 percent of these residents live in the Port's immediate 4-county market alone (Miami-Dade, Broward, Palm Beach, and Martin Counties), as outlined in red in Figure ES-3. The 8-county secondary market includes Collier, Glades, Hendry, Indian River, Lee, Monroe, Okeechobee, and St. Lucie Counties.

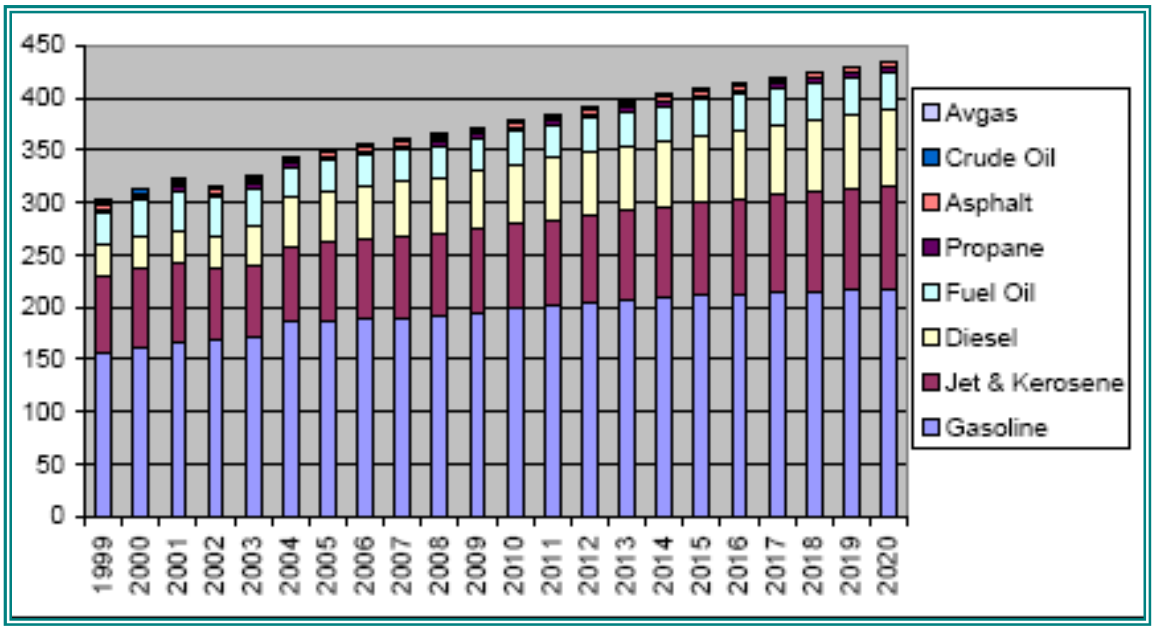
Industry services include

- Selling gasoline to retail gas stations in the region.
- Supplying the region's international airports.
- Fueling the Port's cargo and cruise ships.
- Serving the FPL electric power plant.
- Serving military needs.

Port Everglades Petroleum Product Forecast. Total throughput volumes at Port Everglades, as presented in the P&G study, are forecast to grow from over a projected 350,000 barrels per day in 2005 to over 435,000 barrels per day by 2020. As shown in the following Figure ES-5,

gasoline continues to be the leading product; however, due to a more rapid diesel demand growth, the percentage of the throughput attributed to gasoline falls slightly over the forecast period from over 54 percent of the total in 2004 to 50 percent by 2020.

Figure ES-5
Petroleum Product Forecast



Cruise Assessment. The attractiveness of Port Everglades as a cruise port is confirmed by feedback from cruise line stakeholders and an assessment of the overall properties that make up the cruise tourism infrastructure (both soft and hard) for Port Everglades. Figure ES-6 illustrates the strengths and challenges existing at the Port today and those that should be addressed to support cruise growth opportunities.

As shown, the primary strengths of Port Everglades are the short marine access for large cruise ships coupled with the terminal locations and length of berths overall. New gangway systems have been recently installed, providing greater flexibility to access vessel shell doors and move passengers to / from the terminal facilities. Provisioning for the lines based in South Florida is excellent due to the convenient locations of their warehouses and short drive distances for trucks. Additionally, the tourism infrastructure of the region as a whole is very supportive of cruise operations, including lodging, attractions and venues, access to consumers, convenient airport location and airlift, access to the major roadway network of I-595, I-95, Florida's Turnpike, and I-75, and a strong appeal for visitors.

Figure ES-6
Cruise Infrastructure
Assessment of Port Everglades

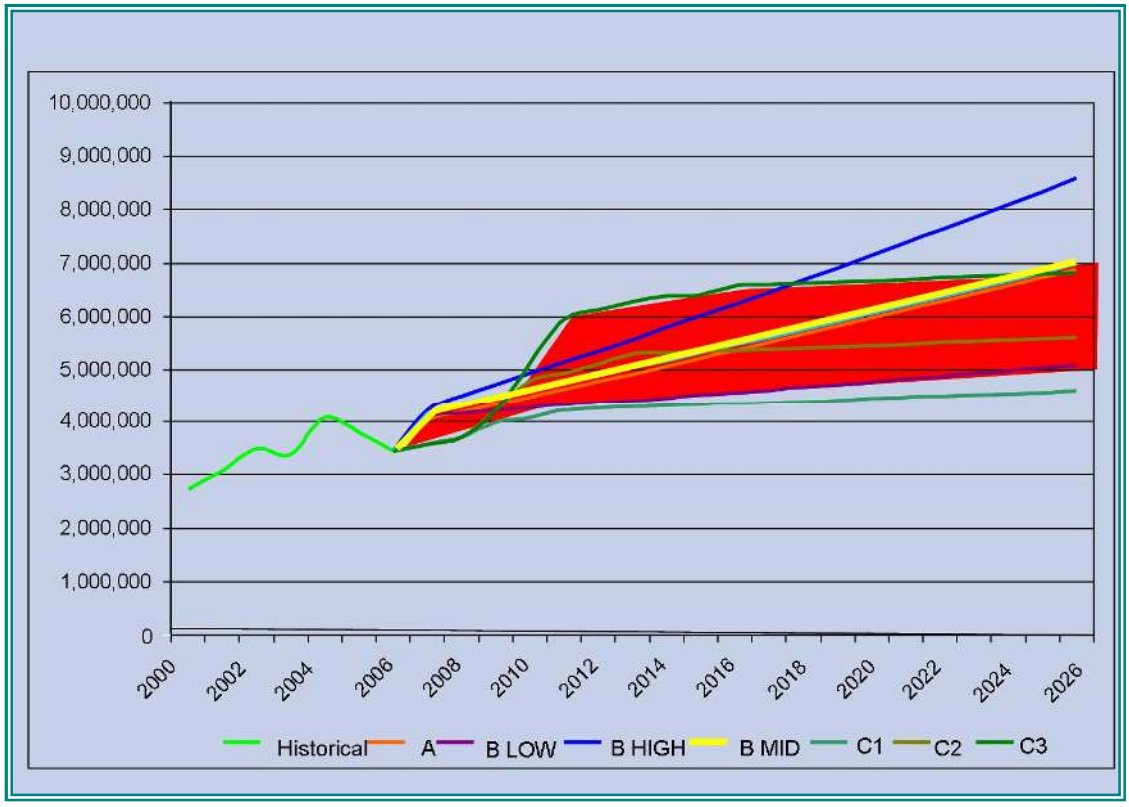
Criteria	Assessment
Marine Access	(short channel for large ships) ■ / ↑
Terminal Location(s)	↑
Pier / Berthing	(length of berths) ■ / ↑
Apron	■
Gangways	(new systems installed) ■ / ↑
Terminal Operations	■
Ground Transportation Areas (GTA)	■ / ↑
Parking	(proximity to terminals) ■
Provisioning	↑
Security	■ / ↑
Landside Access	(gate and roadway access) ■ / ↑
Airport and Airlift	(proximity and capacity) ■ / ↑
Lodging	↑
Attractions and Venues	↑
Access to Consumers	↑
General Appeal	↑
Marketing / Communications	■ / ↑
Key: Strong (↑), Fair (■), Weak (↓)	

Port Everglades Cruise Passenger Forecast. Figure ES-7 shows the low, mid, and high cruise passenger forecasts for Port Everglades. In its assessment of the infrastructure needed to support the forecasts, the Consultant Team used the B MID scenario projection, resulting in approximately 7 million revenue cruise passengers by 2026.[5]

.

[5] Most cruise ports, including those in Florida, derive revenue when the cruise passenger embarks on the cruise and then again when he or she disembarks. The term "revenue passenger" refers to this dual movement of a single passenger.

Figure ES-7
Revenue Cruise Passenger Forecast



Element 3: Plan Development

Element 3 presents the results of the iterative process the Consultant Team conducted with continual input from the Port's senior staff, tenants, and other stakeholders as well as the County Administration, governmental agencies, and the Board. It presents the alternative development concepts evaluated during Phase I, which resulted in the Conceptual 20-year Vision Plan. The infrastructure improvements identified in Phase I were refined in Phase II and evaluated for their economic benefits, return on incremental investment, and environmental and transportation impacts as input into the final 20-year and 10-year Vision Plans and realistic, cost-feasible 5-year Capital Improvement Plan. The discussion of the projects proposed for these milestone years is presented in Element 5 below.

Element 4: Strategy Development

Element 4 assesses the potential business, financial, and asset utilization strategies the Port can implement to achieve its planning goals. In addition, this element describes how the Port proposes to finance the capital improvements envisioned in this Master Plan for the 5-, 10-, and 20-year periods.

Port Everglades has had a proactive approach to defining Port success and identifying the ways to achieve it. The Port's definition of success is expressed in the following statement:

> *Consistently maintain, develop, expand, and modify the Port to meet service area needs, strengthen Broward County's economy, and enhance the region's multi-modal transportation network.*

In its strategy development tasks and workshops with the Port's senior staff, the Consultant Team utilized this definition as well as measures of success the Board identified in the Industry/Economic Action Plan from the Port Business Plan for 2005-2010.

Commission Goal: Clearly identify industry/economic targets that are most promising to our stakeholders and in context with our goals.

- Market Measure 1: Amount of new capital investment made in Broward County.
- Market Measure 2: Number of jobs for Broward County.
- Objective 1: Increase the amount of new capital investment made in Broward County by 5 percent over 5 years.
- Objective 2: Increase the number of jobs in the Port sector by 5 percent over 5 years.

Business and Asset Utilization Strategies. To build on the considerable initiatives of the Port's ongoing strategic development program, in this task the Consultant Team looked at the diverse opportunities for Port-generated economic benefits and then referred to the success factors and objectives identified by the Port.

Types of Port-Generated Economic Benefits. The Port's economic benefit can be calculated in several ways. These include:

- Satisfying the needs of consumers and business for fuel, consumables, construction materials, and other commodities at a comparatively lower cost than if the goods were imported elsewhere.
- Capturing revenue and value-added opportunities from passenger traffic.
- Spending by cruise passengers in Broward County in hotels, restaurants and stores; and spending by the crew for electronics and other goods.
- Spending by the cruise industry for fuel, provisions, and administrative expenses.
- Cross benefits and synergies between the Port and FLL from cruise passengers who fly in and out of that airport.
- Reductions in highway congestion by using direct water service for foreign imports to reach South Florida consumers rather than trucking them from northern ports.
- Jobs and income-earning opportunities.
- Taxes.

Critical Success Factors The Port's 2005-2010 Business Plan identifies the following success factors:

- Revenue must be sufficient to maintain and cover bond requirements and fund capital projects.
- Tariff and lease rates must remain competitive in regional, state, and national markets.
- Security must be a priority.
- Port infrastructure must keep pace with global market changes to remain competitive.
- Leasable real estate in the Port must be renovated.
- Substantially larger cruise ships and passenger volumes must be accommodated.
- Harbor facilities must be expanded and deepened to meet the demands of larger vessels.
- Ancillary landside assets (e.g., drainage, road resurfacing) must be upgraded.
- Parking capacity must be increased.
- High customer service levels to the Port's varied tenant mix must be enhanced.
- Foreign-Trade Zone No. 25 non-contiguous sites must be expanded and facilitated.
- Environmental stewardship and principles must not be compromised.
- Responsible and responsive corporate citizenship must remain a focus.
- High vehicle traffic solutions must be designed and implemented.

Port-Supported Objectives. To achieve its vision of success, the Port supports the following objectives:

- Provide new container and other marine terminals, including planning for an ICTF.
- Improve intermodal connections (road and rail) to facilitate the transportation of cargo and provide competitive service.
- Expand cruise operations and construct new facilities.
- Expand roadway systems and parking facilities to support increased cruise growth.
- Expand Foreign-Trade Zone operations (including noncontiguous zone sites).
- Expand role as a transshipment center for worldwide markets.
- Improve petroleum-receiving facilities and operations.
- Pursue new trading opportunities and strengthen existing ties.

Financial Objectives. The following financial objectives influence the Port's business and asset management strategies.

- Increasing revenues and, more important, net revenues.
- Return on investment.
- Stability of income.
- Achieving growth targets.

- Protecting value for the County and bondholders.
- Self-sufficiency.
- Diversification of commodities handled.

These objectives will be incorporated into the Goals, Objectives, and Policies section of the Deepwater Port Component of the Coastal Management Element in Broward County's Comprehensive Plan in Phase III.

Summary of Business Strategy Considerations. In summary, the Port's business and asset utilization strategies must consider:

- The Port's most probable trade/cruise markets.
- The Port's 10- and 20-year Vision Plans.
- The Convention Center "carve-out" and impact on day and other cruises.
- Lease opportunities.
- The ACOE study findings.
- Potential air-draft and crane-height restrictions from aviation flight surfaces.
- Status and incorporation of on-going projects.
- Diversification to increase berth utilization.
- Higher density terminal operations.
- Greater operational efficiencies.
- Phasing of proposed infrastructure improvements to balance available funding with construction cost need.
- Design parameters to increase operational savings.
- A balance between commerce and security.

Financial Strategies. The 10- and 20-Year Vision Plans are the road maps to identify the infrastructure that is projected to meet market demand at those respective milestones. The Vision Plans answer the question: "If Port Everglades is to meet the expected market demand at a milestone year, what infrastructure will be needed?" The 5-year Plan has been further refined by establishing estimated design and construction costs and schedules for project construction, within the 5-year fiscal period.

The projects in the 5-Year Plan were incorporated with the Port's continuing general infrastructure, maintenance, and renewal programs to create the 5-Year Capital Improvement Plan (CIP). This CIP, which covers FY 2007/2008 to FY 2011/2012, (October 2007 to September 2012 per Broward County's fiscal period), needs to be a program that can be implemented within identified project budgets and have the funding available at the time needed. The 5-Year CIP presented in this Plan has been developed with County staff and represents a program that is capable of being implemented within the established time frame.

Projects in the 5-Year CIP were selected because of their added value to the Port in the near term.

Project-Decision Matrix. The 5-Year Plan has been differentiated from the 10- and 20-Year Vision Plans with further investigation and documentation to support the placement of those projects in the CIP. The Port's senior staff and the Consultant Team developed "tools for the toolbox" to assist and guide future Master Plan decision-making. A critical tool in the toolbox is the Project-Decision Matrix, which is a set of sensitivities to be utilized when market demand indicates that a project would be needed in the near term. At that time, accurate information can be entered into the Project-Decision Matrix.

The Project-Decision Matrix comprises six sensitivities:

- Project Cost.
- Return on Incremental Investment (ROI).
- Net Present Value (NPV).
- Economic Impact.
- Environmental Impact.
- Customer/Regulatory Need.

These six sensitivities, or indicators, are described below.

- Project Cost. The cost of a project includes professional design and inspection services during construction. It is recommended that, in appropriate projects, value-engineering services should be added to the design process; these services would depend on the nature of the project. Initial capital costs must be evaluated against long-term operating costs. Construction costs within the 5-Year CIP incorporate a three percent inflationary increase per year. Construction costs for projects in the 10- and 20-Year Vision Plans use present dollars in the order-of-magnitude cost estimates to avoid discrepancies in projected escalation factors.
- Return on Incremental Investment. The Port's investment may be the value of land or the cost of capital improvements made by the Port for the project. In addition to revenue received from wharfage charges, dockage fees, land lease, or passenger throughput, the Port may also be reimbursed for the cost of new cruise or cargo facilities in the form of a capital cost recovery charge.
- Net Present Value. NPV is the dollar amount by which the future net revenues, discounted at 8.50 percent per year, would exceed the initial investment by the Port on a project.
- Economic Impact. Economic impact is quantified in terms of income, jobs, and taxes, and can be an indicator of the sustainability of a project.
- Environmental Impact. Environmental impact is not only evaluated in terms of the additional cost to a project, but must acknowledge acceptance of the project by both the regulatory agencies and the public.

- Customer/Regulatory Need. Some infrastructure projects do not directly generate revenue, but need to be implemented. For example, without traffic and security improvements, the needs of the tenants/stakeholders, regulatory agencies, and the public cannot be met.

Project Cost, Return on Incremental Investment, Net Present Value, and Economic Impact can be quantified and evaluated analytically. Environmental Impact and Customer/Regulatory Need also have quantifiable impacts, but may have specific issues such as permits or other mandatory regulations that influence the Go-No-Go decision.

The financial strategy used in the development of the 5-Year CIP is to incorporate sustainable, high added-value projects. This strategy is recommended for future CIPs throughout the 20-year planning horizon. In other words, revenue from a project should not be the only indicator, but other indicators should be evaluated. The key terms are "sustainable" and "added value."

The Project-Decision Matrix was utilized to make Go-No-Go decisions in placing Master Plan projects into the 5-Year CIP. Some projects in the 5-Year CIP do not produce revenue directly, but, as in the case of road improvement projects, are needed to mitigate existing traffic congestion. These projects are essential to maintain Port tenant and user satisfaction and meet regulatory requirements. Other projects, such as new cruise facilities, rank high using the Project-Decision Matrix tool and, therefore, several cruise facility projects have been included in the 5-Year CIP. Figure ES-8 shows how the Project-Decision Matrix was used in assessing two key projects in the 5-Year CIP: the crushed rock aggregate facility and the expansion of Cruise Terminal 18.

Figure ES-8
Examples of Project-Decision Matrix Use

CRUSHED ROCK FACILITY

Total Construction Cost	ROI	Net Present Value	Economic Impact			Environmental Impact				Customer / Regulatory Need		
			Total Income ($1,000)	Jobs	Taxes	High	Mid	Low	Permit Required	High	Mid	Low
$63.4 M	13.7%	$8.4 M	76,035	1,215	6,995	X			X	X		

CRUISE TERMINAL 18 EXPANSION

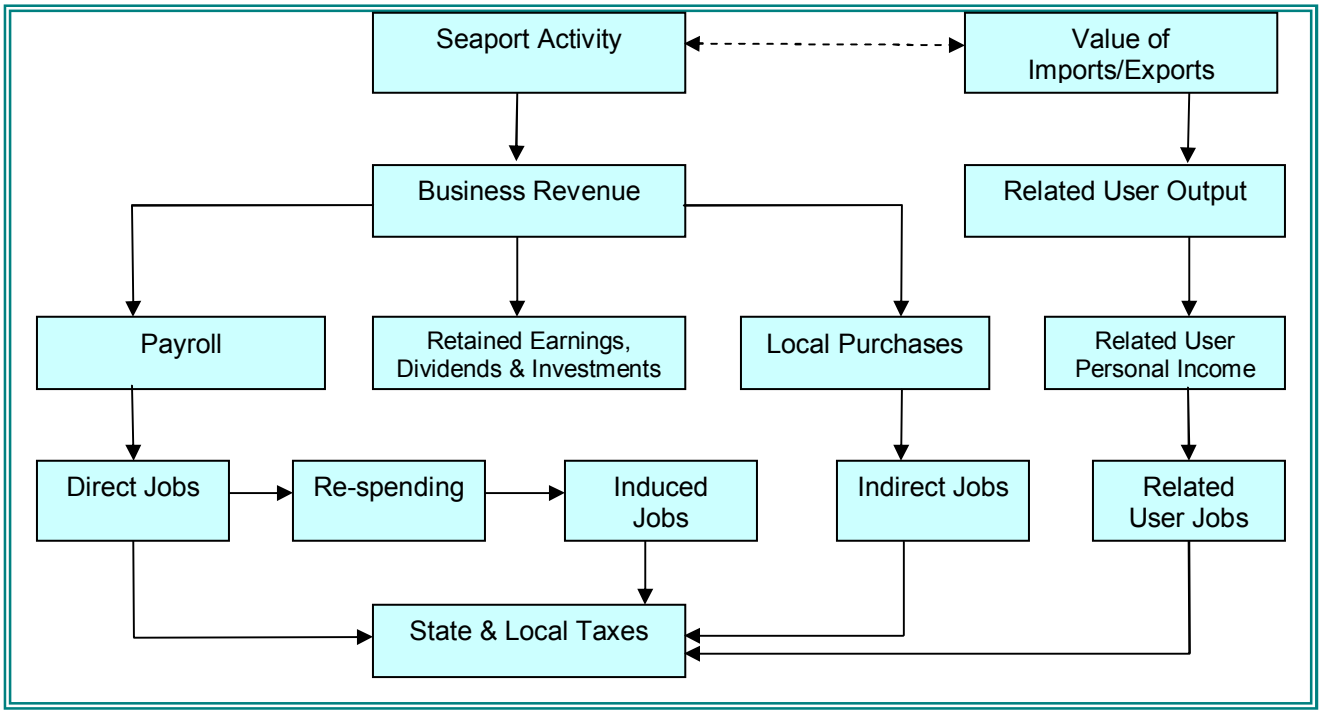
Total Construction Cost	ROI	Net Present Value	Economic Impact			Environmental Impact				Customer / Regulatory Need		
			Total Income ($1,000)	Jobs	Taxes ($1,000)	High	Mid	Low	Permit Required	High	Mid	Low
$37.4 M	26.6%	$44.9 M	172,127	3,844	15,857			X		X		

Economic Impact. Economic impact -- consisting of income, jobs, and taxes -- is one of the six key indicators in the Project-Decision Matrix. The economic impact analysis model the Consultant Team prepared measures the local, regional, and state economic impacts generated by maritime activity at the container, dry and break-bulk, and liquid bulk cargo terminals as well as at the cruise terminals at Port Everglades.

Economic Impact Components. Figure ES-9 graphically demonstrates how seaport activity impacts the local and regional economies. As this figure indicates, the ocean cargo and vessel activity initially generates business revenue to the firms supplying maritime services. This revenue is used to purchase employment (direct jobs) to provide the services, to pay stockholders and generate retained earnings, and to purchase goods and services from local as well as national and international firms (creating indirect jobs with these firms). Businesses also pay taxes from the business revenue.

The employees hired by the firms receive wages and salaries (personal income), a portion of which is saved, while another portion is used to buy goods and services such as food, housing, clothing, health care, etc. These purchases create a re-spending impact throughout the economy, known as the personal income multiplier. Because of these local purchases, additional jobs (known as induced jobs) are created in the local economy. Finally, taxes are paid by individuals employed with the firms providing the services to the seaport terminals.

Figure ES-9
Flow of Seaport Activity Impacts through the Economy



As Figure ES-9 illustrates, four impact categories are measured:

- Jobs.
- Employee earnings.
- Business revenue.
- State and local taxes.

Analytical Findings. The economic impact findings resulting from the analysis prepared during the master planning process are based on interviews with 235 firms providing services to the cargo, passengers, and vessels handled at the Port's cargo and cruise terminals. These 235 firms represent 99 percent of the firms in the Port Everglades seaport community, underscoring the accuracy of the findings. Furthermore, the impacts can be traced back to the individual firms. In addition to the overall economic impact findings, the data collected from the interviews were used to develop operational models of the terminals located at Port Everglades.

Table ES-1 summarizes the economic impacts generated by the cargo and cruise terminals.

Table ES-1
Summary of the Local and Regional Economic Impacts
Generated by Port Everglades

	CARGO	CRUISE	TOTAL
JOBS			
DIRECT	5,984	4,997	10,982
INDUCED	6,742	3,278	10,021
INDIRECT	3,362	3,163	6,525
RELATED USER JOBS	160,676	NA	160,676
TOTAL JOBS	176,765	11,438	188,203
PERSONAL INCOME (1,000)			
DIRECT	$265,247	$129,108	$394,355
INDUCED	$779,799	$298,100	$1,077,899
INDIRECT	$149,811	$99,697	$249,507
RELATED USER INCOME	$4,680,533	NA	$4,680,533
TOTAL PERSONAL INCOME	$5,875,389	$526,905	$6,402,294
VALUE OF ECONOMIC ACTIVITY (1,000)			
BUSINESS SERVICES REVENUE	$740,498	$1,264,665	$2,005,163
RELATED USER OUTPUT	$14,845,943	NA	$14,845,943
TOTAL VALUE OF ECONOMIC ACTIVITY	$15,586,441	$1,264,665	$16,851,106
LOCAL PURCHASES (1,000)	$281,252	$139,282	$420,534
STATE & LOCAL TAXES (1,000)			
DIRECT, INDUCED AND INDIRECT	$109,927	$48,541	$158,468
RELATED USER TAXES	$430,609	NA	$430,609
TOTAL STATE AND LOCAL TAXES	$540,536	$48,541	$589,077

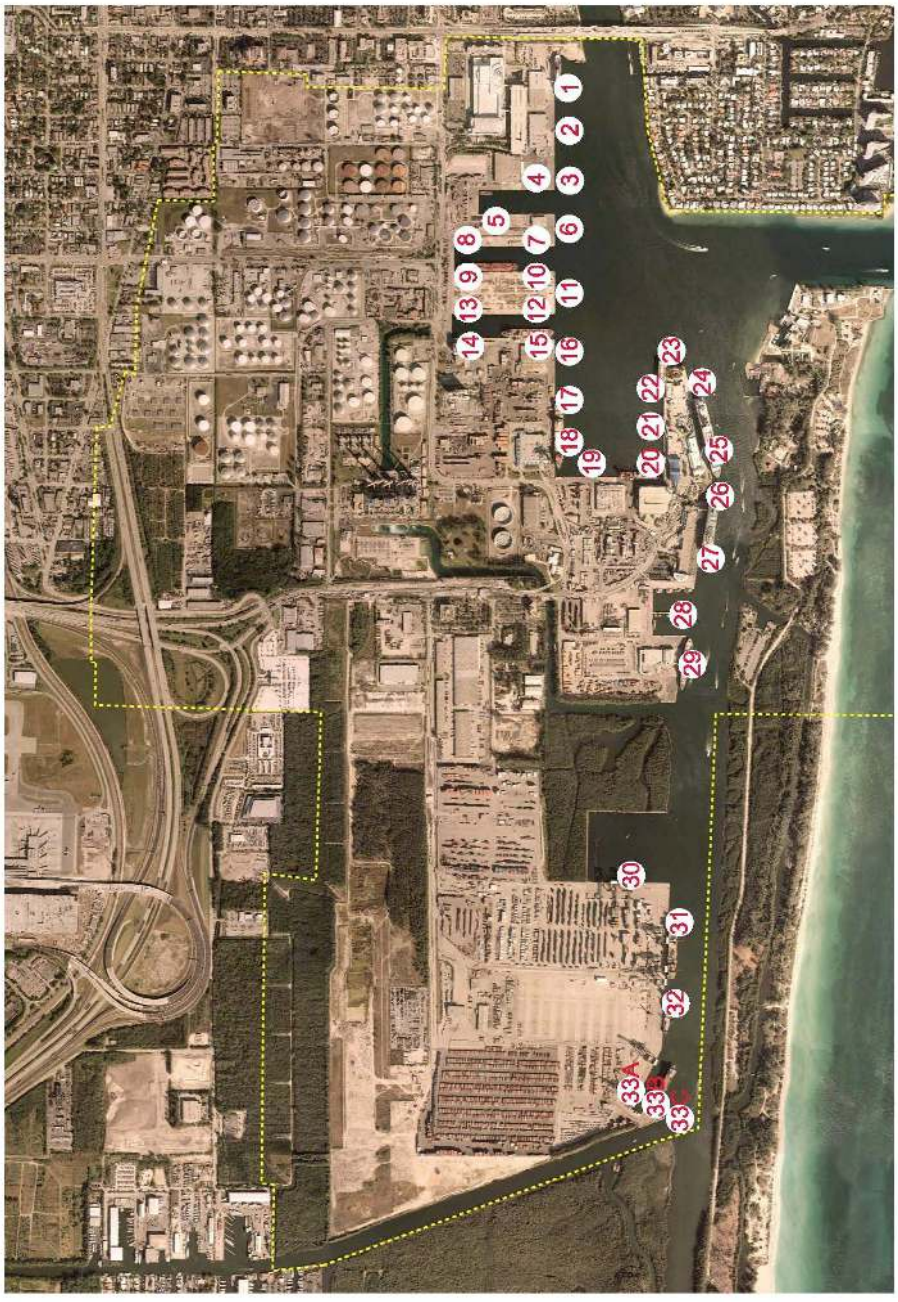
The vessel, cargo, and passenger activities at the cargo and cruise facilities at Port Everglades generated the following impacts in the regional economy in FY 2006:

- **188,203 jobs in Florida are in some way related to the cargo and cruise activity at Port Everglades. Of the 188,203 total jobs:**
  - 10,982 direct jobs are generated by the ocean cargo and cruise activity.
  - Local and regional purchases by those 10,982 individuals holding the direct jobs support an additional **10,021 induced jobs** in the regional economy.
  - **6,525 indirect jobs** are supported by $420.5 million of local purchases by businesses supplying services at the cargo and cruise terminals and by businesses dependent upon the Port for the shipment and receipt of cargo.
  - The cargo moving via Port Everglades supports **160,676 related user jobs** with exporters and importers located throughout the State of Florida. The majority of these jobs with exporters and importers are associated with the movement of containerized commodities.
- **Approximately $6.4 billion of wages and salaries were generated by Port Everglades' cargo and cruise activity in FY 2006.**
  - **$394.4 million of direct wages and salaries** were received by those 10,982 directly employed.
  - As the result of re-spending, this direct jobholder income, an **additional $1.078 billion of income and consumption expenditures, was created** and supported the 10,021 induced jobs.
  - The 6,525 indirect jobholders received **$249.5 million of indirect wages and salaries**.
  - The 160,676 related user jobholders generated **$4.681 billion in personal income**.
- **The FY 2006 cargo and cruise activity at Port Everglades generated $16.85 billion in economic value to the State of Florida.**
  - Businesses providing services to the cargo and cruise terminals received **$2.0 billion of revenue.**
  - In addition, the cargo activity at the Port created an additional **$14.8 billion of total economic output** in the state, the majority of which is created by the movement of containers and the in-state industries supporting these industries.
- Local businesses and suppliers to the cargo and cruise industries at Port Everglades made **$420.5 million of local purchases**.
- **$589.1 million of state and local taxes** were generated by activity at the cargo and cruise terminals, including **$430.6 million generated by the related users** throughout the state.

Element 5: The Final Plan

Element 5 presents the ultimate Master Plan, which was refined as a result of the iterative planning process conducted with the Port senior staff, Port tenants and users, the public, local municipalities, and varied agencies as well as workshops with the Board. It outlines the Master Plan projects proposed for implementation in the 5-, 10-, and 20-year periods and identifies their costs. For reference in the following project discussions, berth locations are shown in Figure ES-10.

Figure ES-10
Berth Location Map



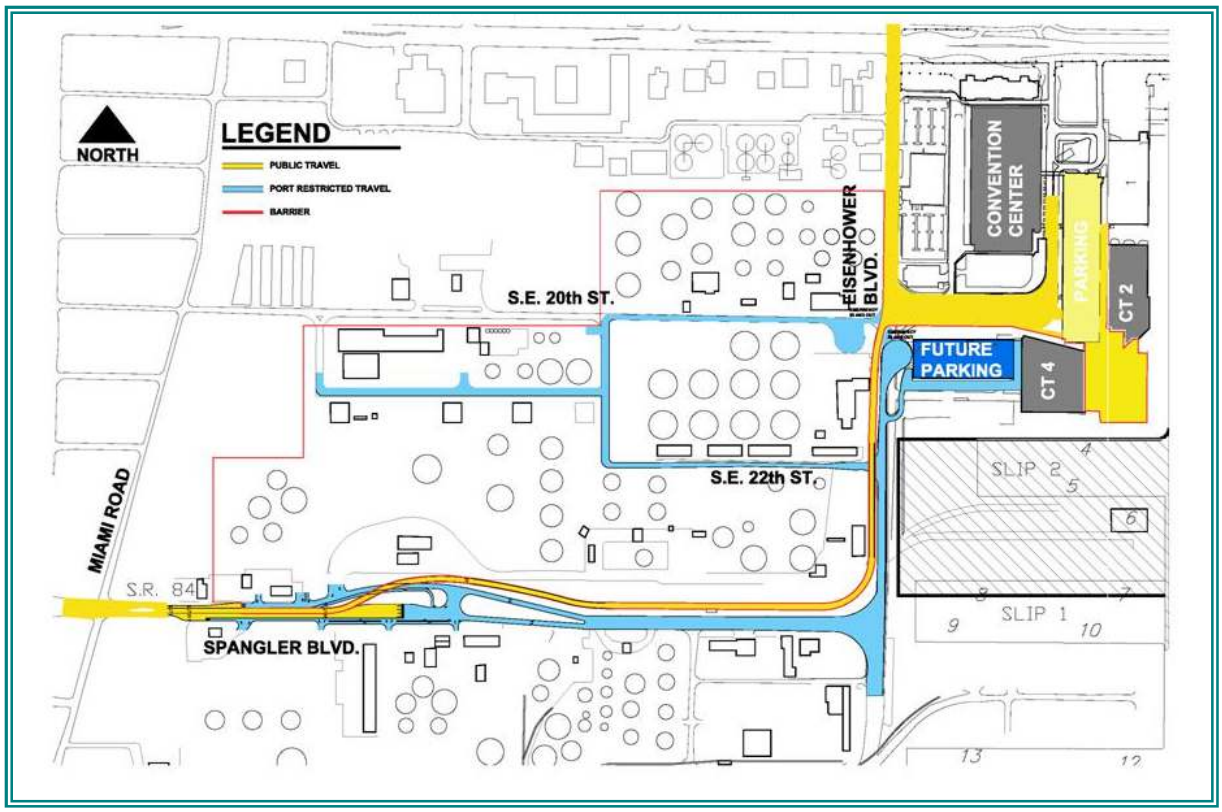
PORT EVERGLADES BROWARD COUNTY FLORIDA

DMJM HARRIS | AECOM

The 5-Year Plan. The projects proposed for implementation in the 5-Year Plan are discussed below, starting with three key Plan initiatives.

By-Pass Road. Within the 5-year Plan, a roadway is proposed to be constructed parallel to Eisenhower Boulevard and Spangler Boulevard. This roadway will permit the public to travel between the intersection at Eisenhower Boulevard and 17th Street to Spangler Boulevard and U.S. 1 without passing through a Port security gate. The conceptual "By Pass Road," discussed in Phase I of the Plan, has been modified to have less impact upon the Port's users and other stakeholders. To maintain existing traffic movements for users to access their properties and move between their terminals and the docks, a second overpass has been added to the Phase I concept. This modified concept, illustrated in Figure ES-11, will allow most of the existing Port user traffic movements to remain unchanged.

Figure ES-11
Conceptual By-Pass Road



"Carve out" of the Broward County Convention Center. The By-Pass Road and the removal of the Port's security gate on Eisenhower Boulevard will allow the public to travel between 17th Street and Eisenhower Boulevard to U.S. 1 and Spangler Boulevard. The public will also be able to access the Convention Center and its future expansion, including a hotel, without passing through a Port security gate.

A new security perimeter, between Port-secured space and public space at the Convention Center and the existing parking structure at Northport, was established. This security perimeter would be a fence between Port-secured property and the public space and the security perimeter would be the exterior wall at Terminals 2 and 4 in the 5-Year Plan. In other words, passengers accessing Terminals 2 and 4 would pass through the Port's security gate at the entrances to these two terminals. When the proposed parking structure is constructed west of Cruise Terminal 4, in the 10-Year Vision Plan, Cruise Terminal 4 and the new parking structure will be in the Port-secured area. Therefore, access to Cruise Terminal 4 will require screening at the Port's roadway gates.

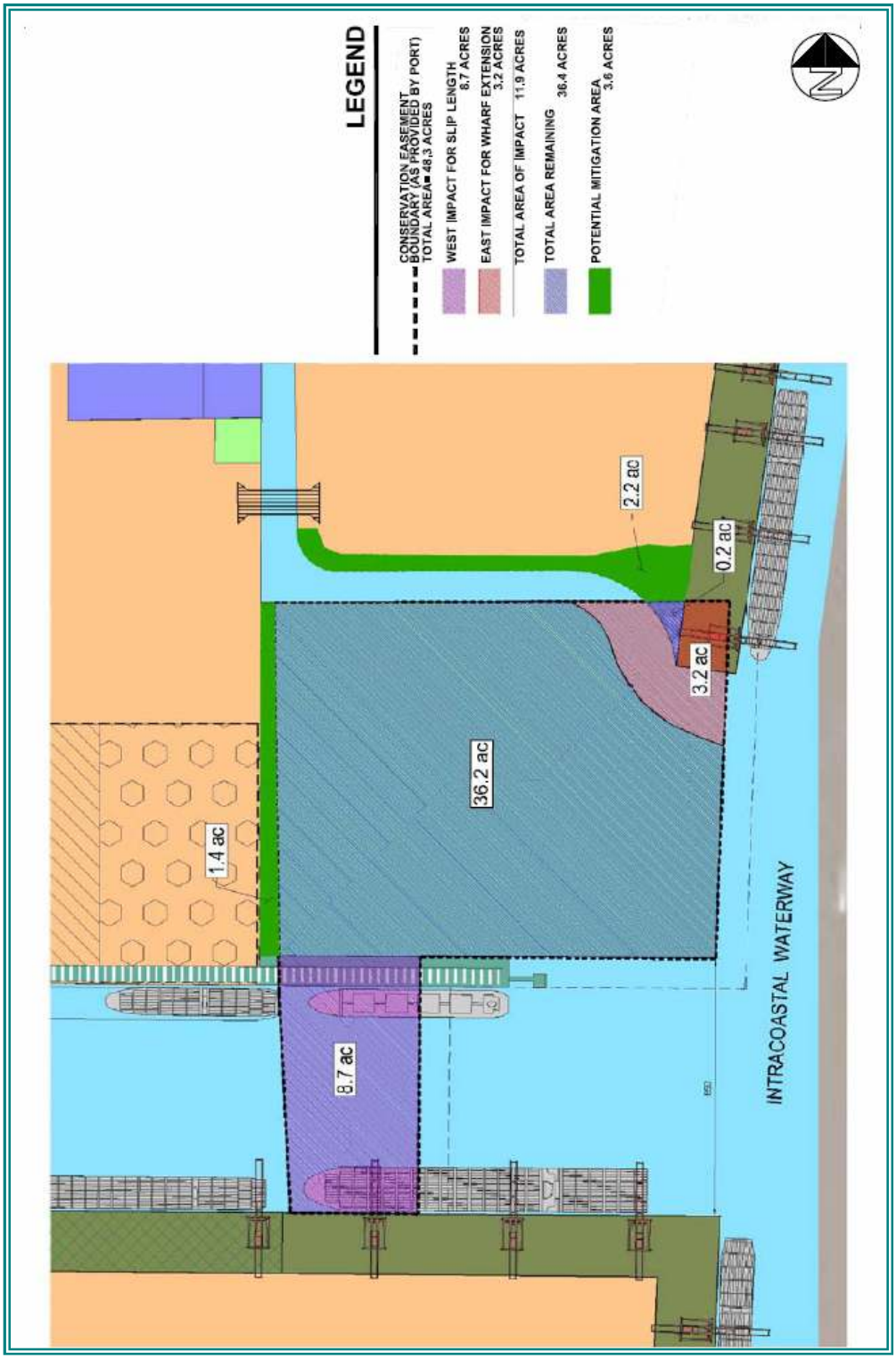
To meet its cruise infrastructure assessment, the Port needs to provide a mega cruise ship berth at Cruise Terminal 2. The length of berth needed to service the cruise ship is 1,321 feet, with a minimum of 75-foot dock apron width.

When the Broward County Convention Center was constructed, the project required a Development of Regional Impact Statement (DRI). The boundary of the DRI needs modification to allow the Port and the Convention Center to pursue their respective master plans.

Turning Notch Expansion. Expansion of the Turning Notch adds several vital assets to the Port's infrastructure, which have the domino effect of allowing future projects of added value. To expand the Turning Notch, however, it is necessary to both secure a release for the 8.7 acres of the Conservation Easement (see Figure ES-12) and mitigate the mangroves in the 8.7 acres. The Port is investigating alternative sites on and off port for substituting suitable land and habitat area. Among the areas being considered for land substitution and mangrove mitigation are Deerfield Island in the ICW and land contiguous to the remaining Conservation Easement.

Additional Conservation Easement Impacts. Potential impacts to the Conservation Easement will occur when Berth 29 is extended southward in the 10-year planning horizon. This extension will require realignment of the FPL Discharge Canal at the junction of the Canal and the ICW (see Figure ES-12.). The realignment and widening of the Canal at its junction with the ICW will require relocation of existing mangroves and the entrance to the manatee habitat area. The wharf extension and the Canal realignment impact 3.2 acres of the Conservation Easement. An area for adjoining mangrove mitigation has been identified: 2.2 acres along the north side of the Canal and 1.4 acres along the western boundary of the Conservation Easement.

Figure ES-12
Conservation Easement Impact Map



PORT EVERGLADES BROWARD COUNTY FLORIDA

DMJM HARRIS | AECOM

Other projects in the 5-Year Plan include the following:

Cruise Terminal 2 Renovations. These renovations are required due to changes in defining the Port-secured area from the public space at and around the Convention Center. Renovations include relocation of at-grade air-conditioning condensing units, relocation of fire-service water piping, security enhancements, and a new entrance lobby.

Cruise Terminal 4 Redevelopment/Expansion. These improvements are necessary to accommodate larger passenger ships and an increased baggage-handling area within the terminal. The project includes moving the entrance to the terminal from the east side to the west to be serviced by a new passenger intermodal zone, i.e., ground transportation area, on the west side of the terminal.

Molasses Tank Use Request for Letters of Interest (RLI). Abandoned molasses tanks exist on County-owned property to the west of Eisenhower Boulevard and south of SE 20th Street. This property is a valuable asset to the Port. To maximize its economic value, an RLI will be developed to receive proposals for use of this site from potential private interests.

Relocation of Public Works/Port Maintenance. The construction of the By-Pass Road will require partial removal of the existing public works building, which is located west of Eisenhower Boulevard and south of SE 20th Street. The existing site of the public works building adjoins the existing molasses tanks along with Port maintenance buildings to the south. In lieu of rebuilding the public works facility at this site, it is envisioned that the facility will be relocated and the current land area be added to the RLI for molasses tank use. This added land should increase the value of the RLI to the Port.

Midport Roadway Expansion. Expansion of East Eller Drive is to accommodate taxi staging and mitigation of traffic serving the Midport cruise terminals.

Berth 16-17 Crane Replacement. Berths 16-17 have two existing on-rail cranes in need of repair. One crane is to be removed from service and replaced with a mobile harbor crane. The remaining on-rail crane will be upgraded.

Demolition of Transit Shed 16. Demolition of this shed is required to increase terminal yard space for container operations.

Cruise Terminal 18 Redevelopment/Expansion. Expanding Cruise Terminal 18 will occur in two phases. Phase I will accommodate the Navigator-class cruise ship; Phase II will accommodate the Genesis-class cruise ship. Phase II is contingent on reaching agreement with the cruise line to host the new Genesis class vessel.

Midport Parking Garage. This facility will add 1,200 structured parking spaces above a passenger intermodal area to serve the Port's cruise facilities.

Cruise Terminal 19 Expansion. This project expands the baggage-handling area at an existing terminal to better accommodate larger cruise ships.

FPL Discharge Canal Intermodal Bridge. This intermodal bridge will connect the cargo areas at Midport to the cargo areas at Southport. The intermodal bridge will encourage operational

efficiencies, by not requiring traffic between these two cargo areas to go in and out of the security gates.

Cruise Terminal 21/22 Expansion. Combining the building footprints of these two terminals will enable the new facility to accommodate larger cruise ships. Currently, the berth that serves these terminals is adequately sized for the ships, but the landside facilities need to be expanded to serve the increased passenger volumes and baggage-handling requirements.

Southport Phase VIII. This phase of the Southport improvement program is currently on undeveloped land and represents an opportunity for expansion of the Port's container terminals. Improvements include pavement, drainage, and lighting.

McIntosh Loop Road. McIntosh Road is the entry road to the Southport container terminals. Currently, the road alignment requires trucks to make left-hand turns into the respective terminals without sufficient queuing space on the roadway. The proposed new alignment creates a loop road with ample turning radii for trucks, mandating all trucks to make right-hand turns into the terminals. The roadway section will have both de-acceleration and acceleration lanes in addition to the through lanes at terminal entrances. Appropriate signage will be provided for all truck routes.

Existing traffic is a critical concern to the users of McIntosh Road. This project will build through lanes in a looped configuration.

Foreign-Trade Zone/Warehouse RFP. The Master Plan allocates a 15-acre site west of McIntosh Road for the relocated on-port Foreign-Trade Zone buildings. The current buildings have costly annual maintenance charges and new structures are needed. In lieu of Port investment into new buildings, an RFP will be issued in hopes of receiving proposals from the development community for using this property as warehouses for Foreign-Trade Zone occupants. The Port would consider a land-lease arrangement with a potential developer. In this manner, the Port would receive revenue from the land lease and be able to have new buildings constructed for the Foreign-Trade Zone occupants with capital costs covered by private investment.

Dry Stack Boat Storage Request for Letters of Interest (RLI). The Master Plan recommends relocation of the dry stack boat storage facility from the FPL Discharge Canal site to the Dania Cut-Off Canal. The relocation of this facility will eliminate 400 boats from entering this manatee-protected area and permit the construction of the intermodal bridge needed to increase operational efficiencies for Port users. The RLI will establish a land area suitable for this type of facility to be constructed by a developer with revenue paid to the Port through a land-lease agreement.

Crushed Rock Aggregate Terminal. This facility is envisioned to meet a portion of Florida's needs for crushed rock aggregate with supplies imported from off-shore locations. Private investment will pay for the facility, consisting of mooring structures, enclosed conveyors, an enclosed storage building, and rail yard. To berth the crushed rock vessel in the turning notch, release of the 8.7 acres of the Conservation Easement is required, as discussed previously.

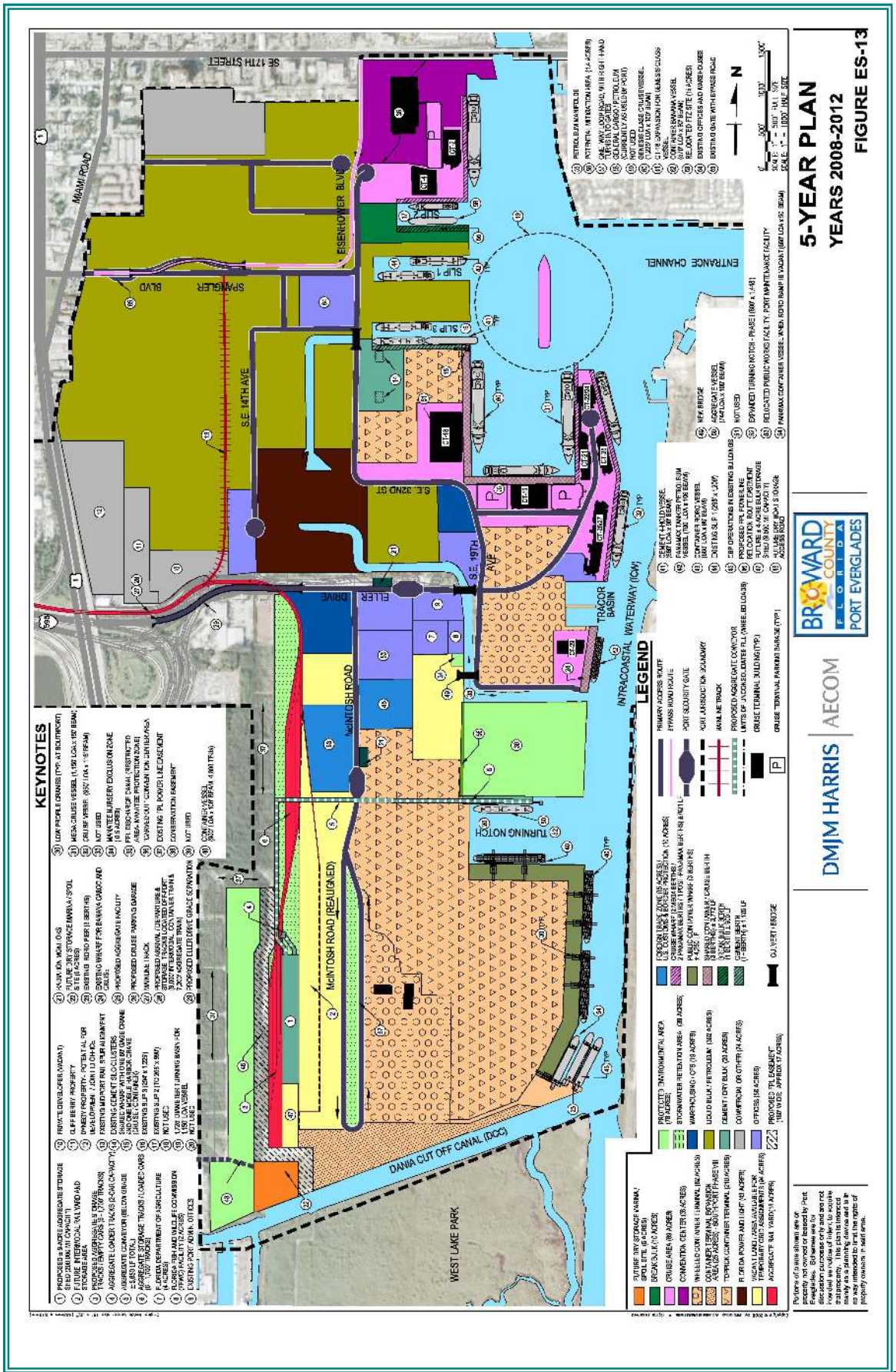
ICTF Rail, Phase I. The rail to serve the crushed rock aggregate terminal is Phase I of the future ICTF. It is envisioned that private investment will pay for this rail along with grants secured by the Port.

The Master Plan projects in the 5-Year Plan are shown in Table ES-2; the 5-Year Plan is illustrated in Figure ES-13.

Table ES-2

5-Year – Master Plan Projects
Years 2008 to 2012

	Project Cost ($ million)
– Northport Improvements	
• 5-1: CT 2 Renovations	1.650
• 5-2: CT 4 Redevelopment/ Expansion	13.000
• 5-3: Molasses Tank Reuse RLI	0.000
• 5-4: Bypass Road	19.000
• 5-5: Relocate Public Works/Port Maintenance	2.000
– Midport Improvements	
• 5-6: Midport Roadway Expansion	2.300
• 5-7: Berth 16-17 Crane Replacement	6.050
• 5-8: Demo Transit Shed 16 / Reconfigure Terminal	0.800
• 5-9: CT 18 Redevelopment / Expansion	38.900
• 5-10: Midport Parking Garage	27.700
• 5-11: CT 19 Expansion	6.700
• 5-12: Intermodal Bridge over FPL Discharge Canal	7.200
• 5-13: CT 21/22 Expansion	22.000
– Southport Improvements	
• 5-14: Phase 1 Turning Notch Expansion	47.030
• 5-15: Southport Phase VIII	15.500
• 5-16: McIntosh Loop Road	6.530
• 5-17: FTZ / Warehouse RFP	10.300
• 5-18: Dry Stack Marina RLI	0.000
• 5-19: Crushed Rock/Aggregate Terminal & Rail Yard Facility	55.000
• 5-20: ICTF Rail (Phase 1 for Import Crushed Rock Facility)	10.496
TOTAL	**$292.156**


5-YEAR PLAN
YEARS 2008-2012
FIGURE ES-13
KEYNOTES
LEGEND
DMJM HARRIS | AECOM
BROWARD COUNTY FLORIDA
PORT EVERGLADES
SE 17TH STREET
MIAMI ROAD
EISENHOWER BLVD
SPANGLER BLVD
S.E. 14TH AVE
S.E. 22ND ST
S.E. 19TH AVE
ENTRANCE CHANNEL
TRACOR BASIN
INTRACOASTAL WATERWAY (ICW)
McINTOSH ROAD
McINTOSH ROAD (REALIGNED)
TURNING NOTCH
DANIA CUT OFF CANAL (DCC)
WEST LAKE PARK
SLIP 1
SLIP 2
SLIP 3
SLIP 4
N

The 10-Year Vision Plan. The Master Plan projects in the 10-Year Vision Plan include the following infrastructure improvements for the Port's diverse cargo and cruise facilities:

Cruise Terminal 4 Parking Garage. A new 1,680-space structured parking facility will be constructed west of Cruise Terminal 4 and over a passenger intermodal zone to serve both Cruise Terminal 4 and Cruise Terminal 2.

Slip 2 Expansion. Slip 2 will be expanded in both width and length to accommodate a cruise vessel 1,100 feet in length overall (LOA) on the north bulkhead and a general cargo or petroleum vessel on the south bulkhead. The existing roll-on/roll-off (RO/RO) ramp on the north bulkhead of Slip 2 will be reconstructed further west in the slip.

Petroleum Barge Slip. A slip for a petroleum barge will be needed in this timeframe. The new slip will be constructed in a "niche" in Pier 1 without impacting the other petroleum slips. The north bulkhead will be positioned so the bulkhead can be retained when Slip 3 is expanded in the 20-Year Vision Plan.

Midport Cruise Passenger Intermodal Center - Phase I. This cruise passenger intermodal center will integrate an intermodal zone, or ground transportation area, at grade with a structured parking facility above to serve the cruise terminals at Midport. The intermodal center will provide a central location for the loading/unloading of buses, shuttles, and taxis.

Container Terminal Area Expansion. This project fills in the Tracor Basin to expand the container terminal area at Midport.

Construction of Berth 28 and Extension of Berth 29. This project constructs the bulkhead at Berth 28 and extends the existing bulkhead at Berth 29 southward.

Crane Procurement for Berths 28 - 29 (four 100-gauge cranes). Four 100-foot gauge ship-to-shore gantry cranes on a rail structure will be procured for Berths 28-29.

FPL Discharge Canal Realignment. Extending Berth 29 southward necessitates the realignment of the FPL Discharge Canal. This project realigns the Canal at its junction with the ICW.

Cruise Terminal 27. A new cruise terminal will be constructed at Midport with an elevated passenger concourse to serve cruise ships at Berth 28.

Cruise Terminal 29 Demolition. Cruise Terminal 29 is demolished to create additional cargo terminal area along the wharf.

Phase II Turning Notch Expansion. The Turning Notch that was expanded in Phase I will now be lengthened further to the west to create an overall length of the southern bulkhead of 2,455 feet.

Relocation of Banana and Other General Cargos. On the north bulkhead of the Phase II expanded Turning Notch, a marginal wharf will be constructed to serve general cargo, including banana vessels.

ICTF Track and Storage Yard. The ICTF will be constructed to transfer international containers between rail and ship. The project consists of expanding the existing rail spur, created in the 5-Year Plan, into rail storage tracks adjacent to a new container storage yard.

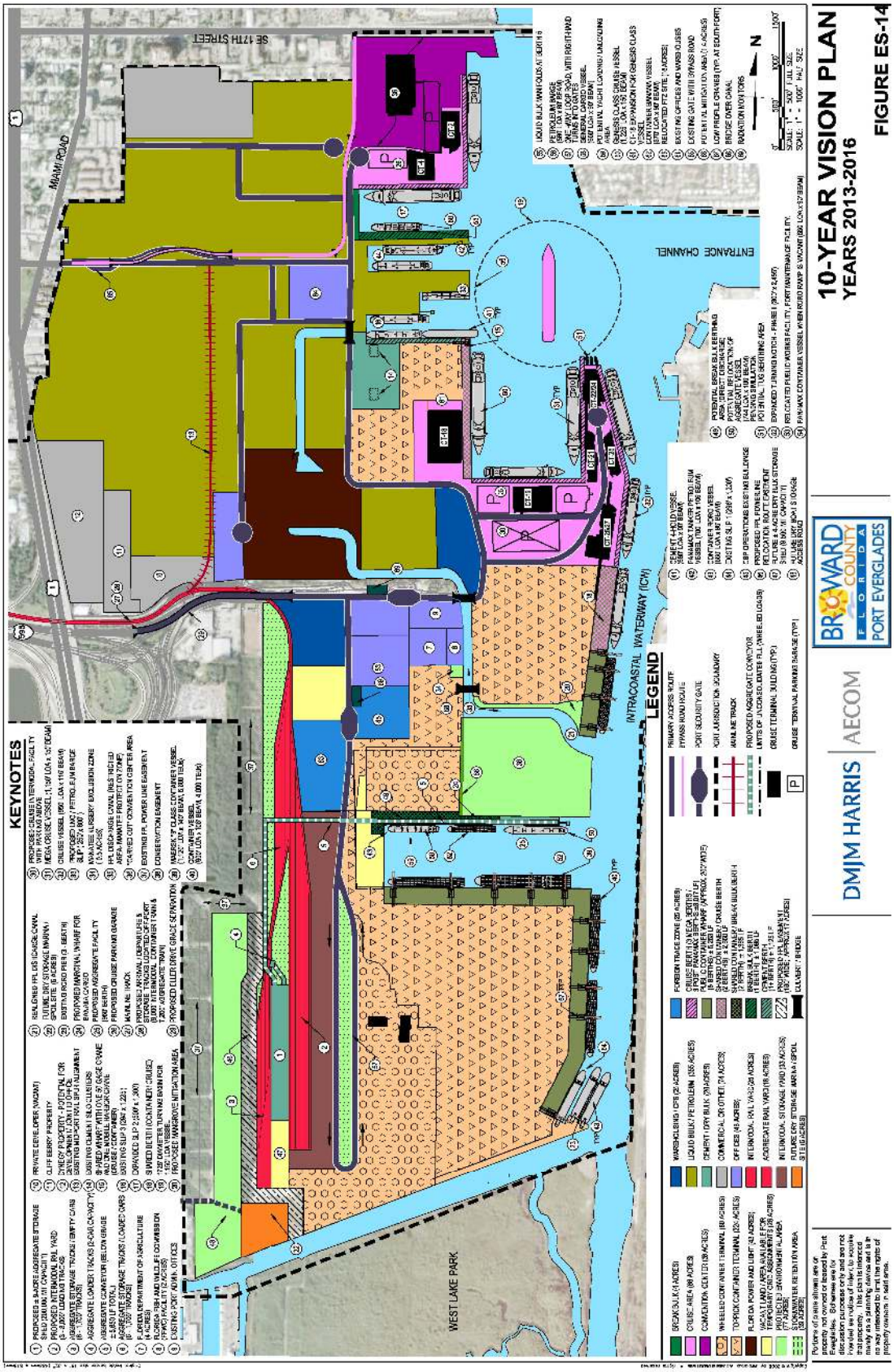
Crane Procurement for Southport (three 100-gauge cranes). Three ship-to-shore 100-foot gauge gantry cranes will be added to Southport in the 10-Year Vision Plan.

The Master Plan projects in the 10-Year Vision Plan are shown in Table ES-3; the 10-Year Vision Plan is illustrated in Figure ES-14.

Table ES-3

10-Year Vision Plan – Master Plan Projects
Years 2013 - 2016

	Project Cost ($ million)
– Northport Terminal Improvements	
• 10-1: CT 4 Parking Garage	37
• 10-2: Slip 2 Expansion	90
• 10-3: Petroleum Barge Slip	24
– Midport Terminal Improvements	
• 10-4: Construct Midport Cruise Intermodal Facility - Phase 1	80
• 10-5: Expand Container Terminal Area	15
• 10-6: Construct Berth 28, Extend Berth 29	25
• 10-7: Crane Procurement for Berths 28-29 (four 100-gauge cranes)	40
• 10-8: Realign FPL Discharge Canal	10
• 10-9: Construct CT-27	35
• 10-10: Demo CT-29	1
– Southport Terminal Improvements	
• 10-11: Phase 2 Turning Notch Expansion	60
• 10-12: Relocate Banana and Other General Cargos	10
• 10-13: Construct ICTF Track and Storage Yard	50
• 10-14: Crane Procurement for Southport (three 100-gauge cranes)	30
In present-day dollars **TOTAL**	**$ 507**


10-YEAR VISION PLAN
YEARS 2013-2016
FIGURE ES-14
KEYNOTES
LEGEND
SE 17TH STREET
MIAMI ROAD
ENTRANCE CHANNEL
INTRACOASTAL WATERWAY (ICW)
WEST LAKE PARK
DMJM HARRIS | AECOM
BROWARD COUNTY FLORIDA PORT EVERGLADES

The 20-Year Vision Plan. The Master Plan projects in the 20-Year Vision Plan include the following infrastructure improvements for the Port's diverse cargo and cruise facilities:

Reconfiguration of Slips 1 and 3. Slips 1 and 3 will be expanded in width and Slip 3 lengthened. These two slips serve both petroleum and cement vessels. Expanding Slip 3 will eliminate the need for the cement vessel using Berth 14 to wait for Berth 15 to be vacant before it can maneuver into and out of Berth 14. Expanding Slips 1 and 3 will accommodate the berthing of larger petroleum vessels.

Midport Cruise Passenger Skyway. This project represents Phase II of the cruise passenger intermodal center and includes the implementation of an elevated pedestrian moving walkway that connects the 4,000+-space parking structure with all the cruise terminals at Midport.

Cruise Terminal 24/25 Expansion. This project will integrate the footprint areas of Cruise Terminals 24 and 25 into a single terminal to service larger capacity cruise ships.

Rubber Tire Gantry Crane Terminal Conversions. This project installs the necessary site infrastructure to accommodate rubber tire gantry cranes (RTGs) to increase densification of container storage within the Southport terminal yards.

Berth 33A Extension. The existing RO/RO ramps and structured pier at Southport will be removed and Berth 33A expanded to approximately 1,100 feet to accommodate a 900-foot LOA container ship.

Crane Procurement for Berth 33A. One ship-to-shore 100-foot gauge gantry crane will be procured to serve Berth 33A.

Dania Cut-Off Canal RO/RO Development. The Dania Cut-Off Canal will be widened to the north to accommodate the berthing of three RO/RO vessels. RO/RO ramps, bulkheads, and embankment protection are included in this project.

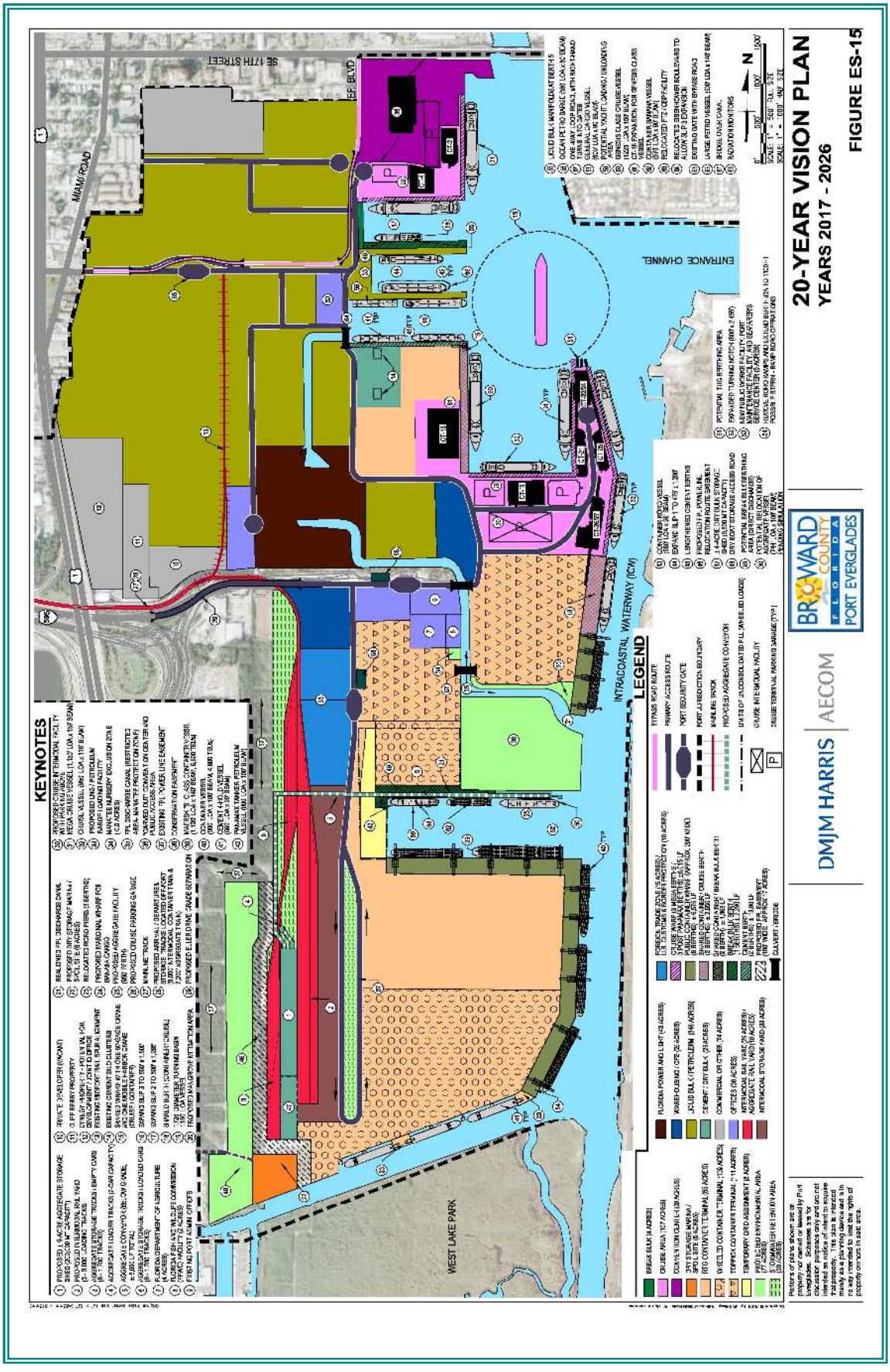
Customs and Border Protection Facility. A new facility to house the inspection services of Customs and Border Protection will be constructed west of McIntosh Road in the Port-secured area.

The Master Plan projects in the 20-Year Vision Plan are shown Table ES-4; the 20-Year Vision Plan is illustrated in Figure ES-15.

Table ES-4

20-Year Vision Plan – Master Plan Projects
Years 2017 to 2026

	Project Cost ($ million)
– Northport Improvements	
• 20-1: Reconfigure Slips 1 and 3	140
– Midport Improvements	
• 20-2: Construct Midport Cruise Passenger Skyway	80
• 20-3: CT 24/25 Expansion	40
– Southport Improvements	
• 20-4: Begin RTG Terminal Conversions	30
• 20-5: Extend Berth 33A	20
• 20-6: Crane Procurement for Berth 33A	10
• 20-7: DCC Ro/Ro Development	50
• 20-8: CBP Facility	16
In present-day dollars **TOTAL**	**$386**


20-YEAR VISION PLAN
YEARS 2017 - 2026
FIGURE ES-15
KEYNOTES
LEGEND
INTRACOASTAL WATERWAY (ICW)
WEST LAKE PARK
MIAMI ROAD
SE 17TH STREET
ENTRANCE CHANNEL
DMJM HARRIS | AECOM
BROWARD COUNTY FLORIDA PORT EVERGLADES

Element 6: Plan Implementation

Element 6 first discusses several development issues, including bulkhead conditions, the ACOE studies, and traffic circulation considerations. It then presents a realistic and implementable 5-year CIP, which includes both the projects identified in the Master Plan and other elements of the Port's maintenance and renewal program, and shows the sources of CIP funding. This element concludes with estimated funding for the 10- and 20-Year Vision Plans.

Bulkhead Conditions/ACOE Studies. While this Plan was being developed, Port Everglades engaged an engineering firm to investigate the implementation of toe wall extensions to the existing bulkheads to provide the increased water depths envisioned at the various berths by the ACOE *Feasibility Study/Environmental Impact Statement*. A July 2007 memorandum to Port Everglades from the engineering firm recommended that "all bulkheads 40 years of age should be replaced within the 20-year planning horizon." This recommendation, along with senior staff's review of the draft engineering report, concurred that the bulkheads from Berth 1 through Berth 29 are likely to need replacement by 2026, the 20-year planning horizon.

Bulkhead replacement scheduling is dependant on the results of future inspection programs and the bulkhead conditions at the time of the inspection. Where increased water depth is identified by the ACOE *Feasibility Study/Environmental Impact Statement*, the engineering report did, however, recommend replacing the bulkheads prior to dredging at the affected berths. Berths 30 through 33, constructed in 1992, will not be 40 years of age by 2026 and the Plan assumes these bulkheads are probably suitable for toe wall extensions.

Master Plan Impacts. The impacts of Plan implementation will be quantified in Phase III, when the existing Deepwater Port Component of the Coastal Management Element in Broward County's Comprehensive Plan is updated to incorporate the Port's new Master Plan. As required by Chapter 163, Florida Statutes, the Consultant Team will address the vehicular traffic, water, wastewater, power, and environmental impacts of the Port's 5- and 10-year maintenance and expansion program.

Summarized below in general terms are some of the traffic and environmental improvements that will mitigate potential impacts of the development program.

Traffic Improvements Resulting from Plan Implementation. The following traffic and circulation improvements will result from Plan implementation

- Carving out the Convention Center from the Port's secured area will eliminate the existing traffic that flows to and from the Broward County Convention Center.
- Removing the existing security gate on Eisenhower Drive will eliminate non-Port traffic from queuing at that gate.
- Constructing the By-Pass Road will mitigate traffic congestion on U.S. 1, between Spangler Boulevard and 17th Street and on 17th Street between U.S. 1 and Eisenhower Boulevard.

- Alleviation of peak cruise traffic congestion by routing buses, taxis, and privately owned vehicles (POVs) to/from Cruise Terminal 2 over the By-Pass Road rather than through the Port's security gates.
- Developing the crushed rock aggregate facility will be the Phase I for the implementation of the ICTF. Since the rock will leave the Port by rail, additional truck trips from the import of this commodity will not be generated. The facility will transport 4 million tons of crushed rock by rail, rather than using the 200,000 trucks that would otherwise be needed. The use of rail, therefore, will eliminate 400,000 truck trips to/from the Port and the regional roadway system.
- Further developing the ICTF for transferring containers to rail in lieu of truck will eliminate 171,500 annual truck trips at full operational use.
- Encouraging empty containers to be stored off site will reduce truck traffic and truck emissions. For every container stored off-site, two truck trips are eliminated. If 50,000 empties were stored off the Port, 100,000 truck trips to/from the Port would not be needed.
- Building an intermodal bridge over the FPL Discharge Canal to connect the Midport and Southport cargo areas will reduce traffic through the Eller Drive gate.
- Locating Customs and Border Protection inside the secured Port area will reduce traffic through the Eller Drive gate.
- Adding a new parallel road and cruise passenger intermodal center south of Cruise Terminal 19 will reduce taxi and POV traffic on East Eller Drive and eliminate bus traffic from that roadway segment.
- Entering buses into a centralized intermodal facility at 19th Avenue, west of East Eller Drive, will reduce traffic on that roadway segment.
- Reconfiguring the McIntosh Road alignment and road section with separate queue lanes with only right-hand turns into each container terminal will alleviate congestion on that critical road.

Environmental Improvements Resulting from Plan Implementation. In addition to mitigating potential environmental impacts, the Master Plan projects encourage environmental improvements due to the nature of the respective projects. Examples are:

- Importing crushed rock aggregate will reduce the existing environmental issues with the present quarries in Florida. The new facility at Port Everglades will be enclosed for dust containment and not generate any air pollutants from the rock.
- Relocating the dry stack boat storage facility from its existing site on the FPL Discharge Canal to the Dania Cut-Off Canal will eliminate the 400 boats that enter the warm waters of the Discharge Canal to access the facility. The elimination of this boat traffic will help safeguard the manatees and their young who frequent these waters and the manatee nursery in this portion of the Canal.

- Expanding the three slips at Northport and reducing the widths of the existing Piers 1 and 2, will remove the majority of the petroleum contamination currently contained within the Pier bulkheads. Any remaining product will be contained within new bulkheads with greater lifespan and durability.
- Widening the navigation channels with environmentally friendly bulkheads, that is, bulkheads that do not penetrate the water surface, wherever possible, will allow tidal flows to be maintained at the shoreline and critical habitat areas.
- Reducing traffic congestion and trip generation, as described in the preceding narrative, will reduce air emissions throughout the Port and the region.

In addition to the above environmental improvements resulting from Master Plan projects, the Port is developing a "Green Port" Program that addresses air quality, water quality, wildlife, soil protection, waste reduction and elimination, and recycling.

Estimated Economic Impacts Resulting from Plan Implementation

The Consultant Team prepared an analysis of the projected economic impacts resulting from implementation of the 5-Year Plan and the 10- and 20-Year Vision Plans. The full 20-Year Vision Plan when implemented by the year 2026 will add:

- **Total jobs of 346,461** to the 188, 203 jobs in the 2006 base year.
- **Total personal income of $10.9 billion** to the $6.4 billion in the 2006 base year.
- **Total economic activity of $31.5 billion** to the $16.9 billion in the 2006 base year.
- **Total state and local taxes of $1.0 billion** to the $589.1 million in the 2006 base year.

(Refer to Table ES-1 for 2006 base year economic impacts)

In the analysis, total jobs include direct, induced, indirect, and related user jobs. The incremental increases in economic impact shown above are heavily driven by the projected containerized cargo throughput impact on induced jobs.

Plan Costs and Funding

5-Year Capital Improvement Plan

The 5-Year Plan identified the infrastructure needed at Port Everglades to meet the 5-year projected market demand and the locations of the respective infrastructure components. This infrastructure has been further defined into specific construction projects with project costs and the year each project is needed. The project costs for design/inspection services and construction have then been scheduled for one of the five fiscal years -- 2008 through 2012 -- in the CIP.

The 5-Year CIP groups the project costs into four sections; namely:

- 01 General Infrastructure.
- 02 Master Plan Projects.
- 03 ACOE Dredging Project.
- 04 Other Port Capital Improvements (Maintenance, Renewal, and Replacement).

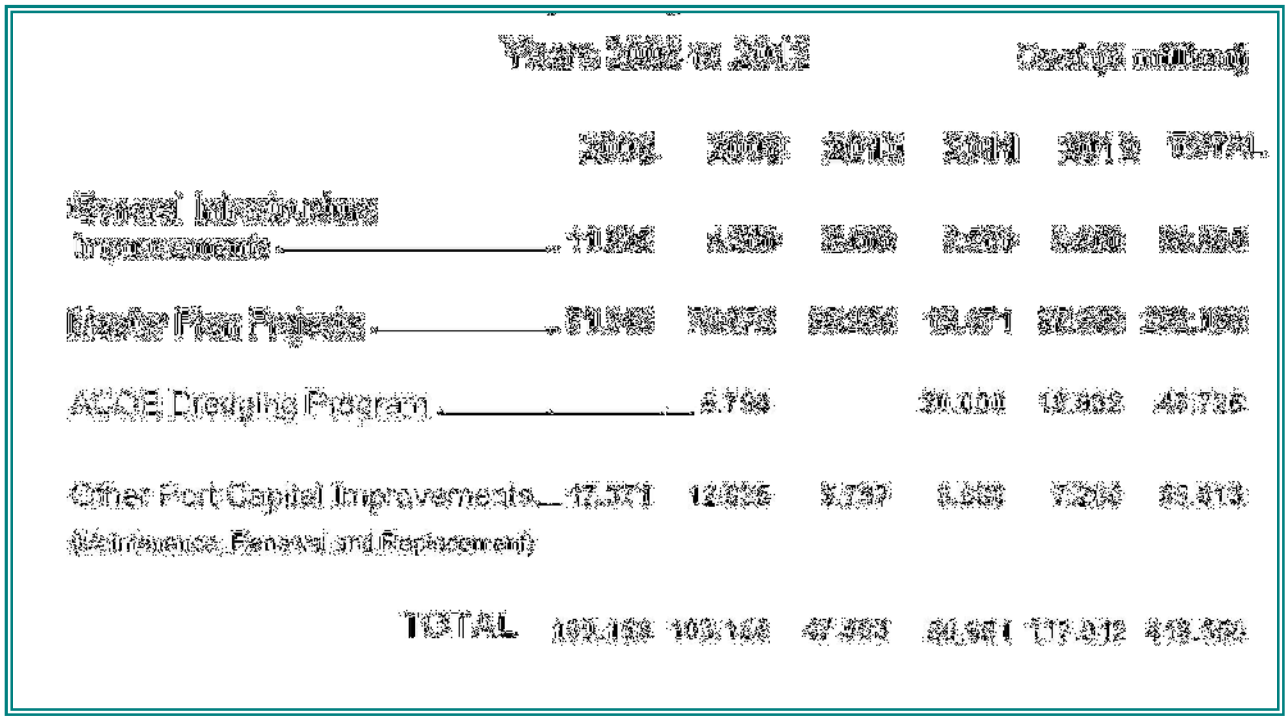
The 01 General Infrastructure and 04 Other Port Capital Improvements (Maintenance, Renewal, and Replacement) sections consist of limited scope projects that are of a maintenance and infrastructure renewal nature. The 02 Master Plan Projects are the previously described projects that have been identified by this master planning program and are needed to meet the projected market demands. The 03 ACOE Dredging Project consists of projects that will result from the ACOE *Feasibility Study/Environmental Impact Statement*, currently in progress, and will consist of both the federal and non-federal share costs.

Over the five-year period, the project costs in each of the four sections are:

01 General Infrastructure	$23,855,000
02 Master Plan Projects	$292,156,000
03 ACOE Dredging Project	$46,726,000
04 Other Port Capital Improvements	$55,813,000

The total CIP cost over the five fiscal years is $418,550,000, as summarized in Table ES-5.

Table ES-5
5-Year Capital Improvement Plan



The CIP also identifies the funding sources of the projects. The four funding sources are:

- Internal Revenue; identified by (I).
- Grants; identified by (G).
- Private Investment; identified by (P).
- Potential Debt; identified by (U).

Internal Revenue (I) consists of net revenue from existing Port operations, plus net revenue from Port operations as a result of new projects constructed in the five-year period, plus cost recovery charges paid to the Port, plus reallocated funds from previous projects, less debt service charges.

Grants (G) consist of those grants that have not been expended from past years and grants that have been secured for expenditure within the five-year period.

Private Investment (P) consists of the estimated participation in the cost of infrastructure improvements that will be paid to the Port from tenants /stakeholders. This cost has been added to the CIP since these private investment projects add value to the Port's infrastructure base and become a base for the Port to derive net revenue and cost recovery charges.

Potential Debt (U) is the amount of the CIP that is currently unfunded and may be available through potential debt service.

The projected amounts, over the five-year period, for each of the four funding sources are:

Internal Revenue (I)	$182,392,000
Grants (G)	$50,350,000
Private Investment (P)	$72,912,000
Potential Debt (U)	$112,896,000

The total amount, over the five fiscal years, is: $418,550,000

Table ES-6 illustrates these potential five-year CIP funding sources.

Table ES-6
Funding the 5-Year Capital Improvement Plan

Tables ES-7 shows the proposed 5-Year CIP for FY 2008 through FY 2012 and Table ES-8 shows the funding source for each project over the five years.

Table ES-7
5-Year CIP

Table ES-7 Continued
5-Year CIP

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		Renovations to Port Administration Building Reception Area	0.085					0.085
		Exterior Improvements to Public Safety Building	0.050					0.050
		Replace Defective Condensers & Dampers at the Port Administration Building	0.300					0.300
		Replace Fire Sprinkler Pipes at the Midport Parking Garage	0.060					0.060
		TOTAL CAPITAL BUDGET	100.169	103.155	47.563	50.651	117.012	418.550
							Less Grants	(50.350)
							Less Private Investment	(72.912)
							Less Debt	(112.896)
							Total Internal Funding	182.392

FILE: G:\ARCHIVE\2008 BUDGET\CAPITAL REVISED_MASTER PLAN_0607\REVISED 2008 CAPITAL BUDGET WORKSHEETS.xls
12/9/07 8:29 AM

Table ES-8
5-Year CIP Project Funding Sources

PROJ ID	UNIT NO.	PROJECT DESCRIPTION	INTERNAL FUNDS (I)	GRANTS (G)	PRIVATE INVESTMENT/ OTHER (P)	POTENTIAL DEBT (U)	TOTAL 5-YEAR PROJECT COST	TOTAL 5-YEAR COST PER SECTION
		GENERAL INFRASTRUCTURE FACILITIES 01						
1001	6510	**Port Infrastructure Improvements**						*23.855*
		Annual Miscellaneous Infrastructure Improvements	2.500				2.500	
		Annual Utility Infrastructure Improvements	2.500				2.500	
		Cathodic Protection for Berths 16-18 & Berth 29	1.300				1.300	
		High-Wind Bollards (10)	3.800	3.350			7.150	
		Metal Building for Spreader Repair Shop (50' x 100')	0.180				0.180	
		Portwide Informational Signage - Phase II	1.000				1.000	
		Portwide Sanitary Sewer Analysis & Upgrades/Repairs & Telemetry	0.125				0.125	
		Replace Water Mains at Berths 5-16	1.000				1.000	
		Resurface Berths 16, 17, 18, 21, & 19 (east of terminal)	0.600				0.600	
1002		**Fender & Mooring Improvements**						
	6550	*Annual Fender & Mooring Improvements*	2.500				2.500	
1003		**Port Capital Maintenance**						
	6530	*Annual Capital Maintenance*	5.000				5.000	
		MASTER PLAN PROJECTS 02						*292.156*
		Midport Improvements						
2001	6549	*Cruise Terminal No. 18 Redevelopment/Final Expansion*						
		Phase I	2.450	2.450			4.900	
		Phase II						
		Design	1.500				1.500	
		Construction				32.500	32.500	
2002	6549	*Cruise Terminal No. 19 Expansion*	6.700				6.700	
2003	6549	*Cruise Terminal Nos. 21/22 Expansion*						
		Design	2.000				2.000	
		Construction	20.000				20.000	
2004	6549	*Demolition of Transit Shed 16/Reconfiguration of Building No. 18*	0.800				0.800	
2005	6516	*FPL Discharge Canal Bridge*	4.397	2.803			7.200	
2006	6735	*Midport Crane Replacement/Upgrades*	5.000	1.050			6.050	
2007	6354	*Midport Parking Garage*						
		Design	1.400				1.400	
		Construction				26.300	26.300	
2008	6510	*Midport Roadway Expansion*	1.150	1.150			2.300	
		Northport Improvements						
2009	6830**	*Spangler Boulevard Bypass Road*						
		Design	0.950		0.950		1.900	
		Construction				17.100	17.100	
2010	6549	*Cruise Terminal No. 2 Renovations*						
		Design	0.150				0.150	
		Construction	1.500				1.500	
2011	6549	*Cruise Terminal No. 4 Redevelopment/Expansion*	13.000				13.000	
2012	6515	*Relocation of Public Works/Port Maintenance to FTZ*	2.000				2.000	
		Southport Improvements						
2013	New Unit	*Aggregate Terminal & Rail Yard Facility*			55.000		55.000	
2014	New Unit	*Southport Turning Notch Expansion - Phase I*						
		Design				1.730	1.730	
		Construction				17.300	17.300	
		Mitigation for Conservation Easement	20.000				20.000	
		Mitigation for Wetlake Improvements				9.000	9.000	
2015	6517	*Foreign Trade Zone/Warehouse (FTZ) RFP*			10.300		10.300	
2016	8100	*ICTF Facility - Phase I*	0.675		3.929		4.604	
		Initial Southport Rail Spur						
		Design	0.213	0.213			0.426	
		Construction		2.733	2.733		5.466	
2017	6883	*McIntosh Loop Road*	3.265	3.265			6.530	
2018	8105	*Southport Phase VIII*	7.750	7.750			15.500	
3001	6790	**ACOE DREDGING PROJECT 03**	11.774	24.986		9.966	46.726	*46.726*

Table ES-8 Continued
5-Year CIP Project Funding Sources

PROJ ID	UNIT NO.	PROJECT DESCRIPTION	INTERNAL FUNDS (I)	GRANTS (G)	PRIVATE INVESTMENT/ OTHER (P)	POTENTIAL DEBT (U)	TOTAL 5-YEAR PROJECT COST	TOTAL 5-YEAR COST PER SECTION
		OTHER PORT CAPITAL IMPROVEMENTS (Maintenance, Renewal & Replacement) 04						*55.813*
4001	6563	CAPITALIZED INTEREST	1.500				1.500	
4002	6565	Consulting Architectural/Engineering Services						
		General Architectural/Engineering Services	1.500				1.500	
4003	6526	Furniture, Fixtures and Equipment						
		Annual Furniture, Fixtures & Equipment	7.485				7.485	
4004	6735	Cranes Improvements/Replacement						
		Annual Crane Painting	5.000				5.000	
		Bromma 20/40/45' Twin-Lift Spreader	0.150				0.150	
		Bromma 20/40/45' Twin-Lift Spreaders for New Midport Cranes (2)	0.300				0.300	
4005	6821	Crane Parts and Support						
		Annual Crane Parts & Support	1.500				1.500	
4006	6832	Passenger Loading Bridges Improvements/Replacement						
		Annual Spare Parts for FMT Loading Bridges	0.700				0.700	
		New PLC for GE 90/30 Loading Bridges 2, 18, 21 & 29	0.050				0.050	
		Terminal 2 Loading Bridges (New)	1.400				1.400	
		Terminal 4 Second Loading Bridge	1.400				1.400	
		Terminal 21 Loading Bridge (Replacement)	1.400				1.400	
4007	6564	Port Information Technology Systems						
		Hardware	1.200				1.200	
		PC & Laptop Replacements	0.090				0.090	
		Wireless Expansion to Remote Sites	0.045				0.045	
		Software						
		Payroll Timekeeping System	0.150				0.150	
4008	6563	IN-HOUSE LABOR & OVERHEAD	4.200				4.200	
4009	6827	Port Security Improvements						
		[redacted]						
		Port Buildings Roofing System Repairs & Improvements	5.800				5.800	
		Renovation of Linehandlers' Building, Including Restroom	0.250				0.250	
		Renovations to Port Administration Building Reception Area	0.085				0.085	
		Exterior Improvements to Public Safety Building	0.050				0.050	
		Replace Defective Condensers & Dampers at the Port Administration Building	0.300				0.300	
		Replace Fire Sprinkler Pipes at the Midport Parking Garage	0.060				0.060	
		TOTAL CAPITAL BUDGET	182.392	50.350	72.912	112.896	418.550	418.550
						Less Grants (G)	*(50.350)*	
						Less Private Investment (P)	*(72.912)*	
						Less Debt (U)	(112.896)	
						Total Internal Funding (I)	182.392	

FILE: S:\AECOM\2000 BUDGET\CAPITAL REVISED_MASTER PLAN_0807\REVISED 2000 CAPITAL BUDGET WORKSHEET 3.xls
8/8/2007 9:22 AM

10-Year Vision Development Program

Table ES-9 shows order-of-magnitude project costs in the 10-Year Vision Development Program.

Table ES-9

10-Year Vision Development Program
Years 2013 to 2016

	Cost ($ million)
– General Infrastructure Improvements	20
– Master Plan Projects	507
– ACOE Dredging Program	160
– Other Port Capital Improvements (Maintenance, Renewal and Replacement)	70
In present-day dollars — TOTAL	$757

Figure ES-1 Low/High Container Forecast

20-Year Vision Development Program

Table ES-10 shows order-of-magnitude project costs in the 20-Year Vision Development Program.

Table ES-10

20-Year Vision Development Program
Years [illegible]

	Cost ($ million)
General Infrastructure Improvements	20
Master Plan Projects	[illegible]
20[illegible] Dredging Program	[illegible]
Other Port Capital Improvements (Maintenance, Renewal and Replacement)	[illegible]
In present-day dollars — TOTAL	[illegible]

It is anticipated that the 20-Year Vision Development Program, at full build-out over the 20-year planning horizon, if warranted by market demand, will have an order-of-magnitude cost of approximately $2 billion. The Vision Plans are, however, the road maps laid out to achieve the market demand projected at the time this Master Plan was prepared. The global marketplace and the maritime community's competitive response to that marketplace are constantly evolving. Thus, this Plan is presented as a flexible document, requiring periodic re-examination and re-evaluation of the parameters that affect the development of Port Everglades. Future projects need to provide the infrastructure necessary to serve the re-evaluated market assessment and Go-No-Go decisions should be made through a strategic decision-making process to achieve the economic goals of Broward County and its dynamic Port.