

## **PLAN IMPLEMENTATION**

### **6.1 Introduction**

This element discusses several issues related to implementation of the Port Everglades Master Plan, presents the 5-Year Capital Improvement Program (CIP), and identifies estimated costs of the entire 20-Year Vision Plan.

### **6.2 Bulkhead Conditions**

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 the Port’s 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. For reference, in the narrative below, Figure 6.2-1 -- also included as Figure 5.4-1 in Element 5 -- shows the Port’s berths by number.

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.

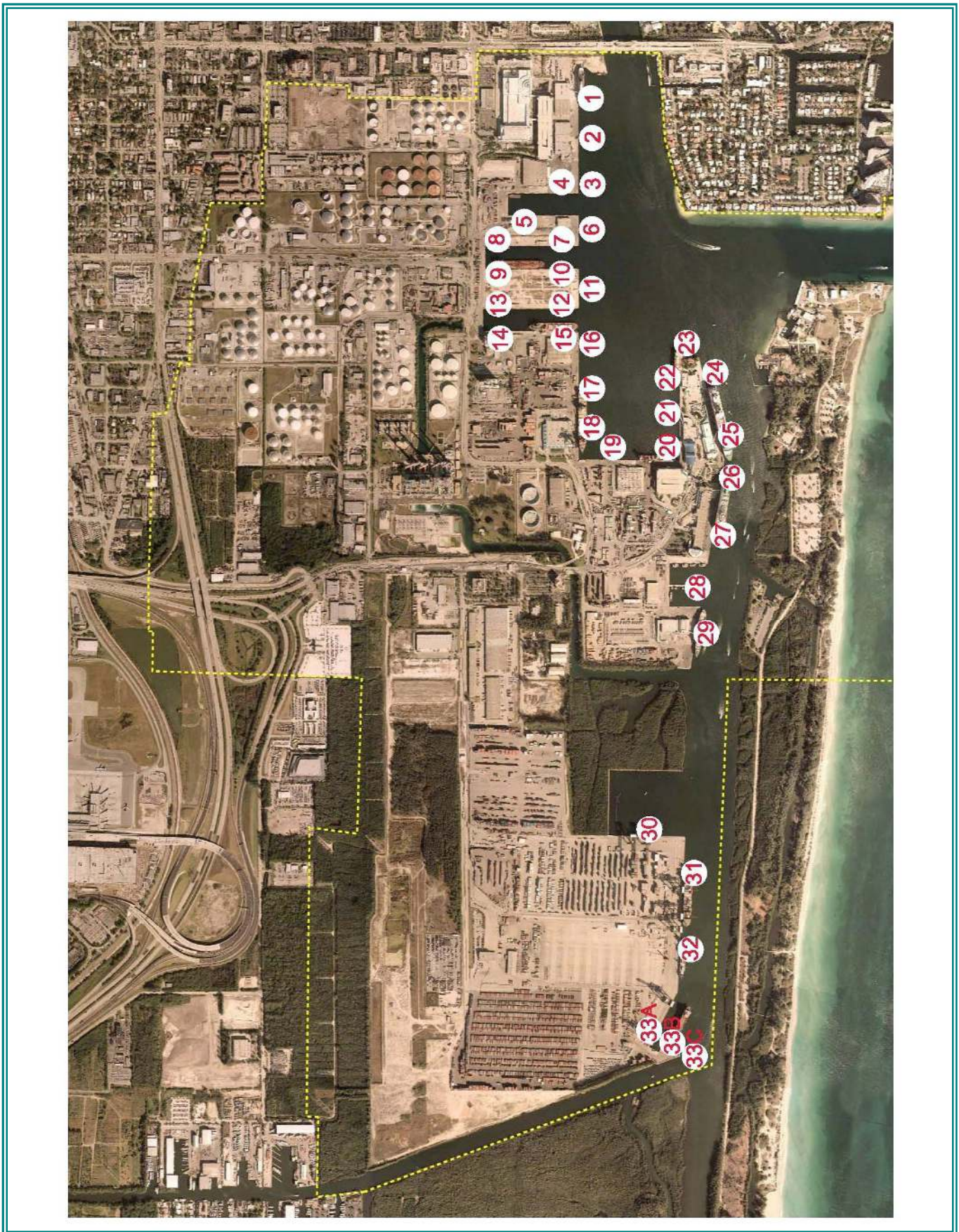


Figure 6.2-2 is an underwater photograph of the bulkhead at Berth 22. Although this particular condition of the holes in the bulkhead was caused by mechanical friction between the fendering and the bulkhead, similarly deteriorated conditions of the steel bulkhead wall are prevalent between Berths 1 and 29. The condition shown in Figure 6.2-1 has since been repaired. When the other bulkheads are being repaired, Best Management Practices will be used to limit any construction impacts on the environment.

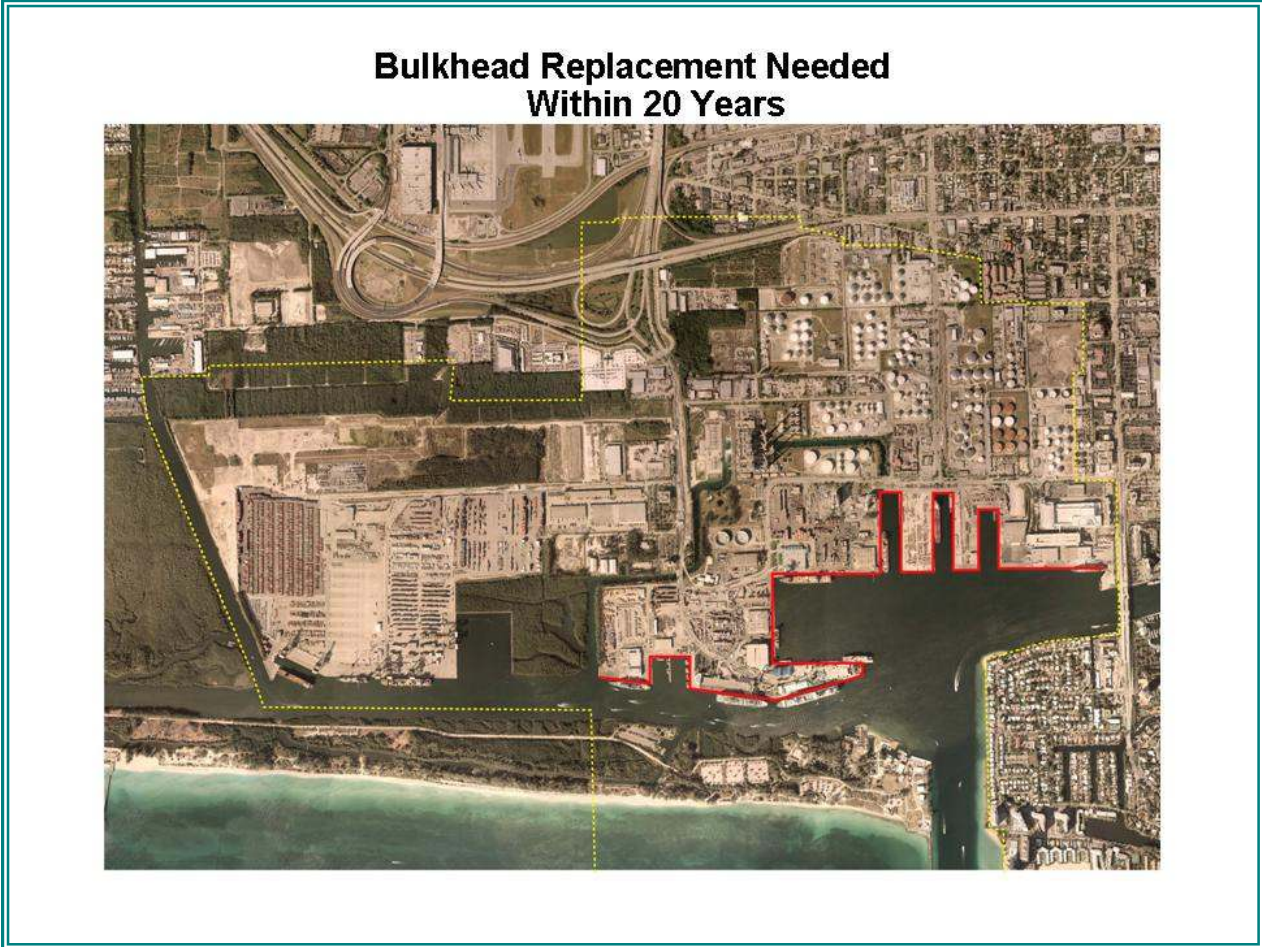
Figure 6.2-2

### Condition of Bulkhead at Berth 22



Figure 6.2-3 identifies the bulkheads at Berths 1 through Berth 29 that are subject to bulkhead replacement due to deterioration by 2026, as indicated by the red line.

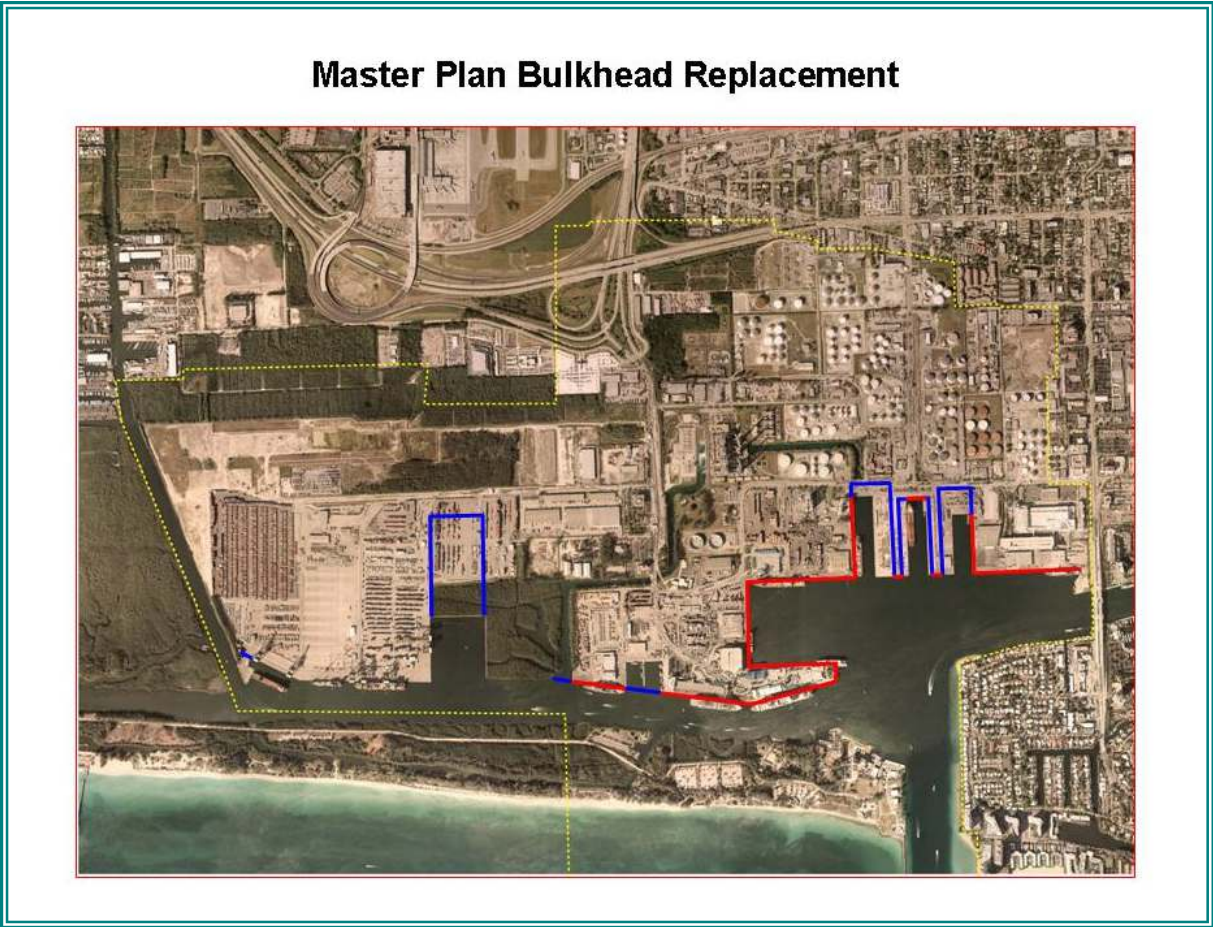
Figure 6.2-3



The red line on Figure 6.2-3 identifies the bulkheads that will require replacement prior to 2026; the blue line indicates those that will require a new bulkhead alignment, as proposed in the Master Plan Vision Plans.

At the Northport slips, namely Slips 1, 2 and 3, the Master Plan Vision Plans reconfigure the bulkhead alignments to allow larger ships to berth, utilizing a slip geometry developed from current design standards and in cooperation with the Port Everglades pilots. The new slip configuration, which will require reconstruction of the existing bulkheads due to their deterioration, adds value and sustainability to a major mandatory infrastructure improvement.

Figure 6.2-3

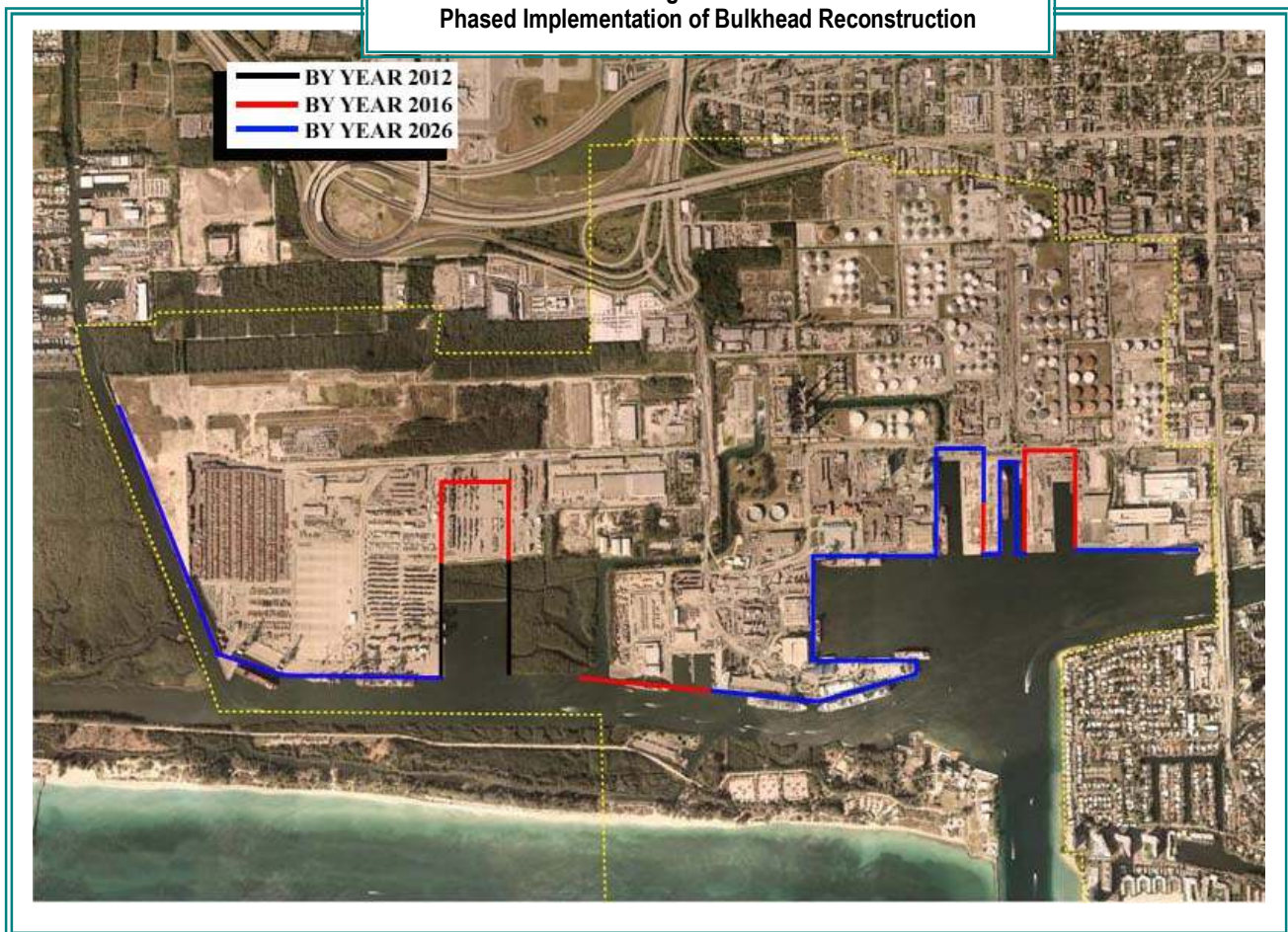


A major goal of the Master Plan is to increase berth capacity and, where possible, berth length and utilization flexibility. Reconfiguration and additions to berths and their associated bulkheads are vital infrastructure upgrades that are needed. The Master Plan, in examining berth changes, needed to incorporate three objectives:

- Bulkhead configuration identified by the Master Plan Vision Plans to meet market demand at the 5-, 10-, and 20- year milestones.
- Replacement of the existing bulkheads due to their deterioration.
- Deepening of the bulkheads required by the ACOE *Feasibility Study/Environmental Impact Statement*.

The Master Plan places these bulkhead upgrades into a phased schedule through the 20-year planning horizon. The phased implementation of the bulkhead reconstruction, as shown in Figure 6.2-5, reflects the need for berths to meet the projected market demand along with a total development program cost that needs to be achievable.

**Figure 6.2-5  
Phased Implementation of Bulkhead Reconstruction**



### 6.3 ACOE Dredging and Widening Program

The ACOE’s *Feasibility Study/Environmental Impact Statement* for the Port is being prepared concurrently with the Port’s Master Plan. Three components that need to be integrated into one development program are:

- Master Plan projects.
- Bulkhead replacement.
- Dredging and widening projects.

Table 6.3-1 shows a schedule of the proposed dredging and widening projects in the ACOE’s program and when these projects could be incorporated into the Port’s development program.

Table 6.3-1

**Recommended Schedule of Improvements w/ ACOE Dredging**

Master Plan Milestones		ACOE Dredging Program	
<b>5-Year CIP</b>  2008 to 2012	2008		
	2009		
	2010		
	2011		
	2012		TN
<b>10-Year Vision</b>  2013 to 2016	2013		Widener
	2014		OEC, IEC
	2015		MTB, Petro Barge Slip
	2016		ICW
<b>20-Year Vision</b>  2017 to 2026	2017		
	2018		16-18 Berths
	2019		Petro Slips
	2020		DCC
	2021		
	2022		
	2023		
	2024		
	2025		
	2026		

The interconnection between the ACOE dredging program and the Master Plan program is summarized below.

**ACOE and Master Plan Projects in the 5-Year Vision Plan (Years 2008 to 2012)**

- Turning Notch Phase I (Extend west by an additional 548' / 49' + 1' + 1')

**ACOE and Master Plan Projects in the 10-Year Vision Plan (Years 2013 to 2016)**

- Outer Entrance Channel (54' + 1' + 1')
- Inner Channel (49' + 1' + 1')
- Main Turning Basin (49' + 1' + 1')
- ICW area – South Access Channel (49' + 1' + 1')
- Turning Notch Phase 2 (Extend west by an additional 1007' / 49' + 1' + 1')
- Berth 28 Wharf
- Berth 29 Extension and FPL Outfall Reconfiguration
- Widener
- Inner Harbor; Berths 19-22 (42' + 1' + 1')
- Petroleum Barge Slip
- Slip 2 Expansion

**ACOE and Master Plan Projects in the 20-Year Vision Plan (Years 2017 to 2026)**

- Berths 1-3 Bulkhead replacement
- Slips 1 and 3 Expansion
- Area at Berths 16-18 (44' + 1' + 1')
- Berths 31 and 32 Toe walls
- Berth 33A Reconfiguration
- Dania Cut-Off Canal RO/RO Berths (32' + 1' + 1")

For reference, see the ACOE map in Element 3 (Figure 3.8-2).



## **6.4 Circulation and Traffic Considerations**

Circulation and traffic improvements play an important part in the Master Plan. These improvements affect the diverse vehicular traffic accessing the Port to serve both the Port's cruise operations and its cargo operations.

### **6.4.1 Cruise Passenger Intermodal Center**

The 10-Year Vision Plan recommends the development of a cruise passenger intermodal center at Midport. The center, comprising an integrated passenger intermodal zone, or ground transportation area at grade, would provide a central location for the loading/unloading of buses, shuttles, and taxis. Above the ground transportation area would be structured parking for privately owned vehicles. The intermodal center would eliminate buses traveling farther east on Eller Drive to alleviate traffic congestion in front of the cruise terminals on the Midport peninsular. Baggage trucks from Fort Lauderdale and Hollywood International Airport (FLL) would both deliver and pick-up baggage directly at each cruise terminal. Provision trucks would also access the wharfs directly for each cruise terminal.

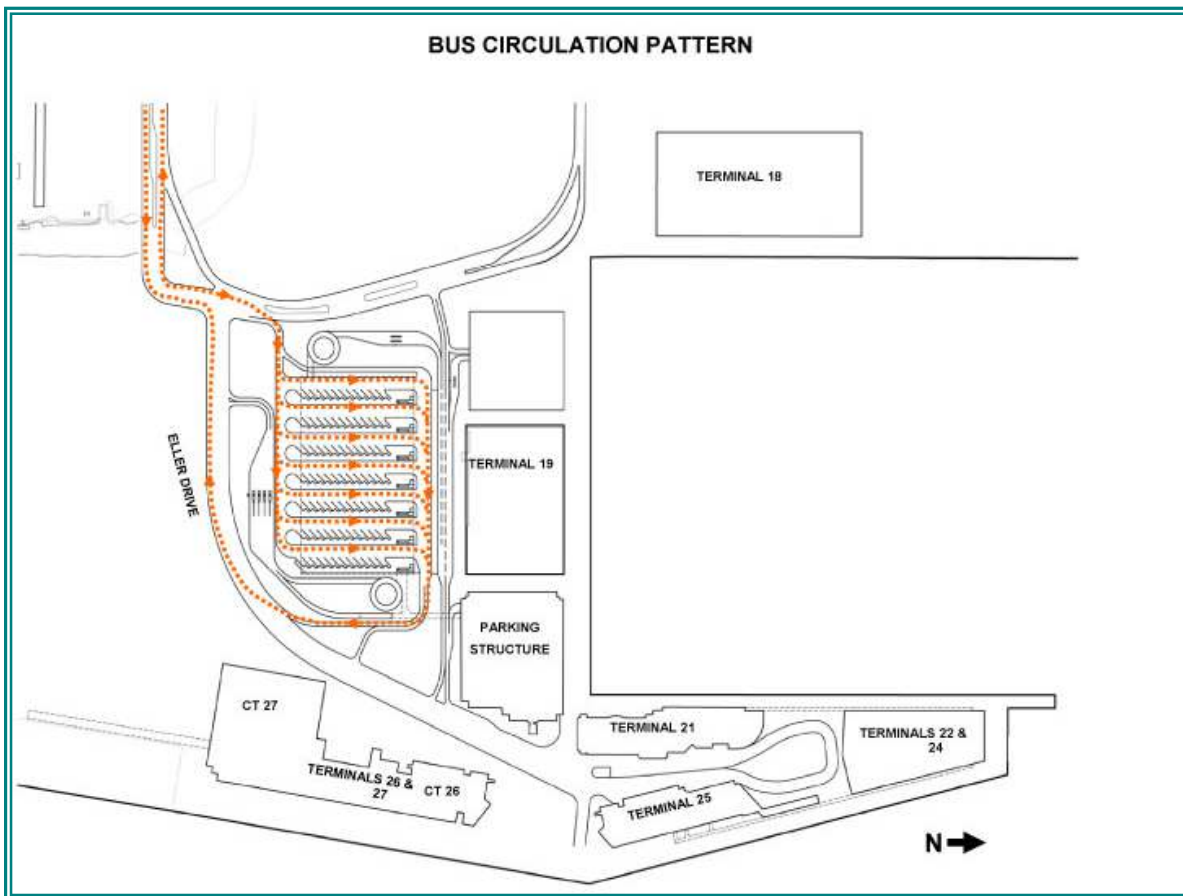
Vehicle and passenger circulation at the Midport cruise passenger intermodal center is illustrated in Figures 6.4-1 through 6.4-7 and discussed at each figure.

The 10-Year Vision Plan also recommends the development of a cruise passenger intermodal center at the proposed parking structure, west of Cruise Terminal 4 in Northport. The Northport intermodal center would serve Cruise Terminals 2 and 4.

Concurrently with this Master Plan, Port Everglades and FLL, in conjunction with the Florida Department of Transportation (FDOT) are jointly conducting a Project Development & Environment (PD&E) Study for the Broward County Intermodal Center (IMC) and People Mover system. The PD&E, at present, has identified and evaluated several Port corridors and has identified station locations at Port Everglades (see the Phase II PD&E Corridor Report in the Appendix). The two proposed stations for a future people mover coincide with both the Midport and Northport cruise passenger intermodal centers. The People Mover station at Northport will serve the Broward County Convention Center as well as Cruise Terminals 2 and 4.

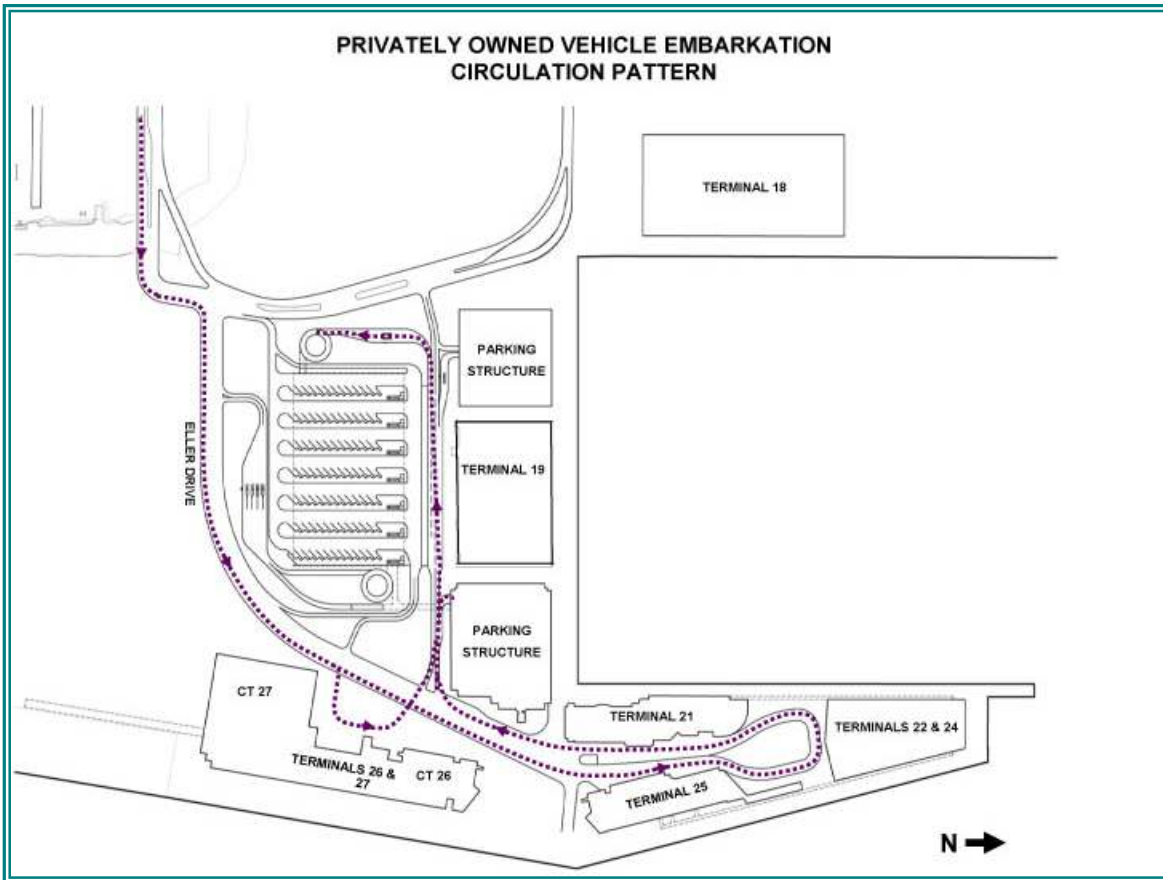
**Bus Circulation.** Buses from the Airport would exit Eller Drive immediately upon turning onto 19<sup>th</sup> Avenue. This movement would reduce traffic going further east on Eller Drive, eliminating the buses passing in front of Cruise Terminals 21, 22, 24, 25, 26, and 27. Exiting buses returning to the Airport also would not pass in front of the same cruise terminals. Buses would unload passengers at a dedicated passenger island so that the buses face in the direction of the passengers' intended destination, the Passenger Skyway. Passengers would not have to cross any roadways and would have direct access to escalators, elevators, and stairs on their way to the Passenger Skyway. Intuitive way-finding is the key in moving people.

Figure 6.4-1



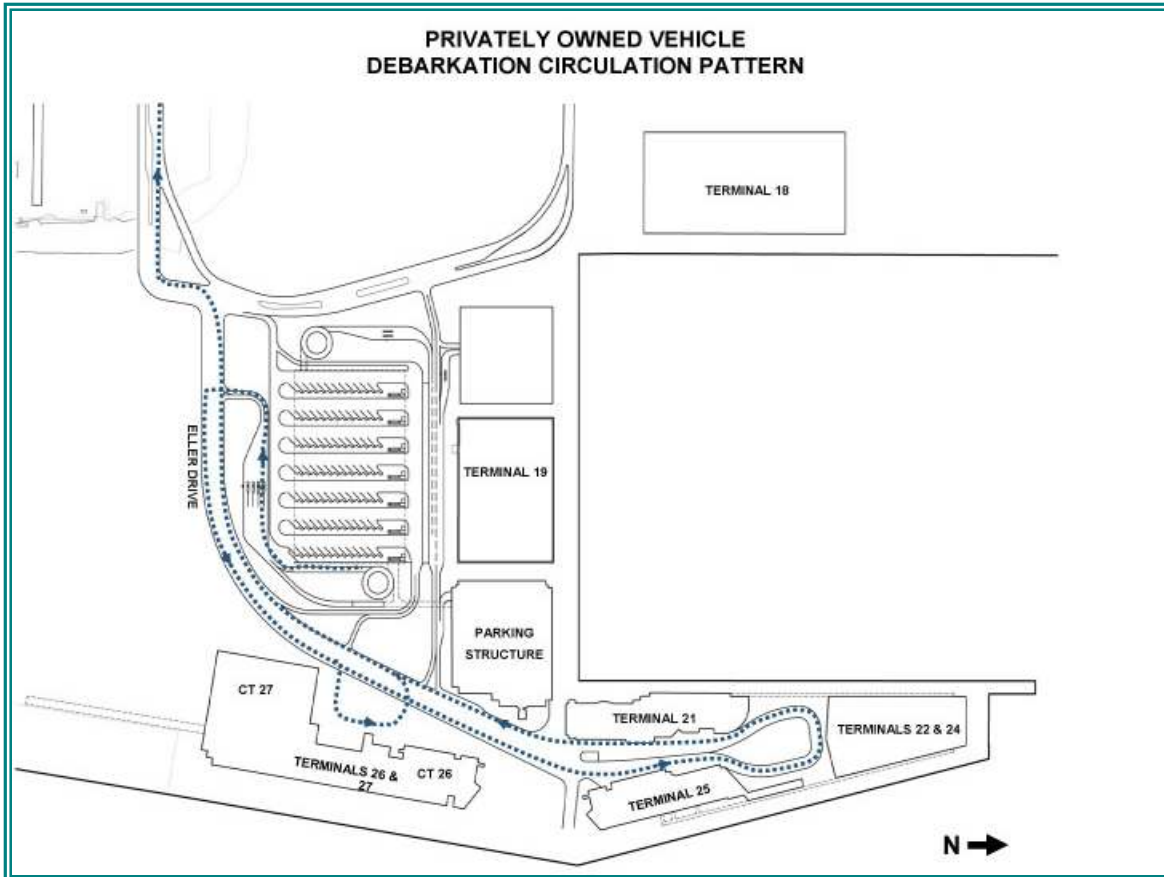
**Privately Owned Vehicle Embarkation Circulation.** Privately owned vehicles (POVs) may directly enter the structured parking facility. Once their vehicle is parked, passengers may proceed to their cruise terminal by way of the elevated Passenger Skyway. Baggage in POVs may be dropped off at each cruise terminal or at a POV covered unloading curb at the center, at grade south of Cruise Terminal 19. If dropped off at the center, the baggage would be transported to each terminal by truck.

Figure 6.4-2



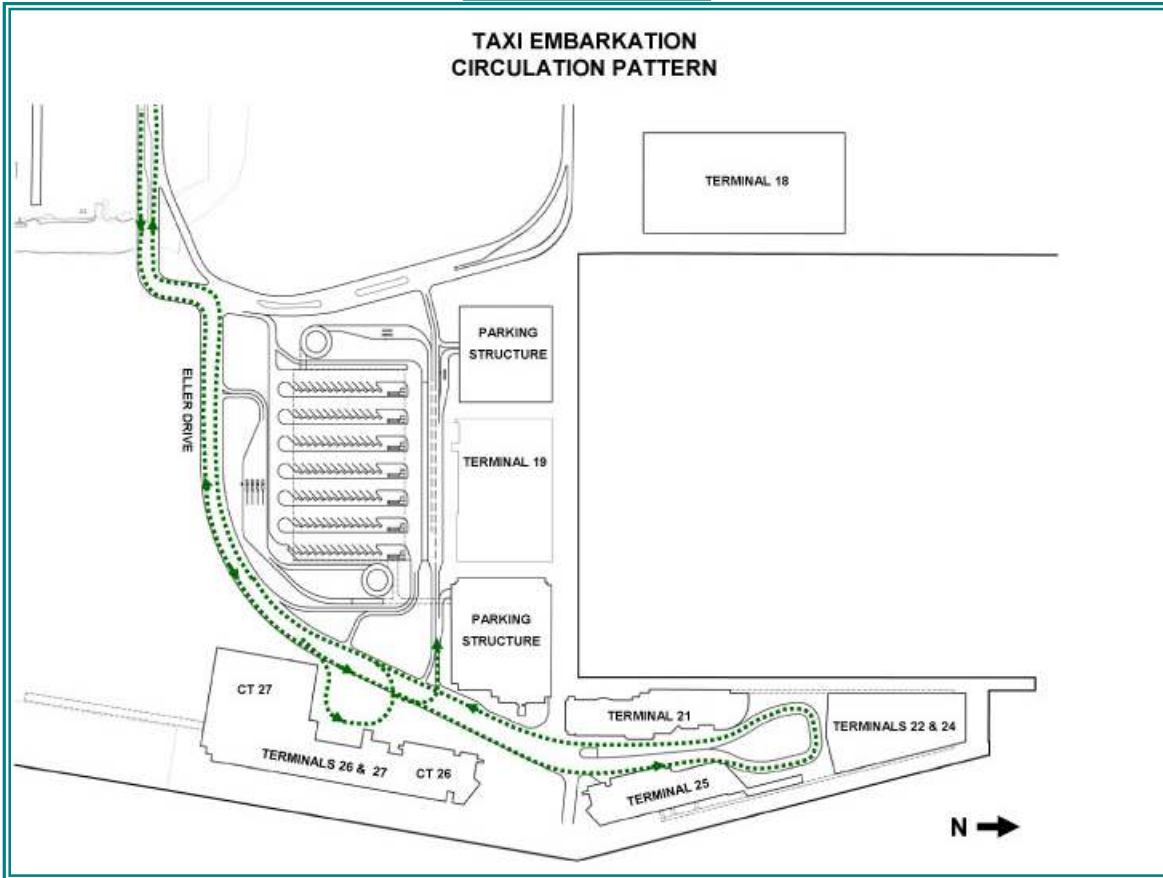
**Privately Owned Vehicle Debarkation Circulation.** Passengers parking their POVs in the Cruise Passenger Intermodal Center may pick-up their baggage within the center's structure parking facility; the baggage would be brought to the center by truck from each terminal. Passengers would also have the option of picking up their baggage in front of each terminal and then exiting the Port.

Figure 6.4-3



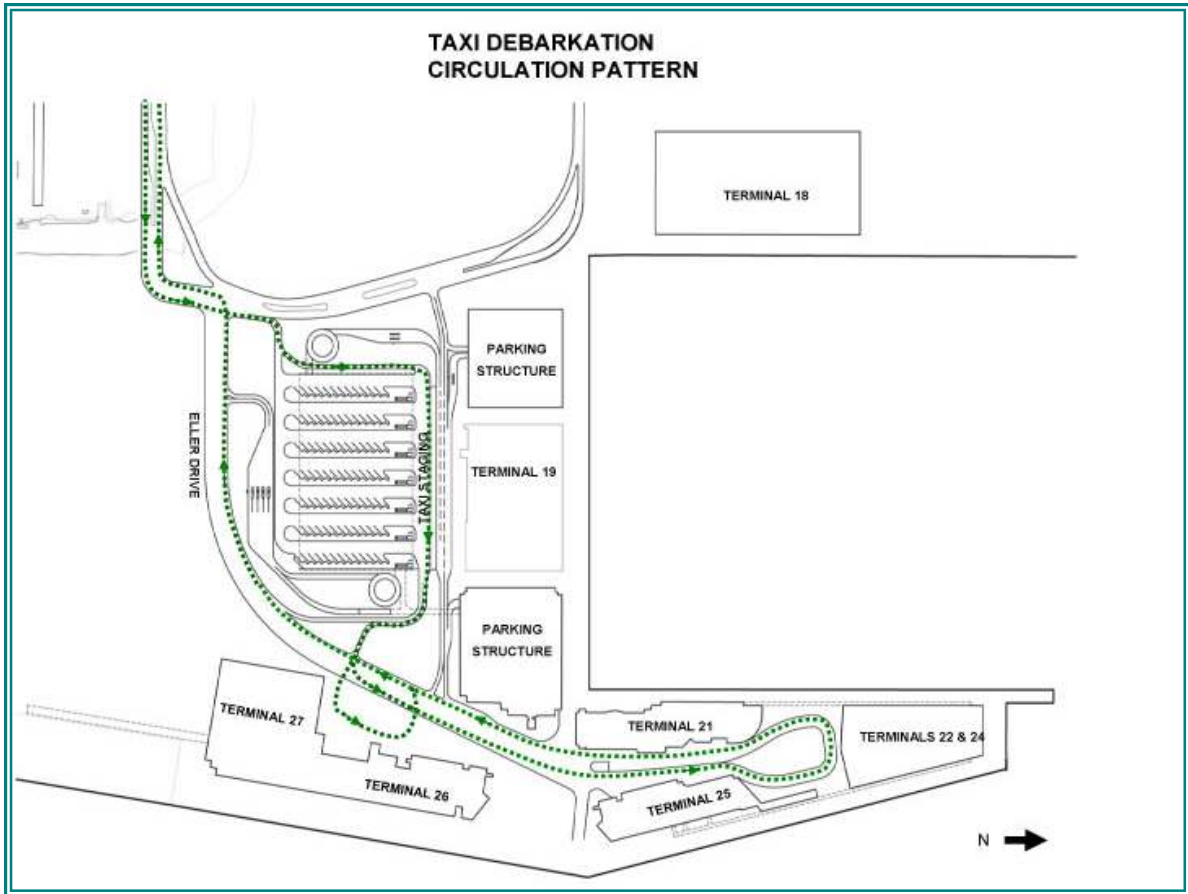
**Taxi Embarkation Circulation.** Taxis may drop-off their passengers at each cruise terminal and then exit the Port or return to a taxi-queuing lane. Two taxi queuing lanes will be established: one along the widened Eller Drive and the second along the roadway to the south of Cruise Terminal 19. Taxis at the queuing lanes will await a radio dispatch to a terminal to pick-up their next passengers.

Figure 6.4-4



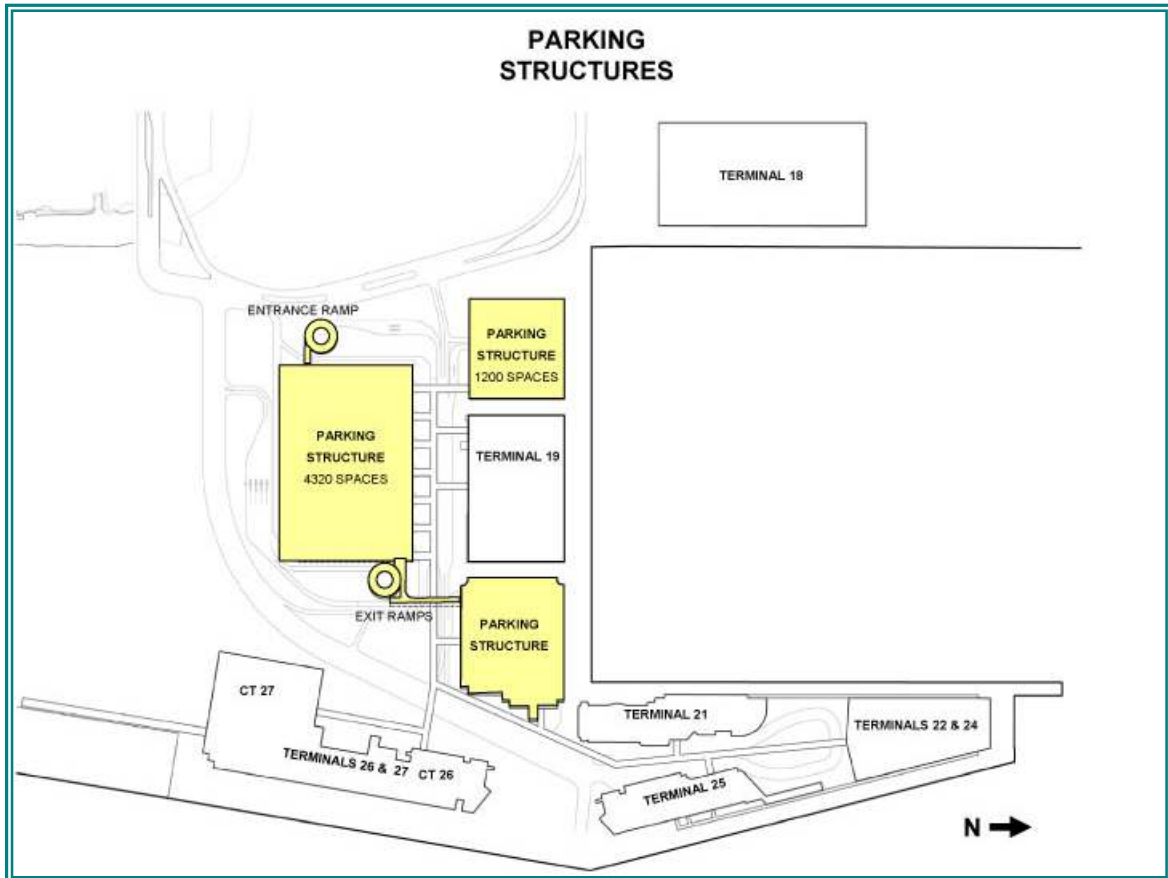
**Taxi Debarcation Circulation.** Taxis may pick-up their passengers at each cruise terminal and then exit the Port.

Figure 6.4-5



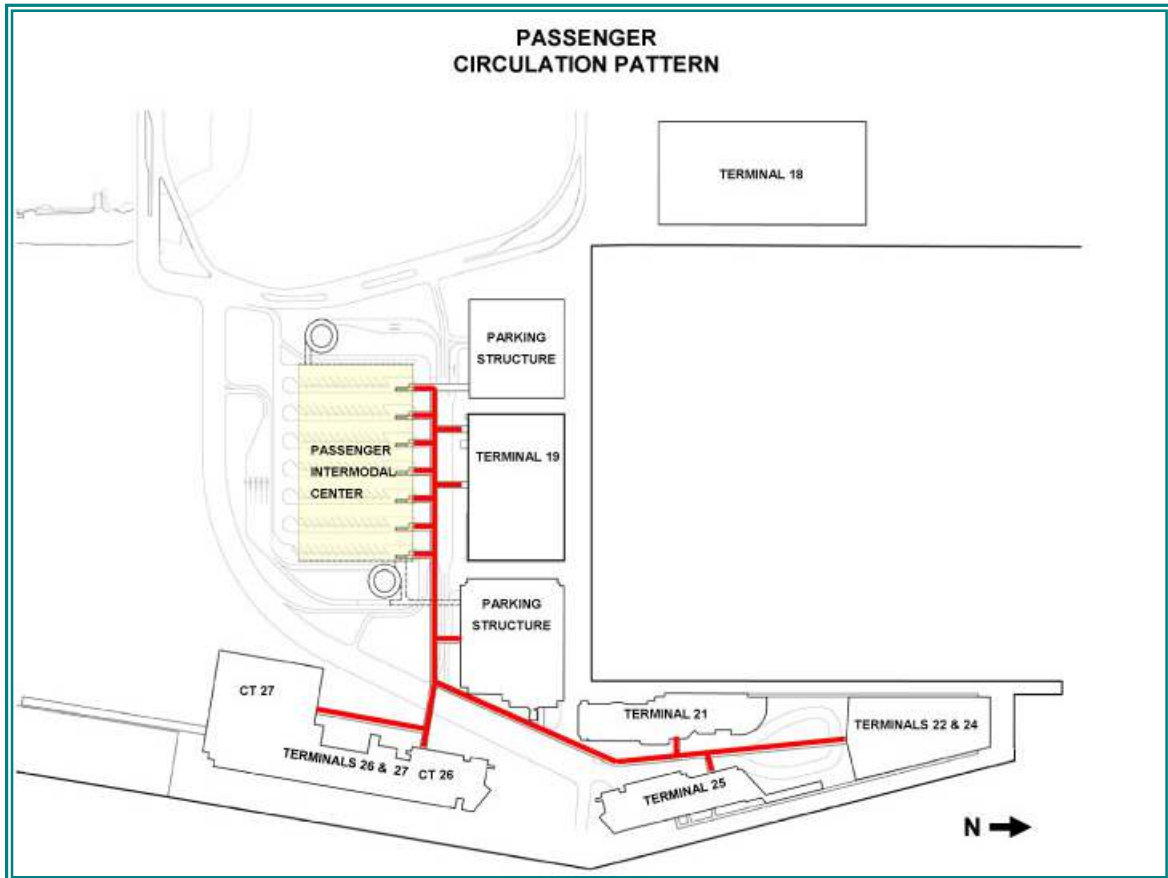
**Parking Structures.** The structured parking facility in the cruise passenger intermodal center will have a footprint and height ability to park 4,000 plus vehicles. It is envisioned that both an ingress ramp helix and an egress ramp helix will best support the large volume of vehicles entering and exiting in short periods.

Figure 6.4-6



**Cruise Passenger Circulation.** Cruise passengers arriving at the cruise passenger intermodal center will move between the center and their respective cruise terminals via the Passenger Skyway. The Passenger Skyway will be a series of connected air-conditioned concourses that are elevated above grade with moving walkways for passenger transportation.

Figure 6.4-7





### 6.4.2 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 and Port-related goals, objectives, and policies in the Transportation Element in Broward County's Comprehensive Plan are 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 17<sup>th</sup> Street and on 17<sup>th</sup> 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 19<sup>th</sup> 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.

## 6.5 Plan Costs and Funding

### 6.5.1 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 lists 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 consists of limited scope projects that are of a maintenance and infrastructure renewal nature. The 02 Master Plan Projects are 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 Dredging and Widening Study, currently in progress, and will consist of both the Federal share 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 6.5-1.

Table 6.5-1

5-Year Capital Improvement Plan						
	Years 2008 to 2012					Cost (\$ million)
	2008	2009	2010	2011	2012	TOTAL
General Infrastructure Improvements	71,559	4,500	2,500	2,500	2,500	73,559
Master Plan Projects	71,260	78,678	18,300	78,471	85,390	282,109
ACOE Dredging Program		8,784		20,000	18,982	47,766
Other Port Capital Improvements, Maintenance, Renewal and Replacements	10,221	12,802	5,787	8,328	7,980	45,118
<b>TOTAL</b>	<b>153,040</b>	<b>104,664</b>	<b>26,587</b>	<b>109,301</b>	<b>114,852</b>	<b>418,550</b>

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.

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 6.5-2 illustrates these potential five-year CIP funding sources.

Table 6.5-2 Funding the 5-Year Capital Improvement Plan		
\$418.550	Years 2008 - 2012	
\$305.654	<b>U</b>	Debt Funding: \$112.896
\$232.742	<b>P</b>	Private Investment: \$72.912
\$182.392	<b>G</b>	Grants: \$50.350
	<b>I</b>	Internal Revenue: \$182.392
(In \$ Millions)		

Table 6.5-3 shows the proposed 5-Year CIP for FY 2008 through FY 2012. Table 6.5-4 shows the funding source for each project over the 5 years.





**Table 6.5-4  
5-Year CIP Project Funding Sources  
(\$ millions)**

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
		<b>GENERAL INFRASTRUCTURE FACILITIES 01</b>						
1001	6510	<b>Port Infrastructure Improvements</b>						23.859
		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		<b>Fender &amp; Mooring Improvements</b>						
	6550	Annual Fender & Mooring Improvements	2.500				2.500	
1003		<b>Port Capital Maintenance</b>						
	6530	Annual Capital Maintenance	5.000				5.000	
		<b>MASTER PLAN PROJECTS 02</b>						292.156
		<b>Midport Improvements</b>						
2001	6549	<b>Cruise Terminal No. 18 Redevelopment/Final Expansion</b>						
		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	<b>Cruise Terminal Nos. 21/22 Expansion</b>						
		Design	2.000				2.000	
		Construction	20.000				20.000	
2004	6549	Demolition of Transit Shed 16/Reconfiguration of Building No. 16	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	<b>Midport Parking Garage</b>						
		Design	1.400				1.400	
		Construction				26.300	26.300	
2008	6510	Midport Roadway Expansion	1.150	1.150			2.300	
		<b>Northport Improvements</b>						
2009	6830 <sup>2A</sup>	<b>Spangler Boulevard Bypass Road</b>						
		Design	0.950		0.950		1.900	
		Construction				17.100	17.100	
2010	6549	<b>Cruise Terminal No. 2 Renovations</b>						
		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	
		<b>Southport Improvements</b>						
2013	New Unit	Aggregate Terminal & Rail Yard Facility			55.000		55.000	
2014	New Unit	<b>Southport Turning Notch Expansion - Phase I</b>						
		Design				1.730	1.730	
		Construction				17.300	17.300	
		Mitigation for Conservation Easement	20.000				20.000	
		Mitigation for Wetlands Improvements				0.000	0.000	
2015	6517	Foreign Trade Zone/Warehouse (FTZ) RFP			10.300		10.300	
2016	8100	<b>ICTF Facility - Phase I</b>						
		Initial Southport Rail Spur						
		Design	0.213	0.213	3.929		4.604	
		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	<b>ACOE DREDGING PROJECT 03</b>	11.774	24.986		9.966	46.726	46.726



**Table 6.5-4 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
		<b>OTHER PORT CAPITAL IMPROVEMENTS (Maintenance, Renewal &amp; Replacement) 04</b>						<b>55,813</b>
4001	6563	<b>CAPITALIZED INTEREST</b>	1,500				1,500	
4002	6565	Consulting Architectural/Engineering Services <i>General Architectural/Engineering Services</i>	1,500				1,500	
4003	6526	Furniture, Fixtures and Equipment <i>Annual Furniture, Fixtures &amp; Equipment</i>	7,485				7,485	
4004	6735	Cranes Improvements/Replacement <i>Annual Crane Painting</i> <i>Bronima 20/40/45 Twin-Lift Spreader</i> <i>Bronima 20/40/45 Twin-Lift Spreaders for New Midport Cranes (2)</i>	5,000 0,150 0,300				5,000 0,150 0,300	
4005	6821	Crane Parts and Support <i>Annual Crane Parts &amp; Support</i>	1,500				1,500	
4006	6832	Passenger Loading Bridges Improvements/Replacement <i>Annual Spare Parts for FMT Loading Bridges</i> <i>New PLC for GE 90/30 Loading Bridges 2, 18, 21 &amp; 29</i> <i>Terminal 2 Loading Bridges (New)</i> <i>Terminal 4 Second Loading Bridge</i> <i>Terminal 21 Loading Bridge (Replacement)</i>	0,700 0,050 1,400 1,400 1,400				0,700 0,050 1,400 1,400 1,400	
4007	6564	Port Information Technology Systems <i>Hardware</i> <i>PC &amp; Laptop Replacements</i> <i>Wireless Expansion to Remote Sites</i> <i>Software</i> <i>Payroll Timekeeping System</i>	1,200 0,090 0,045 0,150				1,200 0,090 0,045 0,150	
4008	6563	<b>IN-HOUSE LABOR &amp; OVERHEAD</b>	4,200				4,200	
4009	6877	<b>Port Security Improvements</b>						
		<i>Port Buildings Roofing System Repairs &amp; Improvements</i>	5,800				5,800	
		<i>Renovation of Linehandlers' Building, Including Restroom</i>	0,250				0,250	
		<i>Renovations to Port Administration Building Reception Area</i>	0,085				0,085	
		<i>Exterior Improvements to Public Safety Building</i>	0,050				0,050	
		<i>Replace Defective Condensers &amp; Dampers at the Port Administration Building</i>	0,300				0,300	
		<i>Replace Fire Sprinkler Pipes at the Midport Parking Garage</i>	0,060				0,060	
		<b>TOTAL CAPITAL BUDGET</b>	<b>182,392</b>	<b>50,350</b>	<b>72,912</b>	<b>112,896</b>	<b>418,550</b>	<b>418,550</b>
						Less Grants (G)	(50,350)	
						Less Private Investment (P)	(72,912)	
						Less Debt (U)	(112,896)	
						<b>Total Internal Funding (I)</b>	<b>182,392</b>	

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**6.5.2 10-Year Vision Development Plan**

Table 6.5-5 shows order-of-magnitude project costs in the 10-Year Vision Development Program.

**Table 6.5-5**

10-Year Vision Development Program Years 2018 to 2028		Cost (\$ million)
- General Infrastructure Improvements	_____	20
- Master Plan Projects	_____	507
- ACPE Design Program	_____	160
= Other Port Capital Improvements (Maintenance, Renewal and Replacement)	_____	70
in thousands of dollars	TOTAL	657

**6.5.3 20-Year Vision Development Plan**

Table 6.5-6 shows order-of-magnitude project costs in the 20-Year Vision Development Program.

**Table 6.5-6**

20-Year Vision Development Program Years 2017 to 2030		Cost (\$ million)
General Infrastructure Improvements	30	
Wastewater Plant Projects	306	
ACOE Dredging Program	150	
Other Port Capital Improvements	34	
Equipment, Renewal and Replacement in present-day dollars	TOTAL	
	520	

**6.5.4 Order-of-Magnitude Project Costs**

Order-of-magnitude cost estimates were prepared for projects in the 5- Year Plan and the 10- Year and 20- Year Vision Plans. The cost estimates for projects in the 5-Year Plan, which have been incorporated in the 5-Year CIP have a 3 percent per year escalation factor beyond the first fiscal year (FY 2008). Project costs include design/inspection services, construction costs and environmental mitigation costs as appropriate. Construction costs for projects in the 10- and 20- Year Vision Plans use present-day dollars in the order-of-magnitude cost estimates to avoid discrepancies in projected escalation factors.

Estimated costs for projects in the ACOE’s Dredging and Widening Program, which is still under study in the ACOE’s *Feasibility Study/Environmental Impact Statement* are also included in the cost of the development programs. The ACOE submitted preliminary estimated costs, including both the federal share and non-federal share, to the Port in 2004. These estimates, which the ACOE is updating, are shown in Table 6.5-7.

**Table 6.5-7**  
**Dredging Program Cost Allocations**  
**(\$ millions)**

	Fed share	Non-Federal Share	Total
<b><u>Contract 1 DCC</u></b>			
GNF	30.919	36.447	67.366
Associated		35.966	35.966
LERR	0.030	16.862	16.892
Environmental Mitigation	3.779	2.036	5.815
Aids to Navigation	0.125		0.125
<b>Total Contract 1</b>	<b>34.853</b>	<b>91.311</b>	<b>126.164</b>
<b><u>Contract 2 Widener</u></b>			
GNF	20.878	31.734	52.612
Associated	0.000	13.365	13.365
LERR			
Environmental Mitigation	1.019	1.019	2.038
Aids to Navigation	0.040	0.000	0.040
<b>Total Contract 2</b>	<b>21.937</b>	<b>46.118</b>	<b>68.055</b>
<b><u>Contract 3 TN</u></b>			
GNF	1.414	8.934	10.348
Associated	0.000	23.143	23.143
LERR			
Environmental Mitigation	0.182	0.182	0.364
Aids to Navigation			
<b>Total Contract 3</b>	<b>1.596</b>	<b>32.259</b>	<b>33.855</b>
<b><u>Contract 4 SAC</u></b>			
GNF	10.787	12.349	23.136
Associated	11.324	15.679	27.003
LERR			
Environmental Mitigation	0.799	0.799	1.598
Aids to Navigation			
<b>Total Contract 4</b>	<b>22.910</b>	<b>28.827</b>	<b>51.737</b>
<b><u>Total Project</u></b>	<b>81.296</b>	<b>198.515</b>	<b>279.811</b>
GNF Total	63.998	89.464	153.462
Associated Total	11.324	88.153	99.477
LERR Total	0.030	16.862	16.892
Environmental Total	5.779	4.036	9.815
Aids Total	0.165	0.000	0.165
Check Project Total	81.296	198.515	279.811

According to the ACOE, these estimates include the cost of the toe walls necessary to lengthen the bulkheads to the proposed dredged depth. As noted previously, however, the Port received an engineering memorandum in July 2007, recommending replacement of the bulkheads that are more than 40 years of age. In other words, bulkheads at Berths 1 through 29 need to be

replaced by 2026 or prior to the onset of the dredging at the specific bulkhead. In calculating the cost to replace the bulkheads and still incorporate the ACOE's estimate, the Consultant Team used the costs identified by the ACOE in Table 6.5-7 with an escalation factor to FY 2008, less the costs for general navigation features (GNF). GNF is generally for piers and other marine structures. The Consultant Team then estimated the cost of bulkhead replacement including fendering, bollards, apron pavement, water/sewage utilities, and petroleum piping where appropriate. The Consultant Team used the estimated costs for the new bulkhead configurations in lieu of the cost of replacing bulkheads in their existing alignment, if the Vision Plans showed a re-alignment of these bulkheads.

### **6.5.5 Conclusion**

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.