The original Port of Miami
1920's The "new" port of Miami
1960's
The "new" Port of Miami
The new Port of Miami
What does history tell us?

- The community was born out of its port
- The Port has had to reinvent itself as...
- The port has given way for its urban waterfront park and open space system
- The community made a conscious decision to keep the port in its central urban core
- As an island port it has permitted the two to coexist
What have we learned?

- Waterfronts change and evolve
- The concept of the “working waterfront” has become the focal point of many communities
- The port is a very dynamic place with lots of energy – properly channeled this energy contributes to our future
- Being in the urban core – it is more challenging
- The Port must have a “sustainable” strategy and plan
The Port’s role

- A critical piece of infrastructure of the region
- Reducing the costs of products in Miami
- Providing transport of goods and people
- As an economic engine
As an economic engine

- A **platform** for companies to create jobs
  - The Port of Miami is a “landlord” – non-operating port
  - 100% of the shipping operations at the port are run by private companies
  - In this capacity the port needs to create a “competitive” platform for companies to succeed

- Responsible for Miami’s positioning in the international trade business

- Employs thousands directly and provides jobs and fees for thousands in the downtown for all types of services

- The health of the Port is paramount to Miami’s economy
As a business incubator

- As an **incubator** no other entity comes close
- The birth place of the cruise industry
  - Carnival
  - Royal Caribbean
  - NCL
  - Prestige

- Shipping companies to the region
  - Seaboard
Master strategy

As a platform for growth by the private sector

Create a more competitive facility

Sustainable plan
Sustainability

Competitive

Environmental

Good neighbor

Financial
The Master Plan

- As a Master Plan
  - Setting a vision
- As a strategic document
  - Setting direction
  - Shifting and prioritizing capital resources
  - Focusing
  - Providing flexibility
- As a tactical plan
  - Identifying specific projects or ideas
  - Creating a sequence of events
1969 Master Plan

SLIPS TO MAXIMIZE BERTHS, IN LIEU OF LAND

PARTIAL FILLING OF LUMMUS ISLAND
THE FIRST MODERN CONTAINER TERMINAL IN THE SE US (NO BLDGS)

NEW ACCESS

MAXIMIZE LAND MASS

ELIMINATE SLIPS

1979 Master Plan
1988 Master Plan

RECONSTRUCTION OF CRUISE AREA

CONCENTRATION OF CARGO BERTHS
The Master Plan

- It sets strategies and big ideas
- Each idea must subsequently meet its own tests to be implemented
  - Some pass and some do not
- The plan provides for implementation on an as needed basis
- The plan is revisited every 10 to 15 years

VISIONARY
- Evoke a positive response for the community
- To look for opportunities
Mega-drivers of the Master Plan

- **Context**
  - environmentally sensitive area highly limiting its footprint expansion
  - in the middle of the CBD creating problems and opportunities

- **Cargo**
  - At the farthest land transportation point from major US markets
  - A natural hinterland for cargo which determines its future

- **Cruise**
  - The Port has a natural glass ceiling due to industry consolidation

- **Financial**
  - Ability to grow on the backs of user fees
  - Competitiveness
Sustainability

Competitive

Environmental

Good neighbor

Financially

Sustainability
How do we make the port more competitive?

**Cruise – reduce operating costs**
- Reduce operating costs
- Make the facilities more efficient
- Faster turn around
- Customer satisfaction

**Cargo – reduce transport costs**
- Shipping
- Transport
- Handling

**Port – control administrative costs**
- Control user fees
STRATEGY

Provide the facilities for the needs of the MEGA ships
Worldwide expansion
Worldwide and regional expansion

Passengers ('000)

Sources: CLIA, PSA, B&A, 2010

Legend:
- Asia
- Europe
- North America

Chart shows the growth of passenger volumes from 1995 to 2009, with significant expansion in Asia, Europe, and North America.
Port of Miami cruise growth
Port of Miami market share of North America market
Cruise vessel deliveries

The chart shows the number of cruise vessels delivered from 1990 to 2016. The highest number of deliveries occurred in 2000 and 2010. The years 2004, 2006, and 2012 had significantly lower deliveries compared to other years.
Keys to growth

- Maintain costs competitive
- Passenger and cruise line satisfaction
- Passenger demand for itinerary
- Broaden the customer base
- Efficient facilities

- Measure up to other port / itinerary combinations
Asia

Singapore

Hong Kong
Average passengers per ship by year of construction*

* Not counting the small unique non-recurring cruise ships
Average ship length by year of construction

- Average Length (ft)
- Lengths: 489, 661, 637, 601, 547, 642, 718, 843, 822, 777, 759, 850, 925, 951, 955, 987, 1,013, 1,113, 1,000, 1,113
Impact of longer ships
Cruise findings

- A total demand for 9 berths during the projection period
  - 7th berth – now
  - 8th berth – 2017
  - 9th berth - 2035

- All cruise ships larger than 900’ will go to the north channel

- South terminal “J” can be the facility for the smaller ships - as the “Yacht Club” Terminal for premium cruise product
Berths

Cruise Berth 5  Cruise Berth 6  Cruise Berth 7  Cruise Berth 8

6  7  8

North Channel

Legend:
- Demolition / Removal: 1,113,013 CY.
- Dredging: 122,100 CY.
- Existing Bulkhead to be removed: 1,462 LF.
- Proposed Bulkhead: 3,365 LF.
- Cargo Area to be Removed: 12.10 acres.
Alternative (twin terminals)
Alternative (multiple terminals)
Future cruise terminal options – Super A
The future terminal

- Focus on processing passengers at the least cost

- Lines expect better functioning terminals
  - Larger
  - More comfort
  - Two level operations
  - Multiple gangways
  - Elevators, escalators, etc
Performance standards

- **Passenger experience**
  - Time
  - Flow
  - Queues
  - Spaciousness
  - Direction
  - Friendliness

- **Cruise company**
  - Cost
  - Efficiency
  - Labor
  - Turn around time
  - Passenger experience
Super terminal concept
STRATEGY

Reduce the costs of shipping thru the Port
Cargo moves to the lowest cost port

Two strategies – each one creating a bigger market opportunity

Lower cost of water delivery by harbor deepening

Lower cost of land delivery thru rail improvements
Strategy 1 - Proposed deepening
What difference does 8 feet make?

Deepening from 42 to 50 feet?
TEU Consumption by County - FL, GA, SC and AL

Total consumption for 4-state area is about 5.7 million TEUs
Effect of harbor deepening
**Rail**

**Existing FEC Active Rail Line**
No work proposed

**FEC Hialeah Yard**
Development of warehouses within the existing Yard footprint.

**Port Lead**
An existing rail line runs directly to the Port. A 4.7 mile segment of the existing rail corridor will be reconstructed to allow both cargo and passenger rail in the future. The work will include reconstruction of all the tracks and their placement to one side of the corridor.

**Southwest Connection at Little River**
The work will include the southwest connection at Little River, which will allow trains to move from the port to FEC’s Hialeah yard without stopping and making reverse moves.

**Port Of Miami Intermodal Yard**
Existing rail lines will be removed and a new intermodal yard will be constructed. The intermodal Yard will be served by the single track that comes across the bridge and two tracks parallel to each other and 4,000 feet long each will be constructed. Apron areas on either side of the tracks will allow simultaneous loading of two trains.

**Rehabilitate Existing Rail Bascule Bridge**
The rail bascule bridge can only be operated manually. There are substantial repairs needed to the electrical systems, the motors, the switching system, repainting and minor structural repairs.
On-port rail yard
Container potential

- Truck market potential = 1.4 million TEUs
- Intermodal share = 1.7 million TEUs

Graph showing the potential growth from 2008 to 2035:

- Truck market potential = 1.4 million TEUs
- Intermodal share = 1.7 million TEUs

Yearly data points for TEUs from 2008 to 2035.
Cargo opportunities

- Without better intermodal links and deepening the growth is heavily curtailed.
- Deepening will lower marine transport costs and make shipping through the Port cheaper.
- Further expanding market penetration in the intermodal field through rail will further make the port more competitive.
- Potential exists to increase over 2 million TEU’s within 15 years.
  - All infrastructure dependant.
Optimization of cargo yard

- New yard organization
- New road to separate cruise from cargo
- Gate improvements
- Increase yard cranes
- Increase gantry cranes - 23
Future need for more cargo yard

TEUs per acre

Shift from RTG to RMG
Southwest corner

Existing Edge

Southwest Corner Fill
13.46 acres

Southwest Corner Berth 1

110' Existing Bulkhead to remain

Southwest Corner Berth 2

4.20 acres

Total Area: 17.66 acres
Optimized cargo yard
Optimized cargo yard
Sustainability

Competitive

Environmental
STRATEGY

Reduce the environmental footprint of the Port
Sustainability goals

- To be a world leader in sustainability
- To be a world leader in urban compatibility
- Stay within the port's physical footprint
  - Work within the current area to optimize water and land resources
- Minimize environmental footprint where possible
  - Energy
  - Discharges
  - Air emissions
- Traffic
  - Reduce congestion
  - Introduce mass transit
Environmental activities

- Design all buildings LEED certified
- Electrification of all gantry cranes
- Upgrade of all drainage systems to eliminate discharges
- Future integration of Shore Power for ships
- New initiatives for energy
- Stay within the physical footprint
The port’s role
Sustainability goal – live within the physical footprint
Sustainability

Competitive

Environmental

Good neighbor
STRATEGY

Continue to be a better neighbor to the community
The Port has a long history of partnership with the City and the DWNTWN:

- It has moved twice to create urban open space
- It has spent significant resources to build a new bridge and Biscayne Blvd
  - Coordinated fully with Bayside and then the Arena
- Committed to build an attractive bridge
  - Only segmental design in DWNTWN
  - Multimillion lighting program
- Building a tunnel to remove traffic from DWNTWN
- More opportunities lie ahead
Opportunities

City-Port

Transportation

An integrated waterfront
Transportation

1. Tunnel

2. New transit connections
   - Passengers can easily come to town
   - Employees can easily connect to DWNTWN
   - Reduce vehicular traffic
   - Centralize parking
A commitment made to the City, DDA in 1984

Underway

To be complete in 2 years

What is the extent of this commitment:

"The cost of the tunnel is more than the cost of the entire port"
Isolated sites
The elusive airport to port connector (PtoP)
Port Central

- The thousands of employees at the port will have access to transit
- Passengers will be able to “day trip” to DWNTWN while waiting for the ship
- Businesses will have ability to move back and forth between DWNTWN and the Port
- Certain passengers from the region will be able to travel to the ship without a car
Port Central

- An integrated transportation center
- Consolidation of parking for terminals D, E, F and G
- GTA for adjacent terminals
- Connection with Transit
  - Metro-mover is three blocks away
  - Bridge is capable of becoming the guideway
- Elevated open space to replace Seaman’s Park
- Incorporation of energy generation in park and building
- New offices for the Port and maritime tenants
Integrated waterfront

- Opportunities exist to integrate the west face of the Port into its urban counterpart
  - Downtown
  - Bayfront Park
  - Bayside

- Create Miami’s new inner harbor and waterfront
City - port
Southwest corner
City-port
Miami - Nice

Puerto Banus, Spain
Miami - Cannes
Sustainability

Competitive

Environmental

Good neighbor

Financial
STRATEGY

Make the Port financially sustainable while more competitive
Financial sustainability

Sustainability = Being able to pay for the plan

While staying competitive = lowest user fees

Without tax money
Capital plan
Capital needs by project type

- Cruise terminal
- Parking
- Berth and apron
- Security
- Cargo yard
- Cranes
- Channel
- Transportation
- Railroad
- General operations
- Administration

Total: $2 BILLION
Financial challenges

■ How will the Port support this $2 billion capital program
  • Currently $500 million has identified funding
■ POM does not receive any financial support other than:
  • Grants
  • Credit enhancements/loans
■ POM is a new Port with 100% of the facilities having been built since 1960
  • 100% of the POM is reclaimed new land
■ It is hard to spend for the future when using historical revenues to sell bonds
■ The port and its users are under heavy competitive pressures
Financial strategies

- Extend capital plan until use is at hand
- Control port operating costs to maximize EBITA
- Aggressively look for PPP opportunities
- Time new bond issues to coincide with defeasance of past bonds
- Create a diversified funding mechanism independent of user fees
Strategy – diversify revenues

- Identify land not suitable for cargo or cruise activities
- Identify maritime related uses
  - Generate income
  - Provide private sector opportunities

Most major Port “authorities” have a major component of their operations and income from secondary uses
  - San Diego
  - San Francisco
  - Seattle
  - New York

Provides for a new revenue source without user fee increases making the port more competitive
Recommendations

- **Cruise**
  - Fix the existing terminals for the long term
  - Create the new terminals
    - Start planning now

- **Cargo**
  - Rail
  - Deepening
  - New north roadway
  - Detailed study of entrance gate house

- **Transportation**
  - Rail
  - New multi-modal center
  - Future Metro integration

- **Environmental**
  - Develop a long-term sustainability strategy
  - Create a master plan and permitting strategy
  - Take the time to do it right

- **Commercial**
  - Begin to position the port for the next business boom
  - Master plan all excess properties for development
    - Maritime / cruise related
  - Develop the business model