CRUISE TERMINAL NO. 1
Port Everglades, Florida

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A professional paper submitted in partial fulfillment of the requirements for the degree of Bachelor of Architecture

Montana State University
Bozeman, Montana
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Bradley W. Shuya

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JUNE 10/88
This document is dedicated to my parents, who have supported me through hard times.

And to my academic advisor Jerry Bancroft whose high caliber of professionalism has been a model for me to follow, and has helped me in the realization of my professional goals.

And especially to my wife Tracy whose tremendous love and constant encouragement has kept me sane and motivated to the very end.
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EDUCATIONAL GOALS

The following goals are set forth as a personal commitment to what I wish to gain from my architectural thesis experience. It is my intention to use these goals as a guide to evaluate my progress and my thesis experience.

- To better understand the requirements related to public transportation facilities, specifically cruise terminals, both functionally and in the resulting architectural implications.
- To fully experience the design process from the initial research and programming, through conceptual design and development to schematic design presentation.
- To develop a technique to structure my time so that a reasonable schedule of commitments is established and executed.
- To draw upon all my past educational experience and apply that knowledge in an architectural solution which is a reflection of my beliefs and expertise.
STATEMENT OF PROJECT

PROJECT NEED

The site of my thesis project is Port Everglades, a cruise and cargo port located between the cities of Fort Lauderdale and Hollywood, Florida. For this thesis project I propose a new cruise terminal facility, which also incorporates an office tower, commercial retail shops, recreation and entertainment, and cargo handling/storage space. I propose as the specific site of this project, the replacement of existing cruise/cargo terminals numbers one and two with a new facility (see site map on page 47).

Port Everglades is the second largest cruise port in the world. Recently the port has been expanding to meet this status with the addition of new cruise terminal facilities in other areas of the port. Adjacent to my thesis site the new Broward County Convention Center is proposed to be built along with two hotels, two office towers, a retail marketplace, and new 8 level parking structure (see map on page 48). The total cost of the entire development is estimated to be $250 million with construction scheduled to begin in late 1988. It is at this time that Port Everglades finds itself in need of a new world class cruise terminal to compliment the planned new development. The convention center is expected to attract major new cruise lines to the port, anxious to dock adjacent to one of the nation's newest convention facilities.

Presently, the existing cruise terminals (numbers one and two) adjacent to the convention center site are outdated and in a
state of disrepair. New facilities are necessary to compliment both functionally and aesthetically the planned development, and the anticipated need (by the port) to handle a larger volume of cruise passengers in the near future. Port Everglades acknowledges these conditions and is in reality planning a new cruise terminal in place of number one and to redevelop cruise terminal two, and physically tie both terminal schemes in with the proposed retail development. The port is also developing a day-cruise business which the convention center operators will employ as a marketing tool to attract convention center users to Port Everglades. This plan further stimulates the need for new cruise facilities at this time.

PROJECT SCOPE

The scope of this project will include the following:

- Programming, analysis, and design of a cruise terminal capable of handling two present day cruise vessels simultaneously with the required functional areas for passenger embarking/debarking, baggage needs, and cargo storage.

- Site development including:
  - warehouse loading/unloading zones.
  - ship loading/unloading zones.
  - vehicular access to the terminal.
  - pedestrian access to the terminal via the convention center, hotel, retail areas, and parking structure.

- Precedent studies for spatial sizing.

- The inclusion of an office tower, recreation and entertainment areas, commercial retail shops, and cargo warehouse space will be included in schematic design layout but not carried into any great level of detail.

- Detailed design of the cruise terminal will concentrate on the passenger areas of the terminal, including the passenger lobby, concourse, and customs areas.

The scope of this project will not include:

- Specific design of any spaces deemed specialized other than spatial requirements, circulation, and adjacencies.

- Detailed design of cargo dockage and storage areas other than basic layouts and loading/unloading patterns.

- Detailed design of the off-site parking structure other
than vehicular circulation routes to deck ramps, and passenger circulation from the parking structure to the terminal facility.

- Detailed study of the adjacent convention center, hotel, and retail areas, other than basic layout of vehicular and pedestrian paths which may necessitate a physical tie with the cruise terminal.
- Any detailed design of structural, mechanical, or electrical systems. In the case that any of these systems are part of the architectural expression they may be acknowledged but not specifically sized or detailed to function in the field.
PROJECT FOCUS

The focus of this thesis project will primarily be on the architectural design of the cruise passenger terminal. Including such components as the spatial relationships and physical requirements, circulation patterns for pedestrians (interior and exterior), passenger vehicles, cargo vehicles, the architectural statement/form and resulting material usage on both the exterior and interior. The relationship of the cruise terminal building to the surrounding site, including the convention center complex and parking structure will be studied, however at a masterplan level only.
METHODOLOGY

The methodology of this thesis project will begin with the thorough research of the port itself, including history, existing, new, and future proposed projects that will have either direct or indirect influence on the facility I am planning. I will then proceed with more specific investigations and research of the immediate site itself. Focusing on the role of the waterfront and the cruise terminals of the past. My next step will be to analyze the forces within and adjacent to the site which will have direct effect on this project. Specifically, three major areas of concern are as follows:

1) To coordinate the passenger activities with cargo and storage requirements, and normal dock routines and functions.
2) The replacement of existing terminals one and two and the integration of this new facility with the proposed convention center, hotel, office, and retail areas.
3) The possible consideration of phasing the project to allow for continued port operations in the area while construction of new facilities are underway.

Through this discovery process, I propose the solving of the conflicting circulation systems of both pedestrian and vehicular needs in and around the terminal. Also, the design of the terminal building with the conceived functional space requirements, and the application of the stated project goals.
REGIONAL HISTORY

FORT LAUDERDALE

The Tequesta Indians who inhabited most of the Florida south-eastern coast, were the first known inhabitants of the Fort Lauderdale area. The Gulf Stream current off the coast of Fort Lauderdale was an important shipping lane during the 16th, 17th, and early 18th centuries, however no attempts were made to settle the area at this time. In March 1838, Major General Thomas Jesup ordered a battalion of Tennessee volunteers under Major William Lauderdale to the area to counter the Seminole Indian uprising. A fort was built at the forks of the river and named after Major Lauderdale. In January 1893, a young Ohioan, Frank Stranahan began operating a ferry and camp to cross the river. He soon began trading with the local Indians. Many today consider Stranahan's trading post to be the real beginning of the modern city of Fort Lauderdale.

With the arrival of Henry Flagler's Florida East Coast Railway in 1896, the tiny settlement was revived. The Florida East Coast Railway bridged the river, platted the town of Fort Lauderdale, and established a station there. Many new settlers began arriving via the new railroad service. During the first decade of the 20th century, Fort Lauderdale's population rose from 52 to 143. The shipment of winter vegetables downriver from the outlying farms to the railroad insured the continued importance of Fort Lauderdale. In 1911 Fort Lauderdale was incorporated as a city by an act of state legislature. Four years later Broward County was formed from portions of Dade
County to the south and Palm Beach County to the north. Fort Lauderdale was selected to be the new county seat.

In the early 1920's, Fort Lauderdale was caught up in the Florida Land Boom. The city's population continued to grow, and at the height of the boom over 12,000 people were living in the city as permanent residents. Many more people populated the city as visitors. Much of the city was wiped out on September 17, 1926, as a devastating hurricane hit the south Florida east coast. The collapse of the land boom and consequent destruction of the hurricane put Fort Lauderdale into economic depression. The years following the second world war, saw the population of Fort Lauderdale increase dramatically. During the 1950's and '60s, acres of everglade swampland were drained and cleared for new housing developments. The 1970s and early 1980s have brought new problems and challenges to Fort Lauderdale and surrounding area. New inhabitants from throughout the country and from overseas have made Fort Lauderdale the 5th largest city, and Broward County the 2nd largest county, in Florida. This increase in population and urbanization have resulted in crime problems such as illegal immigration and narcotics trade, which has plagued much of south Florida. Fort Lauderdale however, has retained its atmosphere as a vacation and recreation resort, and has developed into a center of finance, commerce, and international trade.

Mile after mile of golden-sand beaches, warmed by the Gulf Stream in winter and cooled by ocean breezes in summer, attract sun-lovers and fun-lovers to this internationally known resort
Over 165 miles of navigable waterways crisscross the city (whose area is one-tenth water). Fort Lauderdale is also recognized as the boating and yachting capital of the world, with two of the world's largest marinas, and with the miles of waterways within its city limits, it has been appropriately crowned the "Venice of America".

sources: The Fort Lauderdale Historical Society. 
Greater Fort Lauderdale Chamber of Commerce. 
See Fort Lauderdale, Prescott Visitor Magazine.
PORT EVERGLADES

The largest project to be completed after the 1926 hurricane that hit Fort Lauderdale was a new deepwater harbor just south of the city. For years the city of Fort Lauderdale had been seeking a port for the area without success. A relative newcomer to the area got the project going, his name was Joseph W. Young, who came to South Florida to build the city of Hollywood. Part of his promotional campaign was to include the construction of a man-made deepwater port in the area, to be known as "Hollywood Harbor". Young secured an area of 1440 acres surrounding what was then called Lake Mabel, in the name of the Hollywood Harbor and Development Company. Since Young could not fully finance the project himself he sought financial assistance from the cities of Fort Lauderdale and Hollywood, who both agreed to join Young as partners forming a Tri-Partite agreement in the venture. With municipal backing construction started in 1926, the following year the Broward County Port Authority was formed. The new harbor was opened for business February 22, 1928, under the name designated by Young, "Hollywood Harbor", it was renamed "Port Everglades" in 1929. Passenger cruise service was launched in 1931, during that same year Cunard Cruise Lines agreed to start passenger service, signaling the calibre of cruise line which was to ultimately make Port Everglades the "Five Star Port". Throughout the 30s, the port expanded its operations which included the handling of crude oil, building materials, and scrap iron. Cost of constructing the Port's channel, turning basin, and its first two slips, came to just under $2 million by 1939.
One of the consequences of creating the ship channel was that it let saltwater into what had formerly been the freshwater Lake Mable. The former brush and scrublands that had formerly surrounded the lake became a marshland, and allowed for the growth of mangroves, which had not been present in the past.

Today, Port Everglades is the largest seaport on Florida's southeast coast. The total jurisdictional area of the port consists of 2,000 acres. It is home to approximately 20 passenger cruise ships, and is the second busiest cruise port in the world (behind the leader—Port of Miami). Port Everglades dispatches ocean-going vessels to all points of the globe each year. The current number of cruise passengers being at 1 million per year and is expected to increase in the future. Port Everglades has the shortest, safest channel of any U.S. port. From the container and cruise berths to the outward sea buoy, the distance is only 7,300 feet, allowing the largest container and passenger ships to make it to dockside in 30 minutes. The port also has the deepest harbor between Norfolk and New Orleans at 43 feet. The outer channel depth is 47 feet and the width is 500 feet, the inner channel depth is 43 feet and the width is 450 feet. The depth of the main turning basin is 43 feet with a width (east and west) of 1,200 feet and a length (north and south) of 2,450 feet. Water depth is 31 feet (MLW) at berths 1, 2, and 3, and 37 feet at all other berths except for berths 23 through 27 where the depth is 38 feet. Mean tidal range at the harbor entrance is 2.5 feet with a spring tide of 3.0 feet. Tide range in the slips is from 2/10 to 3/10 of a foot less.
Currently there are 29 berths for ocean going vessels ten are in three slips, the remainder are along marginal wharves and T-heads. Total berthing space is 18,000 linear feet. More than 150 acres, paralleling the length of the harbor and located next to cargo berths and transit warehouses are set aside for open storage. All berths have vehicular access and five are served by railroads (4-8). Most dry and general cargo berths are designed for dual requirements of open and covered storage, eliminating the necessity of shifting vessels after partial unloading. Typical commodities placed in open storage are lumber, containers, construction steel (rebar) and steel products, automobiles, heavy duty equipment, pipe, wire and scrap metal. Port Everglades has two 30-long-ton container gantry cranes in service. Container operations are centered around berths 16, 17 and 18 with a total 1,640 feet. Eight transit warehouses with combined storage capacity of more than ten acres are located at dockside. The Port Authority also provides for the storage of imported goods in bond in several buildings. Customs facilities are located throughout the port and within the container terminal itself. The Port Everglades Foreign Trade Zone (officially dedicated in 1978), is the first granted within the state of Florida. With 82 acres it is the largest operating zone in the U.S.

Port Everglades is governed by a board of seven Commissioners, five of which are elected countywide, and two which are appointed by the Broward County Commission to represent business and labor interests. They are served by an Executive
Port Director who oversees all aspects of Port Operations. The commission is a policy making body while port activities are performed by a staff of 200 people. Over 90 firms have facilities or representatives in the port and employ about 6,500 people. Economic studies indicate that Port Everglades generates over 700 million dollars in Broward County through various activities. The port commissioners take environmental planning very seriously. An innovative environmental program has been implemented, and Port Everglades is nationally recognized as one of the most environmentally sensitive ports in the U.S.

In previous years, the port has generated 40% of its yearly revenue from fees collected from offloading of ships and companies storing petroleum products at the port. Cruise business now provides 16% of the port's revenues, with the number of cruise ships that call on the port climbing from 17 to 23. Container operations contribute 9.5% of the port revenue, and have seen a 49% increase in tons of cargo moved at the port. 80% of the cargo on container ships calling at the port is loaded onto smaller ships destined for the Caribbean. The Latin American and Caribbean markets are vital to Port Everglades overall growth strategy.

Presently Port Everglades is poised for growth with an ambitious expansion program already underway. On a 150-acre site on the southernmost area of port property, a $75 million container complex is already being built and ahead of schedule. This new container complex is called Southport and will provide 3,000 feet of containership berthing, four low-profile gantry
cranes, a paved fenced container yard with lighting, a container freight station and scaled gates leading directly onto Interstate 595, now under construction. Seven new container cranes, two new passenger/cargo terminals, and expanded rail lines are also to be included in the development. The project will carve an 18 acre, 44 foot deep turning notch from an existing 70 acre mangrove swamp. Port Everglades would offset that environmental damage with a $1.5 million mitigation plan. This new container facility is a key element in the future of the port, since future revenue prospects and sea trading are in container ships. Along with the Southport development is the proposed $200 million Broward County Convention Center project on the northernmost portion of port property. This project will be discussed in detail later in this document under the Site Analysis category. But it is important to point out at this time the potential attraction the convention center and adjacent facilities will have toward the ever-growing cruise market at Port Everglades.

Today, a new generation of entrepreneurs has expanded on the dreams of the Port's developers, to make Port Everglades a world leader in the cruise and cargo industry, serving Europe and the Far East as well as all of the Americas. Port Everglades is one of America's most strategically-located ports, with minimal sailing/transshipment times to Northern Europe, the Caribbean and South America, and the Panama Canal. Modern intramodal transportation facilities allow efficient distribution throughout the Southeast and Midwest U.S., with direct access to the 3.5 million South Florida residents, and the 9.5 million residents of
Florida, the fifth most populous state in the nation.

February of 1988 marks the 60th anniversary of Port Everglades, which has moved into the ranks of the world's greatest seaports in a short period. What was once "Hollywood Harbor" has grown into a world leader in container cargo shipments, cruise passenger traffic, foreign trade zone storage, calls by military ships, transportation networks and even port management.

A Guide To Port Everglades, Port Everglades Authority
Office of Public Relations.
See Fort Lauderdale, A Prescott Visitor Magazine.
The Fort Lauderdale Historical Society.
IMPLICATIONS

- The expansion program undertaken by Port Everglades will have a direct effect on my site by attracting new major cruise lines with larger vessels, into the port.
  - To handle the demands of the larger ships, larger and more advanced terminal facilities will be required to accommodate them, these vessels have needs which are beyond the capabilities of present terminal facilities on site.
  - The port wants to incorporate world class cruise facilities which reflect present technological advancements and effectively meet future passenger needs.

- The proposed Broward County Convention Center will attract many prospective cruise passengers who may wish to combine convention activities with short day cruises or even longer cruise vacations.
  - Strong linkages with the planned hotel facilities and the rest of the adjacent convention center project will be an important consideration in the planning of my terminal facility.

- The port places a high priority on open and internal storage of cargo, these needs must be recognized and taken under consideration in the planning of any new facilities.
  - Internal cargo storage space must be provided on site.
  - Cargo must be incorporated yet separated from regular cruise ship passengers.

- The possibility of incorporating leasable office space on
my site is an important consideration.

-a high degree of visual exposure and water frontage will be an added attracting feature for prospective office tenants.

-office space suitable for major cruise line headquarters and other high caliber tenants is a consideration.

Since Fort Lauderdale has been dubbed the "Venice of America", that title could be reflected by a "gateway" terminal facility representative of the title.
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* Fire department licenses, burning and welding permits, contributions from the cities of Hollywood, Dania and Fort Lauderdale, and other income.
** Includes port commission, port director, port attorney, finance, engineering, operations.
*** Includes harbormaster, linesmen and wharfinger.

SOURCE: Port Everglades Authority
PORT EVERGLADES IMPROVEMENTS

1. Pave parking lots and construct two parking garages.
2. Construct Building 4 for passenger-cargo terminal.
3. Buy and install chcksan to offload petroleum products.
4. Pave container yard.
5. Pave and create parking spaces at Building 19.
6. Pave Sea Land container yard.
7. Construct Building 26, 90,000 square foot passenger-cargo terminal.
8. Construct fire station and security building.
9. Widen Eller Drive to four lanes.
11. South Port:
   A. Buy and install container cranes along bulkhead
      plans call for purchase and installation of four more cranes.
   B. Construct 3,000-foot concrete bulkhead along Intracoastal.
   C. Construct 1,400-foot by 800-foot turning notch and plant new mangrove forest on east side of Intracoastal to place one destroyed by notch construction.
   D. Dredge Intracoastal at bulkhead and turning notch to 44 feet.
   E. Improve 150 acres for cargo staging area.
   F. Build crane runway.
12. Extend railroad track.

SOURCE: Port Everglades Authority

COST OF IMPROVEMENTS

- Bought land at south port for container facilities: $22,500,000
- Four container cranes (11A): 18,000,000
- Dredging bulkhead and turning notch (11D): 12,500,000
- Bulkhead container berths (11B): 11,200,000
- Parking garages (1): 10,000,000
- Construction of two passenger/cargo terminals (2)(7): 8,500,000
- Miscellaneous paving (1)(4)(5)(6): 8,000,000
- Container support facilities (11E): 3,400,000
- Crane runway (11F): 3,250,000
- Firefighter and security building (8): 2,000,000
- Extend railroad (12): 1,500,000
- Build steel shed at Berth 29 (10): 1,500,000
- Environmental mitigation (11D): 1,500,000
- Widen Eller Drive, other road improvements (9): 1,300,000
- Buy and install chcksan: 400,000

TOTAL: $105,550,000

SOURCE: Port Everglades Authority and Port Facilities Revenue Bonds prospectus

PORT IMPROVEMENT PROJECTS
USER IDENTIFICATION

INTRODUCTION

The User Identification section focuses specifically with a description of users of the cruise terminal facility. Although the cruise terminal facility incorporates other functions such as a corporate office tower, commercial space, retail shops, and cargo storage facilities, the users of these areas will not be explored in as great a detail as that of the cruise passenger users and their specific needs. Thus the sections covering User Facts and Implications refer to the cruise passenger user group.
USER TYPOLOGY

(1) General Tourists
   - families
   - tour groups
   - couples
   - singles

(2) Convention Center Patrons
   - businessmen/women
   - singles
   - couples
   - some families

(3) General Public/Residents
   - local residents
   - day users (day cruises)
   - facility users (retail, restaurants, etc.)
   - families
   - singles
   - couples
   - small groups

(4) Office Tenants
   - office tower/cruise line headquarters
   - cruise terminal administration

(5) Support Staff
   - maintenance personal
   - janitorial
   - security personal
USER FACTS

- 37% are over 55 yrs. of age and 70% are over 35.
- The average passenger earns $35,000 annually.
- The average passenger will pay between $175 and $225/day for a cruise and each passenger spends an average of $225/day in embarkation/debarkation in ports.
- Average passenger stay in a U.S. port is 1.5 days.
- California, Florida, New York, Illinois, Texas, and Pennsylvania provide the largest number of passengers in that order.
- The 7 day Caribbean cruise is the most popular in the world.
- The one day cruises are becoming the most popular with local residents, and in 1987 they were responsible for the most revenue generated on a monthly basis.
- There are some 57 million leisure travelers in the U.S., and only 5% of that market has been tapped for cruise passengers.
- The cruise industry is the fastest growing segment of the leisure market.
- There is a new generation of passenger vessels being manufactured which are able to accommodate from 2000 up to 5000 passengers per ship, Port Everglades expects to be operating 2 or 3 of these "superliners" by 1990.

IMPLICATIONS

- Provide parking/drop off areas for tour buses.
- Provide on site recreational/entertainment areas:
  - games room (coin arcade)
  - cocktail lounge with dance area
  - restaurant (fine dining)
  - coffee shop
- Provide retail services:
  - gift shop/souvenirs
  - hair salon
  - newsstand/books, snacks
- Provide passenger information/security desk.
- Provide handicap facilities/equipment for elderly passengers:
  - low sloping rampways
  - sitting areas (outdoor and indoor)
  - highly visible signage and graphics
- Provide luxurious equipment/furnishings throughout the facility to meet with expectations of a quality cruise service.
- Provide easy access/transition to hotels and retail areas on the adjacent Northport site, in anticipation of cruise passenger use.
- Provide possibility for expansion of the cruise terminal to accommodate future "superliner" vessels and increased passenger numbers.
SITE ANALYSIS

SITE DESCRIPTION

The site is located in Section 14, Township 50 South, Range 42 East, known as Port Everglades Plat No.2, Parcel "A". The land is controlled by the Port Authority of Port Everglades. The specific parcel I am developing is 7.5 acres in size and located along the eastern bulkhead of the northernmost berthing spaces presently known as numbers 1 and 2 in Port Everglades (see map on page 47). The site is currently fully developed and occupied by cruise/cargo terminals 1 and 2, and under continued use by Port Everglades. The parcels to the immediate west and north are primarily utilized for ground based storage of bulk cargo materials, two of the most common recent uses being vehicle parking, lumber, and construction steel storage. The Intracoastal Waterway is located to the immediate east of the site. To the immediate south of the site is warehouse no. 3, and cruise terminal/warehouse no. 4, which are currently in full use by Port Everglades (see map on page 47). Further to the south are the rest of the port's warehouses, loading areas, docks, and cruise terminals. Vehicular access to the site is provided by Eisenhower Boulevard to the west, and the Southeast 17th Street Causeway to the north (see map on page 57). The ground surface of the site is a combination of asphalt and concrete pavement, the site topography is flat (paved). Native vegetation and animal species have been absent from the site for years.
LEGAL AND ZONING

The Port Everglades Jurisdictional Area as established by Part 1, Article 1, Section 9(a) of the Port Everglades Charter, is within the municipal boundaries of the City of Fort Lauderdale. The Port Everglades Authority has many of the authorities of a municipality including taxing and zoning. Broward County has designated the proposed site as a Transportation Land Use in the Broward County and Fort Lauderdale land use plan. Section 47-70 of the Fort Lauderdale Zoning Code establishes the Port Everglades Development District (PEDD) as a M-1 zoning classification. Under section 47-70.2 the uses allowable within this classification include the following:

- Offices
- Marine Cargo Handling
- Parking Garage
- Passenger Terminal
- Warehouses
- Car Rental Agencies
- Outdoor Storage - of material or products being processed in or transported through the port.
- Restaurant
- Retail/Commercial
- Recreational Facilities

Special uses include the following (section 47-70.3):

- Convention or Conference Facilities
- Hotels and Motels
- Libraries, Art Galleries, Museums and similar facilities.
PROPOSED DEVELOPMENT

The Broward County Convention Center and accompanying Northport project are proposed to be developed on Port Everglades land directly to the west and north of my site. This proposed site of 29.7 acres includes the Convention Center, two world class hotel towers, two office towers, a "festival" retail area, and parking structure (see map on page 48). Following is a more specific numerical breakdown of the proposed project:

- **Broward County Convention Center**
  - $46 million estimated construction cost
  - Exhibit Hall, 150,000 S.F.
  - Prefunction Spaces (lobbies, information, ticketing, etc.), 35,000 S.F.
  - Meeting Rooms and Grand Ballroom, 75,000 S.F.
  - 350,000 S.F. total

- **Northport Project**
  - $175 million estimated construction cost
  - 700 hotel rooms in two towers
  - Two Class A office towers, 160,000 S.F. each
  - "Festival Marketplace", 400,000 S.F., sophisticated retail shops and festival-like dining establishments with an international flavor and restaurants/outdoor cafes overlooking the Intracoastal. The interior character will be reminiscent of the Fanueil Hall in Boston, or South Street in New York City.

- **Port Authority Parking Structure**
  - $25 million estimated construction cost, 1,000,000 S.F.
-at least 3500 parking spaces, 2500 will be provided for the Convention Center use and 1000 spaces will be provided for cruise ship terminal and office tower use.

Broward County will own the convention center. Northport Venture Associates, an affiliate of Deutsch/Ireland Properties, a Fort Lauderdale based real estate development and management firm, is overseeing design and construction and expects to operate the convention center after completion, as well as develop and own the hotels, offices, and retail areas. Port Everglades will retain ownership of the land which will be leased to the county and the Northport group on a long term agreement.

The masterplan designs for the entire development have undergone many changes since the original proposal in 1986. Currently, a contained traffic pattern is being explored to maintain the integrity of the port security (see drawings on pages 49 to 56). Scheme 3 is the most recent masterplan of the development and is the scheme which I will use as a basis for development of my thesis project site.

sources: Port Reports; April, Dec., 1987
The Florida Shipper, May 25, 1987
International Trade and Transport, July 87
A Guide to Port Everglades, 1988
CANNON/TVS & A ARCHITECTS/PLANNERS
NORTHPORT VENTURE ASSOCIATES INC.
Port Everglades is located at 25 degrees 5' 30" N latitude, and 80 degrees 4' 45" W longitude. Typical port elevation is 8 feet above sea level. The Fort Lauderdale climate is hot and humid, with the seasonal average being 75.4 degrees. Daytime highs in the winter are 70-75 degrees with nighttime lows of 65-70. Highs in the summer are in the 80-90 degree range, with lows from 70-80 degrees. Fort Lauderdale has more hours of sunshine than almost any other vacation spot on earth, and offshore breezes from the Atlantic ocean pleasantly cool the area. For more detailed statistical information including precipitation, wind, humidity, and temperature see the charts from pages 63 to 67.

sources: The Fort Lauderdale Chamber of Commerce
National Weather Service
CLIMATIC IMPLICATIONS

- Provide overhead protection from sun and rain in the vehicular drop-off areas.
- Provide minimal glazing exposure on the southern building facades.
- Provide shade via trees/overhead roof protection on exterior terraces.
- Provide protection from the elements on exterior pedestrian concourses and bridges to the ships.
- Facility should be environmentally controlled via HVAC mechanical systems, natural ventilation of the interior spaces cannot be relied upon.
CONCLUSION

The site offers easy access to over 4000 first-class hotel rooms (see map on page 46), a wide variety of restaurants and entertainment establishments, air, ground, and water transportation networks, theaters, the beach, recreational facilities, shopping centers, and many other visitor attractions. All of these amenities are within walking or short driving distances. There is easy driving access to all of Broward County via I-595, I-95, U.S.1, A1A, and Florida's Turnpike. Improvements on all roads are completed or are being planned for the near future. Convenient access, with no intervening bridges to Fort Lauderdale/Hollywood International Airport is an important plus since most cruise passengers will arrive by air. Public transportation is available at the site.

This site is uniquely suited to the role of welcoming thousands of visitors annually to the community that has been called "the Venice of America". With the romantic sight of cruise ships anchored at dockside, and yachts cruising down the Intracoastal. The port indeed offers a rich visual tapestry.
Lake Sylvig

FIXED BRIDGE
HOR CL 26 FT
VERT CL 7 FT

Pier 66 Manna

Building

OVD CABLE
SUBM AT CHANNEL

17th ST. CAUSEWAY
BRIDGE. Ft. Lauderdale, mile 1086. Opens 15 minutes after last closing from 7:00 a.m.
7:00 p.m. and on demand from 7:00 p.m.
7:00 a.m.

Harbor Heights

Turning Basin

Bar Cut

Nova University Marina

Port Everglades
Nautical Map
CONTROLLED INTERSECTION (SIGNALS)

WmBm P*A.K FTOW mm** BiANlg

Ipigpg; LOADING AREA

ERMINAL

SE 17 ST. AVE. DAILY CARS: 29,300
PK. HR. TRAFFIC: 1,292
PK. HR. CAP.: 2,785

EISENHOWER BLVD.
PULSE TRAFFIC DURING
CRUISE DEPART./ARRIV.

LOADING AREA

DROP ZONE

CRUISE TERMINAL DELIVERY CARGO TRAFFIC

SITE

SHIP SERVICE AND DELIVERY APRON

VEHICULAR CIRCULATION PATTERNS - 3

SE 17 ST. :
AVE. DAILY CARS: 29,900
PK. HR. TRAFFIC: 1,292
PK. HR. CAP.: 2,785
EISENHOWER BLVD. :
PULSE TRAFFIC DURING
CRUISE DEPART./ARRIV.
IMMEDIATE VIEWS
FROM:
ADJACENT
CONVENTION
CENTER,
HOTELS,
OFFICES,
RETAIL AREA,
& OPEN PLAZA

VIEWS FROM:
A. INTERSECTION/17TH
B. MARRIOTT HOTEL
C. BRIDGE
D. HOUSES & BOATS
E. CRUISE SHIPS
F. EISENHOWER
LONG VIEW TO MARRIOTT HOTEL

SHORT VIEWS TO PLAZA, CONVENTION CENTER, HOTELS, AND OFFICES

SHORT VIEW TO RETAIL

LONG VIEW ACROSS INTRACOASTAL TO MARINA

VIEWS BLOCKED BY ADJACENT PARKING STRUCTURE AND BUILDINGS NO.'S 3 & 4

LONG VIEWS ACROSS INTRACOASTAL TO RESIDENTIAL AND INLET MEDIUM VIEWS TO PASSING BOAT/YACHT TRAFFIC

LONG VIEW TO OTHER CRUISE TRAFFIC AND PORT FUNCTIONS

VIEWS FROM THE SITE
NOISE AROUND THE SITE

VEHICLE NOISE ALONG 17 ST

NOISE FROM VEHICLES IN PLAZA LOOP-PULSE TRAFFIC

OCCASIONAL CARGO ACTIVITY AT BUILDINGS 3 & 4

BOAT TRAFFIC NOISE ALONG INTRACOASTAL
ANALYSIS

AUGUST SEPTEMBER

MEAN DAILY MAXIMUM TEMPERATURE
(USUALLY OCCURS MID-AFTERNOON)

MEAN MONTHLY TEMPERATURE
(USUALLY OCCURS BEFORE SUNRISE)

MEAN DAILY MINIMUM TEMPERATURE

AIR TEMPERATURE

DEW POINT TEMPERATURE

FEB MAR APR MAY YEAR

JULY AUG SEPT OCT NOV DEC YEAR

CLIMATE DATA
HOURS OF SUNSHINE

<table>
<thead>
<tr>
<th>MONTH</th>
<th>MAXIMUM POSSIBLE</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN</td>
<td>440</td>
<td>127 AVER</td>
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<tr>
<td>FEB</td>
<td>420</td>
<td>78 AVER</td>
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<tr>
<td>MAR</td>
<td>450</td>
<td>102 AVER</td>
</tr>
<tr>
<td>APR</td>
<td>480</td>
<td>124 AVER</td>
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<tr>
<td>MAY</td>
<td>500</td>
<td>126 AVER</td>
</tr>
<tr>
<td>JUNE</td>
<td>520</td>
<td>132 AVER</td>
</tr>
</tbody>
</table>

AVERAGE CONDITIONS

- CLEAR
- CLOUDY
- PARTLY CLOUDY

SOLAR HEAT

<table>
<thead>
<tr>
<th>MONTH</th>
<th>CLEAR DAY</th>
<th>AVERAGE DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN</td>
<td>300</td>
<td>100</td>
</tr>
<tr>
<td>FEB</td>
<td>320</td>
<td>110</td>
</tr>
<tr>
<td>MAR</td>
<td>350</td>
<td>115</td>
</tr>
<tr>
<td>APR</td>
<td>380</td>
<td>120</td>
</tr>
<tr>
<td>MAY</td>
<td>400</td>
<td>125</td>
</tr>
<tr>
<td>JUNE</td>
<td>420</td>
<td>130</td>
</tr>
</tbody>
</table>

SUN HEIGHT

- MID-MONTH ELEVATION THROUGHOUT THE DAY

HOURLY DIRECTION OF SUN

CLIMATE DATA/SUN AND WIND
ANALYSIS

- Percent of time with calms up to 3 mph
- Percent of time with winds 4 to 15 mph from each direction indicated
- Percent of time with winds 16 to 31 mph from each direction indicated
- Percent of time with winds over 32 mph

Scale of percent:
- 0.5
- 0

Applies to winds from each of 8 directions and to diameter of calm circle.

CLIMATE DATA
PRECEDENT STUDIES

INTRODUCTION

The following cruise/cargo terminal facilities have provided me with useful comparative information to aid in the understanding of functional relationships of spaces, imagery, architectural aesthetics, and implications. I will use three existing cruise terminal facilities for my precedents. The first one being the Port of Miami, the second is Terminal No. 4, located in Port Everglades, and finally Canada Place, located in Vancouver B.C. For each precedent I will give a brief description of the facility, followed by an outline of the basic form and functional layout, from which are drawn architectural implications both positive and negative. Concluding each precedent study will be maps and images of the facility.
PORT OF MIAMI

The Port of Miami is the southernmost deepwater container port in North America and the busiest cruise port in the world. The two island (Dodge and Lummus) complex of 675 acres is one mile from downtown Miami, and less than one mile from interstate highway connections. The gantry crane berths are just 3 1/2 nautical miles from ocean shipping lanes. The port has one turning basin at each end of the complex. There is on-port railway service to dockside and transit sheds. The Port of Miami contains 30,000 feet of bulkhead wharf, 840 feet of gantry berth, and 600,000 square feet of transit shed space. Currently the cruise fleet consists of 8 major ship lines and 24 ships, which represents more than 1/3 of the world's ocean going cruise ships.

sources: Dade County Seaport Department

The Florida Shipper Magazine, May 25, 1987
SCHEME FORM AND FUNCTION

The Port of Miami is a linear scheme anchored by passenger cores at the ends and with cores at intermediate intervals. Cruise passengers leave (debark) and enter (embark) at the passenger cores. Baggage and operations including cargo movement and storage occurs between each pair of passenger cores in an open air covered area. Elevated pedestrian bridges connect passenger cores and cross over baggage/operations areas.

ARCHITECTURAL IMPLICATIONS

POSITIVE ASPECTS

- Linear orientation on the site provides maximum exposure to berth space for cargo and passenger loading/unloading of ships, and passenger drop-off zones adjacent to parking areas.
- Open air baggage and storage area reflects a nautical form with the curved steel roof members which are arched to resemble the shape of ocean waves.
- Good views to the water and back to the site are provided out of the passenger terminal cores.
- Natural light is brought into passenger holding areas.
- Connecting pedestrian bridges between passenger cores, which are elevated over the operations areas provide a sense of linkage for the entire scheme.

NEGATIVE ASPECTS

- Passenger cores are treated quite harshly in respect to exterior and interior finish of exposed concrete surfaces which create a cold uninviting ambience.
o Terminal facilities are not very festive or colorful in interior or exterior treatment.

o Human scale is neglected by the huge hard surfaced passenger cores and in the baggage/open areas under the steel arch forms one feels intimidated by the scale.

o The long linear form becomes somewhat monotonous and repetitive.

o Both the exterior and interior of the terminal facility is devoid of any vegetation which would be helpful in brightening and livening the spaces (especially exterior drop-off areas and interior waiting areas).
PORT EVERGLADES TERMINAL NO. 4

Terminal building no. 4 is the first built of a new series of passenger facilities at Port Everglades. Building no. 4 is located just to the south of existing terminals no. 1 and no. 2, and to the west of warehouse no. 3 (see site map page no. 80). This new multi-use facility, with 16,000 S.F. of passenger terminal area, and 80,000 S.F. of warehouse space was built at a cost of $5 million. The passenger facility features a modern two-story atrium with a smoked glass curtain wall system which affords excellent views to dockside operations and a panoramic view of the surrounding port. All of the Port's new terminal buildings serve the dual purpose of accommodating both passengers and cargo. This gives the facility a profitable function on the days it is not in use for cruise passenger functions.

sources: The Florida Shipper, May 25, 1987
A Guide To Port Everglades, Port Everglades Public Relations Department
Port Reports: May, June, July, 1987
SCHEME FORM AND FUNCTION

Terminal no. 4 is a centralized scheme which doubles as a passenger terminal in the southeast corner of the facility and for cargo storage and handling throughout the rest of the facility. Passengers embark/debark from mezzanine level two on the south side of the building, the west and east sides are used for truck loading dock service, with the north side designated for rail service. This functional duality means the facility is more economically self-supporting, and that both cruise and cargo operations are allowed to carry on simultaneously without interfering with each other. The profitable warehouse function compensates for days when the facility is not being used as a passenger terminal.

ARCHITECTURAL IMPLICATIONS

POSITIVE

- The passenger area is orientated south and thus is exposed to natural light through the glass curtain wall system and skylights.
- The warehouse area has natural light entering it through a ribbon band of glazing on the south, west, and east sides.
- The building side which enfronts the water is aesthetically pleasing with its modern glass curtain wall system.
- Good views are provided from the first and second floor passenger areas of adjacent dockside operations and the rest of the port’s activity.
- The building’s exterior is highlighted with colorful
graphics.
o Quality furnishings and finishes are provided in the interior of the passenger terminal.
o The simple open plan arrangement is easy to follow and functions well.

NEGATIVE

o No formal or distinct sense of arrival or entry statement is developed.
o More landscaping needs to be incorporated around the exterior of the facility to soften the building edge and form a transition zone between building and ground.
o The passenger bridge to the ships is an impersonal and imposing element which seems simply "tacked-on", and detracts from the south facade.
o The interior passenger lobby feels kind of barren and could use a more intimate breakdown or arrangement of zones, as opposed to the one huge open sitting area provided now.
o No exterior terraces or other sitting/observation areas for waiting passengers are provided.
o The exterior of the passenger terminal could take-on a more dominant character as opposed to the submissive part it plays to the rest of the warehouse terminal.
CRUISE & CARGO TERMINAL NO. 4

1 LEVEL WAREHOUSE/STORAGE AREA

2 LEVEL PASSENGER AREA
Building #4 is a brand new $5 million terminal/transit shed with 16,000 sq. ft. dedicated to comfortable passenger facilities.
CANADA PLACE, VANCOUVER B.C.

Canada Place is a mixed-use facility which was originally built to house Canada's pavilion for the 1986 World Exposition in Vancouver, B.C. The facility is located at the foot of downtown Vancouver at a 45-degree angle to the city's grid. The Canadian government acquired as the site for its Expo pavilion a 60 year old 1100 foot long pier on Burrard Inlet, which was 3/4 of a mile away from the primary Expo site. Canada Place consists of three main parts. The first part being the Pan Pacific Hotel, contained in a faceted reflective glass and white metal clad tower, designed to look like the bridge of a cruise ship. The second element is incorporated in the tower's base and houses the city's World Trade Center. The third feature is the Cruise Ship Terminal and British Columbia Convention Center, contained in a fabric-tent structure representing five "sails". The five 80 foot high masts that support the Convention Center's fiberglass reinforced Teflon roof provide the complex with an appropriately nautical image.

SCHEME FORM AND FUNCTION

Canada Place is a linear scheme which reflects the linear pier site. The scheme is visually anchored at the inland end by the hotel tower, and at the seaward end by the sail like forms which terminate in the representative "bow" of a ship. This nautical image proves to be a suitable transition to greet the water. Functionally the cruise level is elevated above the pier on two levels of parking for the extent of its length. Vehicular cruise traffic is terminated at the facility by a large drop zone, taxi waiting areas, bus parking, and ramps serving parking levels below (see plans and sections on page 87). Due to a small requirement for cargo/baggage storage and the fact that only passenger vessels use the facility, and complex was able to maintain a minimum separation apron from the water of only 30 feet on all three sides. A distinct advantage to the pier site is the ability to expose three sides of the terminal to the water and thus serve cruise vessels on any one or all of these berths. This multiple exposure allows the terminal to handle 5 smaller vessels or 3 large vessels simultaneously.

ARCHITECTURAL IMPLICATIONS

POSITIVE

- The distinctly nautical architectural response is very appropriate.
- The complex makes a grand visual statement, one which will be recorded in the memory of all who view it.
- Outdoor perimeter pedestrian circulation is maintained on upper levels.
o Vehicular traffic and parking are separated from pedestrian functions.
o Contemporary use of materials and forms.
o Outdoor sitting areas/terraces and pedestrian circulation areas are provided.
o A sense of strong entry statement on upper level hotel drop-off zone.

NEGATIVE

o The nautical image of the convention center and cruise area forms a sort of contradiction with the hotel tower's high tech image.
o The tower form seems to become a dominant element over the cruise terminal/convention center.
o An opportunity for providing exterior vegetation is created by the terraces and pedestrian walkways, but is not fully integrated.
INTRODUCTION

The following spatial descriptions cite a brief breakdown of functional and material requirements of specific cruise terminal spaces. Studied is each spaces' individual requirement for area size, adjacency, qualities of light, air, views, materials, and other considerations. At this time I am only describing the Public Space components which specifically deal with the functional requirements and passenger use patterns as related to cruise ship loading and unloading, since this is the area I am detailing the most in my design.

The floor area sizes for the various functional areas listed in the following program were derived from the U.B.C., Timesaver Standards, and case studies of cruise terminal facilities such as Canada Place and the Port of Miami.
### SUMMARY OF SPATIAL REQUIREMENTS

#### CRUISE TERMINAL

<table>
<thead>
<tr>
<th>Public Space</th>
<th>square feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Baggage Holding</td>
<td>5,000</td>
</tr>
<tr>
<td>o Passenger Concourse</td>
<td>40,000</td>
</tr>
<tr>
<td>o Passenger Lobby</td>
<td>30,000</td>
</tr>
<tr>
<td>o Customs (Primary)</td>
<td>10,000</td>
</tr>
<tr>
<td>o Customs (Secondary)</td>
<td>30,000</td>
</tr>
<tr>
<td>o Restrooms</td>
<td>6,000</td>
</tr>
<tr>
<td>o Information/Security</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total Public Space (net)</strong></td>
<td>121,200</td>
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</table>

#### Recreation and Entertainment

<table>
<thead>
<tr>
<th>Recreation and Entertainment</th>
<th>square feet</th>
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</thead>
<tbody>
<tr>
<td>o Restaurant</td>
<td>12,000</td>
</tr>
<tr>
<td>o Lounge/Bar with dance area</td>
<td>5,000</td>
</tr>
<tr>
<td>o Coffee Shop (snack bar)</td>
<td>1,500</td>
</tr>
<tr>
<td>o Games room</td>
<td>1,500</td>
</tr>
<tr>
<td>o Service Corridors</td>
<td>3,600</td>
</tr>
<tr>
<td>o Restrooms</td>
<td>3,000</td>
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<tr>
<td><strong>Total Recreation and Entertainment (net)</strong></td>
<td>26,600</td>
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#### Retail and Services

<table>
<thead>
<tr>
<th>Retail and Services</th>
<th>square feet</th>
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<tbody>
<tr>
<td>o Gift Shop</td>
<td>400</td>
</tr>
<tr>
<td>o Hair Salon</td>
<td>400</td>
</tr>
<tr>
<td>o Newsstand/Snacks</td>
<td>200</td>
</tr>
<tr>
<td>o Travel Agency</td>
<td>400</td>
</tr>
<tr>
<td>o Car Rental Booths (4 @ 100)</td>
<td>400</td>
</tr>
<tr>
<td>o Retail Space</td>
<td>15,000</td>
</tr>
<tr>
<td>o Food Market</td>
<td>5,000</td>
</tr>
<tr>
<td>o Service Corridors</td>
<td>3,000</td>
</tr>
<tr>
<td>o Restrooms</td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Total Retail and Services (net)</strong></td>
<td>27,800</td>
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#### Offices

<table>
<thead>
<tr>
<th>Offices</th>
<th>square feet</th>
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<tbody>
<tr>
<td>o Terminal Administration</td>
<td>2,000</td>
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<tr>
<td>o Office Tower (net leasable space)</td>
<td>150,000</td>
</tr>
<tr>
<td><strong>Total Office Space (net)</strong></td>
<td>152,000</td>
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#### General Service Space

<table>
<thead>
<tr>
<th>General Service Space</th>
<th>square feet</th>
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<tbody>
<tr>
<td>o Mechanical</td>
<td>6,000</td>
</tr>
<tr>
<td>o Cargo/Warehouse</td>
<td>100,000</td>
</tr>
<tr>
<td>o Maintenance/Mechanical</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Total General Service Space (net)</strong></td>
<td>116,000</td>
</tr>
</tbody>
</table>
SUMMARY OF SPATIAL REQUIREMENTS (con't.)

Outdoor Spaces (Terraces/Gardens)

- Concourse Level.................. 40,000
- Third Level.......................... 6,500
- Fourth Level....................... 20,000
- Fifth Level.......................... 2,500

Total Outdoor Spaces (net)........... 69,000

TOTAL SQUARE FOOTAGE.................. 512,600
SPATIAL COMPONENT DESCRIPTIONS

Passenger Concourse

Spatial Requirement:
  o 40,000 S.F.

Character:
  o Colorful and cheerful
  o Transition area between ship and terminal

Adjacencies:
  o Passenger lobby
  o Customs inspection area
  o Outdoor terraces
  o Restrooms

Light, Air, Views:
  o Natural light from skylights and glazing
  o Provide views to water and dockside operations
  o Open-air terraces

Considerations:
  o Open planning of seating area
  o Different seating layouts and zones
  o Break the monotony of airport-like terminal seating
  o Cheery/festive graphics

Materials:
  o Carpeting
  o Plush/comfortable furnishings
  o Glass block
  o Vegetation
Passenger Lobby

Spatial Requirement:

- 30,000 S.F.

Character:

- Receptive/inviting
- Space for welcoming passengers, reception parties

Adjacencies:

- Main entry
- Passenger Concourse
- Administration offices
- Ticket agents
- Baggage claim and check-in
- Retail and Services
- Recreation and Entertainment
- Information/security
- Terraces
- Restrooms
- Vehicular drop-off area

Light, Air, Views:

- Natural light through skylights and glazing
- Terraces
- Views of open plaza and water

Considerations:

- May be broken up into more than one central lobby
- Ability to comfortably host welcoming receptions
- Heavy pedestrian traffic through space
- Physical or implied tie to Northport project
- Dynamic/memory stimulating space
- Festive

Materials:

- Hard/durable floor surface for main traffic routes
- Carpet
- Vegetation
- Quality/impressive
- Glass block
Customs (Primary and Secondary)

Spatial Requirement:
- 40,000 S.F.

Character:
- Non-intimidating yet secure
- Able to handle large volume of passengers (1000-2000)
- Pass through system with adjacent inspection areas

Adjacencies:
- Arriving Passenger Concourse
- Passenger Lobby
- Baggage pick up
- Customs officials offices

Light, Air, Views:
- Natural light is not required
- No open-air adjacency required
- No requirement for views

Considerations:
- May be broken into separate components
- Primarily a walk through area
- Inspection stations
  - metal detection
  - manual search
- High security area

Materials:
- Hard/durable surfaces
- terrazzo, tile
Restrooms

Spatial Requirement:
- 6000 S.F.

Character:
- Clean, highly polished surfaces
- High tech look

Adjacencies:
- Passenger Lobby
- Passenger Concourse
- Customs

Light, Air, Views:
- No specific requirement in this category

Considerations:
- May be split up to service more spaces
- Located at strategic points
- Able to handle a large volume of people

Materials:
- Ceramic tile
- Terrazzo
- Stainless steel (brushed)
Information/Security Area

Spatial Requirement:

- 200 S.F.

Character:

- Greeting/inviting
- Highly centralized
- High visibility

Adjacencies:

- Passenger Lobby
- Vertical circulation cores

Light, Air, Views:

- Natural light preferred
- Artificial task lighting required
- No open air required
- Views to vehicular drop zone

Considerations:

- Doubles as information and security area
- High public exposure
- May be a central desk area or office

Materials:

- Warm, such as wood
- Brightly painted graphics
FUNCTION

Goal: To create a world class cruise ship terminal at Port Everglades.

Concept: Reflect present advancements and effectively meet future anticipated passenger needs.

Concept: Meet or exceed standards set by precedents such as the Port of Miami, and Canada Place.

Goal: To integrate the cruise ship terminal with the proposed Broward County Convention Center and Northport Project.

Concept: Provide physical connections to the retail area, and linkages to the hotel towers, convention center, and parking structure.

Goal: To create an enclosed cargo storage area of equal capacity to proposed facilities.

Concept: Use proposed size of warehouse space as a precedent (100,000 S.F.).

Goal: To create a separation between cargo operations and passengers.

Concept: Use different floor levels to separate zones of operational spaces with those of passengers.

Concept: Provide separate circulation systems (both vertical and horizontal).

Goal: To create a facility that attracts users from the adjacent proposed complex.

Concept: Provide recreation and entertainment facilities, and outdoor terraces.

Concept: Provide pedestrian bridges or other connections between the two projects.

Goal: Create efficient guest flow from drop zone through the rest of the facility.
Concept: Use a central lobby space as a feature adjacent to recreation/entertainment facilities, passenger concourse, and retail shops.

Concept: Use unobstructed and highly visible signage on circulation routes throughout the public part of the terminal.

Goal: Create safe transition of guests from vehicles to the cruise ship terminal.

Concept: Provide drop-off area adjacent to the lobby and pedestrian bridges which link the parking structure with the terminal.

Concept: Make service areas or other non-public spaces inaccessible via floor or adjacency separation, or a separate circulation system.

Goal: Create a facility which invites the outdoor environment.

Concepts: Establish interior spaces which open up into terraces and overlook the water.


FORM

Goal: To create a showpiece or "landmark" architectural image.

Concept: Use vertical forms to offset the distinct horizontality typical of cruise terminals.

Goal: To create a memorable image.

Concept: Use a dynamic roof form such as a tensile structure over part of the facility.

Concept: Use skylight systems and terracing throughout the facility.

Goal: To create a distinct entry experience.

Concept: Building extension to meet the people at the drop-off area.
Concept: Dynamic volume of interior lobby/entrance space.

Goal: To capture the romantic quality of the cruise within the terminal.

Concept: Use a distinctly Miami/South Florida style of architecture.

Concept: Decrease the scale of the facility in areas to "humanize it".

Concept: Break the interior spaces up into more personalized zones.

Concept: Maintain visual contact with the water from the lobby and concourse areas.

Goal: To acknowledge part of the functional identity of the port and its industrial image.

Concept: Incorporate some of the industrial characteristics found in port operations areas and express them.
Cruise Terminal No. 1
Port Everglades, Florida
Area Requirements

Public Space 97,200

Recreation & Entertainment 26,600
RETAIL & SERVICES 26,700

COMMERCIAL @ 25,000 SF

OFFICES 152,000

OFFICE TOWER 10 FLOORS @ 15,000 SF = 150,000 SF

ADMINISTRATION 2,000 SF

GENERAL SERVICE/OUTDOOR SPACE 210,000

CONFERENCE ROOMS 1,000 SF

RECEPTION @ 100 SF

TOTAL 512,500
CRUISE TERMINAL NO. 1
PORT EVERGLADES, FLORIDA
MAR. 1988

GOALS
FUNCTIONS
IMAGES

ANALYSIS CARDS

6.8 TO CREATE A WORLD CLASS CRUISE SHIP TERMINAL AT PORT EVERGLADES.

6.8 TO INTEGRATE THE CRUISE SHIP TERMINAL WITH THE PROPOSED NORTHPORT PROJECT.

6.8 TO CREATE A SHOWPIECE OR "LANDMARK" ARCHITECTURAL IMAGE.
6.8 To capture the romantic quality of the close within the terminal.

6.8 To create a separation between cargo operations and passengers.

6.8 To create a distinct entry experience.

6.8 To create a facility that attracts users from the adjacent project.

6.8 To create a facility which invites the outdoor environment.
Scheme 4J - Third Level

Scheme 4K - Fourth Level
CRUISE TERMINAL NO.1
PORT EVERGLADES
FORT LAUDERDALE, FLORIDA

SECTION 'A-A'
SCALE: 1" = 40' - 0"

SECTION 'B-B'

BRAD SHUYA THESIS II
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