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FORT LAUDERDALE CENTRAL BEACH

Revitalization Plan Update

(F.D.E.R. Grant Report #F-8912)

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CENTRAL BEACH
REVITALIZATION PLAN UPDATE
(FDER GRANT REPORT #F-8912)

Prepared for:
City of Fort Lauderdale
Beach Redevelopment Office

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December, 1989

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I. EXECUTIVE SUMMARY

Under a grant from the Florida Department of Environmental Regulation (F.D.E.R.) Coastal Zone Management Program we have reviewed the City of Fort Lauderdale's Central Beach Zoning Ordinance/Design Guidelines (1986), Revitalization Plan (1988) and Community Redevelopment Plan (1989) related to two (2) critical factors:

> Capacity: The ability of the Central Beach Area's infrastructure to serve the public and private redevelopment envisioned as part of the overall revitalization program.
>
> Linkage: The degree to which public and private redevelopment can be "linked" in providing an integrated system of pedestrian, vehicular, and parking facilities.

Analysis of these factors has led to capacity and linkage diagrams - which should guide the City's decision making throughout the revitalization effort. Accompanying these diagrams are a series of specific recommendations:

Capacity

1. The City Planning Department and Beach Redevelopment Office should develop a system of tracking existing and proposed development so that a development's impact on remaining capacity can be included as a factor in the public's development review process. (The City's concurrency management system which is currently being developed by the Planning Department Staff, may be the most logical means of implementing this recommendation).

2. The City Planning Department and Beach Redevelopment Office should review the densities and heights in the Central Beach Zoning Ordinance to determine whether any modifications should be made in light of the densities revealed by the Capacity Diagram.

3. The City Planning Department and Beach Redevelopment Office should regularly update and revise the Capacity Diagram as a means of monitoring the relationship between development and capacity in the Central Beach Area.

4. The City Planning Department and Central Beach Redevelopment Office should consider authorizing a more detailed analysis of hurricane evacuation times and procedures for the Central Beach Area. This analysis should be designed so it will ultimately be useful in the City's Development of Regional Impact application and provide guidance for additional programs and facilities necessary to improve evacuation of the Central Beach Area.

Linkage:

1. The City Planning Department and Beach Redevelopment Office should pursue Florida Department of Natural Resources (FDNR) approval for "hanging" commercial shop and restaurant uses under the structural slab elevation mandated by the 100 year storm surge of ±20.2 feet above MSL. Concurrently the City should also pursue approval for the maximum possible shoreline parallel coverage of development along the oceanfront.

2. The City Planning Department and Beach Redevelopment Office should evaluate neighborhood perception of the center median parking and related sidestreet improvements and, if warranted, investigate means of extending these types of improvements on Birch Road and west into the NBRA zoning district.

3. The City Planning Department and Beach Redevelopment Office should investigate means of extending the proposed public promenade/public accessway along the Intracoastal Waterway, both southward and northward from the Birch/Las Olas parking lot. In addition, the City should consider alternate means of linking other segments of Intracoastal waterway access to the beach area pedestrian system.

4. The City Planning Department and Beach Redevelopment Office should pursue grants-in-aid as well as other funding sources to pay for critical elements of the vehicular, parking and pedestrian linkage scheme, including the:

   a. Central Beach Parking Structure.
   b. Expansion to the Sebastian/Alhambra Parking Lot.
   c. ISHOF, Birch Lot and Sebastian Street Water Taxi Stops.
   d. Visitors Center/Watercraft Rental/Restroom Facility.
   e. Lifeguard Headquarters/Police Substation/Restroom Facility.
   f. Beach Activity Areas.

   The City should also consider operational measures to supplement the physical linkage improvements including a Central Beach tram service, Bicycle/Skateboard Rental facilities, etc.

An illustrative master plan was prepared depicting public improvements which might be constructed by 1995. A three-dimensional computer model was also prepared to guide City decision-makers as they make decisions regarding the impact of private development on public improvements and the overall character of Central Beach.

II. INTRODUCTION

The City of Fort Lauderdale has been actively pursuing revitalization of its Central Beach area since adoption of the Central Beach Revitalization Plan in July of 1988. Significant activities which have occurred since that date include:

1. The decision to relocate the S.R. A1A southbound one-way pair corridor to the so-called "2 + 2" diagonal alignment.

2. Adoption of the City's Local Comprehensive Plan and subsequent request for a County Land Use Amendment designating the Central Beach as "Regional Activity Center."

3. Preparation of a traffic capacity "Action Plan" and subsequent agreement with Broward County to both increase the average daily trip capacity of beach roadway segments and reserve roadway capacity generated by the City's General Obligation Bond (G.O.B.) improvements for future development in the redevelopment area.

4. Planning and adoption of a community Redevelopment Plan pursuant to F.S. Chapter 163 for the southern portion of the Central Beach area.

These events have substantiated the major elements of the Beach Revitalization Plan, while at the same time focusing attention on issues such as capacity and linkage which may suggest some refinements are necessary.

III. INFRASTRUCTURE CAPACITY

A. Roadway Capacity

S.R. A1A is the principal carrier of traffic in the Central Beach Area. It is designated as a minor arterial on the Trafficways Plan, which designates all existing and proposed future road rights of way (R.O.W) in Broward County. S.R. A1A is classified as a State Minor Arterial on the Florida Department of Transportation's (FDOT's) Functionally Classified Network. Birch Road and Seabreeze Boulevard, located west of S.R. A1A are currently local roads which are not utilized to their full potential due to their location away from the beachfront, their discontinuity, and their indirect roadway alignment.

As part of the City's Central Beach Revitalization efforts, a major series of improvements for SR A1A is being implemented and funded through a General Obligation Bond (G.O.B.) Issue. The major elements of this G.O.B. project are the relocation of parking spaces from along SR A1A, an improved two-way divided segment of SR A1A, the one-way pairing of a portion of SR A1A, and the introduction of improved pedestrian facilities along SR A1A and designated sidestreets. Initially, the Central Beach Revitalization Plan (July, 1988) proposed the SR A1A one-way pair system using existing SR A1A as a two lane northbound route, and a realigned Bayshore Drive/Birch Road/Seabreeze Boulevard corridor as a two lane southbound route.

In December 1988, the City approved a revision to the one-way pair alignment, proposing instead a one-way diagonal connector between SR A1A at Alhambra Street and Birch Road at Castillo Street. Design for this revised corridor, known as the "2 + 2" alignment is underway and right of way maps identifying properties to be acquired for the new corridor have been completed.

In order to accommodate an ultimate four lane section of SR A1A, the City has secured a Broward County Trafficways Plan amendment to reserve an eighty-five (85) foot right-of-way (R.O.W.) along the same alignment as the "2 + 2" one-way southbound corridor. This prevents adjoining land owners from developing new structures within the 85 foot wide future R.O.W. zone. Should funds become available, the City has agreed to pursue construction of the additional two lanes of the ultimate four lane relocated SR A1A.

Florida's Growth Management Act requires that public infrastructure such as roadways be in place sufficient to meet the level of service (LOS)) standards adopted in local Comprehensive Plans. With regard to traffic capacity availability for the Central Beach Area, both the City of Fort Lauderdale and Broward County exercise the authority to ensure that development does not occur which will result in a reduction of levels of service below those levels established in their adopted Comprehensive Plans.

In July 1989, the City and County entered into an agreement adopting a traffic capacity "Action Plan" to resolve traffic concurrency issues related to the beach area roadway segments and capitalize on the roadway improvements proposed under the City's G.O.B. project.The Action Plan provides for (1) the reservation of vehicular trips to the redevelopment area based on documented capacity-enhancing roadway improvements and (2) a general increase in roadway segment capacity based on the County's acceptance of detailed analysis of beach area traffic, which demonstrated capacity above that determined by the County in its initial computer model calculations.

Future traffic volumes on S.R. A1A will be highly dependent on the exact type and size of land uses to be developed in the Central Beach area. The Action Plan analyses have shown that the Central Beach Area will be able to handle approximately 3,200 peak hour trips over and above existing traffic, with implementation of the G.O.B. roadway improvements including the "2 + 2" one-way pair. The tabulation of peak hour conditions and the conversion of these figures to average daily trips for use in the County's computer model is shown in Exhibit 1. Based on these analyses ±3,200 peak hour trips is assumed as the best available indicator of additional Central Beach area roadway capacity.

EXHIBIT 1
LINK ANALYSIS - FORT LAUDERDALE BEACH ACTION PLAN

TRAFFIC CHARACTERISTICS	ROADWAY LINK		
	SR A1A SOUTH OF SUNRISE	SR A1A SOUTH OF LAS OLAS	LAS OLAS WEST OF BIRCH
Peak Hour Conditions			
1. Existing capacity(a)	3,129 (b)	3,232	1,358
2. Capacity Enhancement(c)	597	701	498
3. Future Capacity(d)	3,726	3,933	1,856
DAILY CONDITIONS			
4. Future Capacity(e)	45,400(e)	47,960(e)	32,500(f)
5. Existing Plus Committed Demand(g)	35,564	25,607	18,949
6. Total Available Capacity(h)	9,836	22,353	13,551
7. Reserved Capacity(i)	7,280	8,549	6.073
8. Allocable Capacity(j)	2,556	13,804	7,478

a) Calculated for two-way flow volumes from maximum threshold of LOS D at critical intersections.
b) Assumes that the limiting volumes are northbound at Sunrise and southbound at Las Olas.
c) *The calculated difference between Future Peak Hour Capacity (line #) and Existing Peak Hour Capacity (line 1).*
d) Calculated using the maximum threshold of LOS D volumes after implementing the S.R. A1A improvements described herein.
e) Equal to Future Peak Hour Capacity (line 3) factored up to daily trips using a .082 peak to daily ratio.
f) The Las Olas/West of Birch segment when factored fell below Broward County's LOS D capacity (per May 30, 1989 Resolution) and so this capacity was substituted for that segment.
g) Existing volumes Plus Committed Demand documented per Broward County Resolution, February 21, 1989.
h) Equal to Future Daily Capacity (line 4) minus Existing Plus Committed Demand (line 5).
i) Equal to Peak Hour Capacity Enhancement (line 2) factored up to daily trips using a .082 peak to daily ratio.
j) Equal to Total Available Daily Capacity (line 6) minus reserved Daily Capacity (line 7).

B. Utility Capacity

Sanitary Sewer Service

Sanitary sewer service is provided to the Central Beach area by two major force mains which cross the Intracoastal Waterway via the Seventeenth Street Causeway and Sunrise Boulevard bridges. The effluent is treated via deep well injection at the City's George T. Lohmeyer Plant at Port Everglades. No significant sewer improvements are currently planned for the Central Beach area. The existing sanitary sewer service is projected to meet any future redevelopment needs and should not be considered a factor limiting redevelopment.

Water Distribution System

The water distribution system servicing Central Beach is double fed from mains below the Las Olas and Sunrise Boulevard bridges. Water treatment takes place at the City's Five Ash Treatment Center off Powerline Road near Prospect Road. The City is currently upgrading the water main under S.R. A1A in conjunction with its General Obligation Bond (G.O.B.) Roadway Improvement project. This new main is planned to meet future redevelopment needs and should not be considered a factor limiting redevelopment.

Storm Sewer System

As an integral part of the G.O.B. project, a storm drainage system will be implemented with the reconstruction of S.R. A1A. Several outfalls are planned as part of this system. This new storm drainage system is planned to improve storm drainage conditions throughout the Central Beach Area.

Electricity

Florida Power & Light is currently in the process of upgrading its conduit and duct bank to increase wire size. No other improvements are planned following these upgrades as these improvements should bring FP & L service to a capacity suitable for redevelopment.

Telephone

Southern Bell is in the initial stages of installing a fiber optic cable along Las Olas Boulevard to service the beach area. Small remote carrier terminals to support the new fiber optic system are also being installed. These updates will provide full digital service to the beach area and should improve phone service for any future redevelopment activities.

C. Hurricane Preparedness

The Florida Emergency Management Act, Chapter 25, Florida Statutes, mandates the establishment and maintenance of a local emergency management agency in support of the state comprehensive emergency management plan and program. Natural disaster planning in Broward County is addressed primarily by the Broward County Emergency Preparedness Division (EDP). In addition, the Broward County Mass Transit, Emergency Services, and Social Services Division as well as the Broward Sheriff's Office are involved in natural disaster planning activities.

The Broward County Coastal Evacuation Plan, the effective local plan for Fort Lauderdale, provides for an orderly and coordinated evacuation of Fort Lauderdale residents and visitors to minimize the loss of life and suffering that could be caused by the effects of a hurricane. The current plan requires evacuation of some or all of the residents within the hurricane vulnerability zone which extends from SR A1A westward to as far as U.S. Route 1 depending on the severity of the storm.

Broward County is scheduled to issue an evacuation order 21 hours prior to eye landfall of a Category 1 or 2 storm. Evacuation is estimated to take approximately 6 hours depending on traffic, availability of buses/operators and the cooperation of citizens. The County is scheduled to issue an evacuation order 26 hours prior to eye landfall of a Category 3 through 5 storm. Evacuation is estimated to take approximately 12 hours depending, again, on traffic, availability of buses/operators and the cooperation of citizens. The Mayor of Fort Lauderdale, if he deems it appropriate, may issue an evacuation order prior to the order from Broward County.

Three east-west evacuation zones have been designated by the County within the Central Beach area, each associated with a primary evacuation route as follows:

Zone	Boundary	Primary Evacuation Route
4	Northern boundary of Fort Lauderdale to Sunrise Boulevard	Oakland Park Boulevard
5	Sunrise Boulevard to Las Olas Boulevard	Sunrise Boulevard
6	Las Olas Boulevard to Port Everglades	S.E. 17th Street

SOURCE: Broward County Florida Coastal Evacuation Plan (1988).

The total number of residents within the hurricane vulnerability zone subject to an evacuation order is estimated as follows (Figures are given by storm category.):

Category 1-2 Storm		Category 3-5 Storm	
Zone	Residents	Zone	Residents
4	15,379	4	26,041
5	10,782	5	22,388
6	9,385	6	22,128
Total	35,385		70,557

NOTE: Category 3-5 Storm figures include Category 1-2 figures.

SOURCE: Broward County Office of Planning (1987).

The ability to evacuate the Central Beach area population will be affected by transportation and hazard constraints on evacuation routes. Hazards include the unpredicted early arrival of gale force winds blowing debris into evacuation routes and, thereby, interrupting vehicular movements. Access to evacuation routes for residents east of the Intracoastal Waterway is greatly dependent on the maintenance of good traffic flow on SR A1A which is the main north-south thoroughfare east of the Intracoastal. This roadway is particularly vulnerable to inundation by severe wave action and tidal surge which would prevent access to the evacuation routes. Since there are three bridges connecting the barrier island to the mainland in the Central Beach Area, there is also concern regarding the potential hazard caused by a bridge remaining in the up-position.

Normal travel speeds on evacuation routes may be significantly reduced due to the high numbers of evacuees utilizing private automobiles. The percentage of households with automobiles for those requiring evacuation in a Category 1-2 storm, ranges from 79 to 93 percent for single-family residents and 83 to 90 percent for multi-family residents. The percentages for those requiring evacuation in a Category 3-5 storm, ranges from 84 to 98 percent and 84 to 89 percent for single-family and multi-family residents, respectively.

The Central Beach area is already developed with predominately hotel and residential uses. Revitalization and redevelopment plans may increase the areas population slightly, but several factors should serve to keep evacuation times stable or even decrease them:

1. The seasonal nature of resort residents which allows peak populations of transient guests and seasonal residents to occur away from Florida's the hurricane season.

2. Reduced densities under the City's Central Beach Zoning Ordinance and development limits imposed by traffic capacity established under the previously described "Action Plan".

3. Roadway/bridge improvements including three additional lanes of capacity on the Sunrise Bridge, the SR A1A one-way pair (including a southbound leg which is located away from the most vulnerable coastal edge) various intersection and turn lane improvements, etc.

The City's local comprehensive plan projects total Coastal Area resident populations of 156,121 by 1995 and 158,829 by 2000. Using these forecasts the Plan projects future populations subject to evacuation as follows:

Storm Categories	1988 Evacuees	2000 Evacuees
One and two	35,546	36,644
Three through Five	70,557	73,808

SOURCE: Broward County Coastal Hurricane Evacuation Plan (1988).

Based on these projections and the improvements described above, the Plan anticipates evacuation time to "remain constant and most likely be reduced." This suggests hurricane evacuation time is not the major capacity limiter for the Central Beach, although more detailed analysis of evacuation routes and timing is needed.

D. Capacity Summary & Capacity Diagram

Based on the above discussion, it appears that SR A1A road capacity is the limiting factor affecting redevelopment in the Fort Lauderdale Central Beach Area. The ±3,200 peak hour trip capacity established by the Action Plan described in the Roadway Capacity section of this document should then become the planning threshold which guides public decision-making regarding the redevelopment of Central Beach. In order to determine the amount of additional development that can occur in the Central Beach under this threshold, trip generation rates from the Institute of Transportation (ITE) Trip Generation Manual, Fourth Edition and other studies by Barton-Aschman Associates can be used to project the amount of development ±3,200 additional peak hour trips would allow on the major roadways in the Central Beach area. These trip generation rates are as follows:

0.44	trips per suite hotel room
0.62	trips per business hotel room
5.92	trips per 1,000 square feet quality restaurant
3.08	trips per 1,000 square feet specialty retail
4.86	trips per 1,000 square feet service retail
4.66	trips per 1,000 square feet entertainment establishment
1.60	trips per marina slip
2.40	trips per 1,000 square feet office
0.37	trips per condominium unit
2.03	trips per 1,000 square feet of tourist attraction

SOURCE: Barton Aschman Associates (1989).

Extensive analyses undertaken by Hammer Siler George Associates has measured the potential future market for a variety of development types within the Central Beach Area. These studies concluded that the Central Beach Area offers an opportunity to provide a mix and variety of high quality land uses which will attract the County's growing permanent and seasonal population as well as tourists visiting South Florida. The specific development types determined to be marketable include entertainment, speciality retail, pedestrian retail, hotel, office, residential and marina uses.

Based on this market information and those land uses encouraged by the City as part of its Community Redevelopment Plan for the core of the Central Beach, we have estimated the distribution of remaining (peak hour) traffic capacity among future land uses as follows:

Future Land Use/Trip Generation	Peak Hour Trip Tally
Marina	
±150 slips @ 1.6 trips/1 slip =	±240 trips = 8%
Entertainment Complex	
±125,000 SF @ 4.66 trips/1,000 SF =	±580 trips = 18%
Special Retail	
±125,000 SF @ 3.08 trips/1,000 SF =	±385 trips = 12%
Hotels/Suite - Business	
±1,800 rooms @ 0.53/RM=	±955 trips = 30%
Service/Beach Retail	
±75,000 SF @ 4.86/1,000 SF =	±365 trips = 11%
Residential	
±1,500 units @ 0.37/unit =	±555 trips = 17%
Office	
±50,000 SF @ 2.40/1,000 SF =	±120 trips = 4%
	±3200 trips = 100%

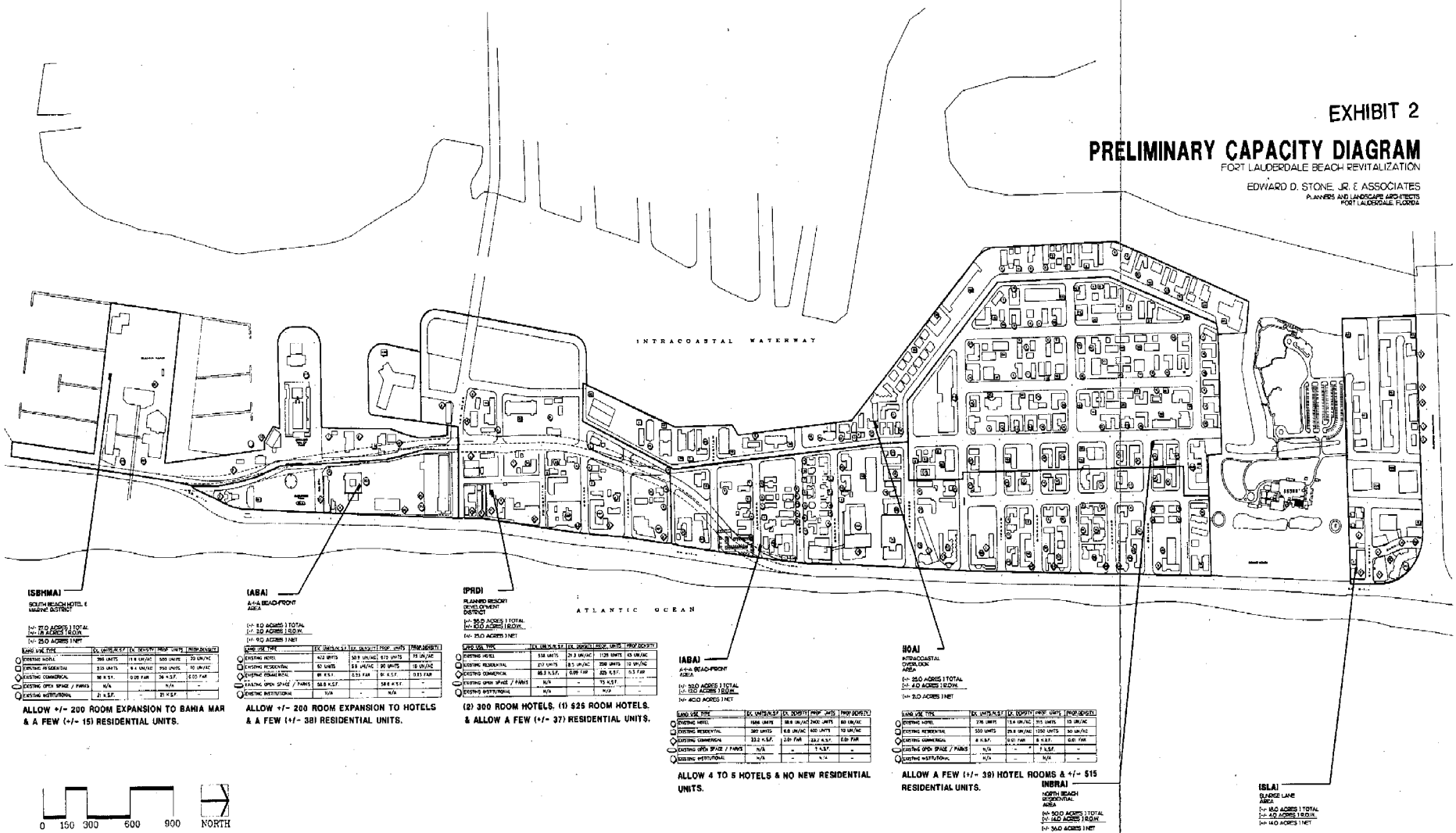
These future land use assumptions have been distributed among the Central Beach's seven (7) zoning districts as shown in Exhibit 2 (Capacity Diagram). The Capacity Diagram records existing land uses and development patterns within each zoning district. Several alternatives were generated for distributing the future land uses estimated above among the various districts. The alternative distributions were based on criteria such as existing densities, significant structures to remain, relationships to adjoining uses, etc. The alternatives were presented to both the City of Fort Lauderdale Planning Department and the Beach Redevelopment Board. Input from both groups were then combined into a single preliminary capacity diagram which results in the

EXHIBIT 2

PRELIMINARY CAPACITY DIAGRAM

FORT LAUDERDALE BEACH REVITALIZATION

EDWARD D. STONE, JR. & ASSOCIATES
PLANNERS AND LANDSCAPE ARCHITECTS
FORT LAUDERDALE, FLORIDA



LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	388 UNITS	11.8 UN/AC	500 UNITS	20 UN/AC
EXISTING RESIDENTIAL	235 UNITS	9.4 UN/AC	250 UNITS	10 UN/AC
EXISTING COMMERCIAL	38 K.S.F.	0.09 FAR	38 K.S.F.	0.09 FAR
EXISTING OPEN SPACE / PARKS	N/A	-	N/A	-
EXISTING INSTITUTIONAL	21 K.S.F.	-	21 K.S.F.	-

ALLOW +/- 200 ROOM EXPANSION TO BAHIA MAR & A FEW (+/- 15) RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	412 UNITS	50.9 UN/AC	672 UNITS	75 UN/AC
EXISTING RESIDENTIAL	50 UNITS	5.6 UN/AC	90 UNITS	10 UN/AC
EXISTING COMMERCIAL	48 K.S.F.	0.33 FAR	54 K.S.F.	0.33 FAR
EXISTING OPEN SPACE / PARKS	56.5 K.S.F.	-	56.5 K.S.F.	-
EXISTING INSTITUTIONAL	N/A	-	N/A	-

ALLOW +/- 200 ROOM EXPANSION TO HOTELS & A FEW (+/- 38) RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	538 UNITS	21.5 UN/AC	1125 UNITS	45 UN/AC
EXISTING RESIDENTIAL	217 UNITS	8.7 UN/AC	300 UNITS	12 UN/AC
EXISTING COMMERCIAL	65.5 K.S.F.	0.09 FAR	225 K.S.F.	0.3 FAR
EXISTING OPEN SPACE / PARKS	N/A	-	75 K.S.F.	-
EXISTING INSTITUTIONAL	N/A	-	N/A	-

(2) 300 ROOM HOTELS. (1) 525 ROOM HOTELS. & ALLOW A FEW (+/- 37) RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	1586 UNITS	38.8 UN/AC	2400 UNITS	60 UN/AC
EXISTING RESIDENTIAL	300 UNITS	8.0 UN/AC	400 UNITS	10 UN/AC
EXISTING COMMERCIAL	33.2 K.S.F.	0.09 FAR	33.2 K.S.F.	0.09 FAR
EXISTING OPEN SPACE / PARKS	N/A	-	1 K.S.F.	-
EXISTING INSTITUTIONAL	N/A	-	N/A	-

ALLOW 4 TO 5 HOTELS & NO NEW RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	276 UNITS	13.8 UN/AC	315 UNITS	15 UN/AC
EXISTING RESIDENTIAL	550 UNITS	25.0 UN/AC	1250 UNITS	50 UN/AC
EXISTING COMMERCIAL	8 K.S.F.	0.01 FAR	8 K.S.F.	0.01 FAR
EXISTING OPEN SPACE / PARKS	N/A	-	1 K.S.F.	-
EXISTING INSTITUTIONAL	N/A	-	N/A	-

ALLOW A FEW (+/- 39) HOTEL ROOMS & +/- $15 RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	712 UNITS	19.0 UN/AC	1400 UNITS	15 UN/AC
EXISTING RESIDENTIAL	76 UNITS	19.0 UN/AC	540 UNITS	40 UN/AC
EXISTING COMMERCIAL	N/A	N/A	N/A	N/A
EXISTING OPEN SPACE / PARKS	N/A	-	N/A	-
EXISTING INSTITUTIONAL	34.8 K.S.F.	-	34.8 K.S.F.	-

REDUCE HOTEL ROOMS (BY +/- 27) & ALLOW +/- 144 RESIDENTIAL UNITS.

LAND USE TYPE	EX. UNITS/N.S.F.	EX. DENSITY	PROP. UNITS	PROP. DENSITY
EXISTING HOTEL	242 UNITS	16.9 UN/AC	215 UNITS	15 UN/AC
EXISTING RESIDENTIAL	588 UNITS	42.7 UN/AC	1700 UNITS	90 UN/AC
EXISTING COMMERCIAL	76 K.S.F.	0.12 FAR	76 K.S.F.	0.12 FAR
EXISTING OPEN SPACE / PARKS	N/A	-	N/A	-
EXISTING INSTITUTIONAL	N/A	-	N/A	-

REDUCE HOTEL ROOMS (+/- 127) & ALLOW +/- 738 RESIDENTIAL UNITS.

DECEMBER 1989

following distribution of future development under the ±3,200 peak hour capacity threshold:

Zoning District	Potential Future Development
SBHMA:	±200 room expansion to Bahia Mar and ± 15 new residential units
ABA(South):	±200 room expansion to hotels and ±38 new residential units
PRD:	(2) new 300 room hotels, (1) new 525 room hotel and ±37 new residential units
ABA(North):	4 to 5 new hotels, and no new residential units
10A:	±39 new hotel rooms and ±515 new residential units
NBRA:	Reduce hotel rooms by ±127 add ±738 new residential units
SLA:	Reduce hotel rooms by ±27 and ±144 new residential units

This information can be used by the City in several ways, First, the City Planning Department and Beach Redevelopment Office should review the densities and heights in the Central Beach Zoning Ordinance to determine whether any modifications should be made in light of the densities revealed by the Capacity Diagram. Next, the City Planning Department and Beach Redevelopment Office should develop a system of tracking existing and proposed development so that a development's impact on remaining capacity can be included as a factor in the public's development review process. (The City's concurrency management system which is currently being developed by the Planning Department Staff, may be the most logical means of implementing this recommendation). And finally, the City Planning Department and Beach Redevelopment Office should regularly update and revise the Capacity Diagram as a means of monitoring the relationship between development and capacity in the Central Beach Area.

IV. PEDESTRIAN LINKAGE

Accessibility to Fort Lauderdale's beach and throughout the Central Beach Area is what makes this one of the most unique resort areas in the Southeast. Because accessibility and the "linking" of public and private development is so critical to the area's success, every effort should be made to encourage comfortable and convenient pedestrian and vehicular travel throughout the Central Beach Area. Critical components of this linkage system include:

A. Pedestrian Active Oceanfront Uses

The first floors of all buildings, including structured parking, should be designed to encourage pedestrian scale activity. To stimulate pedestrian activity, buildings which front on major corridors (such as S.R. A1A, Las Olas Boulevard, Cortez Street, etc.) or pedestrian plazas should devote a majority of their first floor area to retail activities such as restaurants, shops, galleries and similar active uses. Wherever feasible, street or plaza level retail uses should have direct access to the adjoining public sector sidewalk in addition to any other access which may be provided.

Structured parking facilities should be designed with street or plaza level frontages consisting of either occupied retail space or any architecturally articulated facade which screens the parking area of the structure. Street level openings to parking structures should be sited away from S.R. A1A and major intersections and their size should be minimized to accommodate necessary vehicle entrances and pedestrian access only.

Street or plaza level retail and restaurant uses should be encouraged to use a portion of the public sector sidewalk for sidewalk displays and/or outdoor dining areas. Private use of public sector sidewalks should be temporary only and subject to all applicable codes and lease arrangements. All displays, furnishings and other elements associated with these active street level uses should be designed and maintained to enhance the visual and functional quality of the streetscape and should be compatible with adjoining public sector site elements.

B. Oceanfront Promenade & West Sidewalk

A ±20' walkway along the western side of SR A1A, should incorporate landscape treatment and street furnishings which will encourage interaction with adjacent private development. Sidewalk cafes and private seating/dining should be encouraged in this zone providing a minimum 10' continuous clear pedestrian flow space is maintained. Sidewalk cafes and private seating/dining should not be permitted where turn lanes reduce the sidewalk width below 10' unless additional walk is dedicated on adjoining private land.

A promenade or beach strand varying from 8-24' in width should incorporate landscape treatment and street furnishings which will serve as the main pedestrian feature and establish the aesthetic focus which links the Beach Revitalization area. Pedestrians, leisure bicyclists, skateboards and rollerskaters should be encouraged to use the promenade. Street vendors should also be permitted to operate on this portion of the promenade (by special permit).

Passenger vehicle drop-off areas shall be provided at regular intervals north of Southeast 5th Street, Cortez Street, Granada Street and Terramar Street reducing the promenade width slightly in these four areas.

C. Intracoastal Plaza/Promenade

A pedestrian-oriented outdoor gathering space should be developed along the Intracoastal Waterway which relates to both the marina and adjacent upland development. The Intracoastal promenade should provide public viewing facilities for the City's holiday boat parade and other Intracoastal events. Efforts should be made to extend the public promenade/accessway north and south of the Birch/Las Olas parking lot frontage. In addition, the City should consider alternate means of linking disbursed points of Intracoastal access to the beach area pedestrian system.

D. People Street- Improved East/West Pedestrian Circulation:

To respond to the increasingly urban scale and pedestrian activity in the Central Beach Area, a series of "People Streets" have been designated to serve as a framework for future development. People streets offer improved pedestrian and vehicular facilities such as wider sidewalks, turn lanes, and landscape features. At the northern end of Central Beach they also include center parking medians. People streets occur approximately every third (existing) block, or every ± 900 - 1,000 feet including SE 5th Street, Las Olas Boulevard, Cortez Street, Sebastian Street, Granada Street, Riomar Street, Terramar Street and Vistamar Street.

E. Pedestrian Anchors:

A series of significant public facilities or pedestrian activity areas anchor the pedestrian and vehicular spines described above. These include:

1. International Swimming Hall of Fame (ISHOF)/Alexander Park - a major cultural facility at the southern end of the Central Beach area, housing exhibitory, swimming/diving facilities, meeting rooms and an oceanfront park space.

2. Bonnet House - a major cultural facility at the northern end of the Central Beach Area housing a historic estate museum, gardens and native grounds which reflect Fort Lauderdale Beach in the 1940's.

3. Visitors Center/Watercraft Rental/Public Restrooms - southern anchor of the promenade and one-way pair.

4. Lifeguard Headquarters/Police Substation/Public Restrooms - northern anchor of the one-way pair and approximate mid-point of the promenade.

5. Water Taxi Stops - designated docking facilities for the Water Taxi with covered waiting areas and telephone access to the taxi dispatcher anchoring the western terminus of those People Streets which have direct access to the Intracoastal Waterway.

6. Beach Portals/Activity Zones - special treatment of beach access portals anchoring the eastern terminus of each People Street along the oceanfront promenade. This treatment includes column/wall features, special paving and landscape treatment. Beach activity areas which encourage family-oriented recreation are located on the beach near these portal features.

F. Public Parking Facilities

A variety of public parking facilities service the pedestrian and vehicular systems described above. These facilities have been located to distribute parking throughout the Central Beach Area in relation to anticipated demand and the characteristics of adjoining private development. Public parking for the northern, more residential scale, neighborhood is provided by a series of center parking medians on designated people streets. Public parking for the central portion of the area is provided by an expansion to the Sebastian/Alhambra Surface lot and a public parking structure between Las Olas Boulevard and Cortez Street. Public parking for the southern portion of Central Beach is provided by the existing South Parking lot. Other public parking facilities will be available at the ISHOF, Birch/Las Olas Parking lot and along SR A1A north of Sunrise Boulevard. This distribution of parking facilities provides numerous opportunities to serve both public and private sector uses and provides ready access to the beach.

G. Linkage Summary & Linkage Diagram

The various pedestrian, vehicular and parking facilities which make up the Central Beach linkage system described above are shown in Exhibit 3 (Linkage Diagram). The facilities depicted on the Linkage Diagram range from existing, under construction, or committed projects to proposed and as yet unfunded projects. The City should evaluate whether People Street improvements and center parking medians should be extended westward into the NBRA zoning district. The City should also pursue funding for those facilities which have yet to receive full funding including the:

1. Central Beach Parking Structure
2. Expansion to the Sebastian/Alhambra Parking Lot
3. ISHOF Birch Lot and Sebastian Street Water Taxi Stops
4. Visitors Center/Watercraft Rental/Restroom Facilities
5. Lifeguard Headquarters/Police Substation/Restroom Facility
6. Beach Activity Areas

The City should also consider operational measures to supplement the physical linkage improvements such as a Central Beach tram service, bicycle/skateboard rental facilities, etc.

V. ILLUSTRATIVE MASTER PLAN

A. The 1995 Illustrative Master Plan (Exhibit 4) represents a composite image of all the issues discussed herein. It combines the recommendations of this update into a unified plan which reflects the overall desired aesthetic and functional character of the Central Beach Revitalization area. Significant features of the plan include:

- Relocation of the existing parking on S.R. A1A to center median and off-street lot facilities accessible from major side streets.

- Realignment of southbound S.R. A1A along the 2 + 2 Corridor which will allow the City maximum flexibility toward reaching its goal of eventually moving all four lanes of traffic onto this corridor.

- Walkway and landscape improvements to designated "People Streets", identifying sidestreets which will provide the main framework for east/west pedestrian movement throughout the project area.

- A Promenade with modular paving and landscape treatment establishing a bold and continuous tropical atmosphere along the entire beachfront. The promenade accommodates four designated passenger vehicle drop-off areas and beach portal features at each People Street as well as other major access points to the beach.

- A Western sidewalk serving the beachfront development which accommodates special intersection treatments at each People Street and has sufficient width to accommodate sidewalk cafes, displays, etc.

- Project Entry Features at Las Olas and the north/south limits of the Central Beach Area including special paving and landscape treatments which welcome locals and visitors to the Central Beach Area.

- Supplemental Beach Landscaping including two major dune restoration features which acknowledge the areas two major greenspaces - Alexander Park and Bonnet House.

- Beach Activity Areas which allow such activities as volleyball, frisbee throwing and other family-oriented recreation on the beach within designated limits.

- The International Swimming Hall of Fame/Alexander Park complex renovated and expanded into an interactive exhibit museum of national standing including a redesign of Alexander Park to create a "front yard" for the Hall of Fame and identify the facility from SR A1A.

- The Bonnet House estate restoration as a house museum and historic grounds providing ±30 acres of educational and historic resources depicting Fort Lauderdale Beach as it was in the 1940's.

- Central Public Parking Structure (±420 spaces) a centrally located parking garage to accommodate a portion of the parking spaces relocated from S.R. A1A (Seabreeze to Castillo) and the Birch/Las Olas parking lot.

- Expanded Marina Facilities to as much as ±150 wet slips including a dockmaster facility and speciality boat docking.

- Intracoastal Promenade - Pedestrian-oriented outdoor gathering space along the Intracoastal Waterway which relates to both the marina and the adjoining land-side uses planned for this area. The Intracoastal Promenade should provide public viewing facilities for the City's holiday Boat Parade and other Intracoastal events.

- Oceanfront Plaza - Outdoor promenade space along the northbound SR A1A which relates to the oceanfront uses planned for this area and improves the pedestrian experience along the beachfront.

- Visitor Center, Watercraft Rental and Restroom Facility - Renovation or replacement of the existing Voyager station structure including the addition of watercraft rental services, a variety of visitor services, public restrooms, a Central Beach entry feature, and visitor parking spaces.

- Lifeguard Headquarters, Police Substation, and Restroom Facility - Construction of a new building at the eastern terminus of Sebastian Street to house a lifeguard headquarters, police substation, and public restroom facilities.

- Las Olas Pavilion and Restrooms - An open air pavilion and restroom structure located on the GOB-funded public plaza and promenade features at the eastern terminus of Las Olas Boulevard.

- South Lot Concession, Maintenance Headquarters and Restroom Facility - A two-story structure with beach maintenance vehicles on the first floor and beach maintenance offices, restrooms and a food/beach supply concession on the second floor. This feature may tie into the pedestrian overpass serving Bahia Mar and provide an elevated performance area for special events.

- Private redevelopment of the "core" of the Central Beach area (near Las Olas Boulevard offering) a variety of uses consistent with the urban beach village center concept such as hotels, speciality retail, an entertainment complex, pedestrian retail, etc.

VI. PROPOSED REGULATORY CHANGES:

A. Florida Department of Natural Resources Strategy:

The Florida Department of Natural Resources (FDNR) has advised the City that construction of habitable space (restaurants, shops, hotel rooms, etc.) east of the Coastal Construction Line (CCCL) in the Redevelopment Area will need to be above the 100 year storm surge elevation (calculated by FDNR as 20.2 feet above MSL). This would place the first floor of any new structure at least eleven (11) feet above existing sidewalk elevations and prevent the establishment of pedestrian active uses along Las Olas Boulevard and SR A1A as envisioned in the City's Revitalization Plan. Related to this elevation issue are FDNR's policies governing maximum shoreline parallel frontage and impervious (paving or buildings) areas east of the CCCL.

At a series of meetings in late 1988 the Director of FDNR's Division of Beaches and Shores suggested that the City might be able to gain some relief from these requirements as a special urban beachfront redevelopment if the City was able to:

1. Receive a permit for the overall Beach Revitalization Area or accept delegation of coastal construction permitting authority from FDNR for that area.

2. Gain Governor and Cabinet approval for construction of restaurants and shops below storm surge elevation under a strict set of conditions designed to insure public safety and minimize property damage caused by storm surge.

3. Gain FDNR approval for shoreline parallel frontage and impervious area ratios which relate to the characteristics of existing development and the unique aspects of this urban beach area.

Based on our review of FDNR's current coastal construction regulations we recommend the City proceed immediately in approaching FDNR about resolution of these issues. A team of City staff, technical consultants and legal counsel in Tallahassee should begin to prepare a formal request based on the following strategy framework:

1. Substantiate the unique characteristics of Fort Lauderdale's Central Beach (urban edge, roadway immediately adjacent to the beach, importance to local and regional tourism industries).

2. Explicitly define the City's goals and objectives with emphasis on the importance of redeveloping Central Beach (crime, building conditions, public safety, traffic, aesthetic concerns, etc.)

3. Acknowledge FDNR's concern for public safety (F.S. Chapter 161.141 (1) and FDNR Rule 16B-33.05) and propose measures to insure public safety is maintained, such as:

   a. Local requirements for on-site shelters
   b. Enhanced evacuation and storm preparation education programs.
   c. Restrictions on "break-away" construction techniques to minimize size of water-borne debris.

4. Acknowledge FDNR's concern for property damage (F.S. Chapter 161.141(1) and FDNR Rule 168-33.05) and propose measures to minimize property damage during a storm event, such as:

   a. Local requirements for "break-away" construction below storm surge elevation.
   b. Local requirements to provide storage for a significant percentage of retail merchandise above the storm surge elevation to accommodate shops "hung" below the structural slab.
   c. Local requirements to provide for kitchens, restrooms and major restaurant equipment above storm surge elevation to accommodate restaurants/bars "hung" below the structural slab.
   d. Local insurance and storm damage assistance programs to supplement existing Federal/State programs.

5. Acknowledge FDNR's policies on shoreline parallel frontage and impervious coverage and propose measures to meet these requirements. Our initial calculations suggest that the existing beachfront has approximately 51% shoreline parallel frontage which compares favorably with the Department's 60% maximum frontage policy. Given the existing street pattern and the City's policy of a minimum 75% street level frontage to insure a continuous streetscape "edge", we estimate that ultimate buildout will fall between 55% and 63% shoreline parallel frontage. If some sidestreets are removed the frontage may increase accordingly.

6. Define an implementation mechanism which both the City and FDNR find acceptable, considering factors such as:

   a. the relative cost/benefit of the City administering delegated authority from FDNR.
   b. the ability for a specific permit covering the entire beachfront to be flexible enough to accommodate development requests over time.

B. REVITALIZATION PLAN REVISIONS (previously issued via memorandum dated November 2, 1989)

We have reviewed the Beach Revitalization Plan (July 1988), including the policy statements, zoning ordinance and design guidelines, and recommend that the City consider making the following changes to bring it into consistency with the draft Community Redevelopment Plan.

1. Policy Statements:

- Revise preface, introduction and overview to reflect current redevelopment plan/area (p.1)
- Revise description of PRD district (p.2)
- Revise descriptions (slightly) of other districts (p.3-5)
- Delete Goal #4 (p.5)
- Revise circulation concept description (p.8)
- Delete subsection 5 "Preparation of Community Redevelopment" (p.9-17) and substitute a summary of current position with FDNR
- Delete the entire Section IV: Schedule of Actions - Land Assembly and Preparation of Community Redevelopment Plan (9-17)
- Revise parking plan and incorporate new illustrative plan.

2. Zoning Ordinances:

- Revise PRD boundaries to include ABA South.
- Change the definition of the Community Redevelopment Plan. (p.2)
- Revise PRD "Purpose" to promote redevelopment of the area immediately north and south of Las Olas Boulevard. (p.14)
- Add entertainment and office as permitted use in the PRD district. (p.15) and change "residential" to "residential as a component of a mixed-use development". (p.15)
- Delete ten acre minimum lot size in PRD. (p.16)
- Note shared parking analysis can be submitted to allow shared parking requirements in PRD (p.16)
- Add office as permitted use in the SBHMA district. (p.27

3. Design Guidelines:

- Revise widths of walkways, etc. in Public Corridor descriptions subject to final agency approval.
- Revise marina facility description under Beach Facilities.
- Revise plaza descriptions, add Lifeguard HQ plaza under Beach Facilities.
- Revise restroom location under Site Elements
- Revise private sector guidelines graphics/format (see enclosed draft).

In addition, we would like the City to consider the following issues in your current review of the Revitalization Plan:

- Whether to add provisions in the ordinance for improved waterfront access/view corridors along the Intracoastal in the SBHMA and/or I0A districts. (See attached example from Tampa ordinance).
- Whether to continue to encourage at grade retail/restaurant uses in the design guidelines without any assurances from FDNR that these will be permittable.
- Whether the City should have more than "random" selection rights in choosing its design arbitration panel member. "Random" selection may not produce the most appropriate or qualified review on a given project. Note that the developer/applicant's selection is not random. (p.12-13 of the zoning ordinance).
- Whether F.A.R. standards are appropriate in light of the capacities reflected by the Action Plan for beach area roadway segments.
- Whether heights/densities should be decreased around the Bonnet House.

We also understand that the planning department is working on zoning revisions to the landscape requirements and to incorporate local control of trip allocation per your approved Action Plan. These amendments should be coordinated with the modifications you choose to make from the list above to insure that the ordinance remains concise and clear.

VII. DESCRIPTION OF COMPUTER MODELING

A. Database/Capacity Diagram

The Capacity Diagram was created by digitizing city plate maps, adding densities from field surveys and city records (i.e., existing hotel rooms, residential units, commercial square footage, etc.) digitizing zoning district lines and inputting proposed conditions (i.e., new buildings, new road geometry, etc.). This information was then verified by the City Planning Department and used as the baseline existing conditions in developing future capacity/development alternatives.

B. Three Dimensional Capabilities

A COMPAQ 386/25 Microprocessor with 3 megabytes of RAM and 70 megabyte hard drive was used to generate the database, 3D modeling, and 3D rendering.

Once a digitized two dimensional drawing is complete in the computer, the Autocadd software offers several techniques which help create a three dimensional wireframe drawing. First each building in the database was assigned an approximate height based on a windshield survey and comparison with City records. Then a wireframe is created which reflects the three dimensional (3D) outline of each building.

Once the 3D wireframe is created AutoShade software's rendering can be added. Several steps are necessary before actually implementing the autoshade image. While still in Autocadd software, rendering 'scenes' have to be established. Each 'scene' has to have 'cameras' located and at least one 'light' source identified. Only then can the file be filmrolled into the AutoShade software.

AutoShade is a rendering software which allows rendered scenes to be recorded and replayed in a rapid sequence. While in AutoShade the camera and lighting along with many other rendering factors can be varied to get the desired effect.

C. Uses for the Computer Model

We have recently used this 3D Model to assist the City in analyzing proposed buildings (i.e., setback, height, visual impact, pedestrian linkage, etc.) and proposed road alignments. The computer model has been particularly helpful in depicting the physical relationships related to the City's proposed redevelopment project and design guidelines for the redevelopment area.

Future uses of the computer will likely include:

- refinement and further testing of zoning standards, design guidelines and beach related policies
- site specific review of development proposals in the Central Beach Area
- review and ranking of the physical relationships/massing of developer proposals for the redevelopment area
- long range imaging of how the beachfront may look when existing policies and market projections have been "built out".

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