

CITY HALL AND MUNICIPAL OFFICES

At one time Miami's City Hall was located in the Dade County Courthouse. However, due to the expansion of both City and County activities, it was necessary for the City to vacate. For the past twelve years, a large share of the City offices have been located in converted government barracks and the former Pan American Administrative Building at Dinner Key.

It has often been advocated that it would be desirable to consolidate as many City offices as possible at one convenient location. But, not all City functions could be, or should be, consolidated at one site. Certain Departments or Divisions, such as Libraries and Yacht Docks, must, because of their very nature, be located at their respective sites. Still other Departments, such as Police, Communications, Law, and Water and Sewers, are now located in adequate new quarters. The Departments of Fublic Properties, and Sanitation are most appropriately situated at the site of their vast service facilities at the center of the City's population. Future plans of the Division of Fire call for their headquarters to be located adjacent to one of their principal stations.

Therefore, with two or three exceptions, those offices not already located in permanent new quarters, or appropriately situated in reference to their functions, are all located at Dinner Key. The question, therefore, is principally one of location rather than consolidation.

Serious consideration has been given, at various times, to three locations for permanent City Hall facilities. These are: (1) the present Dinner Key site; (2) a Downtown location; and, (3) the Miami Country Club Property. The allocation of land for other purposes at the Country Club has eliminated the possibility of a City Hall on that site.

Dinner Key Site

The present City Hall site at Dinner Key has great aesthetic potential. In addition, it has the added feature of a lower development cost. Spacious park-like surroundings could provide a refreshing relief from the usual cold, crowded, institutional atmosphere that is generally prevalent with governmental offices. Dinner Key also has adequate parking facilities.

There is much to be said for a "campus-type" layout of City offices, (such as now exists at Dinner Key). Separate functions would have separate buildings, designed for their particular activities. Yet, they would share the

same general location, so that normal communication between offices could be carried on conveniently. Such buildings are much more flexible and future alterations less troublesome.

The existing City Hall Building is an attractive and structurally sound building. It contains about 25% of the floor space necessary for those offices that would be located at Dinner Key. The remaining offices could be located in two or more new buildings, costing an estimated total of \$2 million.

A Downtown Location

A downtown location would place the City Hall in the business and financial center of the City, and closer to other Departments such as Law, Communications, and Libraries. It would also place it closer to those County offices located in the Courthouse. A downtown location could act as a stimulating factor in strengthening the Central Business District.

The Current Status

In 1961, an agreement was entered into with Metropolitan Dade County, which called for the City to obtain \$800,000 of rental credit in a downtown office building proposed to be built by the County. However, such a facility may not be built for several years, particularly since several County offices have just been relocated to the County's new Criminal Courts Building at the Civic Center.

The City has given the deed to its Flagler Street Property (consisting of 36,000 sq.ft. across the street from the County Courthouse), to the Federal Government. The Federal Government is building an Administrative Office Building on the site. As part of this arrangement, the City will acquire a 99-year lease, at one dollar per year, for a tract on the corner of N.W. 12th Avenue and N.W. 11th Street. This tract may be used by the City of Miami Off-Street Parking Authority to relieve the shortage of parking being created by the construction of buildings in the Civic Center area. This property lies in the general area of the presently proposed route of the East-West Expressway, so there is the possibility that it might eventually have to be abandoned.

Since the most recent planning for City Hall facilities called for a joint City-County Office Building (and under such a plan no capital outlay would be required of the City), no amount is being included in this report for construction of a City Hall.

LIBRARIES

The Miami Library System is a Department of the City. Its policies are set by a Board of Library Trustees acting in an advisory capacity. The Trustees are charged with the responsibility of examining the library system and the service it renders, and making recommendations. Money for library operations is derived solely from a special millage authorized by the City Charter. Miami has a progressive library program, one which is providing a fine system of branch libraries with a broad coverage of modern library services.

Present library facilities consist of: (a) a Main Library located in Bayfront Park; (b) nine branch libraries, at strategic locations throughout the City; (c) the Bookmobile--a mobile unit which makes weekly visits to areas still lacking library facilities; and, (d) two contract-branches. By the end of 1963, two additional branch libraries will be in operation. Miami's branch libraries are as follows:

Modern City-Owned Branch Libraries

Shenandoah Branch - S.W. 21st Avenue and S.W. 19th Street Edison Center Branch - N.W. 5th Avenue and N.W. 62nd Street Little River Branch - 160 N.E. 79th Street (Library rents from Off-Street Parking)

West Flagler Branch - 51st Avenue and W. Flagler Street Dixie Park Branch - 350 N.W. 13th Street Lemon City Branch - N.E. 4th Court and N.E. 61st Street

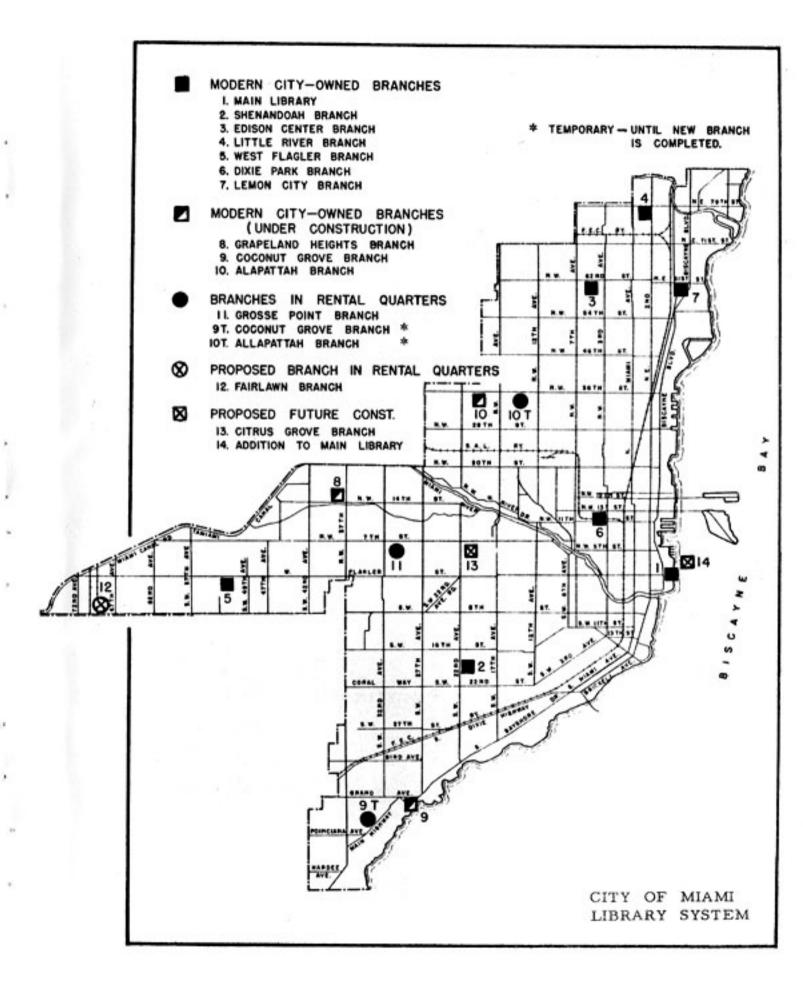
Three additional, modern, City-owned branches are now either under construction or are scheduled to be under construction early in 1963. These are:

Coconut Grove Branch - MacFarlane Road and S. Bayshore Drive Grapeland Heights Branch - N. W. 37th Avenue and N. W. 14th Street Allapattah Branch - N. W. 18th Avenue and N. W. 35th Street

Branches in Rental Quarters

Grosse Pointe Branch - 3030 N. W. 7th Street
Allapattah Branch * - N. W. 14th Avenue and N. W. 36th Street
Coconut Grove Branch * - 3420 Main Highway

* To be vacated when new City-owned branch is constructed.



A new branch in rental quarters is scheduled for occupancy by the end of the year. This will be the Fairlawn Branch to be located at S.W. 8th Street and S.W. 68th Avenue.

Contract Branches

Tri-Community (Surfside, Bal Harbour, Bay Harbor Islands) 222 95th Street, Surfside
South Miami - 6130 Sunset Drive

Accomplishments During the Past Year

The library program has made great progress since the writing of last year's report. The Lemon City Library has been constructed; provisions have been made under the Accelerated Public Works Program for the construction of three additional modern City-owned branches; and arrangements have been made for an additional rental branch. One of the new City-owned branches, the Grapeland Heights Branch, is for a new service area. The remaining two, the Allapattah and Coconut Grove Branches will replace presently rented facilities. All three of these new branches are scheduled for completion by July, 1963. The new rental branch, the Fairlawn Branch, is for a new service area and is scheduled for occupancy by the end of 1963.

Requested Improvements

Capital improvement requests for library facilities, as recommended by the Board of Library Trustees are as follows:

Addition to the Main Library - When the Main Library was first put in operation, four areas of service were not developed. These were Young People's, Business, Science and Technology, and Art and Music Libraries. The spaces now used by these new divisions were carved from book stacks, administrative offices, and the processing areas. Since the Main Library operation has been expanding at the rate of 10% per year, the present Main Library building is no longer adequate. From this point on, unless an addition is provided, the anticipated increase in library use can result only in a decrease in the amount of service possible.

A State Statute prohibits building any additional structures in Bayfront Park. Unless this Statute is interpreted to not apply to an addition, it will be impossible to make the kind of addition to the present Main Library

Building that is under consideration. To construct and equip an addition to the Main Library, or some other alternate solution, would cost an estimated \$2,000,000. Before this takes place, however, funds should be made available for preliminary and architectural planning of such an addition. This is currently estimated at - \$50,000.

West Flagler Branch Library, Patio Alterations and Improvements - Over the past three years the use of this library has steadily increased, so much so, that the patio (largely designed for a small expansion space when needed), must now be converted into an additional reading area. The estimated cost to make this alteration is - \$12,000.

Construction of Citrus Grove Branch Library - The Grosse Pointe Branch Library, currently in rental quarters, should be relocated to a Cityowned facility at a more convenient location for the people whom it serves. This should be constructed in the general area of the Citrus Grove Elementary School (N. W. 22nd Avenue and N. W. 7th Street). The estimated cost to construct and equip this library (including site acquisition), is - \$145,000.

Summary

Preliminary Planning and Architecture for	
Addition to the Main Library	\$ 50,000
Construct and Equip Addition to Main Library	2,000,000
Conversion of Patio at West Flagler Branch	12,000
Construct and Equip Citrus Grove Branch	145,000
TOTAL	\$2,207,000

AUDITORIUMS, CONVENTION HALLS AND COLISEUM

Greater Miami's popularity as a convention area, plus the favorable reaction of visitors and residents to exhibitions and shows of all types, creates a demand for auditorium facilities.

The existing major municipal auditorium facilities in this area include:

Auditorium	Owned By	Seating Capacity
Bayfront Park Auditorium	City of Miami	3,000
Dinner Key Auditorium (or	·	
Exposition Building)	City of Miami	10,000
Miami Beach Exposition Hall	City of Miami Beach	15,000
Miami Beach Auditorium	City of Miami Beach	3,500
Oceanfront Auditorium	City of Miami Beach	500
Dade County Auditorium	Dade County	2,500

In addition, three "open-air" facilities, owned by the City of Miami, might be included as suitable for certain types of activities. These are:

Orange Bowl Football Stadium	72,880
Miami Baseball Stadium	9,500
Bayfront Park Bandshell	4,000

This chapter of the Capital Improvement Report is concerned principally with the City-owned Bayfront Park Auditorium, Dinner Key Auditorium, and a proposed new Coliseum.

Bayfront Park Auditorium

This auditorium, with approximately 20,000 square feet of floor space, and capable of seating about 3,000 persons, is located in Bayfront Park at N.E. 5th Street. The original building was constructed during the 1940's, and several additions have been made during ensuing years. It is used for exhibitions and, by the use of temporary seats or bleachers, it is suitable for conventions and shows of various types. It has the advantage of central location and modern facilities, but lacks sufficient size for major conventions. Forty percent of all conventions require larger facilities than are available at the Bayfront Park Auditorium.

AUDITORIUMS, CONVENTION HALLS, AND COLISEUM

There are also many organizations with an attendance of about 1,000 persons which would like to have meetings, exhibits, luncheons, and dinners in the Auditorium. These cannot be accommodated because there is not enough space for all of these activities under one roof. Each year, associations soliciting for accommodations must be refused because of the limited facilities.

Many interests in Miami have voiced the need for a large, modern, centrally located convention hall. Conventions are big business, capable of contributing greatly to the economy of a community. Competition is keen, and other cities with adequate facilities are getting business which might be tempted by adequate facilities in Miami.

Two former proposals for remedying this situation were: (1) increasing the seating and meeting hall capacity of the Bayfront Auditorium; or, (2) constructing an additional 5,000 seat convention and exhibition hall.

The first proposal called for increasing the existing auditorium by 40,000 square feet, providing seating for an additional 5,000 persons. However, Chapter 27717, Acts of Florida 1951, prohibits any structure being built or moved into Bayfront Park. The auditorium could be enlarged by expanding eastward into the parking lot if the legal restrictions were removed. This would of course create a problem of eliminating existing parking, and at the same time creating a demand for more parking. The estimated cost of this plan (exclusive of solving the parking problem), is \$800,000.

The other proposal called for construction of a new 5,000 seat convention and exhibition hall at a new downtown site. The estimated cost of this proposal including site, construction, and parking facilities, was \$2 1/2 million.

The current proposal calling for the construction of a Miami Coliseum supersedes both of these former plans.

No capital improvements are being requested for the Bayfront Auditorium at this time.

The Proposed Miami Coliseum

Among the items currently being evaluated by the City Commission for inclusion in a proposed General Obligation Bond Issue, is construction of a Coliseum. This structure would be located on the present Commercial Dock site at Biscayne Boulevard and N. E. 10th Street. The site will become available after the new port facilities at Dodge Island are ready for use.

AUDITORIUMS, CONVENTION HALLS, AND COLISEUM

Such a structure could be one of the finest and most modern indoor public assemblage facilities in the world. Depending upon what funds become available, the capacity discussed might be as great as 22,000 persons. Landscaped parking areas for 3,000 vehicles could be available. It would cater to such activities as: swimming events, ice hockey, basketball, boxing, concerts, conventions, plays, musical extravaganzas, exhibitions, trade shows, and reviewing Orange Bowl Parades. Such a Coliseum would spur the revitalization and development of the downtown business district, and would be consistent with an area that is the home of one million persons and the tourist center of the Nation.

The Coliseum is not intended to compete with the Miami Beach Exposition Hall, but rather to complement it. The East-West Expressway, which is now under design, would provide the Coliseum with better access from any point in Dade County than now exists for any other facility of this type.

This proposal is still in the preliminary stage, but for the sake of discussion purposes, a cost estimate of \$7 million is being used. More detailed studies and cost estimates for this facility have been requested. Current thinking is that if about \$4.7 million could be provided by a G.O. Bond Issue, the balance could probably be financed by revenue bonds.

Dinner Key Auditorium (or Exposition Building)

This corrugated steel and C.B.S. structure was made from two former U.S. Naval scaplane hangars. It was acquired by the City as part of the purchase of the Dinner Key property. The lack of air-conditioning, poor acoustic qualities, and distance from hotel accommodations have hampered its use as a major convention facility. However, the large floor area and ample appurtenant parking, have enabled it to serve most satisfactorily for exhibits and shows of many types.

In 1962, the City leased the Dinner Key Auditorium to private operation for a period of 5 years with no option for renewal. Under the terms of the agreement, the City still has use of the Auditorium 50 days a year for such traditional shows as the Boat Show and Home Show. The City is responsible for major maintenance of the Auditorium, and the lessee is responsible for clean-up.

There have been discussions in the past on the possibility of airconditioning the Dinner Key Auditorium. However, due to: (1) the high cost of installation (up to \$1 million); (2) the technical problems involved in air-

AUDITORIUMS, CONVENTION HALLS, AND COLISEUM

conditioning a hangar type structure; (3) the question as to whether final overall plans for Dinner Key will include use of the Auditorium as now constituted; and, (4) the proposed construction of the Miami Coliseum, it is highly doubtful that such an undertaking will ever be made by the City.

Regardless of any long range plans for the Auditorium, there are certain improvements that are still needed. These are:

Fire Exits - Work includes removing closets, rerouting water and electrical lines, installing concrete ramps and construction of a fireproof vestibule. A portion of this project is now being done. The balance needed to complete the project is - \$8,500.

Standpipes and Fire Extinguishers - These must be provided to meet South Florida Building Code requirements. The extinguishers and connections on both the outside and inside of the building will cost - \$14,000,

Additional Stairway to the East Mezzanine - This will be needed to complement the fire exit facilities. Construction of concrete stairs will cost - \$3,000.

Additional Ventilation in the Main Exposition Hall - This can be provided by exhaust fans. To adequately ventilate the interior of the hall will cost - \$18,000.

A New Sprinkler System - The existing sprinkler system (for fires) is in an advanced state of deterioration and should be replaced. The estimated cost of this installation is - \$40,000.

Floor Drains - These are needed to take care of excess water which accumulates during heavy rains, and when it is necessary to scrub Auditorium floor. Cost for installation of four floor drains is - \$1,500.

Summary

Dinner Key Auditorium:	
Fire Exits	\$ 8,500
Standpipes and Fire Extinguishers	14,000
Additional Stairway to the East Mezzanine	3,000
Additional Ventilation in the Main Exposition	
Hall	18,000
Floor Drains	1,500
A New Sprinkler System	40,000
TOTAL	\$85,000

(The proposed Miami Coliseum, now under consideration, is being discussed in terms of costing about \$7,000,000,)

ORANGE BOWL STADIUM FACILITIES

The Miami Orange Bowl Memorial Stadium is operated by the Department of Parks and Recreation.

The Orange Bowl was built in 1937 as a W.P.A. project. The City's share of the cost came from proceeds of a revenue bond issue.

The original seating capacity of 25,000 has been enlarged through four major additions, until it now holds over 70,000. The first expansion to the Orange Bowl was in 1947, at which time the whole project was refinanced for \$1,600,000. In 1951 and 1953, non-interest bearing revenue certificates of \$50 each were issued in the total amount of \$375,000, which was used for improvements. Each certificate entitles the holder to buy one seat, located as described on the bond, for each year's New Year's Day Game.

The present financial status of the Orange Bowl is sound. Most years the revenues exceed expenditures, including debt service. It has been the practice to pay the principal of the revenue bonds one year in advance. The annual payment is about \$85,000.

Painting and general maintenance at the Orange Bowl is a year-round budgeted item. Any steel structure, particularly one with an investment of the magnitude represented by the stadium, warrants a high standard, continuous maintenance program.

Rejuvenation of the Orange Bowl

Numerous requests for improvements to the Orange Bowl have been analyzed, and a major rejuvenation program has been prepared, consisting of the following items:

- Removing the east end zone seats and replacing them with a landscaped area.
- 2. Constructing west end zone permanent stands.
- 3. Providing better field lighting.
- 4. Improving the playing field.
- Relocating box seats to the third row of the main stands. (This will raise them about two feet.)

ORANGE BOWL STADIUM FACILITIES

- 6. Structural improvements to the beams of the main stands.
- 7. Modifications of the upper and lower press boxes.

The total cost of these improvements is approximately \$900,000. Financing has already been arranged through the sale of \$3,125,000 of Special Obligation Utility Service Tax Bonds (Series "A"). The balance of this bond issue is for construction of the Marine Stadium at Virginia Key.

It is hoped that these improvements will be completed in time for the 1963 football season.

MIAMI STADIUM (BASEBALL)

In 1955, the City leased Miami Stadium for two years at \$60,000 per annum, with an option to buy for \$850,000 during the lease period. In 1957, their right to purchase the property was allowed to lapse. In 1958, when the possibility of the Miami Marlins leaving the area was evident, the City purchased the Stadium.

This magnificent structure, with a seating capacity of 9,500 was the home of Class "B" baseball teams until 1954. In 1956, it became the home of a Class "AAA" team of the International League, the Miami Marlins. Following the baseball season of 1960, the Marlins! franchise was transferred to another city.

The Stadium now serves principally as: (1) a spring training site for the Baltimore Orioles; and, (2) the home of a Class "A" Florida State League baseball team, also known as the Miami Marlins. Various non-professional games and tournaments are also held there throughout the summer. These consist of Junior College, American Legion, and Little Major League Baseball games. During September, October, and November, the Stadium is used for high school football games.

The Miami Stadium is twelve years old. Prior to the purchase by the City, only minor, temporary repairs were made, such as patching roof leaks, repairing grandstand seats and painting some iron railings.

Inspections following the City's purchase, revealed the necessity of a positive "Maintenance Program". Before this program could be placed in effect, a number of major repairs were necessary to bring the Stadium up to a good physical condition. These improvements have now been made, and a positive maintenance program is being carried out.

The Stadium is in need of an improved public address system. However, the design and installation of such a system is predicated upon the future use of the Stadium.

At this time, no capital improvements are requested for the Miami Stadium.

THE COMMODORE RALPH MUNROE MARINE STADIUM

This Marine Stadium is now under construction. It will be located on the northerly side of Rickenbacker Causeway, on the westerly side of Virginia Key.

The Stadium, as proposed, will consist of:

A Race Course 1 2/3 miles long that could be expanded to 3 miles. A Boat Pit Area.

A Covered Stadium Grandstand seating 7,000 persons.

Shore viewing will be available for an additional 10,000 persons.

A floating stage for the presentation of various shows.

Parking facilities.

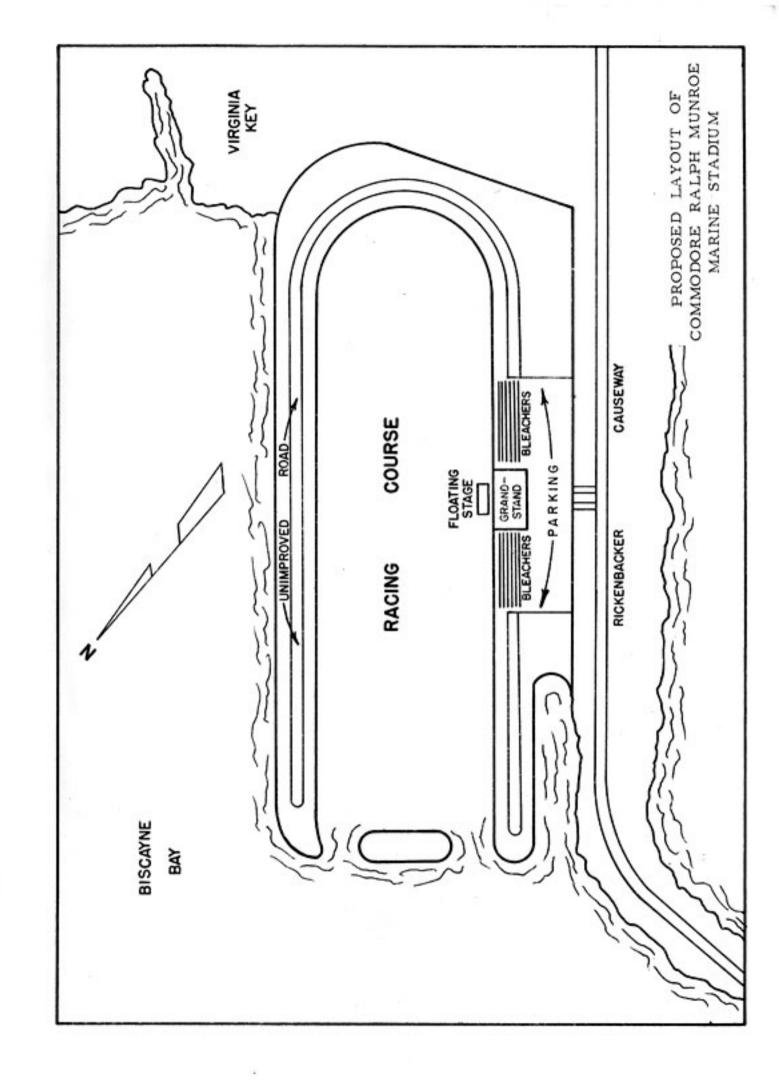
The perimeter grading and landscaping has been planned to screen the events from public view.

The activities proposed for the Stadium include such events as the Orange Bowl Regatta, inboard and outboard boat races, musical festivals, stage shows, fireworks and fashion shows, and swimming and diving events.

Financing of the Stadium has been arranged through the sale of \$3,125,000 of Special Obligation Utility Service Tax Bonds (Series "A"). The Stadium has been estimated to cost \$2,296,000. The balance of the bond issue is to be used to finance rejuvenation of the Orange Bowl. It is anticipated that the bonds, which will be paid over a period of 25 years, can be paid solely from the revenue of the Stadium.

A portion of the Stadium site was on County-owned property. The County has deeded this property to the City.

The dredging and fill contract has been awarded and should be completed by October 1, 1963. The grandstand is being designed and the construction is scheduled for completion by December 1, 1963. When these two major components of the Stadium are completed, the facility will be operational.



PARKS AND RECREATION

General Park Improvements

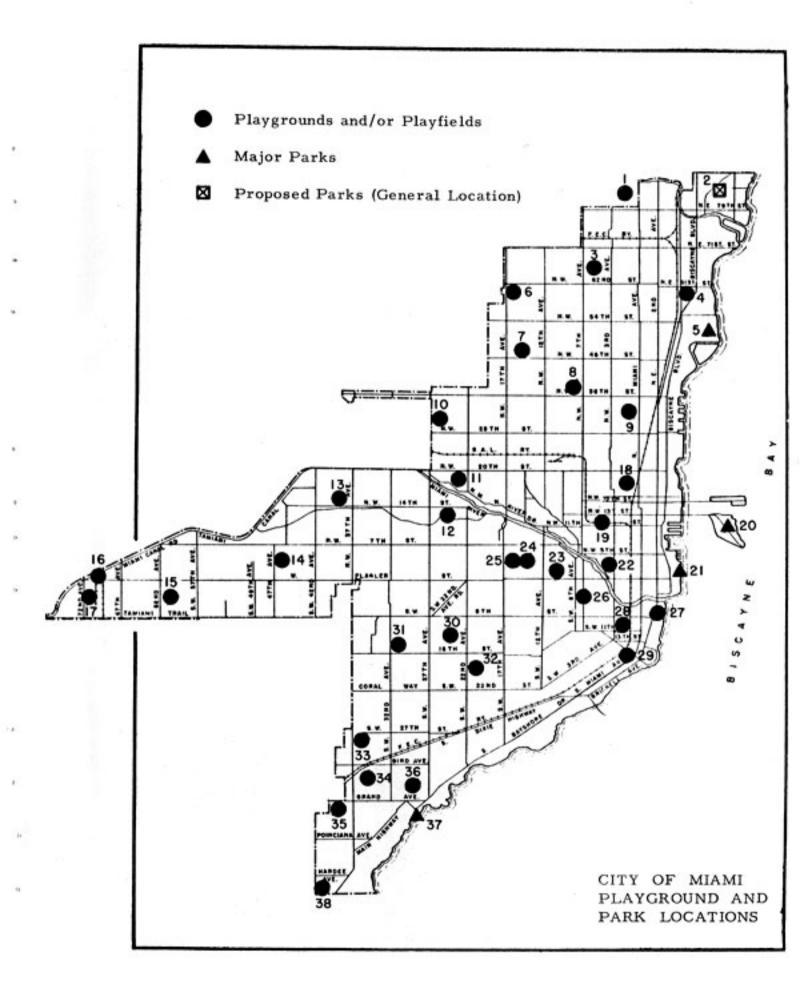
The parks and recreation system of the City of Miami consists of a network of 36 City-owned parks, one leased park, numerous smaller areas set aside as playfields and tot lots, eight swimming pools, and two golf courses. The total area of these facilities is approximately 800 acres. (Two other facilities—the Orange Bowl Stadium and the Miami Baseball Stadium—are discussed in separate Chapters.)

Some of the parks can take their place with the finest in the United States. Bayfront Park, Morningside Park, and Coconut Grove Bayfront Park are certainly beauty spots. However, much remains to be done to provide adequate recreational facilities available to all Miami residents and visitors.

A generalized development plan has been prepared for various parks by the Department of Parks and Recreation. This consists of: (1) general improvements to all existing parks; (2) acquisition of land for expansion of five existing parks; (3) acquisition of land for development of a new park in the Northeast area; and, (4) construction of four field houses.

The following figures show the estimated costs of improvements considered for each park. From these requested capital improvements an evaluation can be made, priorities established, and a six-year program evolved. (The numbers in parentheses refer to park locations as shown on the Plate "City of Miami Playground and Park Locations".)

Bayfront (21)	\$ 37,200 (a)	Edison Center (3):	
Brickell (27)	4, 400 (a)	General Improvements	\$ 31,900
Bryan (30)	64,800	Field House	412,500
Coconut Grove Bay-		Elizabeth Virrick (34)	27,000
front (37)	45,700	Fern Isle Nursery (12):	
Coconut Grove Grand		General Improvements	51,200
Ave. (35):		Land Acquisition	70,000
General Improvements	10,100	Flagami (17)	2,600
Field House	412,500	Grapeland Heights (13):	
Coral Gate (31)	44,500	General Improvements	87,300
Curtis (11)	173,300	Field House	462,000
Dixie (19)	23,100	Henderson (23)	30,300
Dorsey (18)	65,400	Kinloch (14)	20,800
Douglas (33)	87,200	Liberty City (6)	13,500
Eaton (4):		Lummus (22)	27,400
General Improvements	11,000	Manor (7):	
Land Acquisition	100,000	General Improvements	144,800
_		Field House	412,500



Melrose (10)	\$ 9,900	Simpson (29)	\$ 600
Merrie Christmas (38)	38, 800	Soar (1):	
Miami Annex (24)	2,600	General Improvements	56,900
Miami Field (25)	44,600	Land Acquisition	50,000
Moore (8):	Decc	Southside (28):	•
General Improvements	49,000	General Improvements	24,600
Improvements to		Land Acquisition	70,000
Tennis Courts	36,000	Watson (20)	(b)
Morningside (5)	91,400 (a)	West End (15)	35,600
Oak Ave. and Matilda		Wynwood (9)	75,100
St., Coco.Gr. (36)	4,400	VICE* 0139 (VICE TITE)	44.1
Primrose (16)	120,000	Concession Buildings for	
Riverside (26)	6,900	Various Parks	19,800
Shenandoah (32)	35,700	Heat Units in Community	
Shore Crest-Biscayne		Buildings at Various	
Heights (2):		Parks	29,700
Land Acquisition	100,000		
Minimum Develop.	10,000	TOTAL	\$3,783,700

- (a) These figures do not include bulkheading at Bayfront, Brickell, or Morningside Parks. These are discussed in the Chapter, "Bulkheading and Shore Protection".
- (b) Watson Island Park and its requested improvements are discussed separately in the Chapter "Watson Island".

Almost \$1 million of this program is for immediately needed park improvements. These are:

Verrick Park Development	\$	25,000
Moore Park Tennis Center	-	36,000
Tennis, Basketball, and Tetherball Court Improve-		
ments at 6 Parks		24,700
Improvements at all 8 Pools		50,200
Concession Buildings at 12 Parks		19,800
Heating in Community Buildings at 27 Parks		29,700
Land Acquisition for 3 Panks		280,000
General Park Improvements - Merrie Christmas Park		35,800
Drainage System - Fern Isle Nursery		7,700
Shuffleboard Courts and Shelters at 3 Parks		48,600
Fencing and Backstops at 5 Parks		9,500
Asphalt Running Track at Dixie Park		4,000
Field House at Edison Center Park		412,500

Parkway Lighting at Coral Gate Park	\$ 2,200	
Locker Room and Showers at Curtis Park	39,600	
Paving at 2 Parks	7,100	
Tool Room at Brickell Park	1,300	
Fern Isle Bridge	16,500	
TOTAL	\$1,050,200	

PARKS AND RECREATION

Golf Courses

During the past year the second nine holes of the LeJeune Golf Course were completed and opened to the public. The City of Miami now has two 18-hole golf courses, plus a nine hole, par 3 course, at the Miami Springs site.

Capital improvements requested by the Department of Parks and Recreation for the LeJeune Golf Course are as follows:

Asphalt walks at each tee and a paved road from	
the Clubhouse to the Equipment Barn	\$10,000
Refreshment Facilities - The present facilities	
consisting of vending machine service are very	
limited. The conversion of a room in the Club-	
house to a short order kitchen would help the	
situation.	3,300
Total Improvements for LeJeune Golf Course	\$13 300

Tennis Facilities

The City has a major tennis center at Henderson Park, consisting of eight championship tennis courts. These courts were recently given a Teniko Treatment, which is recommended and approved by professionals. (This treatment consists of scarifying a powdered binding stone and a color into the existing surface of the court, then adding a finished surface of stone granules and coloring.) In addition to the Henderson Park facilities, the City has numerous other tennis courts that are part of the normal development of various parks throughout the City.

It is now contemplated to convert the ten tennis courts at Moore Park into a second tennis center similar to the one at Henderson Park. This could be accomplished by giving the courts a Teniko Treatment, upgrading the lighting, and in a second stage constructing a small building to house concessions and facilities for an instructor. The estimated cost of this project is \$36,000.

Bayfront Park Expansion

A plan has been prepared to expand Bayfront Park from its present 40 acres to 65 acres. Under the plan, the entire length of the park from S.E. 2nd Street to the Seaport Causeway, would be extended 400 feet eastward. Increasing the size of the park would permit the development of additional facilities. This plan is receiving further study.

Long Range Planning

In May, 1960, the City of Miami Planning Board published a report "Parks and Recreation", (Part II, Phase II of the Miami Comprehensive Plan). This report made general recommendations, totaling some \$10 million, as to the City's park and recreational needs. This report will serve as a guide for re-evaluating Miami's long range planning of development of parks and recreational facilities. Included in this study is an expression of the need for acquiring new park and playground sites throughout the City. The cost estimate for such site acquisition was estimated at \$2,150,000.

County Facilities

County Parks - Dade County has under its jurisdiction such excellent major parks as Matheson Hammock, Greynolds Park, Baker's Haulover, and Homestead Bayfront Park. The ready accessibility of these major parks from any point in Miami enables the Miami residents to use these fine facilities.

School Playgrounds - In the overall planning of a park program, methods of supplementing the existing playground system by incorporation of existing playgrounds at elementary schools, should be considered. At the present time there is a limited program of physical education for students until 4:30 p.m., as part of the school's operation.

Summary

A summary of the improvements included in this Chapter is as follows:

General Improvements to 35 Parks	\$1,694,200
Land acquisition for one new park and expan-	85.0
sion of four existing parks	390,000
Construction of four field houses	1,699,500
Improvements to LeJeune Golf Course	13,300
TOTAL	\$3, 797, 000

WATSON ISLAND

Watson Island is a 65-acre island located at the bend in the MacArthur Causeway. It came into existence as a by-product of the dredging of the ships' channel, and was deeded to the City in 1919. The deed specified that it be used for municipal purposes only.

In 1955, \$214,000 was appropriated from Series "A" and "B" funds (supported by Florida Power & Light franchise revenue), for development of Watson Island. A development program was started in 1957. Some of the projects that have been partially or wholly completed since that time include parkway lighting, the Heliport, paving, walkways, parking areas, small boat launching ramp, and landscaping.

When virtually all of these funds were expended, and no additional funds were in sight, the planning for completion of the development of Watson Island was, for some time, dealt with only in generalities.

The Department of Parks and Recreation has now evolved a more detailed plan for the final development of the Island. This overall plan emphasizes its park-like aspect. When completed, a number of facilities designed for public use and enjoyment will be provided. Included in this plan are the following:

Garden of the Americas

a. The Garden

b. Garden Center Building and Plant Conservatory

Pavilion

Administration Building

Japanese Garden and Teahouse

Picnic Areas, Shelters, and Comfort Stations

Small Boat Trailer Launching and Parking

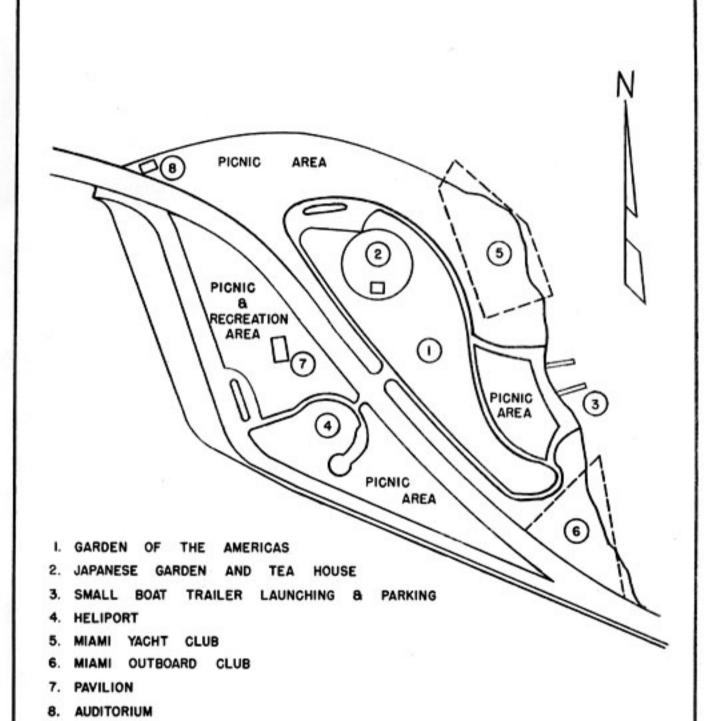
Heliport

Miami Yacht Club

Miami Outboard Club

The Garden of the Americas is planned to be a thirteen acre garden, and is to contain native plants and shrubs from countries of North and South America. A Garden Center Building and Plant Conservatory is planned as the focal point of the garden.

The Pavilion would be located in the Southwest section of the park, in a picnic and recreation area. It would be used for dances, and rest room and concession facilities.



PROPOSED DEVELOPMENT OF WATSON ISLAND

WATSON ISLAND

An Administration Building of 2,400 square feet is proposed to be located on the northwest side of the Island.

Picnic areas will comprise about 60% of the Island when full development is realized. Scattered throughout these areas will be shelters, comfort stations, and parking facilities.

The Japanese Garden and Teahouse has been constructed on a 175' x 250' plot in the north end of Watson Park. The teahouse and other contributions consisting of valuable Japanese statuary and items of landscape nature were donated by a Japanese industralist, Kiyoshi Ichimura. This past year, Mr. Ichimura donated a 15 foot high pagoda which has been erected in the Japanese Garden. Dedication of the park took place October 19, 1961.

In 1958, Miami's municipally owned Heliport was opened on Watson Island. Its proximity to downtown (less than 2 miles), its scenic setting, and its spacious 5-acre site, combine to make an excellent facility. Designed for non-scheduled service, it is already meeting with a fair measure of public acceptance. At present it is used principally by a commercial helicopter line. This heliport is adequate to meet present needs and is of sufficient area to allow for future expansion. (A more intensive use of helicopters may indicate the need of a supplementary heliport closer to the Central Business District.)

Development of the Miami Outboard Club and Miami Yacht Club will be by private enterprise on leased lands, (at no expense to the City). Both of these clubs are open to the public in respect to membership.

The estimated costs for carrying out the proposed plan follow. Although these costs are general, they are suitable for discussion purposes until such time as more detailed estimates and finalized plans are made.

Top Soil, Preparation, and Planting of Trees and	
Shrubs	\$103,000
Paving of Walks, Roads and Parking Places	105,000
Administration Building	40,000
Comfort Stations and Shelters	214,000
Pavilion	41,000
Garden Center	110,000
Benches, Drinking Fountains, Tables, and	
Fireplaces	10,000
Water Sprinkler System	17,000
TOTAL	\$640,000

Background and History

Dinner Key was originally a small wooded islet located a few hundred feet offshore in the Coconut Grove area. It formed an ideal picnic and recreation area. From its most common applied use, that of eating picnic dinners on its shady shore, came the name "Dinner Key".

Fill was later added, increasing considerably the size of the island to approximately 40 acres, and, at the same time, forming a solid connecting area of fill to the mainland.

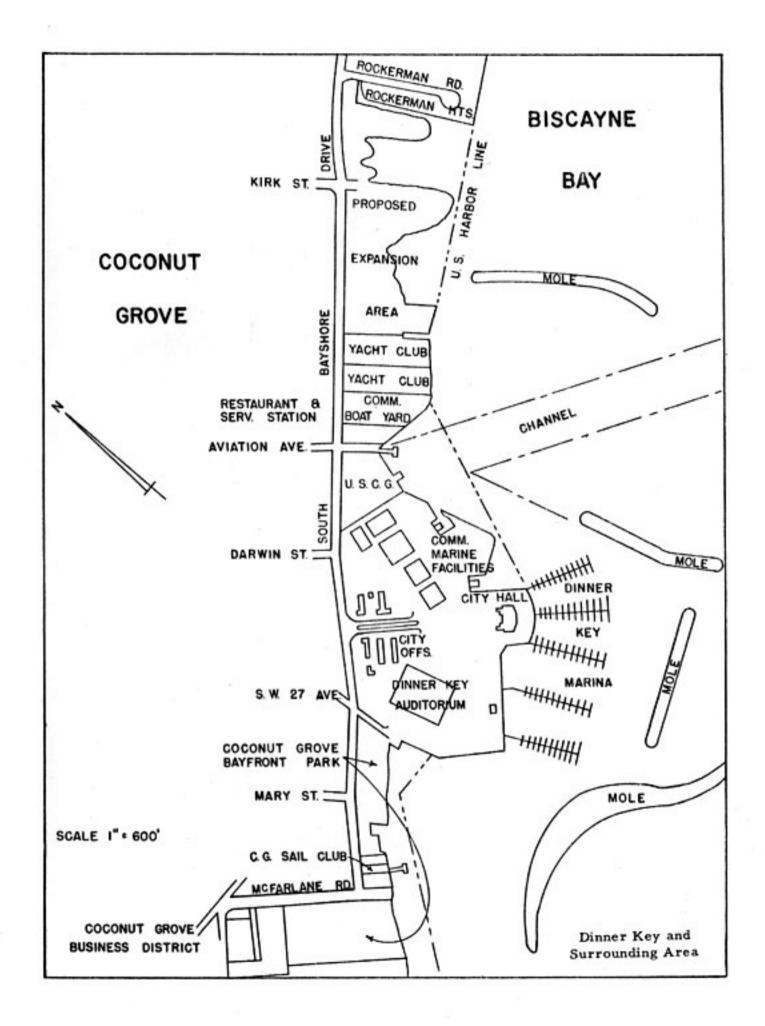
During the First World War the Federal Government utilized the land for military purposes. The Country's first channel dredged exclusively for seaplanes, was constructed at this time at Dinner Key.

In 1930, Pan American World Airways established their Miami Depot Repair facilities on Dinner Key. It was during this time that some of the existing hangar structures in this area were built. The present bulkhead limit was also established at this time. Dinner Key was the hub of Pan American operations.

During World War II, Dinner Key again became a military area, being leased from Pan American. The large hangars that today form the Auditorium and the barracks buildings that are currently used to house some of the City offices, were built during this period.

The Government no longer had use for this land at the end of World War II and it reverted to Pan American. In 1946, the City of Miami concluded negotiations with Pan American and purchased most of this area including all the structures. The lone exception was the property held by the U.S. Coast Guard for its Seaplane Base. This base is still maintained as an active peacetime facility.

This purchase by the City was financed by the issuance of revenue bonds. The retirement of these bonds is dependent upon the revenues from the yachting facilities, the rental of the old Pan American hangar buildings (now converted to yacht servicing facilities by Santana Marine Services and the Merrill-Stevens Company), income from the Dinner Key Auditorium, and charges equivalent to rent against various Departments for the use of the remaining buildings. The last of these bonds are scheduled for retirement in 1974.



This acquisition of approximately 40 acres represents an excellent example of good civic foresight as this land today is worth many times its purchase price.

Current Usage

Dinner Key is currently put to a number of functional uses. Any planning for future development must take these uses into consideration. These uses include:

- A. Marine Use
 - 1. Yacht docks and marina facilities
 - 2. A basin and minor facilities for small sailing craft
 - 3. Charter boat service and boat rentals
 - 4. Privately operated yacht service, marine supply, and storage facilities
- B. Dinner Key Auditorium (Exposition Hall)
- C. City Hall and other Municipal Office Buildings
- D. Park and Recreational Facilities (including a Children's Fishing Pier)
- E. Farking Areas to serve the above uses, particularly for the accommodation of the auditorium.

Although most of these uses are discussed at greater length in other Chapters, they will be discussed here briefly because of their part in the overall plan for the development of Dinner Key.

- A. Marine Use The scarcity of available sites for marine accommodations, plus the ever increasing demand for this type of facility in the Miami area, indicates that this will continue to be one of the most important uses of Dinner Key. (See Chapter "Marinas".)
- B. Dinner Key Auditorium (Exposition Hall) Two seaplane hangars built for the U.S. Navy during its period of occupation during World War II, were later joined, and now form the Dinner Key Auditorium.

Although poorly situated in reference to hotel accommodations, and lacking in air conditioning and good acoustic qualities, this auditorium has been in demand for certain activities. Its large floor area and ample appurtenant parking has enabled it to serve very satisfactorily for exhibits and shows of many types.

With the opening of the 15,000 person capacity Miami Beach Exhibition Hall late in 1958, the Dinner Key Auditorium became less in demand for cer-

tain types of functions, notably conventions. However, the events still held there attract an attendance of 1,000,000 persons annually. In 1962, the City leased the Dinner Key Auditorium to private operation for a period of 5 years with no option for renewal. (See Chapter "Auditoriums, Convention Halls, and Coliseum".)

- C. City Hall and Municipal Office Buildings Soon after the City acquired the Dinner Key property, several of the barracks buildings and other structures were gradually converted into offices to house various Departments of the City government. This was climaxed in 1953 with the conversion of the former Pan American Administration Building (then being leased as a restaurant), into the present Miami City Hall. There is now under consideration a plan to relocate City offices to a joint City-County Building in the central business district. However, present indications are that this will probably be several years away. (See Chapter "City Hall & Municipal Offices".)
- D. Park and Recreation Facilities Dinner Key's present recreational use is limited largely to its marina activities. The adjoining Coconut Grove Park, however, provides a spacious picnic and recreational area.
- E. Parking Area Approximately 15 acres of Dinner Key can be utilized for parking facilities, providing some 2,250 stalls. Of this, about 650 are used for parking for City offices, including reserved spaces for City-owned vehicles; an average of 250 are used for marina parking during the winter season; the remaining 1,350 are available for auditorium parking.

During large events at the auditorium, additional parking space could be utilized. However, these occasions are relatively rare. From a practical standpoint, parking facilities are available in reasonable proportion to the existing generators. Whether or not any of this parking area can be utilized for other purposes depends upon the future use of Dinner Key as a site for City buildings and the auditorium.

Improved Parking Arrangement and Beautification

Over a million persons per year visit the Dinner Key Auditorium, the yacht docks and the City offices. The natural waterfront beauty of this site is to a large extent spoiled by the vast expanse of unlandscaped asphalt which covers most of the Dinner Key property. This asphalt prairie also leads to confusion in movement and parking of vehicles during auditorium events. Parking should be separated into its main uses, i.e. City business, auditorium, and yacht docks. Along with this, some means of traffic channelization and effective landscaping should be provided. The cost of the project will be

pretty much governed by the degree and type of improvement undertaken, but it is estimated that anything aesthetically worthwhile will probably cost at least \$50,000. A program such as this would compliment the proposed Dinner Key Marina-Park Expansion. This kind of improvement could be programmed to fit whatever funds are available, and carried out progressively. An initial \$10,000 would make a good start.

Future Development of Dinner Key

It has been desirable for some time to evolve a long range development plan for this valuable property. Certain recent events, such as the possibility of relocating the City offices, have focused attention on this problem. In the summer of 1960, City Manager M. L. Reese appointed a Dinner Key Planning Committee to make a comprehensive study of this area and evolve a plan, or choice of plans for its future development.

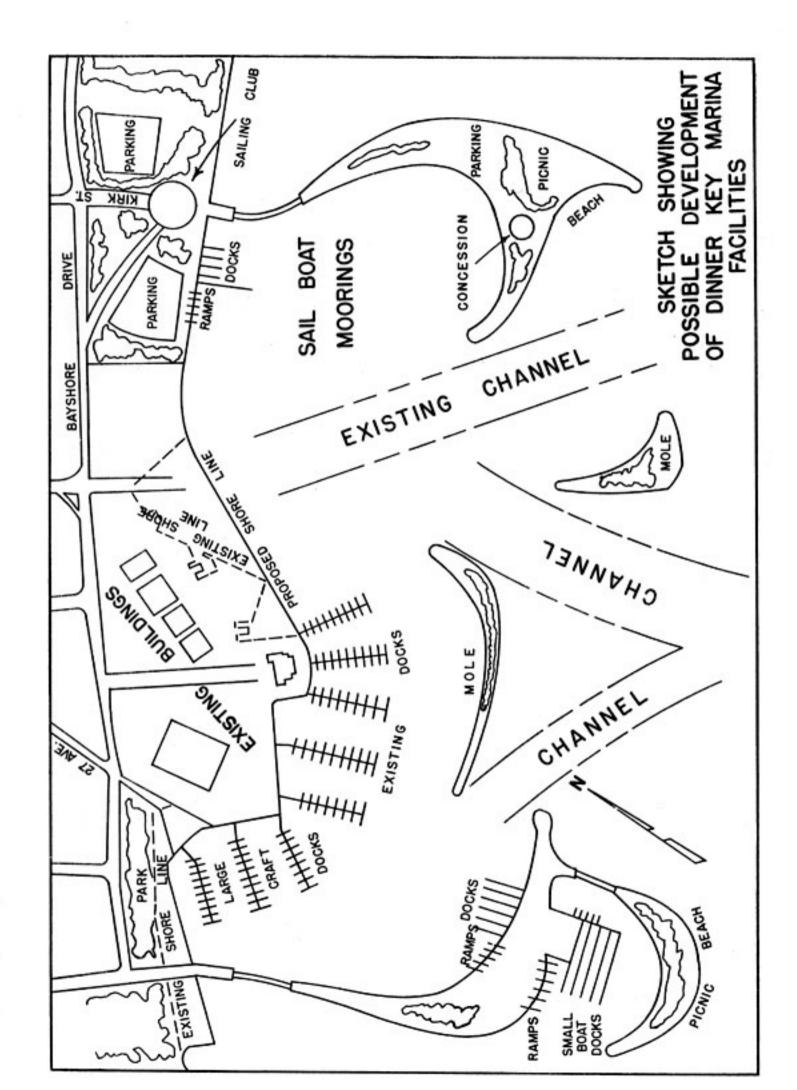
A preliminary report was submitted. This report set up some goals that should be considered in the overall planning of this area. One of the main points which the Dinner Key Planning Committee agreed upon was that the paramount use of Dinner Key should be as a marine-recreational area.

In April, 1961, a basic plan for the expansion of small boat facilities at Dinner Key was formulated by the City of Miami Beautification Committee. The plan called for the acquisition of both the upland, and submerged land, lying between the Coral Reef Yacht Club and Rockerman Canal. It was proposed that the area be utilized primarily for small boat activities, with a new off-shore mooring area and a protecting mole.

The preliminary cost estimates for such expansion were:

Land Acquisition			\$	565,000 *
Fill and Dredging			10.50	200,000
Bulkheading				215,000
Site Development				100,000
Project Expense		TOTAL	\$1	,080,000
	TOTAL	COSTS	\$1	, 200, 000

^{*} The cost of land acquisition is strictly an estimate made without the advantage of professional appraisal, and predicated upon existing zoning.



In December, 1961, the City of Miami Planning and Zoning Board released an Interim Study on Dinner Key. Included in this were proposals calling for developing the boating facilities proposed by the Beautification Committee, and expansion of marine facilities.

Since that time the entire concept of Dinner Key marine development has been given considerable further study.

The City of Miami Planning Department has suggested a new proposal, much more comprehensive in nature. Briefly this proposal calls for:

- Acquisition and development of the aforementioned area between the Coral Reef Yacht Club and Rockerman Canal, and development of an offshore mole connecting to this area. This mole would have a beach and picnic area with appurtenant parking facilities. Sailboat mooring facilities would be relocated to the protective area formed by the new mole.
- 2. The development of an offshore mole connected by a cause-way bridge to the end of McFarlane Road. On this mole would be located trailer boat launching facilities, docks for small boats and boat rental facilities, appurtenant parking facilities, and a beach and parking area.
- The construction of three additional piers for larger boats adjacent to the existing Dinner Key Marina facilities.

Such a project could be developed in three stages in the order described above.

Sufficiently detailed information has not as yet been prepared to enable the placing of a total cost on this project. However, a rough estimate indicates the cost would probably be about \$5 million. This plan is also discussed in the chapter entitled "Marinas".

One of the items being discussed for a proposed new General Obligation Bond Issue is for Dinner Key. At present the amount under consideration is \$1.8 million. This would enable certain phases of the development to proceed at an early date.

Summary

First Phase of Dinner Key Development First Phase of Parking Arrangement and Beautification at Dinner Key \$1,800,000

10,000

CITY BEAUTIFICATION

Landscaping and beautification projects for the City of Miami have always been sorely needed, but the necessary funds for such projects have not been available. The City has made an effort to provide beautification with new construction. Due to a huge backlog of pressing needs, funds assigned for any given project did not, in the past, permit proper consideration of aesthetic values. Frovision must also be made for budgeting funds for the high cost of continued maintenance.

In recent years, beautification has been getting more attention. In 1959, the City Commission made a direct appropriation of \$40,000 to be used solely for beautification. Almost simultaneously a new group, the City of Miami Beautification Committee, was created. The Committee is comprised of over 100 public-spirited citizens of the City. The Committee was created to act as a recommending agency to the City Commission. The Committee has been very active and has fathered such projects as the landscaping of South Dixie Highway, Biscayne Boulevard, and the DuPont Plaza Area. The 1962-63 Capital Improvement Budget includes \$64,200 for additional beautification projects.

The primary aim of the Beautification Committee, and one that must be accomplished before any tangible results can be forthcoming, is to establish an educational campaign to awaken public support and awareness of the magnitude and need for beautification. The Committee is only too cognizant of the fact that beauty cannot be legislated; it must result from the demand of an aware public.

The term "Beauty" as used by the Beautification Committee is not limited to landscaping, but instead its wider aspect is intended. This would include pride of property, pride of neighborhood, and pride of City.

Self-improvement through Civic Fride is being fostered by this Committee's activity. A number of projects have been undertaken with highly successful results. Foremost among these projects were the month-long, city-wide, "Clean-Up, Paint-Up, and Fix-Up Drives". So wide spread was citizen interest that Miami was entered in the nation-wide contest held annually by the "Clean Up Bureau" in Washington, D.C. For its efforts, Miami was selected as one of the top three cleanest cities in the Nation in 1960 and in 1962.

Another successful contest was the "Make Miami Beautiful Contest".

This program attracted many citizens. With the help of materials from the

Department of Parks, these people provided the labor to beautify city lots, schools, churches, commercial buildings, and their own homes. This effort was applauded by the news media of the Miami area and won much National attention.

March 18, 1960, proclaimed as Arbor Day by the Mayor, was celebrated by the distribution of 5,000 free trees. The Parks Department directed this distribution. Interest in the observance of Arbor Day has continued to date.

Miami River Clean Up

A campaign to improve the Miami River was set into action during 1960 by the City Commission by the appointment of a Miami River Committee.

In 1962, the City spent \$6,600 for a project which removed all trash and debris on the banks and bottom of the river and its tributaries within the City Limits.

In November, 1962, Metropolitan Dade County set up a 15 man advisory board (including members of the City of Miami Committee), to clean up the Miami River. The board is to do the following:

Make a continuing study of pollution and other problems along the river.

Work with the nine separate government agencies that have regulatory powers over the use of the waterway or adjoining land.

Recommend improvements that can be made.

Appointees to the board serve two-year terms.

The Metropolitan Dade County Planning Department has completed a study of the Miami River and recommended the following steps for long-range improvement:

- Agreement between all governmental jurisdictions involved on a general pattern for future development of the waterway.
- Adoption of a comprehensive zoning plan which would create the desired pattern for land use along the river.

- Acquisition and development of additional parks and public open spaces on the banks of the river.
- Improvement of streets and highways, bordering and crossing the river, including scenic drives.

Central Business District

Consideration is being given, by the City Commission, to the possibility of providing landscaping treatment for different areas of the City. One of the areas being considered for modernization and beautification is the Central Business District.

The possibility of enhancing the attractiveness of Flagler Street has been discussed. The effect of placing potted trees in the downtown area has been tested, as well as other types of improvements. At the present time, a new type of beautification installation consisting of a combined bench, potted tree, and waste receptacle is being studied for all business districts within the City.

Another idea, which has been explored, is to landscape the sidewalk areas around the DuPont Plaza area. This will require the cooperation of the Parking Lot operators.

Highway Beautification

Because of policy established by the State Road Department, funds are not provided for landscaping (other than grass), on State Roads within Miami. This presents a significant problem to the City. If such arteries are to be beautified, the City will have to stand the cost. Over the past several years, there have been numerous requests made to the City to landscape arterial streets within the City Limits.

Requests for beautification of these streets have come from various individuals and groups. The City of Miami Beautification Committee has set up some definite goals such as: (1) landscaping highways, (2) landscaping entrances to the City at the Tamiami Trail, (3) Biscayne Boulevard, (4) 27th Avenue, and (5) Julia Tuttle Causeway beautification.

There is general agreement for a plan of progress to improve and beautify the City and therefore capitalize on its aesthetic beauty. The Beautification Committee has made the following recommendations for projects for the 1963-64 budget year:

CITY BEAUTIFICATION

N. W. 27th Avenue from W. Flagler Street to	
N. W. 36th Street	\$ 14,200
Brickell Avenue from S.E. 5th Street to Miami	
Avenue (Irrigation)	7,200
DuFont Plaza Area (additional landscaping)	14,200
Central Colored Area	9,100
Dade County Public School Areas	7,800
Julia Tuttle Causeway Beautification	70,000
The Estimated Total Cost of These	
Improvements is	\$122,500

(Maintenance of these projects will cost an estimated \$21,000 annually.)

Summary

Highway Beautification Program \$122,500

POLICE FACILITIES

The Division of Police is responsible for the operation of the following facilities:

Municipal Justice Building (Administrative Offices, Jail, and Academy) City Stockade Precinct Station Auto Pound Motorcycle Repair Shop

Much has been done in the past 10 years to expand police facilities. The City Stockade was constructed in 1954, and the Municipal Justice Building in 1956. In 1958, an additional two-story male barracks was constructed at the Stockade. However, in spite of continuing additions and improvements, police facilities are rapidly becoming overcrowded, and other improvements are needed.

Officials of the Division of Folice have evaluated their entire list of desirable capital improvements. In order to present a realistic program, they have purposely eliminated certain projects so that greater emphasis might be placed on the remaining requests, which they feel are the most essential. These are as follows:

Municipal Justice Building

At the present time, preliminary plans and specifications are being prepared for alterations to the Municipal Justice Euilding. These alterations consist of:

- 1. Converting the north patio into office space and a new entrance.
- Relocating and removing various walls in the interior, which also entails floor and ceiling repair, plastering, new lighting, and some air conditioning.
- Remodeling the existing motorcycle shop building to provide police training facilities.

This project is the No. 1 priority item of the Division of Police who place great importance on its completion. It is possible that some of the improvements comprising this project might be undertaken during the 1962-63

POLICE FACILITIES

The following projects have also been requested for the Municipal Justice Building:

25' x 100' overhead cover for the ro north side of the building), for prote	11 c	all a	rea	(on	the		
ment weather during shift changes.						•	15,000
Heating Facilities added to Air-Con-	ditio	ning	, Fa	cili	ties	•	45,000 \$122,000

Precinct Station

Paying of Parking Area arou	nd !	Prec	inct	Sta	tion			\$ 3,000
Courtroom Alterations .								36,000
Air Conditioning and Heating								13,000
Construction of Drunk Tanks								17,000
								\$ 69,000

A factor that must be taken into account when evaluating the requests for the Precinct Station is its proximity to the proposed North-South Expressway. (The station is located at N. W. 11th Street and N. W. 5th Avenue.) Final plans for this portion of the expressway have not been prepared, but, the preliminary plans show the Precinct Station to be located immediately adjacent to the proposed right-of-way. A slight change in alignment in the final planning could place the Precinct property in jeopardy.

City Stockade

Revision of Water S	upp	ly S	Syst	em								\$ 10,000
Overhead Canopy be	tw	een	Fer	mal	e Qu	art	ers	, M	less	H	all	
and Administrati												10,000
Gate Guard Booths	•	•	•	•	•	•	٠	٠	٠	•	•	\$ 1,500

POLICE FACILITIES

The Director of Public Safety has emphasized the following three projects as being of the utmost importance.

- 1. Municipal Justice Building Alterations
- 2. Sidewalk and Roll Call Area Cover at the Municipal Justice Building
- 3. Revision of Water Supply System at City Stockade

Summary

Improvements at Municipal Justice I	Building	\$122,000
Improvements at Precinct Station		69,000
Improvements at Stockade		21,500
	TOTAL	\$212,500

FIRE FACILITIES

The Division of Fire:

Operates and maintains 14 Fire Stations and approximately 32 major pieces of fire fighting equipment for combatting and preventing fires in the City of Miami.

Operates and maintains pumping stations and a piping system which supplies well water under high pressure to fire hydrants in the downtown area.

Maintains fire hydrants which are connected to the City water supply lines throughout the City.

Operates a Fire Prevention Bureau.

Conducts an educational and training program.

Cooperates with Civil Defense in its training program.

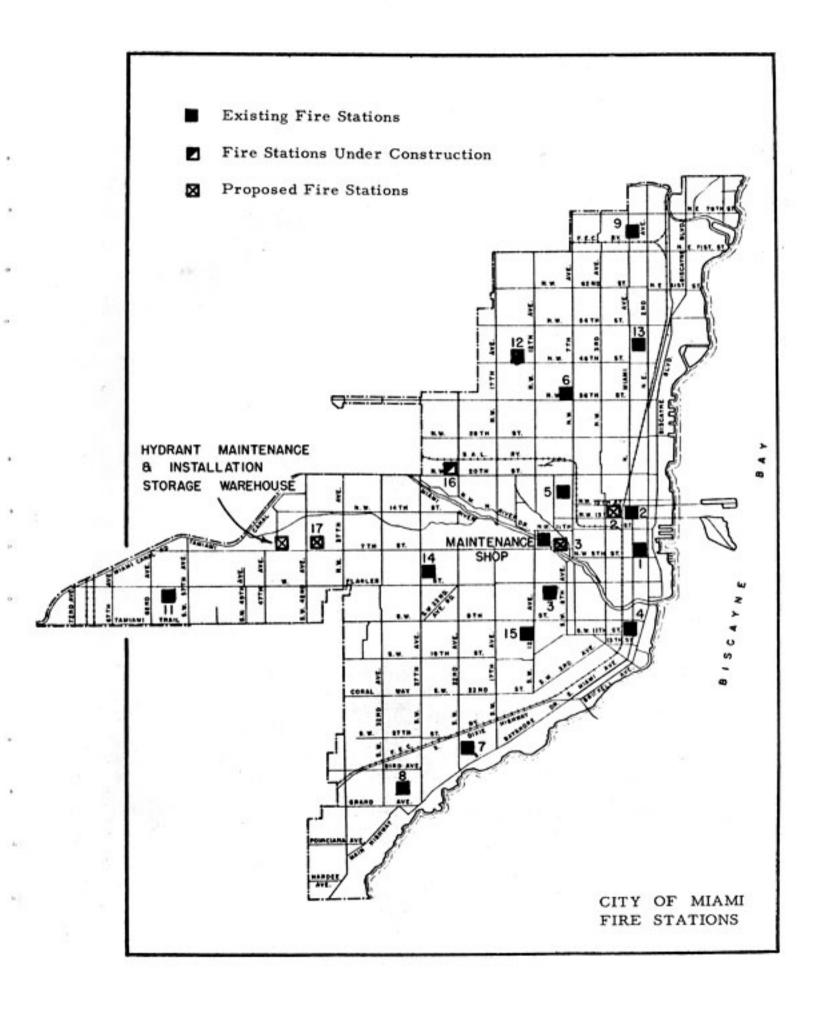
High Pressure Water System

The high pressure water system now provides protection for all of the area bounded by the Florida East Coast Railroad, Biscayne Boulevard, the Miami River, and N.E. 19th Street. A smaller area between S.W. 1st Street and N.W. 8th Street, extending west from the Florida East Coast Railroad to N.W. 3rd Avenue, is also protected by this system.

There are two high pressure pumping stations. One is located in the Watson Building, on S. W. 1st Street; and the other, in Biscayne Park on N.E. 2nd Avenue near N.E. 19th Street. With this increased capacity, the high pressure water system can be extended to a considerable degree as the need for this added protection becomes evident.

Recent Accomplishments

During the past year, construction was completed on one fire station and a maintenance shop building; and construction begun on an additional fire station.



FIRE FACILITIES

The new City of Miami Fire Station No. 1 was completed in May, 1962. It is located on N.E. 5th Street between N.E. 1st Avenue and N.E. 2nd Avenue. This Station replaces the antiquated and poorly situated station that was located on Flagler Street opposite the Dade County Courthouse. It also eliminates Station No. 10, which was located at the north end of Bayfront Park. Equipment from Stations No. 1 and 10 is housed in the new station.

Also completed was the maintenance shop building which was built at N.W. 7th Street and N.W. 12th Avenue. This replaces the antiquated and poorly situated building at the north end of Bayfront Park. The old Maintenance Shop and Station No. 10 have been torn down to make way for the causeway to Dodge Island.

Fire Station #16 (which was approved under the Accelerated Public Works Program), is now under construction at the corner of N.W. 23rd Street and N.W. 23rd Avenue. This double-company station, was recommended by the National Board of Fire Underwriters.

Requested Improvements

Improvements requested by the Division of Fire, in order of priority, are as follows:

Hydrant Maintenance and Installation Storage Warehouse - The present facility at N. W. 10th Street and N. W. 5th Avenue is inadequate for protective storage of mobile equipment and supplies. It is proposed to relocate this building to the vicinity of N. W. 7th Street and N. W. 44th Avenue. Estimated Cost - \$90,000.

New Fire Station No. 17 - A new single company station (No. 17), should be built in the vicinity of N.W. 7th Street and 41st Avenue. This has been recommended by the National Board of Fire Underwriters. This area has been built up in the past few years, and apparatus now has to travel too far to reach this section in case of fire. The estimated cost includes land, construction, hose dryer, and furniture such as lockers, desks, and cabinets. Estimated Cost - \$145,000. (This station has been applied for under the Accelerated Public Works Program, but as yet has not been approved.)

Fire Station No. 3 - Existing Station No. 3 (located on the corner of W. Flagler Street and 10th Avenue), is an antiquated building, poorly laid out as a Fire Station, and inadequate for present day needs. It should be replaced. The City has an appropriate site available for construction of a new station. This is at N. W. 7th Street and N. W. 11th Avenue, near the new Fire Maintenance Shop Building.

FIRE FACILITIES

The estimated cost of construction, including hose dryer, and furniture such as lockers, desks, and cabinets, is \$110,000. (This station has been applied for under the Accelerated Public Works Program, but as yet has not been approved.)

Fire Chief's Headquarters - The present Chief's Office at W. Flagler Street and S.W. 10th Avenue (next to the existing Fire Station No. 3), was occupied on a temporary basis in 1953, and has never been suitable for this purpose. After Fire Station No. 3 is relocated to N.W. 7th Street and 11th Avenue, a new Chief's Headquarters is requested to be built on the N.W. 7th Street site. The estimated cost of this project is \$90,000. Approximately \$45,000 can be realized from the sale of the Flagler Street and 10th Avenue property once Fire Station No. 3 and the Administrative Offices are relocated. Balance Needed - \$45,000.

Fire Station No. 2 - Fire Station No. 2, located at N. Miami Avenue and 14th Street, is obsolete and not large enough to house the apparatus and men presently stationed there. No facilities exist for hose drying, parking, and recreation. It is proposed to construct a new station immediately north of the existing station. The land on which the station is now located would then be used for parking and recreational facilities. Estimated Cost - \$380,000.

Summary

Hydrant Maintenance and Installation Storage	
Warehouse	\$ 90,000
New Fire Station No. 17 *	145,000
Fire Station No. 3 *	110,000
Fire Chief: Headquarters - Balance Needed	
After Selling Land	45,000
Fire Station No. 2	380,000
TOTAL	\$770,000

^{*} These projects have been applied for under the Accelerated Public Works Program, but as yet they have not been approved.

COMMUNICATION FACILITIES

The Division of Communications of the Department of Public Safety, operates and maintains:

A Fire Alarm System.

Radio Networks for the Police Division, Fire Division, Building Department, and 13 Municipalities in Dade County.

City Telephone Switchboards.

Records of Dade County Automobile Registrations for Purpose of Identification.

Most of the facilities are located in the Watson Building at 65 S.W. 1st Street. Included are Administration, Dispatching Rooms, Emergency Switchboard Room, Dade County Automobile Registrations and Records, and the City of Miami Telephone Frame Room,

The Dispatching Section operates on a 24-hour basis; dispatching on 14 different frequencies. This serves the Miami Police, Fire, Building, and Public Works Departments; County Fire Department and Juvenile Officer; and other officers of eleven municipalities in the Miami area. The Telephone Switchboard Section also operates on a 24-hour basis, (on two switchboards handling 3,500,000 telephone calls a year). This center is in contact with all Municipal, County, and State Law Enforcement Agencies in this area by radio, teletype, and telephone.

The Installation and Maintenance Section is located at the 20th Street Properties. This section is responsible for the maintenance of all radio equipment used by the Police, Fire, Building, and Fublic Works Departments, and all contractual equipment used by other municipalities and State Law Enforcement Agencies.

A new Fire Division radio system utilizing three separate channels (instead of the former single frequency), has been installed. As this system provides direct communication between mobile units, it relieves the Alarm Office of some of the heavy traffic it formerly handled.

Improvements requested by the Division of Communications follow.

COMMUNICATION FACILITIES

Additional Space for Maintenance Section - Due to the constant increase in the number of units being maintained by the Communications Maintenance Section, existing space has become inadequate. Additional floor space can be obtained by enlarging the existing mezzanine. Estimated Cost - \$9,000.

Future Addition for Installation & Maintenance Shop - The activities of the Installation and Maintenance Section are constantly increasing. It is anticipated that in about three years an addition to the Maintenance Shop Building will be necessary. Estimated Cost - \$28,000.

Installation of 900 MC Radio Repeater Systems - The Communications Division has in operation two Radio Repeater Systems (links), which operate on 450 M.C. The Federal Communications Commission is making a survey of all operations of this kind with the thought of changing to 900 M.C. in the near future. If this change comes about, the Communications Division will have to install three like systems on 900 M.C. It is expected that the order will come in the immediate future as the Federal Communications Commission is holding hearings at this time. Estimated Cost - \$27,000.

New Base Station for Local Government Radio Service (Miscellaneous Departments), and 5 Mobile Units - The requests for mobile radio units by Departments other than Public Safety, is on the increase. In service now is one base station on the 150 M.C. band which is operating at capacity. This band serves the Department of Public Works and the Building Department. With requests for additional mobile radio units from the Departments of Public Properties and Public Works, it will be necessary to install a base station and five mobile units on a new frequency. The Estimated Cost is - \$5,000.

Summary

Additional Space for Maintenance Section	\$ 9,000
Future Addition to the Maintenance Shop	28,000
Installation of 900 M.C. Radio Repeater Systems	27,000
New Base Station for Local Government Radio	
Service and 5 Mobile Units	5,000
TOTAL	\$69,000

HIGHWAYS AND STREETS

There are 738 miles of street right-of-way within the City of Miami. These can be classified as follows:

In addition, about 25 miles of the proposed 41 1/2 mile expressway system for Dade County will be located within the City of Miami.

Background

To better understand the street paving problems, it is necessary to review briefly, policies and street construction activity of the past. Prior to 1949, practically all pavements other than those in the central business area and some arterial streets were constructed of "temporary" type pavement. No rigid control of width or quality of pavement was exercised over private developers. Conformance to grades established by the City was the only requirement. Even this could not be enforced effectively in many instances.

As a result, subdividers built streets as cheaply as they could. Little consideration was given to proper base construction and the surface usually consisted of sand-oil. Some of these pavements have lasted fairly well, but many have deteriorated beyond the point of being practical to maintain. Sand-oil pavements are particularly vulnerable to traffic wear. Heavy rains, and floods during hurricane periods, also have had disastrous effects on these streets. When it is considered that about two-thirds of our streets still have "temporary" type pavement, the problem becomes apparent.

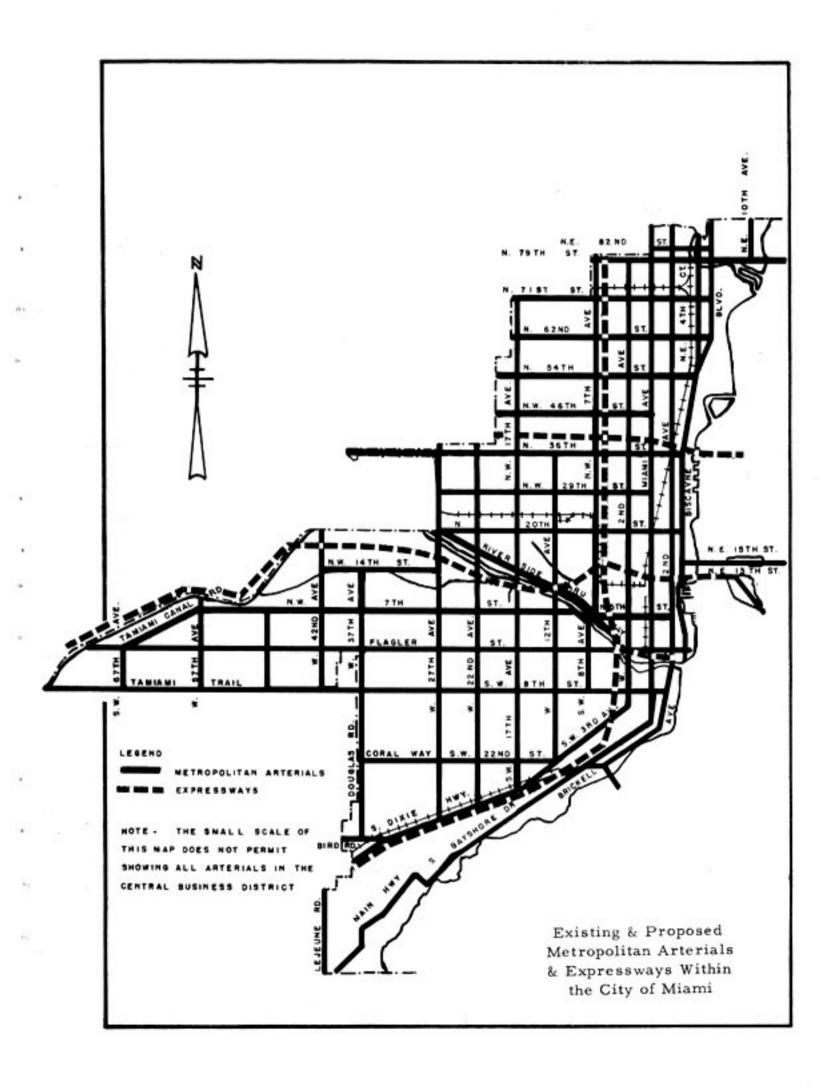
In 1949, an ordinance was passed requiring all future street paving to be "permanent type". This type has a life expectancy of 20 years or more. In addition to the replacement of deteriorating temporary type pavement, new highway needs have been created because of increased traffic. These needs include: (a) widening existing streets; (b) rebuilding, renovating, or remacadamizing of heavily traveled streets; (c) construction of expressways.

Insufficient width of rights-of-way presents a serious problem. Street widening, in most instances, requires the acquisition of additional right-of-way. Present indications are that most of this will have to be acquired by purchase rather than entirely by voluntary dedication as has been done in the past. Although the City is not legally obligated to pay for right-of-way on County and State designated roads, it has in a few instances purchased needed right-of-way. This was done to lessen total improvement costs to the State and County and thereby improve the chances of having the street included in their allocations for this area. (See Chapter entitled "Rights-of-Way".)

About 600 miles of streets have been constructed or remacadamized by the City since 1898. Less than one-half of this has been done since 1930. A breakdown by years is as follows:

		Miles Constructed	Miles Remacadamized
1898-1918		140	
1918-1922		44.8	
1923-1930		177.4	
1931-1940		1.6	
1941-1945		2.6	
1946-1950		19.0	20.7
1951-1952		36,6	1.8
1953-1955		1.0	10.4
1955-1956		4.4	2.0
1956-1957		4.0	1.0
1957-1958		13.4	4.3
1958-1959		5.0	15.1
1959-1960		1.8	43.3
1960-1961		3,4	30
1961-1962		1.3	11.6
1962-1963		1.5	2,5
	Total	457.8	142.7

It is not possible to determine the miles of streets built by subdividers prior to the boom period. However, a guess of 200 miles constructed during the 1925 boom period could be considered reasonable. Only a few miles of streets have been constructed by subdividers since 1945.



At various times, the freeholders have been requested to approve bonds for paving improvements. In recent years only two such issues have been approved, a \$1 million issue in 1950 and a \$5 million issue in 1956. In other elections, although highway improvement bond issues were favored by a majority of those voting, an insufficient number of the registered freeholders voted. Therefore, the election failed. At the present time consideration is being given to holding a General Obligation Bond Election in the Fall of 1963. One of the issues being considered is \$5.7 million for street improvements.

Division of Responsibility

Many streets within the corporate limits of Miami should not be the City's responsibility to construct and maintain. These are the streets that serve the Metropolitan Area. The County Commission has adopted the "Official Arterial Street & Highway System of Metropolitan Dade County". This encompasses State Roads plus those streets which are considered Metropolitan Arteries. The development of these should be the responsibility of the County and the State.

Miami's street problems can be resolved by a program carried out concurrently by the State Road Department, Metropolitan Dade County, and the City, as follows:

Work to be Done by the County or State

- a. Construction of expressways,
- b. Rebuilding of State Designated roads and other Metropolitan arterials included in the "Official Arterial Street & Highway System of Metropolitan Dade County", (including acquisition of right-of-way where required.)

Work to be Done by the City
(Does not include streets in the Official Metro Arterial System)

- a. Remacadamizing of some of the existing "permanent type" streets, before base failure results and before complete rebuilding becomes necessary.
- b. Rebuilding of "City Arterials".
- c. Rebuilding of old "temporary type" residential streets.

HIGHWAYS AND STREETS

- d. Remacadamizing of old temporary residential streets to prolong the life of the streets.
- Renovating Streets Reworking old existing base and then constructing new surface.

A breakdown of Miami's 738 miles of streets according to responsibility and condition is as follows:

State Roads and County Arterials (Includes Arterial Streets that should be con-	Miles	
structed by State Road Department or County)		
In Good Condition	50	
Requiring Rebuilding	64	
Requiring Remacadamizing	11	
State and County Total	125	
		Estimated
City Streets	Miles	Const. Cost
In Good Condition:		
"Full Width" Pavement *	28	
"Less Than Full Width" Favement *	223	
Needing Building or Rebuilding:		
"Full Width" Type	32	\$ 5,200,000
"Less Than Full Width" Type	145	6,450,000
Needing Renovation or Remacadamizing:		
"Full Width" Type	50	1,600,000
"Less Than Full Width" Type	135	2, 180, 000
City Total	613	\$15,430,000
Grand Total	738 Mi	les

^{* &}quot;Full Width" pavement consists of paving which extends from curb to curb. "Less Than Full Width" pavement consists of paving generally about 20 to 24 feet wide leaving a grass parkway between the paving and the sidewalk on both sides. This latter type is often referred to as "residential" type paving since most streets of this type are located in residential areas.

Costs of additional right-of-way required have not been included in the above schedule. (See Chapter entitled "Rights-of-Way".)

Expressways

A 41 1/2 mile expressway system, costing an estimated \$200 million, has been planned for Dade County. Since this is being financed by County, State, and Federal funds, it is mentioned here for informational purposes only. As of March, 1963, the status of the Expressway System was as follows:

Completed	18	miles
Under Construction	1	mile
Under Design	3	miles
Proposed	19 1/	2 miles
	41 1/	2

This does not include the 25 mile Palmetto Bypass, which is completed and in operation.

Metropolitan Arterial Streets

For many years the City of Miami has been burdened with the responsibility of constructing and maintaining a network of Arterial Streets which, although within the City Limits of Miami, have served the Metropolitan Dade County Area as a whole.

On November 22, 1960, the Board of County Commissioners of Dade County established an "Official Arterial Street and Highway System of Metropolitan Dade County". This system is comprised of arterial streets which serve, and are important to, the entire Metropolitan Dade County Area. 125 miles of arterial streets lying within the City of Miami are included in this system.

The assumption of responsibility for constructing and maintaining these arteries by the Government of Dade County would permit the City to concentrate on badly needed improvements to its City Arterial and Residential streets.

However, there is some question that the County will be financially capable of taking care of the entire 125 miles of arterials within the City. If conditions arise where any of these streets are in dire need of repair and the County is financially unable to improve them, the City will then be faced with the decision of either spending money for improvement of Metropolitan Arterials or leaving the streets unimproved. (Incidentally, about \$14 million per year of State and Federal gasoline tax is collected within Miami. None of this is returned directly to the City to finance construction of, or to maintain, its streets.)

HIGHWAYS AND STREETS

For purposes of this report, these 125 miles are excluded from any highway improvement program for the City.

City Streets

Under the present system of accomplishing highway improvements, abutting property owners must agree to pay for practically all of the cost before the Commission will authorize any work. At best, this method does an irregular job of improving streets throughout the entire City.

A modified policy has been suggested by the Department of Public Works which would greatly speed up the highway program.

The first step would be to divide the City into approximately 10 geographical areas. All of the streets in each area would be improved to meet a standard set by the City. The intent would be to concentrate as much as practical on one area at a time. (Work urgently needed in other areas could not be ignored.) Allowing a year for each area, Miami would then have a 10-year local street improvement plan as an ideal objective.

Improvements would consist of four basic types:

Rebuilding Renovation Remacadamizing Miscellaneous Minor Improvements (Not Assessed)

Street Rebuilding - Street rebuilding means completely digging up the existing road and replacing it with new materials. This method of improvement would be used on streets that have deteriorated beyond repair, and on streets that are "out of grade", (where the pavement is objectionably above or below the adjacent property). Local drainage structures would be constructed where needed to protect the new pavement.

Primarily two sets of standards are followed:

- "Full-Width" Rebuilding This includes curbs and gutters, and full width surface (normally constructed on highlytraveled streets, business streets, and streets in concentrated multi-family areas). (Cost to the property owners is from \$10 to \$15 a front foot.)
- 2. "Less Than Full-Width" Rebuilding (Usually in residential areas) 20' wide pavement with valley gutters between the edge of the pavement and the sidewalk, (Cost to property owners is approximately \$3 a front foot.)

The full cost (except at intersections), is assessed against the abutting properties. Because of the high cost, it is practically impossible to get abutting property owners to agree to be assessed for the improvement.

Naturally this limits a large-scale rebuilding program. Past experience has amply demonstrated that Miami will never have a rebuilding program under a system of full assessment.

To speed up this needed work, a new approach should be considered that will require the City-at-large to assume a greater portion of the cost.

It is recommended that only the permanent asphaltic concrete surface course on all street improvements be assessed. This would mean the Cityat-large would assume costs for such items as drainage structures, improvement of base, widening of base, and aligning of street to grade.

Regardless of the method used, the City needs to rebuild about 32 miles of full width streets at a cost of about \$5.2 million, and about 145 miles of residential streets costing about \$6.5 million.

Street Renovation - "Street Renovation" would be a type of improvement that would fall between "rebuilding" and "remacadamizing". Miami has never had a street paving program of this type. This work would be done on streets that require considerable preparatory work on the existing base, but do not require complete rebuilding. Included would be such things as repairing existing concrete curbs, filling potholes, removing small base failure areas and replacing with good material, adjusting sections of the street that are out of grade, and doing shoulder work. The repairs to base failure areas and the adjustment of the pavement to grade in most cases could be done by scarifying and using the existing material. In some cases, adding additional lime rock will be required. While this work is being done, some degree of local drainage would be provided as needed.

After all of the preparatory work is completed, the street would then be surfaced with asphaltic concrete.

If the total cost were assessed to the abutting property owner, it is doubtful that very much work could be accomplished. Therefore, to expedite this sort of improvement, the actual cost to the abutting property should be reduced. There is considerable doubt whether this could be done under the present limits of the Charter by assessing only for the surface as a "Local Improvement". Under such a plan, the City-at-large could pay for all of the work that is required prior to applying the surface.

About 130 miles of streets are in need of this type of improvement at an estimated cost of \$3 1/4 million,

Remacadamizing - Remacadamizing is the process of applying a new asphaltic concrete surface on existing pavements. This type of work is limited. It can only be done on streets that have pavement of sufficient width, with good base, and are at the proper grade.

In the past four years the City has remacadamized more than 100 miles of streets.

The method used to accomplish this is to present the program to the property owners affected by the improvement at a "Property Owner Meeting". The meeting considerably reduces the number of objectors that appear before the City Commission.

About 55 additional miles of streets are in need of remacadamizing at an estimated cost of \$500,000.

Miscellaneous Minor Improvements (Not to be Assessed) - Small trafficway improvements would be directed toward better vehicular use of our arterial street system. This would include such things as left and right turn lanes, shoulder paving in dangerous areas, and other minor improvements as they arise.

Since this improvement would not directly benefit the abutting property owners, the cost should not be assessed to them. The need for this type of work is approximately \$25,000 per year.

Planning a Highway Improvement Program

The ideal presentation of a planned street program is to list every street in the City requiring improvements, including the type of work to be done and the month and year that the work would begin and end.

Planning such a list with all the coordination problems necessary between sanitary sewer, storm sewer, utility installations, and traffic interruptions presents quite a problem. However, it is the resistance from abutting property owners to paying assessments that makes such planning virtually impossible.

Strictly from a point of view of getting things done, construction without assessing any of the cost would be the easiest course to pursue. Even this would create problems caused by demand: for immediate action on all streets. This would be a tremendous financial burden since we are now recovering by assessments approximately 75% of the monies spent on street improvements.

If the City is to break away from its current "never catch up with the needs" street improvement program, the present policy must be modified to some plan such as described herein.

Summary

The City's highway improvement needs (exclusive of Metropolitan Arterials and Expressways), consist of:

		Estimated
	Miles	Const. Cost
Needing Building or Rebuilding:		
"Full Width" Type	32	\$ 5,200,000
"Less Than Full Width" Type	145	6,450,000
Needing Renovation or Remacadamizing:		
"Full Width" Type	50	1,600,000
"Less Than Full Width" Type	135	2, 180, 000
Total	362	\$15,430,000
(Costs do not include Right-of-Way	7)	

Following is a recommended yearly highway improvement program:

Street Rebuilding	\$500,000
Street Renovation	200,000
Remacadamizing	125,000
Miscellaneous Minor Improvements (Not	
Assessed)	25,000
TOTAL FER YEAR	\$850,000

In addition, an annual expenditure of \$100,000 would be necessary for right-of-way acquisition to make this program possible. (See Chapter, "Rights-of-Way".)

Taking into account that other streets would be deteriorating while the program was going on, such a program would take about 20 years to put Miami's streets and highways (exclusive of Metropolitan Arterials), in satisfactory condition.

SIDEWALKS

Prior to 1946, the City had no program for general sidewalk construction. Except for the Central Business District, sidewalks existed only at scattered locations, having been built by individual property owners and subdivision developers.

In 1946, the Freeholders approved a bond issue of \$6,846,000 for sidewalks; construction was started in 1949.

At the time of the bond issue, \$6,846,000 had been considered sufficient to take care of the City's needs. However, the rapid post-war population growth occasioned the opening of many new residential areas and increased the sidewalk needs. As the work proceeded, it became evident that the money provided was insufficient.

With all but \$370,000 of the Sidewalk Bond Issue consumed, there still remain over 200 miles of sidewalks in need of construction or replacement. The present status of sidewalk needs is as follows:

Required Construction	Miles	Estimated Cost
New Sidewalks (right-of-way available)	40	\$ 500,000
New Sidewalks, right-of-way to be acquired		
(Cost of right-of-way not included)	140	2,000,000
Replacement of Defective Sidewalks	35	500,000
Replacement of Defective Curb & Gutter	90	1,000,000
Estimated Total Cost to Complete the Sidewalk		
Program (if right-of-way were available)		\$4,000,000

Much of this sidewalk has not been constructed because property owners did not want to dedicate the property needed to bring the streets to proper widths. For this reason, it may be many years before sidewalks are completely constructed throughout the City. There are areas, however, where right-of-way is available and sidewalks should be constructed.

An orderly sidewalk program would consist of about \$75,000 to \$100,000 in sidewalk construction per year. Approximately \$370,000 remains from the 1946 Sidewalk G.O. Bond Issue.

RIGHTS-OF-WAY

The 738 miles of street right-of-way within the corporate limits of Miami can be divided into four groups:

125 miles of Metropolitan Arterials

65 miles of City Business & Semi-Arterials

511 miles of local streets (principally residential)

37 miles of unpaved or unopened streets

In addition, about 25 miles of the proposed 41 1/2 mile expressway system for Dade County will be located within the City of Miami.

As in many American cities, most of these streets were laid out prior to the universal use of the automobile, and before the enactment of ordinances prescribing minimum street widths. Consequently, Miami's streets, with some exceptions, are too narrow to handle today's traffic.

The total estimated cost of right-of-way required to widen all of Miami's streets to their full mapped widths (exclusive of expressways), is \$100 million. This is divided as follows:

Metropolitan Arterials	\$65 million
City Arterials	\$25 million
Residential Streets	\$10 million

The greater Central Business District contains both City and Metropolitan arterial streets. The cost of right-of-way for the 15 miles in the district is approximately \$50 million. About one-third of these streets are City responsibilities, and the remainder are in the Metropolitan Arterial Plan.

Right-of-Way for the Metropolitan Dade County Arterial Street Plan

One of the most immediate needs is to make the best possible use of existing traffic facilities. With that thought in mind, Metropolitan Dade County has adopted a plan suggesting streets which can be considered Metropolitan Arterial in nature. This is the "Official Arterial Street and Highway System for Metropolitan Dade County". Approximately 125 miles of this system lie within the limits of the City of Miami.

It is estimated that to widen all the arterial streets in the system to their full mapped widths (excluding those areas in the very costly Central Business

District), would cost approximately \$30 million. This includes the cost of land, moving or cutting off and refacing encroaching buildings, and condemnation fees and charges.

If these streets are improved by Metropolitan Dade County, the acquisition of necessary right-of-way should be included as part of the project. For purposes of this report, any right-of-way for these 125 miles is excluded from any City right-of-way acquisition program.

Right-of-Way in Central Business District

There are approximately 15 miles of streets in the greater Central Business District, bounded by the Bay and West 2nd Avenue, and by North 14th Street and the River. With some exceptions, these streets are less than their mapped widths. Widening these streets to their full mapped widths is a most costly right-of-way problem, due to high land values and encroaching buildings. It is estimated that the total cost of widening all streets in this area to their full mapped widths would come to \$50 million. This would include land taken, condemnation costs, moving or cutting off and refacing buildings, and resultant damages. Approximately 10 miles of these streets now fall in the Metro Arterial Plan. Even if the County should attempt a program of improvement for major arterials, the City still could not undertake such a costly street widening project on the remainder. However, as obsolete buildings are torn down and new ones built at the mapped street line, thought should be given to the acquisition of the needed right-of-way parcel by parcel.

Right-of-Way for "City Arterial" Streets

About 65 miles of streets within the City may be classified as City Arterials. These are streets which serve principally intra-city traffic, or act as feeder streets providing access to the Metro arterial street system. It is estimated that the right-of-way necessary to widen these streets to the mapped width would cost \$10 million.

Right-of-Way for Local (Principally Residential) Streets

There are approximately 510 miles of residential-type streets in Miami. A City-wide sidewalk program was approved by the voters in 1946. Since then, the City has constructed sidewalks on both sides of about 350 miles of these streets. The full-mapped right-of-way along these 350 miles was obtained either by plat or by voluntary dedications.

Additional right-of-way is needed on some of the remaining 160 miles of residential streets, to widen them to their mapped widths. It is estimated that this right-of-way would cost about \$10 million. The City has, for many years, encouraged property owners to voluntarily give small portions of their properties for street purposes. Since this has been a gradually diminishing process, comparatively little free dedication can be anticipated by this method in the future.

Right-of-Way for Expressway System

Construction is in progress on Greater Miami's \$200 million expressway system. The right-of-way cost for the project has been estimated at \$63 million. On the Interstate portion, right-of-way is being acquired by the State Road Department; the Federal Government is paying 90% of the cost. To expedite construction of the Airport Tollway (36th Street Expressway west of N.W. 12th Avenue), a bond issue was floated by the County pledging secondary gas tax revenue. This, together with proposed tolls, has furnished funds for both construction and right-of-way on this portion of the expressway system.

The Edgewater Drive

A report on the feasibility of an Edgewater Drive along the west shore of Biscayne Bay between Venetian Causeway and Julia Tuttle Causeway, has been prepared by the Miami Planning & Zoning Board. Before this Drive can be constructed, it will be necessary for the City to acquire right-of-way. Some of it will have to be purchased; some will be dedicated by plat; and some bay bottom land can be acquired by the City from the Trustees of the Internal Improvement Fund. If this plan is adopted, most of this land is to be used for a municipal park with the Edgewater Drive as its easterly limit. According to the report of the City Planning Board, the estimated right-of-way costs will be approximately \$600,000. This is based on securing right-of-way from "upland owners", and securing very little "bay bottom or submerged land".

Recommendations

Obviously, the City cannot come up with the sums of money for right-ofway mentioned in this report, but there should be a recognition of the magnitude of the total problem. Adequate right-of-way is the beginning of any street improvement program. These costs are huge today, but they will get even greater with each year of delay. Miami cannot possibly obtain as high a percentage of "free" right-ofway in the future as it has in the past. Assuming that State, County, and Federal funds are made available to acquire right-of-way for the most important and expensive streets, the widening of many streets will still have to be financed entirely by the City.

Some examples are:

- S. W. 27th Avenue from South Dixie Highway to South Bayshore Drive.
- S. W. 17th Avenue from South Dixie Highway to South Bayshore Drive.

In order to implement the City's proposed highway improvements, a minimum of \$100,000 annually for right-of-way will be necessary.

Summary

Right-of-Way Acquisition - \$100,000 a year for the six year period \$600,000

BRIDGES

The City of Miami maintains seven bascule bridges crossing the Miami River and twenty-one stationary bridges spanning creeks and canals. The seven bascule bridge locations and their vertical clearances at mean low water are:

W. Flagler Street	10.01	S.W. 1st Street	20.31
S. Miami Avenue	12.11	N. W. 12th Avenue	19.21
S. W. 2nd Avenue	13.4	N. W. 17th Avenue	18.91
N. W. 5th Street	13.31		

There are seven other major bridges spanning waters within the City Limits. Two spanning the Miami River are located at S.E. 2nd Avenue and at N.W. 27th Avenue; and one each are located on the MacArthur, 79th Street, and Julia Tuttle Causeways. These five bridges are State maintained. The Julia Tuttle Causeway Bridge is a fixed bridge of 55' vertical clearance and is a part of the National System of Interstate and Defense Highways. Other major bridges within the City Limits that are neither State nor City maintained are those on the Rickenbacker Causeway and Venetian Causeway. These two are toll bridges and are under the jurisdiction of Dade County.

The low vertical clearance of most bascule bridges causes an unreasonable number of openings which seriously impede the flow of vehicular traffic. Some of the older bridges frequently break down and present difficult maintenance problems.

Of the City maintained bridges, some relief has been realized at the S.W. 1st Street, N.W. 12th Avenue, and N.W. 17th Avenue Bridges through regulations governing marine traffic. However, relief at the W. Flagler Street, S. Miami Avenue, S.W. 2nd Avenue, and N.W. 5th Street Bridges can be obtained only by the construction of new bridges. A study of fixed and bascule bridges of various clearances, revealed that thirty foot clearances (thirty-two feet at mean low water), bascule bridges would be the most desirable.

S. Miami Avenue, N.W. 5th Street, W. Flagler Street, and S.W. 2nd Avenue Bridges serve State primary and secondary highways. These are also streets included in the "Official Arterial Street and Highway System of Metropolitan Dade County", as approved by the Board of County Commissioners. Proposed new bridges at these locations should be financed on either a State or Metropolitan level. Therefore, the following costs are included in the report for informational purposes only.

ERIDGES

The estimated costs for bascule bridges with a thirty-two foot vertical clearance at these sites (including rights-of-way), are:

*W. Flagler Street	4-lane bridge	\$ 2,000,000
S. Miami Avenue	5-lane bridge	3,600,000
N. W. 5th Street	6-lane bridge	4,000,000
S. W. 2nd Avenue	4-lane bridge	3,000,000
	TOTAL	\$12,600,000

*The State Road Department is contemplating building a bascule bridge with a vertical clearance of at least thirty feet to replace the existing Flagler Street structure. This will be located immediately north of the existing bridge. Its immediate construction has been made necessary by the proposed construction of the Downtown portion of the North-South Expressway. The design of and construction schedule for this bridge is being coordinated with the proposed construction of the expressway in the Downtown area. The bridge is scheduled to be financed partly by General Obligation Bonds as approved by the Freeholders of Dade County in 1960, and partly by Federal Interstate funds.

Other Proposed Bridges on County and State Arterials

Crossing at the Mouth of the Miami River - From time to time various suggestions have been presented relative to the construction of a bridge or tunnel east of the S.E. 2nd Avenue Bridge to relieve congestion of Biscayne Boulevard traffic. If and when such a crossing is ever realized, it is anticipated that financing will be on a Metropolitan or State level.

Bridges for the Expressway System - Construction of the 41.5 mile expressway system will require the building of 2 major bridges, and several smaller fixed bridges, spanning the Miami River. Construction of these bridges is considered an integral part of the expressway and as such will fall within the jurisdiction of the State Road Department and the Federal Government. Plans call for construction of:

- Twin 75-foot fixed bridges located in the vicinity of S. W. 3rd Avenue.
- An as yet undesigned bridge, to be located between the N.W. 12th Avenue and N.W. 17th Avenue bridges on a future East-West Expressway.
- 3. Fixed spans over lesser tributaries wherever necessary.

BRIDGES

N.W. 7th Street Bridge (Miami River) - The development of N.W. 7th Street from N.W. 12th Avenue to N.W. 42nd Avenue as a major arterial street, and its proposed extension further westward, increases the desirability of constructing a crossing over the Miami River at N.W. 7th Street. This would open up another artery from Biscayne Boulevard to the west without the need of detouring the traffic over the already overcrowded N.W. 5th Street Bridge. It is assumed that if constructed, it will be financed on a State or Metropolitan basis.

N.W. 7th Street Bridge (Seybold Canal) - A plan is being studied for the possible development of N.W. North River Drive as an arterial street. Certain construction problems indicate that this artery might cross the Seybold Canal at N.W. 7th Street and rejoin N.W. North River Drive at a point further west. For this plan (or the development of N.W. 7th Street as a major artery), to become a reality, it will be necessary to replace the present inadequate bridge at N.W. 7th Street and the Seybold Canal with a more suitable structure.

N.W. 22nd Avenue Bridge over Miami River - A bridge at this location would do much to relieve the overload on N.W. 27th Avenue. Construction of this bridge is included in the 1962-63 State Road Department Budget at a cost of \$1,280,000. It is currently under design.

Repainting and Redecking of Four Bridges over the Miami River - Four of the principal bridges over the Miami River (at S. Miami Avenue, S.W. 1st Street, S.W. 2nd Avenue, and N.W. 17th Avenue), are in need of painting as the metal portions are fast deteriorating. Although these bridges are on officially designated Metropolitan Arterials, they are currently operated and maintained by the City of Miami. Such painting of an entire structure is considered to be beyond the limits of normal maintenance. One of these bridges, S. Miami Avenue, is also in need of redecking. The cost of these projects is as follows:

Repainting S. Miami Avenue Bridge	\$ 17,000
Repainting S. W. 1st Street Bridge	42,000
Repainting S. W. 2nd Avenue Bridge	17,000
Repainting S. W. 17th Avenue Bridge	17,000
Redecking S. Miami Avenue Bridge	25,000
TOTAL	\$118,000

Bridges on City Arterials and Residential Streets

N.W. 14th Avenue Bridge (Wagner Creek) - This 19 foot wide bridge is in fair condition but it is very narrow. N.W. 14th Avenue needs widening. When this occurs, widening of the bridge will be part of this project.

BRIDGES

N.W. 32nd Court over Comfort Canal - This bridge has been closed to vehicular traffic, but is still in use for pedestrians and bicycles. The proposed alignment of the East-West Expressway could cause this bridge to be demolished at a future date.

Belle Meade Island Bridge - This bridge at N.E. 9th Avenue and 74th Street is in poor condition, and is the only access to Belle Meade Island, an expensive residential area. It is an old wooden structure and the wooden pilings are weakening at the mud-line due to larvae. To further eliminate bay pollution, sanitary sewers are proposed for the island, but before these can be constructed, it is imperative that a new 30-foct wide, concrete structure be built providing two traffic lanes and a walkway. This is No. 1 priority for requested bridge improvements by the City. Its cost is estimated at - \$82,000.

Bridge over the Comfort Canal in the Fern Isle Nursery - This bridge is used by the Department of Parks and Recreation for moving machinery and supplies from one side of the nursery to the other. The bridge is a wooden structure which has deteriorated to the point where it is dangerous for those who use it. This bridge is included in the Chapter "Parks and Recreation" for \$16,500.

Other Small Bridges - Of the remaining small stationary bridges, there are some which may require reconstruction in future years. As their need becomes more pronounced, they will be evaluated.

Summary

Replacement of existing bridge to Belle Meade	
Island,	\$ 82,000
Repainting four bridges over Miami River, and	
Redecking one other Bridge over Miami River	118,000
TOTAL	\$200,000

STREET LIGHTING FACILITIES

The street lighting system of the City of Miami is owned and operated by the Florida Power & Light Company. The Power Company installs and maintains almost all facilities and the City is billed based on a rated system for rental of luminaires (and some poles), for service, and for power consumption. These rates are approved by the State Railroad and Utilities Commission.

The City levies a special millage annually to pay for this service. In the 1962-63 budget this is 0.922 mills. Including new street lighting improvements now budgeted, the City's annual street lighting bill will be approximately \$850,000 by the end of the 1962-63 fiscal year.

All streets within the City are lighted to some extent. Most, however, are not lighted to what is considered an acceptable standard. The City has evolved a set of minimum standards for its street lighting program. By October 1, 1963, the status of the Street Lighting program will be as follows:

Street Classification	Miles	Annual Cost of Lighting	Miles Lighted to "Standard"		
Metropolitan Arterials	125 miles	\$ 490,000	53 miles (43%)		
City Arterials	65 miles	90,000	19 miles (29%)		
Residential Streets	510 miles	270,000	40 miles (8%)		
TOTAL	700 Miles	\$ 850,000	112 miles		

Studies have shown that it is not economically feasible for the City to install and own its own street lighting, or to purchase and operate the existing system. A continuation of the present program of increasing the City's street lighting budget annually is the soundest approach towards achieving a well lighted City, at a reasonable cost.

As an example, in the past two years the City has increased its street lighting budget by \$108,000 per year. This has made possible bringing the lighting on 66 miles of streets up to an acceptable standard.

Preliminary estimates indicate that, based upon existing rates and conditions, the total charges to light all streets within the City to an acceptable standard, would be in the neighborhood of \$1 1/2 million per year.

Due to the existing program of leasing street lighting facilities, no capital improvement funds for street lighting are being requested.

OFF-STREET PARKING

Organization, Duties, and Objectives

Miami's first official approach to its parking problem was in December, 1950, when the City Commission adopted an Ordinance creating an advisory five-man committee, designated as the Off-Street Parking Board. This group was authorized to study parking conditions and make recommendations to the Commission.

When it became apparent that responsibility for a municipal parking program should be centralized, the City Commission, in November of 1955, by special act of legislature, enacted an ordinance creating the Off-Street Parking Department under the City Code. In July of 1959, through special legislative act, this Department commenced to operate under City of Miami Charter, Section 23-A. 1.

July 1, 1960, the Department began operating under Bond Ordinance No. 6564 as amended by Ordinance No. 6631. As per recommendations of our Engineering Consultants, \$3,000,000 worth of bonds were sold in order to construct the two municipal parking garages now in operation, and the receipts of the Off-Street Parking Department were pledged in order to pay off these bonds. (Receipts include on-street meter revenue.)

The Board has supervisory control over the operation of municipal offstreet parking facilities, and all acts of the Department are subject to the approval of the Board.

The objective of the Department is to develop an adequate long-range off-street parking program for the entire City, with particular emphasis on the Central Business District where conditions had been critical. The Board also encourages private enterprise to provide parking facilities.

Accomplishments

The Department is providing the following off-street parking spaces:

Off-St	re	et	Parking Lots	
Lot #	1	-	Auditorium, Bayfront Park	95 meters
Lot #	2	-	Allapattah Lot - NW 35 St. & 18 Ave.	119 meters
Lot #	3	-	Little River - NE 79 St. & 1st Fl.	136 meters
11		-	Little River - NE 78 St. to 79 St. (between	
			1st Pl., 2nd Ave.)	30 meters

Off-Street Parking Lots (Cont.)	
Lot # 4 - Little River - NE 82 Terr. & 1 Pl.	52 meters
Lot # 5 - Little River - NE 82 St. & 1 Pl.	25 meters
Lot # 6 - Little River - NE 80 Terr. & 1 Pl. (back of	
Jackson's)	22 meters
Lot # 7 - Prinz Valdimar Lot - Blvd. at 5th St.	85 meters
Lot #10 - NW 4 & 5 St. (bet. NW 1 Ave. & Miami Ave.)	192 meters
Lot #15 - NE 5 St. (Bayfront PkOld Comm. Bldg.	
Site)	16 meters
Lot #16 - NW 12 St. & 3rd Ct. (Dixie Park)	40 meters
Total off-street parking meters	812 meters
Lots 8 & 9 - Orange Bowl - "Park-Ride" - free parking	413 spaces
Municipal Parking Garage No. 1	455 spaces
Municipal Parking Garage No. 2	422 spaces
On-Street Parking Meters	3358 meters
Garage No. 3 Site Parking Lot	110 spaces
TOTAL PARKING SPACES	5570 spaces

Garage No. 1 - 40 N. W., 3rd Street

On March 1, 1961, the first municipal parking garage in Miami was officially opened. This is a 455-car, ramp-type garage, costing over \$1,000,000, conveniently located to all downtown stores and services. This four-story, beautifully landscaped garage has entrances and exits on both N.W. 2nd Street and N.W. 3rd Street and automatic ticket-issuing machines speed the entering process.

Also housed in this building is a meter repair shop. On the roof is the office of the Off-Street Parking Department. The vision of the City Commission and the Off-Street Parking Board has made this parking garage a reality. It is another civic step forward in the reshaping of Miami's urban growth to fit into the Magic City Center Plan.

Garage No. 2 - 130 Biscayne Boulevard

On February 8, 1962, Municipal Parking Garage No. 2 was officially opened. This is a 422-car mechanical parking garage, the first one of its kind in this area and was built at a cost of \$1,500,000. Exits and entrances are on

both the Boulevard and N.E. 3rd Avenue. A customer drives his car up to one of the four elevators and a car jockey parks it for him. These elevators move horizontally as well as vertically and a car a minute can be parked.

New Projects or Planned Projects to Improve or Expand the Department's Operation and Service

The Off-Street Parking Department of the City of Miami has purchased a site on S.W. 1st Street, between Miami Avenue and 1st Avenue, where they plan to build a garage for approximately 750 automobiles. This facility will provide parking for the almost completed General Services Administration Building which is located on the old Police Station site. It is presently being operated as a surface parking lot containing 110 spaces.

Plans are being completed for the operation of a parking facility in the Civic Center (Medical Complex).

A Continuing Program

The Off-Street Parking Board and Department are keeping a constant watch on the parking situation both within and outside the downtown area. As conditions change, the situation will be periodically re-evaluated to determine current needs. Appropriate steps will then be taken to do everything possible to provide adequate, convenient, and economical parking facilities for the residents and tourists in Miami, without any cost to the taxpayers.

Submitted by The Department of Off-Street Parking

20TH STREET MUNICIPAL PROPERTIES

The 20th Street Municipal Properties is situated on a 40-acre tract on the south side of N.W. 20th Street between 10th and 14th Avenues. This area has been developed considerably over the years, and now houses the major physical services offered by the City. This area is utilized principally by the Department of Public Properties, Department of Sanitation, and the Operations Division of the Department of Public Works. Included in this area are:

A 900-ton Incinerator -- (which also supplies steam to Jackson Memorial Hospital and to a water pumping station).

Incinerator Maintenance and Storage Building.

Truck Wash Racks and Parking Area -- for trucks used to collect garbage and trash.

The City Garage and Shops -- for the repair and maintenance of trucks and heavy road equipment.

Motor Pool Garage for servicing City Passenger Vehicles.

Sheds, Storage Facilities, and Parking Area-for road equipment of the Operations Division of the Department of Public Works.

Property Maintenance Shop Building--including shops and space for storage of materials necessary for maintenance of City buildings.

Water Tank Field and Water Pumping Station of the Department of Water and Sewers--(sufficient area has been provided for an additional water storage tank).

Communications Division Maintenance Shop Building--for the painting, and servicing of communications equipment.

Auto Pound Area for the Division of Police.

Requested Capital Improvements for this area, together with their estimated costs, are as follows:

Department of Sanitation

Storage Shed for Fire Brick - This shed is needed to store incinerator fire brick for Incinerator No. 1. At the present time, these bricks are stored at Coconut Grove, and when needed, transportation presents a big problem. Fire brick must be ordered in large quantities and, unless they are stored out of the weather, they lose their effectiveness. Also, the storage room at Coconut Grove is overcrowded. Estimated Cost - \$23,000.

20TH STREET MUNICIPAL PROPERTIES

Department of Public Properties

Installation of Twin-Post Hydraulic Lifts (One Pair) - Twin-post lifts will enable mechanics to do their jobs of repairing automatic transmissions more efficiently and faster. But, more important, it will make this job a much safer operation. Estimated Cost - \$1,500.

Roof over Cleaning Racks - The steam cleaning and wash rack operation is carried on, on a 24-hour basis. Certain types of cleaning, especially garbage trucks, must continue regardless of weather. A low cost roof over the cleaning racks would result in a more economical and efficient operation. Estimated cost - \$6,000.

Sandblasting, Preparation, and Painting Rooms - As a result of carrying out operations in an open field, sandblasting has become increasingly inefficient. The paint room is located in a shed with a low overhead clearance. The large pieces of equipment must, now, be painted in the open, making that an inefficient operation. Estimated Cost - \$60,000.

Operations Division of the Department of Public Works

Shower and Locker Room Facilities - The facilities would be constructed in a storage area at the north end of the east shed, Estimated Cost -\$13,500.

Single Story Map and File Room Addition to Existing Building - The existing map and plan racks have to be moved frequently, and in the process plans are often damaged or lost. There is no room in the existing facilities for storage of these maps and plans. Estimated Cost - \$2,000.

Summary

Storage Shed for Fire Brick	\$	23,000
Installation of Twin-Post Hydraulic Lifts (one pair)		1,500
Roof over Cleaning Racks Sandblasting, Preparing and Fainting Rooms		6,000
Shower and Locker Room Facilities		13,500
Single Story Map and File Room Addition to		
Existing Building	_	2,000
TOTAL	\$	106,000

INCINERATORS AND RUBBISH PITS

In discussing the incineration and disposal of garbage, trash, and rubbish, the following definitions are helpful.

- Garbage Principally animal and vegetable wastes and food containers, wrapped in newspaper and placed in approved containers.
- Trash All small discarded materials from around the premises which can be deposited in the approved trash cans for collection, and can be burned or otherwise handled at the incinerator of the City.
- Rubbish Grass cuttings, leaves, shrubbery, and other burnable materials from yards or lots and certain household items which cannot be deposited in approved trash cans and must be disposed of in pits or rubbish dumps.

The City of Miami has two incinerator plants which burn garbage and trash. The plants are located within the corporate limits of the City. Garbage and trash are delivered to these plants over relatively short haul routes.

Rubbish which residents accumulate in piles in the streets or alleys, is currently being hauled to Virginia Key where it is deposited.

Metropolitan Dade County has engaged the services of consulting engineers to study the engineering, economic, and financial aspects of a unified County-wide waste collection and disposal system. Their findings may influence the City's future plans for refuse disposal,

Incinerators

City of Miami Incinerator No. 1 (20th Street Incinerator) - This incinerator is located at N.W. 20th Street and N.W. 12th Avenue. In addition to reducing garbage and trash to ash, this plant utilizes the waste heat from the incineration process to produce high pressure steam. Nearby Jackson Memorial Hospital and a water pumping station (operated by the Department of Water and Sewers), use all the steam produced by the incinerator.

The plant was designed to handle up to 900 tons of refuse based on 24 hour operation. The incinerator, because of its present operating characteristics, burns about 600 tons of material per day. An evaluation of the incinerator plant is complete, and recommendations for operational changes have been made.

INCINERATORS AND RUBBISH PITS

City of Miami Incinerator No. 2 (Coconut Grove Incinerator) - A new, modern, rotary kiln incinerator was constructed in the Coconut Grove Area in 1961. In addition to incinerating garbage and trash, the plant is equipped to burn certain types of rubbish. The incinerator site, building, refuse pit, and chimney have been developed for an ultimate capacity of 600 tons per day. One 300 ton per day mechanical rotary kiln unit was installed with the original construction of the plant. When the need arises for additional incineration, another 300 ton per day rotary kiln can be fitted into the existing plant, without extensive alterations, to bring the total capacity to 600 tons per day.

Rubbish Pits

Conveniently located pits for the disposal of rubbish are becoming increasingly difficult to acquire. They cannot be located near populated or built up areas and a great deal of consideration must be given to the cost of long hauls. Unless the rubbish can be reduced by burning, it does not make suitable fill for future development of the land. A County regulation prchibits open burning within Dade County.

Until about a year ago, the City's principal site for rubbish disposal was located at N.W. 72nd Avenue (Milam Dairy Road), and N.W. 58th Street. The use of this site was granted to the City by the owners in order to raise the level of the land. This pit was forced to close because of the County regulation relative to open burning; it is too small to use unless refuse is burned. This leaves the City with only one available area where rubbish can be dumped. This is located on a portion of Virginia Key where the rubbish is deposited and left to decay. Incinerator ash is also dumped at this location. The low elevation of the land, and the relatively short haul from the southeast section of the City, make this location reasonably satisfactory as a disposal site. Sufficient low land is available to continue rubbish disposal for a number of years.

The continued use of Virginia Key as a rubbish pit, however, is contingent upon future development of this property. As Virginia Key is developed it is probable that rubbish pit operations will have to be relocated elsewhere. Continued deposit of rubbish without reduction by burning will make the land less suitable for future development. This is a very important consideration.

Based on hauling costs, it is desirable to have suitable rubbish sites to the west of Miami, (or devise some other means of rubbish disposal). While no particular site is currently under consideration, 100 acres of low-level, unimproved land a few miles west of Milam Dairy Road might be purchased for about \$1,000 per acre. A careful analysis of the cost of the additional haul distance should be made and weighed against the higher initial cost of a similar area closer to the City, and against hauling cost to Virginia Key.

Other Means of Disposal

In an effort to effect a permanent solution to a major portion of the rubbish disposal problem, the Department of Parks and Recreation, in conjunction with the Department of Public Works, set up a composting operation. Selected rubbish is assembled at Primrose Park and composted. Initial results of this operation are encouraging. The City realized considerable savings in using composted rubbish in place of certain soils in the landscaping accomplished along U.S. 1 from 27th Avenue west to the City Limits.

The composting operation that was started last year has proved to be a profitable and worthwhile undertaking. The results have been encouraging and 100% of the compost produced is being used. Plans are now being made to add the sludge from the sewage treatment plant to the compost thus enriching the compost with nutrients required by vegetation.

Rubbish disposal is a universal problem in urban areas and Miami is no exception. The problem was brought to a head last year by smog on the Palmetto Expressway which created hazardous driving conditions. This condition then brought about a County regulation that ended all burning of rubbish. Miami is now faced with finding an adequate solution to the problem. Some possible means available for consideration are: composting, depositing without burning, and a special rubbish incinerator.

It is felt that some capital funds will be required for rubbish disposal.

This is currently listed as an additional rubbish pit site. Future recommendations may indicate that the City needs a rubbish incinerator. The Department of Sanitation is now making preliminary inquiries as to the feasibility of the construction of such a facility.

Summary

Site for a Rubbish Pit (Estimated cost will depend upon the outcome of the studies described herein) \$100,000

WATER SUPPLY AND DISTRIBUTION FACILITIES

Water supply facilities (together with interceptors for the collection of sewage, and facilities for pumping and treatment of sewage), are the responsibility of the Department of Water and Sewers. After the Miami Water Company was purchased from the Florida Power and Light Company in 1941, the City Commission transferred the entire system to an independent Water and Sewer Board created by an act of the Legislature. Prior to 1941 the City operated the well fields, water treatment plant, and transmission mains, but the water distribution system was owned and operated by the Miami Water Company. Since its creation in 1941, the Department of Water and Sewers has modernized and expanded the water system in keeping with Greater Miami's ever increasing needs. During this interval, approximately \$39,000,000 has been expended on plant improvement and expansion. Financing has been obtained through the issuance of Revenue Bonds and revenues have increased sufficiently to provide adequate income to secure the increasing fixed charges.

The Department of Water and Sewers has been faced with rapidly increasing demands for water services both within the City of Miami and the territory adjacent thereto. The growth has been so rapid and of such highly localized nature, that it has not been feasible to follow truly long range master planning efforts, such as for 30 or 40 years. Instead, the planning for 10, 15, and 20 year periods requires the consideration of increasing facilities to such an extent that their construction cannot be financed immediately. For this reason, very detailed planning has been required to satisfy anticipated demands for relatively short periods as discussed below.

Since 1950, the total capacity of the water supply facilities has been increased to 160,000,000 gallons per day by the construction of the major portions of the 100,000,000 gallons per day Alexander Orr, Jr., Water Treatment Plant. The average daily demand was 104.8 million gallons per day for the 1961-62 fiscal year, with an all-time peak of 145.5 million gallons being pumped on May 24, 1962. Approximately half of all the water produced is sold on a wholesale basis to Miami Beach, Consumers Water Company, West Miami, Hialeah, Miami Springs, and other large users.

Projections of estimated future demands are based on the average annual increase in demands experienced during the previous years. These projections indicate that by 1967, the anticipated peak day demands will exceed the 160 mgd of treatment capacity at which the Hialeah and Orr Flants are now rated. Therefore, an expansion program to increase treatment plant capacity must be completed by 1967.

WATER SUPPLY AND DISTRIBUTION FACILITIES

During the 1956-57 fiscal year, the second phase construction at the Alexander Orr, Jr., Water Treatment Plant was started. Each of several different units of the plant must be enlarged to complete this effort. Thus far, a second transmission and distribution main, costing \$1,644,244, has been constructed; the high service pumping station capacity has been enlarged; an additional pure water storage reservoir of 6,000,000 gallons capacity has been added as well as 12 additional filter units of 60,000,000 gallons per day capacity and two additional softening units. This has increased the capacity of most of the component units of the treatment process to 100 mgd. In addition, four additional wells and a portion of a second raw water main have been installed. Seven reserve well pumps have been electrified and are now dual Diesel-electric driven. These completed second phase construction projects represent approximately 55% of the total costs required to increase the plant to its ultimate capacity of 100,000,000 gallons per day, including a lime recalcining plant.

A new 38 mgd high service pump was installed at the Orr Plant in 1961. A second 38 mgd pump is planned for installation by 1965 and will provide a total firm pumping capacity of 130 mgd to meet peak hour demands. During the next six years, upon the completion of the second raw water supply main, the Orr Plant will have sufficient capacity to meet its designated share of the system demands.

The third treatment plant was conceived as a result of studies of future population and the consequent demands for water. These studies have shown that the rate of increase in water demands is higher in the northern portion of the distribution system than in the southern portion due to land use characteristics. For this reason, the early stages of the third treatment plant construction are planned simultaneously with the final stages of the Orr Plant expansion.

The construction of a second lime plant, which was formerly planned for 1966 at the Orr Plant, can be postponed until 1970. This postponement is the result of improvements to the original 80 ton lime plant at Hialeah. These improvements will permit a 25 per cent increase in lime recalcining capacity, or a daily production of 100 tons. The \$1,500,000 included in our previous 6 year program for this lime plant will be used to install the transmission mains set forth later in this report.

WATER SUFPLY AND DISTRIBUTION FACILITIES

Alexander Orr, Jr., Plant and Related Construction

	Actual Project Costs	Actual Project Costs	Estimated Cost of Remaining
	Completed 1st Phase	Completed 2nd Phase	Construction in 2nd Phase
Southwest Well Field	\$ 278,559	\$ 230,000	\$ 170,000
Supply Mains	937, 291	160,000	1,400,000
Treatment Plant	2,508,208	1,290,000	250,000
Lime Plant			1,500,000
Orr Plant Wells	262,760	165,000	80,000
Transmission Mains	1, 187, 725	1,412,351	
Distribution Mains	2,084,850	231,893	
Storage & Fumping Station	1,013,165	1,200,632	400,000
Total Project Cost	\$8,272,558	\$4,689,876	\$3,800,000

The Department has found it necessary to construct new distribution mains and new services each year within the City Limits to meet increasing demands. It is anticipated that the 1962-63 expenditure of \$300,000 will be the annual requirement for such construction during the next few years.

In addition, an expanditure of \$2,200,000 is anticipated for construction of new transmission mains to supply the expanding distribution system in 1963 and 1964. The following mains are included:

- S.W. 76th Ave. from Bird Road to S.W. 8th St. 30 inch
 This main will serve as an additional supply main to the
 Flagami Section of the City of Miami.
- N.W. 67th St. from N.W. 5th Ave. to Elevated Tank 36 inch This main will increase the system capacity which serves the densely populated northeast section of the City of Miami and the northern part of Miami Beach.
- 3. N. W. 67th St. from N. W. 32nd Ave. to N. W. 67th St. Pumping Station 42 inch
- 4. N. W. 67th St. from Hialeah Plant to N. W. 32nd Ave.
 42 inch

 Items 3 and 4 above will provide additional supply from the
 Hialeah Plant to the entire northwest section of the distribution system as well as to the northeast section of the City.

WATER SUPPLY AND DISTRIBUTION FACILITIES

The 9,000,000 gallon reservoir, presently under construction at the Third Treatment Plant site, will be interconnected to the existing Hialeah Plant through a 60 inch main which was installed in 1962. Due to inadequate filtered water storage capacity at the existing plant, high hourly peak demands have had to be met by rapid changes in the treatment process, an undesirable feature which will be eliminated when the new reservoir goes into operation.

The existing high pressure pumps at the Hialeah Plant have reserve capacity to deliver water from the new reservoir into the transmission system. Additional high pressure pumps are scheduled for installation in the Third Treatment Plant and the transmission mains mentioned above will be a part of the required transmission system for this new plant.

Sewage Disposal Project

Among the Department's other accomplishments has been the construction of the \$27,100,000 Sewage Disposal Project. The project cost of the interceptor system and sewage treatment plant was met by General Obligation Bonds in the amount of \$16,000,000 and Revenue Bonds in the amount of \$11,100,000. In 1952, the City Commission adopted an ordinance authorizing and securing the Sewer Revenue Bonds by a 100% surcharge on water bills. Sewer service charges are applicable only to users in the corporate limits of Miami whose sewers are connected to the sanitary sewer collection system. The service charge provides funds to pay principal and interest on the Sewer Revenue Bonds and all operating and maintenance costs of the Sewage Disposal Project.

Summary

A summary of the principal Capital Improvements anticipated by the Department of Water and Sewers for the next six years is:

Water Division

2nd Phase of Construction at Southwest Supply		
(exclusive of Lime Plant)	\$	2,000,000
Construction of \$300,000 worth of new distribution		
mains annually		1,800,000
Construction of new transmission mains in system		2,200,000
Additional Pumping Facilities		130,000
1st Phase of Construction for 100 MGD Third		
Water Treatment Plant	3,1-	6,000,000
TOTAL	\$	12, 130, 000

Submitted by the Department of Water and Sewers

SANITARY SEWERS

The City contains approximately 21,500 land acres. It is estimated that by October, 1963, about 10,200 acres of the City will be sewered or have sewers under construction. The remaining 11,300 acres of the City is dependent upon septic tanks.

The City's \$27 million Sewage Disposal System has been in operation since October, 1956. The treatment plant, interceptor, and ocean outfall are large enough to accommodate Miami's needs for many years. The treatment plant was designed to be increased in capacity as large additional areas are added to the collection system. The existing interceptors will have to be extended for most of the collection sewers included in the proposed six-year program.

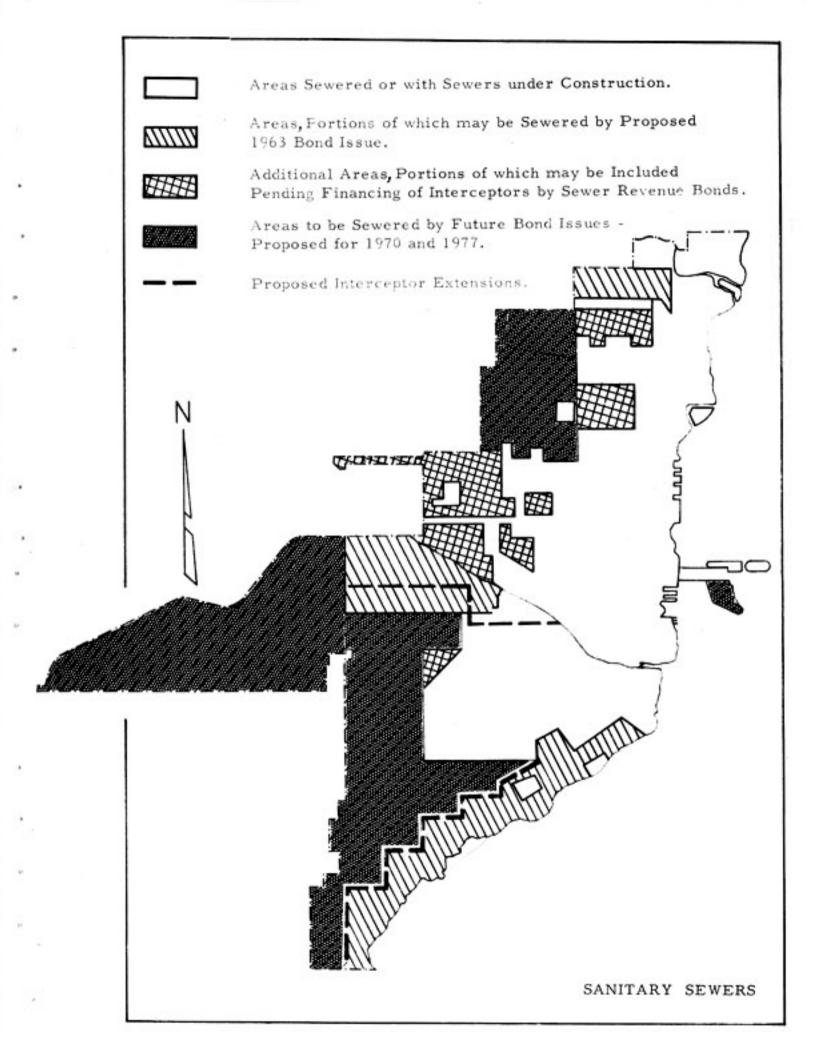
By October, 1963, present Sanitary Sewer G.O. Bond monies will probably be fully programmed, (construction may continue through part of 1964). The estimated costs to provide sanitary sewer facilities for the remainder of the City (exclusive of treatment plant expansion which can be financed on a self-liquidating revenue basis by the Department of Water and Sewers), are as follows:

Sewer construction for presently unsewered 11,300 acres and for renovation of existing sewer system	\$35,000,000
Extension of large interceptor lines to serve these	
new areas	10,000,000
TOTAL	\$45,000,000

A realistic approach which considers inconvenience to property owners, disruption of traffic and coordination with other construction, would be a program of designing and constructing approximately \$2 million of sanitary sewers per year.

The following suggested long range program would result in completing Miami's Sanitary Sewer System by 1984.

Date of		Construction
G. O. Bond Issue	Amount	Completion Date
1963	\$14,500,000	1970
1970	15,000,000	1977
1977	15,500,000	1984
Total	\$45,000,000	



The amount necessary to be supplied through G.O. Bond Issues will be reduced if portions of the interceptor extensions are financed by sewer revenue bonds.

Recommended Six-Year Program

The first proposed Sanitary Sewer G. O. Bond Issue of \$14.5 million could be used for the following recommended six-year sanitary sewer program. (Areas are shown on the accompanying map.)

Cost of Collection System

Cost of Necessary Interceptor Extensions

Areas Not Requiring Interceptor Extension - Approximately 600 acres of industrial, apartment and bayfront land that can be sewered without major interceptor extension, are having septic tank trouble. These are centered in two locations: (1) the area bounded approximately by N. 79th Street, N. W. 7th Avenue, N. 72nd Street, and N. E. 4th Court; (2) the Bayfront Area lying between S. E. 15th Road and S. E. 32nd Road. Construction of sewers for these areas would be undertaken in the first year of the six year program. (Plans for the interceptor extensions required for other areas could be prepared during this first year period, thus enabling a continuous sanitary sewer construction program.) The estimated cost for sewering this 600 acres is .

\$ 2,500,000

The South Bayfront Area - This area extends along the bayfront from S.E. 32nd Road to the South City Limits. It needs sanitary sewers to eliminate the discharging of sewage into Biscayne Bay, and to provide much needed sewer service to low lying bayfront properties. The estimated costs for this area are . .

\$ 3,500,000 \$3,500,000

The Comfort Canal Area - 1000 acres, lying in the vicinity of Comfort Canal between N.W. 22nd and 37th Avenues is low and in dire

SANITARY SEWERS

Cost of Necessary
Collection Interceptor
System Extensions

need of sanitary sewers. Full development of this area has been seriously hampered by the lack of sanitary sewers. This is particularly so in the R-4 area east of 27th Avenue. The estimated costs to sewer this area are

\$ 2,500,000 \$2,000,000

Renovation and Replacement of Existing

Sewers - The existing sanitary sewer collection

system comprised of approximately 340 miles of
sewer lines, serving approximately 10,200 acres,
will require the following steps or phases:

- 1. Rebuilding of major portions of more than 5 miles of sewer lines.
 - 2. Eliminating or rebuilding 5 pump stations.
 - 3. Continuing the present infiltration repair program. This will reduce the millions of gallons of infiltration that is being pumped and treated at the sewage treatment plant daily. Television inspection and repair of over 30 miles of badly leaking sewer lines and the elimination of undesirable cross connections between sanitary and storm sewers is required.
 - 4. Adjusting sewer lines required by other construction, especially expressway construction in the congested business district. (It is expected that the proposed expressway construction will begin in the very near future and a large portion of these modifications are anticipated early in the six year program.)

The amount of this work proposed in the above four steps for the next six years is estimated at TOTALS

\$ 2,000,000

\$5,500,000

The above program totals \$16 million. Recent discussions with the Department of Water and Sewers concerning the possibility of revenue financing for interceptor construction have lead to the conclusion that they could probably issue interceptor revenue bonds for at least \$1.5 million. Accordingly, this \$16 million proposed program consists of \$14.5 million to be financed by G.O. Bonds (\$10.5 million for new collection systems and renovation, plus \$4 million for interceptor extensions), and \$1.5 million of interceptor extensions to be financed by revenue bonds by the Department of Water and Sewers.

G. O. Bond financing for some interceptor construction has been included to insure a continuous sanitary sewer program. However, it may be possible that the Department of Water and Sewers could float the total \$5.5 million required for all major interceptor construction included in this six year program. This would mean that the \$4 million of G.O. Bond money mentioned above for interceptor construction could be utilized to provide sanitary sewers for an additional 1,600 acres. With this \$4 million, all of the unsewered areas lying north of the Miami River (except for that portion lying north of 39th Street and west of 7th Avenue), could be provided with sanitary sewers.

Summary

The following is a list of projects included in the recommended first year sanitary sewer program, and amounts that would be programmed for the remaining five years. The projects and the estimated cost of each are illustrative and subject to refinements and rearrangements. Any project included in the 1962-63 Capital Improvement Budget or any project pending approval under the Accelerated Public Works Program which is not under contract by September 30, 1963, should receive priority over the following projects.

1st Year

While planning is being done for the South Bayshore Area, construction could proceed on the following:

N. Pinemount Sanitary Sewer District - Phase 2
This area approximately bounded by N. W. 79th St.,
N. W. 7th Ave., F. E. C. Railway, and N. W. 2nd Ave. \$ 900,000

E. Pinemount Sanitary Sewer District
This area approximately bounded by N.W. 2nd Ave.,
F.E.C. Railway tracks, N. 79th Street.
500,000

SANITARY SEWERS

Flagler Sanitary Sewer District	
This area approximately bounded by S. W. 25th Rd.,	
F.E.C. Railway, S.W. 12th Ave., and S.W. 5th Ave.	\$ 250,000
Brickell Sanitary Sewer District	
This area approximately bounded by S.W. 32nd Rd.,	
F.E.C. Railway, S.W. 15th Rd. and Biscayne Bay	750,000
Adjustment, Modification, and Replacement of	
Portions of the Existing Sanitary Sewer System	500,000
FIRST YEAR TOTAL	\$ 2,900,000
2nd Year Total	2,500,000
3rd Year Total	2,500,000
4th Year Total	2,500,000
5th Year Total	2, 100, 000
6th Year Total	2,000,000
TOTAL - SIX-YEAR PROGRAM	\$14,500,000

STORM SEWERS

Of the 21,500 acres within the City Limits, approximately 16,400 acres are still without positive storm drainage. Prior to the present storm sewer program, some 4,800 acres of storm sewers were constructed. This was concentrated largely during two periods of active storm sewer construction. These were: (1) from 1914 to 1927, when 3,500 acres, mostly in the business district were constructed; and, (2) from 1950 to 1956, when 900 acres were provided with positive storm drainage. Since 1956, over 400 acres have been provided with positive storm drainage.

Long Range Program

In the long-range plan, it is estimated that \$45 million will be required to furnish the City with adequate storm sewer protection. A breakdown of this follows:

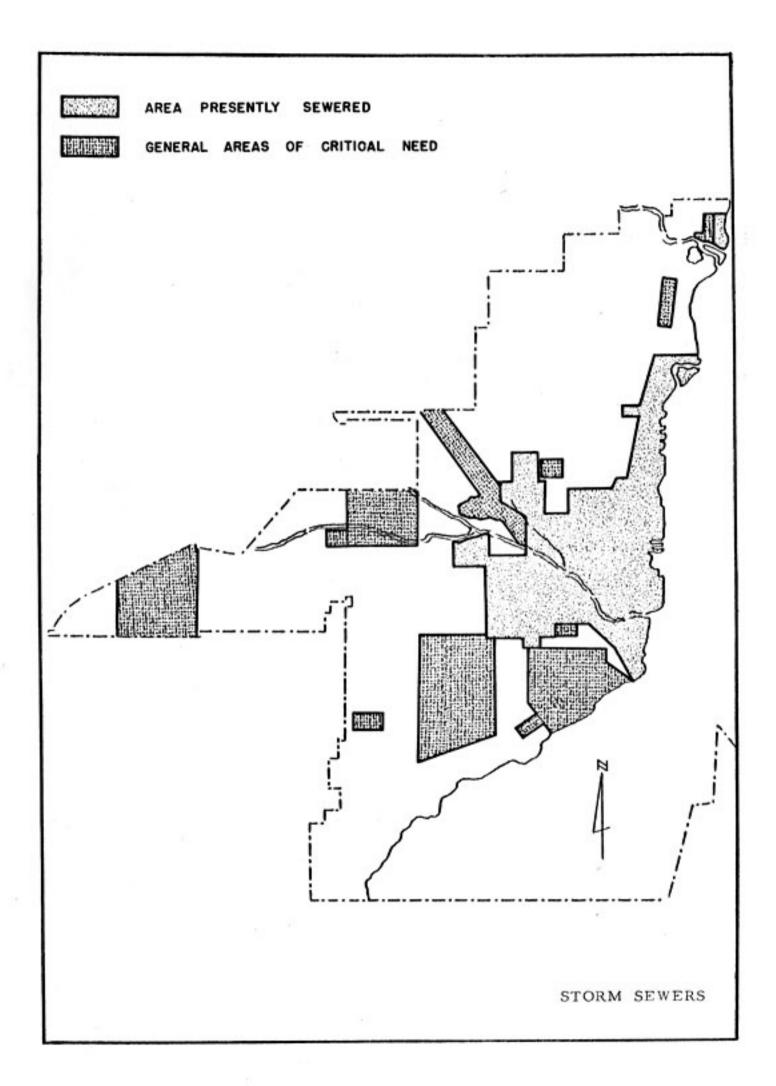
1.	To replace undersized and deteriorated sewers	\$ 3,000,000
2.	To drain 5,500 acres urgently in need of storm sewers	15,000,000
3.	To drain the remainder of the City (10, 900 acres)	27,000,000
	Total	\$45,000,000

Immediate Program

Past experience has shown that it will be impossible to accomplish this long-range program because of property owners objections to assessment costs for storm improvements.

In view of this, only \$4 million is recommended for construction within the next six years. This amount will cover only the most urgent of our critical needs which includes some of each of the following:

- Reconstruction and adjustments of existing storm sewer systems required due to the actual construction of new State Highways. Also reconstruction of overloaded and deteriorated systems.
- Local drainage structures to provide temporary drainage relief for scattered locations where it is not feasible to provide positive drainage.
- Drainage required in connection with highway and street improvements.



- Storm interceptors to relieve overloaded systems and to provide discharge lines for future storm sewer improvement districts.
- 5. Storm Sewer Districts for critical areas; a portion of the cost would be assessed against property in the District. These projects are dependent upon the willingness of property owners in the District to pay assessments. Based upon past experience, this is not a very promising prospect.

A breakdown of the recommended program follows:

1963-64 Storm Sewer Improvement Requests

Any projects included in the 1962-63 Capital Improvement Budget which are not under contract by September 30, 1963, should receive priority over the program that is being submitted at the present time.

Storm Sewer System - Extension and Modification - On some streets, in areas that now have storm sewers, extensions or modifications of the existing system are required in order that the system may operate properly. Several storm sewer lines are badly deteriorated or undersized and must be rebuilt.

\$200,000

Drainage Structures for Highway Projects - Work to be done in conjunction with various highway projects throughout the City. This will include French drains, auger holes, covered ditches, and sewer extensions as required.

150,000

Local Drainage Program - Approximately 130 locations throughout the City requiring drainage relief can be corrected by these installations. French drains, auger holes, and covered ditches are proposed for these areas.

200,000

Storm Sewer Improvement Districts - For providing storm sewers for 80 acres in areas where requested by property owners.

400,000

Total 1963-64

\$950,000

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1964-69 Storm Sewer Improvement Requests

Modification, renovation, and extension of existing storm sewers - 5 years at \$100,000 per year.

\$ 500,000

Local drainage and drainage for highway improvements - 5 years at \$100,000 per year.

500,000

Storm sewer improvement districts - 5 years at \$400,000 per year.

\$3,000,000

SIX YEAR TOTAL 1963-69

Total 1964-69

\$3,950,000

MARINAS

In recent years pleasure boating has grown rapidly in the Miami area, creating a demand for marina facilities. The City of Miami owns and operates two such facilities. One is located at Dinner Key, the other at Bayfront Park.

The Dinner Key Marina

The Dinner Key Marina was constructed during 1950. By 1957, it became apparent that existing facilities were inadequate to meet the demand. This inspired a rather thorough study which culminated in a three-phase Master Plan for the development of the existing marina.

The first phase of this was completed in 1959. It consisted of the construction of two new piers (accommodating 204 craft), bulkhead improvements, a dockmaster's office, a launching ramp, and the expansion and beautification of the adjoining Coconut Grove Bayfront Park,

The second phase called for additional new bulkhead, a paved parking area, and two additional piers for craft up to 35 feet in length. The third phase called for relocation of an offshore mole to provide room for an offshore mooring area and future expansion. The mole would be connected to Coconut Grove Bayfront Park by a bridge-causeway. Additional launching, beach, parking, and picnic area could be provided on the mole itself.

The second and third phases of this plan were originally estimated to cost \$200,000 and \$500,000 respectively.

The entire concept of Dinner Key Marina-Park development is now receiving further study. The City of Miami Planning Department has formulated a new proposal much more comprehensive in nature than former ones. Briefly, this new proposal calls for:

1. Acquisition and development of an area between the Coral Reef Yacht Club and Rockerman Canal, and development of an offshore mole connecting to this area. This mole would have a beach and picnic area with appurtenant parking facilities. Sailboat mooring facilities would be relocated to the protective area formed by the new mole.

- 2. The development of an offshore mole connected by a causeway bridge to the end of McFarlane Road. On this mole would be located trailer boat launching facilities, docks for small boats and boat rental facilities, appurtenant parking facilities, and a beach and parking area.
- The construction of three additional piers for larger boats adjacent to the existing Dinner Key Marina facilities.

Such a project could be developed in three stages in the order described above.

Sufficiently detailed information has not as yet been prepared to enable the placing of a total cost on this project. However, a rough estimate indicates the cost would probably be about \$5 million. (This is discussed also in the Chapter "Dinner Key".)

In the meantime an improvement of a less costly nature is needed at the Dinner Key Marina,

Thirty pilings supporting existing piers are deteriorated and threatening to collapse. Some of these can be banded and capped, and others will have to be replaced. The estimated cost of this improvement is \$2,000.

The 1962-63 Capital Improvement Budget includes \$18,600 for a project to modify Pier 5 at the Dinner Key Marina. This calls for the modification of two 85' dock bays and twelve 65' dock bays to accommodate twenty 26' vessels and forty-four 30' vessels. This project is currently being held up for further study.

The Bayfront Park Marina

The marina facilities at Bayfront Park serve a dual purpose. Piers "A", "B", and "C" provide berthing for private pleasure craft, while Piers 5 thru 10 are occupied by "Charter" and "Sightseeing" boats. The Police Harbor Patrol utilizes a small finger pier just north of their office. Since 1952, virtually all of these piers have been rebuilt.

The existing steel sheet pile bulkhead is quite badly corroded above the waterline and should receive early attention. (This is discussed in the Chapter, "Bulkhead and Shore Protection", under the section Bayfront Park.)

MARINAS

There is currently under consideration a proposal to modernize the Bayfront Park Marina. Two basic plans are being discussed. One of these is to
keep the Marina in the same general location, but to change it into a park-like
setting. This could be done by having the boat docks located in a sheltered
cove just south of the Dodge Island Causeway, which is now under construction.
The other plan is to relocate the Marina south of its present site. The preliminary cost estimate for either plan, including Marina construction and
appurtenant facilities is \$1.8 million. Consideration is being given to financing this proposal by a General Obligation Bond Issue.

Should the proposal for a new marina facility not materialize in the immediate future, certain improvements are needed at the existing marina. These are:

Replacement of 12 deteriorating pilings at Piers #5 and #10 (before they collapse) \$1,800

Conversion of the north side of Pier 5 to wider berths (to accommodate the larger Charter boats now being built).

2,200

Summary

Dinner Key Marina-Park Development, (see
Chapter "Dinner Key")
Dinner Key Marina - Replacement of Pilings \$ 2,000
Bayfront Park Marina Development * 1,800,000

* If this does not materialize in the near future, improvements which will be necessary for the existing Bayfront Fark Marina are:

BULKHEAD AND SHORE PROTECTION

The City owns approximately 21,500 feet (about 4 miles), of bay frontage excluding Virginia Key. (Virginia Key has a combined bay and ocean frontage of about 4.5 miles; of this, about 3 miles lie within Miami.)

The 21,500 feet is distributed as follows:

Watson Island	8,500
Bayfront Park	3,350
Dinner Key	2,500
Coconut Grove Bayfront Park	2,000
Morningside Park	1,900
Other (including lesser parks, streets	
dead-ending on the waterfront, and	
miscellaneous properties)	3, 250

The City also owns property fronting on the Miami River and on several canals.

A discussion of the condition of the waterfront properties and requirements for shore protection follows.

Watson Island

The present bulkhead on the west side of Watson Island (approximately 1500 feet), was constructed years ago from Lackawanna steel sheet piling anchored by means of steel tierods attached to steel wales.

This entire bulkhead is in an advanced state of corrosion and the anchor system has failed intermittently for a combined length of about 300 feet. The cost for bulkhead repair to this area would be approximately \$225,000. Metropolitan Dade County has leased this area from the City for temporary seaport purposes, and will be responsible for the maintenance of this bulkhead until the Port of Miami on Dodge Island is completed.

The bulkhead on the north and east sides of Watson Island, excluding the boat ramp and rental property is approximately 3,000 feet long. The existing bulkhead is in an advanced state of deterioration and, if not repaired soon, part of the Park will be lost.

The cost for bulkhead repair to this area would be approximately \$165,000.

Bayfront Park

Bayfront Park, with 3,350 feet of bay frontage, is protected for its full length by a steel sheet pile bulkhead. There has been no maintenance to this bulkhead over the years. As a result, it is rapidly being destroyed by corrosion.

Unless early repairs can be made to approximately 1700 feet of this bulkhead, it is expected that this costly structure will be a total loss. Capping with reinforced concrete to a point below mean low water would be the best means of preserving the existing structure. The cost of this work would be about - \$120,000. (There is currently under consideration a proposal for the eastward expansion of Bayfront Park. Should this materialize, it would eliminate the need for repair of existing bulkheads.)

Dinner Key

During 1958, the Dinner Key Marina was expanded. Included in this project was the construction or recapping of 2,500 feet of bulkheading. There remain, however, two areas where bulkheading is in critical need of repair. These areas are:

Area No. 1 - Approximately 860 feet of uncapped steel sheet bulkhead beginning at the southeastern corner of the United States Coast Guard fence and running south.

This bulkheading is approaching a state of deterioration where comparatively low cost repairs may become impossible to effect due to the destruction of the interlocks and anchor system. Jagged edges of steel in the corroded wall constitute a serious safety hazard. (Of this 860 feet of bulkheading, about 250 feet lies directly in front of the Merrill-Stevens Ship repair facilities. This bulkhead frontage is necessary in the operation of their business.)

This bulkhead should be protected from further destruction by the installation of a reinforced concrete cap extending from a point below mean low water to the top of the wall.

The estimated cost of this bulkhead repair is - \$76,000. (This project has been applied for under the Accelerated Public Works Program, but as of this date has not yet been approved.)

BULKHEAD AND SHORE PROTECTION

Area No. 2 - The seawall in Merrill-Stevens boat dock, about 580 feet in length.

This seawall employs steel wideflange piles to retain vertically set concrete slabs joined at the top with a concrete cap. The steel is corroding severely and, if allowed to deteriorate further, the entire wall will, in a comparatively short time, be a total loss.

This seawall should be sandblasted, repaired, and the steel supports painted as thoroughly as possible. The estimated cost of this project is - \$5,000.

Morningside Park

This park, located at N.E. 54th Street and Biscayne Bay, has approximately 1900 feet of waterfront. This is currently protected by rip-rap which is adequate for normal conditions. However, this protection is not adequate for severe storms such as hurricanes. The normal high tide level is only two feet below the top of the rip-rap and within ten feet of an existing structure. Loss of property could result from a severe storm. A complete concrete bulkhead for this property would cost about - \$105,000. (This project has been applied for under the Accelerated Public Works Program, but as yet has not been approved.)

Virginia Key

In October, 1958, the City applied to the Federal Government for a beach erosion study on Virginia Key. After preliminary negotiations, the City and County joined together to request a study to cover all of Virginia Key and Key Biscayne, and also to provide the local financing. This application was subsequently approved in January, 1959. The report entitled, "Beach Erosion Control Report on Cooperative Study of Virginia Key and Key Biscayne, Florida", prepared by the U.S. Army Corps of Engineers, dated April, 1962, has been released as a result of this study. This report was followed by House Document No. 561, dated September, 1962. This is the latest report and the substance of its recommendations are as follows:

 The stabilization of the shores to prevent further beach losses, and that such stabilization can be accomplished by periodic nourishment with suitable sand as required.

BULKHEAD AND SHORE PROTECTION

- The construction of a groin in the northeast corner of the City-owned property on Virginia Key, (to be deferred pending the effectiveness of the sand placement.)
- Adoption of a Federal Project to reimburse local interests to an amount equal to 1/3 of the initial costs and future nourishment cost for a period of ten years.

If the project is to be accomplished with Federal participation, the Federal Government will request assurances from the City for:

- The continued public ownership of the shore, and its administration for public use during the economic life of the project.
- The maintenance of the project works and the providing of periodic nourishment of the beach.
- The control of water pollution to the extent necessary to safeguard the health of the bathers.

The City's portion of the cost for beach nourishment for a five-year period is \$130,000. Federal participation for this project will be \$65,000 above this cost. In order to accomplish this nourishment it may be necessary for the City to go shead with the project on its own for the total cost of \$195,000, then be reimbursed by the Federal Government for its share.

The construction of a groin on the northeast corner of Virginia Key is recommended to be deferred until continued erosion of the replenished beach indicates construction of a groin justified.

Miscellaneous Waterfront Properties

N.E. 28th Street at Biscayne Bay - The City has riparian rights along a 300 foot frontage at this location. It is currently not protected. However, since this area lies within a cove, the damage during a storm should not be too severe.

Brickell Park - Located at Biscayne Bay and S.E. 5th Street, this small park has about 170 feet of unprotected shoreline. Shore protection is recommended as wave action created by boats and reflected from Burlingame Island, lying offshore, is causing erosion and loss of park property and the shoreline. The estimated cost of this bulkheading is - \$10,000.

BULKHEAD AND SHORE PROTECTION

Dead End Streets - About 40 streets dead-end or front on the Bay.

Most of these are bulkheaded and are in fair to good condition. There are
several, however, without bulkheading, and several where bulkheads are in
poor shape. Included are such streets as N.E. 31st Street, N.E. 61st Street,
and Aviation Avenue. To bulkhead these areas and other miscellaneous
locations will cost about \$47,000, of which \$10,000 has been allocated in the
1962-63 budget, leaving a balance of \$37,000 needed to complete this program.

Riverfront Properties - Protection of City property at the bridges on the Miami River is a maintenance item and is taken care of by the Department of Public Works. Parks and streets which front on Miami's rivers are mostly without bulkheads or shore protection. However, unlike bayfront properties, these are comparatively safe from major wave action and erosion.

Summary

Watson Island - West Side	\$225,000	
Watson Island - North & East Sides	165,000	
Bayfront Park Bulkheading	120,000	
Dinner Key Bulkheading	76,000 *	
Dinner Key Seawall	5,000	
Morningside Park Bulkheading	105,000 *	
Brickell Park Bulkheading	10,000	
Miscellaneous Bulkheading (dead-end		
streets)	37,000	
		\$743,000
Virginia Key Shore Protection - Beach		
Nourishment for a 5-year period. (Costs		
do not include Federal Government share)		130,000
	TOTAL	\$873,000

^{*}Project applied for under the Accelerated Public Works Program, but not as yet approved.

VIRGINIA KEY

Virginia Key is an island, approximately 725 acres in size, lying 2 1/2 miles east of the mainland of Miami. Its westerly shore is on Biscayne Bay, and its easterly shore is on the Atlantic Ocean. It is connected with the mainland by Rickenbacker Causeway, which passes through the southerly portion of Virginia Key.

By condemnation and by purchase, the City acquired 572 acres on Virginia Key for \$417,000 in 1945. Since that time there have been changes in ownership between the City and Dade County of various portions. At the present time the City has title to approximately 525 acres on the northerly end, and the County to approximately 200 acres on the southerly end.

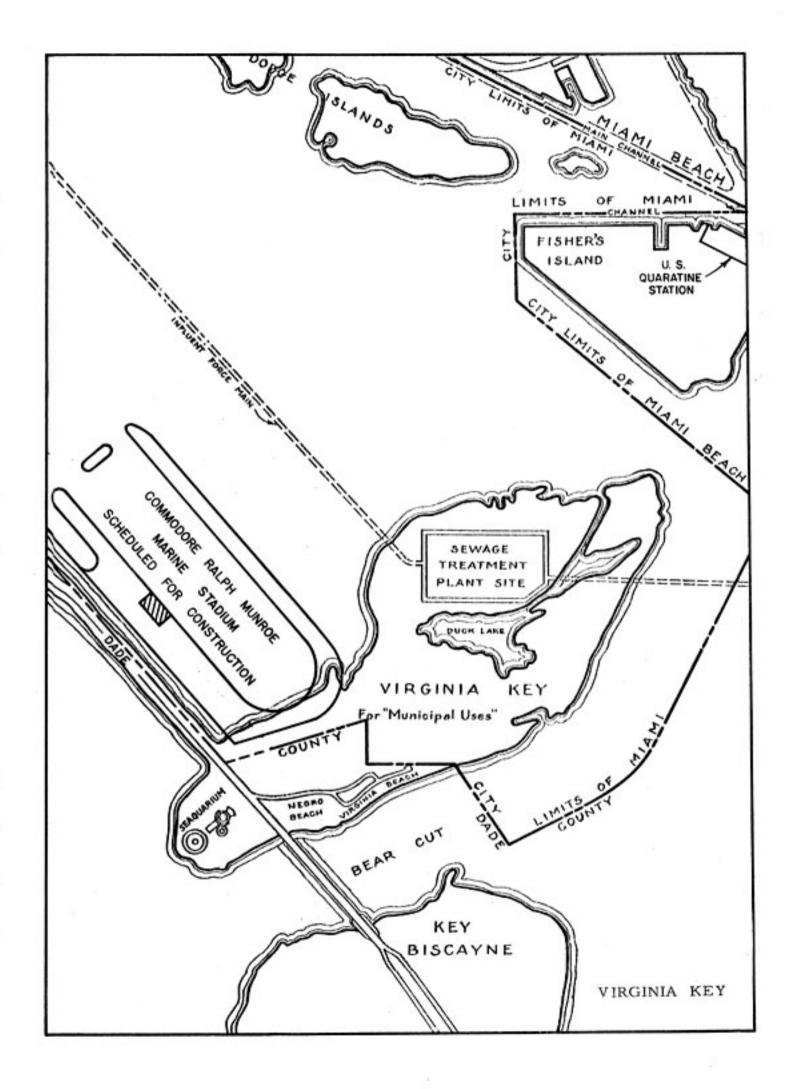
The size of Virginia Key is not easily defined. Due to its low elevation, the area varies tremendously with the tide; it is about 75% under water at high tide. The City and County each hold title to additional Bay Bottom Lands adjacent to their properties on the Key.

The portion of Virginia Key obtained by condemnation was for municipal purposes (at that time for "port and airport purposes to be used by the City of Miami and its inhabitants"). The deeds for the various parcels of Bay Bottom Lands (from the Internal Improvement Fund), specifically provide that the land should be used for municipal or for port and airport purposes. Legal opinions have been rendered to the effect that any future development of this property must be based upon such use.

Improvements

In 1953, a 66-acre tract in the north central portion was used for the construction of the City of Miami Sewage Treatment Plant. Construction has started on a Marine Stadium on the westerly shore of Virginia Key. (See Chapter "The Commodore Ralph Munroe Marine Stadium".) These, plus use of a small area for rubbish disposal, are the only portions of the Key currently being utilized by the City. The County portion has a County Bathing Beach (especially planned for the enjoyment of our Negro citizens), a privately operated aquarium, and the University of Miami Marine Laboratory.

To be usable for almost any purpose, the Key must be extensively filled to a height of about six feet above sea level. This means an initial cost of about \$7,500 per acre. The Department of Sanitation is currently using a portion of Virginia Key for the deposit of Incinerator ash and rubbish, (see Chapter, "Incinerators and Rubbish Pits").



Current Studies and Proposals

Many proposals have been made for the possible development of Virginia Key. Included have been such features as a golf course, an Executive Type Airport, a marina, a Marine Stadium, public beach, and an International Center, which would include hotel and convention facilities.

The Planning Department has made a study and given recommendations for the uses of Virginia Key. A "Zones of Use" map was prepared in February, 1962, which shows their proposal for the Key. Included in their proposal are the following uses: a recreation beach area, a golf course area, a Marine Stadium area, a conservation area, and an area for the expansion of the Sewage Treatment Plant.

At this time, the Federal Government is contemplating spending \$1.5 million for an oceanographic laboratory on Virginia Key, if the County will give them 5 acres of land. The site they would like is just across Rickenbacker Causeway from the University of Miami Laboratory. The construction of this Laboratory would make Miami a real world center of oceanography.

Dade County is considering in its long range plans, the feasibility of a causeway passing through Virginia Key and on to the upper keys. If such a plan should ever materialize, it could have a definite effect on the future development of Virginia Key.

There is also a proposal by property owners on Fisher Island to construct a causeway-bridge from their property, across Norris Cut, to the northerly end of Virginia Key. This proposal has been approved in principle by the City Commission.

Beach Erosion

There is a problem of erosion on the seaward side of the Key. The east shoreline of the Key is the only natural portion of the island above sea level. Some means of shore protection should be included in plans for the immediate future. (See Chapter "Bulkhead and Shore Protection".)

URBAN RENEWAL

Urban Renewal plays an important part in capital improvement planning. The rejuvenation of blighted areas is, in itself, a capital need. The redevelopment of major areas can have a pronounced effect on other capital needs of a community. Therefore, a brief chapter on Urban Renewal is included in this Capital Improvement Report.

The original National Housing Act of 1949 offered help in slum clearance and redevelopment. It also authorized 810,000 low-rent public housing units and housing research program. This included: the actual acquisition and clearing of a slum area; the rearrangement of streets and utilities; and the preparation of the land for re-use. The City then either sold or leased the land to private enterprise for actual rebuilding or retained it for public purposes.

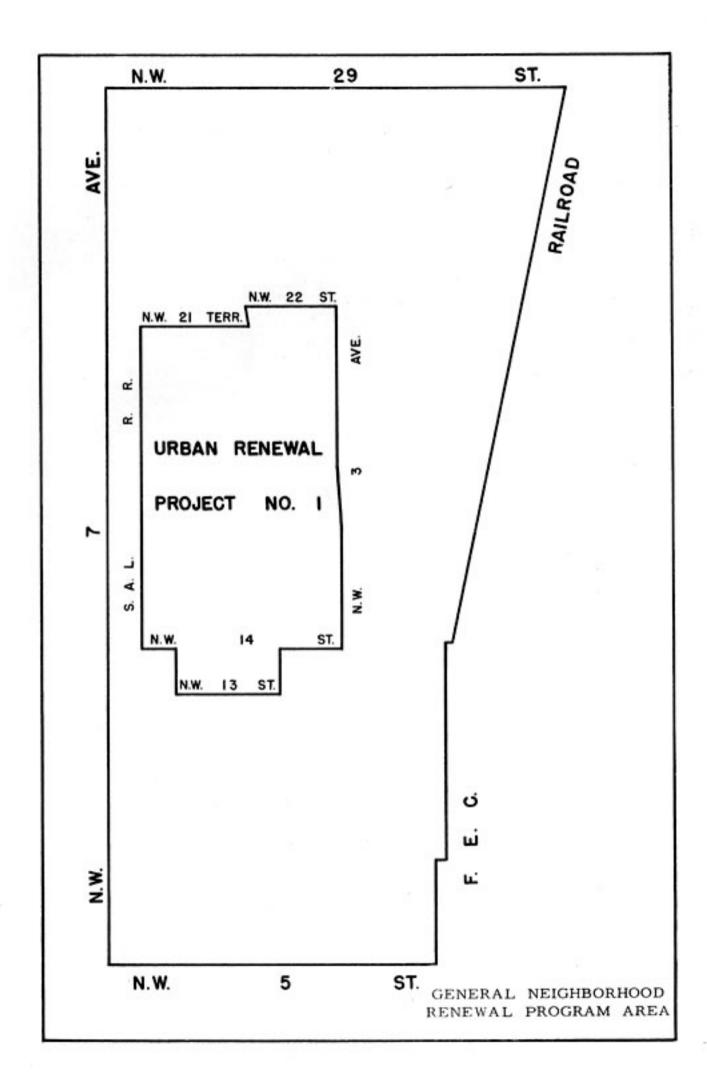
The Housing Act of 1954 opened the way to a new approach to end urban blight through use of a wide range of resources (community, private, and Federal), in a strongly united effort. There are three fields of action:

- The Slum Clearance and Redevelopment Program, for complete rebuilding of slum areas.
- Rehabilitation of Blighted Areas capable of being brought up to standard without the need of complete demolition.
- Conservation Program to prevent the spread of blight into areas still basically good.

The name given this new approach is "URBAN RENEWAL".

In 1952, the Florida Supreme Court ruled (Adams vs. Housing Authority of Daytona Beach, 1952, 60 so. 2d 663), that it was a violation of the State Constitution to use public powers and funds to acquire property from one private ownership with intent to resell or lease the same to another private party. (This opinion was influenced by the fact that the re-use of the site would have been wholly industrial in character.)

Efforts to correct this situation during the 1955, 1957, and 1959 State Legislative sessions were unsuccessful. Local laws for Tampa (passed in 1957), and for Tallahassee (passed in 1959), were rushed through the legislature enabling these cities to participate in the Federal Program. In 1961, about 13 other cities passed laws to enable them to participate in the Federal Program.



There are at the present time two possibilities which might enable this area to participate in an urban renewal program. These are:

- A recent ruling by the Florida Supreme Court upholding the special legislative act by which the City of Tampa plans to redevelop 40 acres of blighted property in a multi-million dollar project. The Court ruled that Urban Renewal, when tied to Slum Clearance, is a valid function of government.
- 2. Early in 1960, the Dade County Commission passed an urban renewal ordinance. It is patterned after the Tampa Act. Some of the important aspects of this ordinance are:
 - a. A Metropolitan Dade County Urban Renewal Agency has been established to run the program, but its activation is optional with the Board of County Commissioners.
 - b. The ordinance is applicable throughout Dade County, but cannot be exercised by the County within a municipality until the Board adopts a resolution finding that one or more slum or blighted areas exist in such municipality and that the redevelopment is necessary in the interest of public health, safety, morals, or welfare.
 - c. The Board shall not approve an urban renewal plan until a general plan for the entire County, or the unincorporated area only, or an individual municipality, has been prepared.
 - d. Activities which may be carried on under an urban renewal project include: (1) acquisition of a slum or blighted area; (2) demolition and removal of buildings and improvements; (3) installation, construction, or reconstruction of streets, utilities, parks, playgrounds, and other improvements necessary for carrying out in the urban renewal area the urban renewal objectives of this ordinance in accordance with the urban renewal plan; (4) disposition of any property acquired in the urban renewal area at its fair value for uses in accordance with the urban renewal plan; (5) carrying out plans for a program of voluntary or compulsory repair and rehabilitation of buildings or other improvements;

and, (6) acquisition of any other real property in the urban renewal area where necessary to eliminate unhealthful, insanitary or unsafe conditions.

The Government of Metropolitan Dade County has received from the Urban Renewal Administrator in Atlanta, \$84,000 in advance planning funds to develop a "General Neighborhood Renewal Plan" for the area bounded by N. W. 5th Street, N. W. 7th Avenue, N. W. 29th Street, and the F.E.C. Railroad. This G.N.R.P. study is nearly complete and the project areas have been delineated.

There is much that can be done now to prepare for future participation. In fact, it must be done, before the Federal Government will render aid.

Urban Renewal begins with the community itself. The first requisite-without which Federal Aid is not attainable--is a "Workable Program", consisting of the following elements:

- 1. Adequate local housing and health codes and ordinances, effectively enforced. Stepped-up code enforcement frequently enhances the tax base of
 the locality. This results in increased revenue which offsets, somewhat,
 the costs of community improvements. The City of Miami has adopted a
 minimum housing code. (Ordinance 6908, adopted July, 1961)
- A Comprehensive Community Plan, including:

A Land-Use Plan.

An Arterial Highway Plan.

A Community Facilities Plan (Schools, Parks, Playgrounds).

A Capital Improvement Program (including priorities).

An adequate Zoning Ordinance.

Subdivision Regulations.

- Analysis of Neighborhood Districts to Determine the Extent of Blight, and then fit qualified areas into a rehabilitation program to be carried out within a reasonable period of time.
- 4. An Effective Administrative Organization with adequate legal authority to carry out urban renewal programs.
- 5. Development of Financing for City's share of the cost of renewal projects.
- Rehousing of Families Displaced by Governmental Action.

7. Citizen Participation. The City of Miami has a certified "Workable Program". Mr. Walter E. Keyes, Regional Administrator of the Housing and Home Finance Agency, upon reviewing the "Workable Program" submitted by the City, stated that it was one of the best programs submitted to the Regional Office. A Citizens' Advisory Committee was organized in December, 1961. It consists of 15 members, appointed by the Commission, who act to advise the City Manager and the Department of Neighborhood Rehabilitation.

The following Federal Aid is available to qualified municipalities and metropolitan areas that have a "Workable Program":

- 1. Loans for planning.
- 2. Loans of working capital for a clearance project.
- 3. A capital grant for a 2/3 share of the net cost of such a project.

Federal Aid is also available to the individual through:

- FHA mortgage insurance which permits larger loans and smaller equity investment by private capital for new or rehabilitated housing. Under this program it is possible to obtain a low interest loan on 100% of the purchase price (up to \$9,000), on a 40 year mortgage.
- Low rent public housing developments.
- Relocation payments to cover moving expenses to displaced persons, and commercial enterprises.

Part of the City's share of the cost of a particular project can be met by construction of capital improvements that are an integral part of the project, or which serve the project area. Some of these might have to be provided anyway. Here, planning and scheduling are of the utmost importance.

There are three areas in Miami which would seem to qualify, in part, for Urban Renewal. These are the Central Miami Area, Coconut Grove Area, and Liberty City Area.

Whole blocks of sub-standard buildings lie in areas through which the construction of the North-South Expressway is planned. Efforts are being made to coordinate the expressway acquisition with the first urban renewal project.

The Central Miami Area

The 810 acre area lies just northwest of the Central Business District.

The concentration of light industrial and retail business along the railroad tends to sever the eastern third of the area from the whole. The portion west of the railroad is at present predominantly occupied by Negroes.

The Central Miami Area appears to be the City's principal problem area. Rehabilitation would probably not be feasible on the basis of recognized urban renewal standards to qualify the area for Federal assistance. Its major problems center around overcrowding of structures on the land and overcrowding of people within the structures. Federally aided renewal of this area would entail major clearance and replanning.

The Coconut Grove Area

The 89 acre Coconut Grove Area is located in the narrow neck of southern Miami between the Bay and Coral Gables City Limits. It encompasses the most blighted sections of three larger Negro neighborhoods as they come together along Grand Avenue. Although this area shows much greater promise of responding to rehabilitation treatment than the Central Miami Area, structures, in general, do appear to be in rather dilapidated condition. Closer inspection is needed to determine if rehabilitation is economically feasible.

Liberty City Area

The 93 acre Liberty City Area in the northwest section of Miami is bordered on two sides by the Dade County Line. Most of the southern boundary of the area faces a Public Low-Rent Housing Project. The area includes the greatest concentration of sub-standard development in the larger Negro neighborhood known as "Liberty City".

From the standpoint of the better condition of housing and the lower density of structures on the land--the Liberty City Area appears the most promising one for rehabilitation.

In October of 1955, at the request of the City of Miami Department of Slum Rehabilitation and Prevention, representatives of the Urban Renewal Administration, Region III, visited Miami. They examined the area and reviewed available data. Their observations and findings are included in the

Preliminary Report "Factors and Outlook Relative to the Undertaking of an Urban Renewal Program in Miami, Florida" -- November, 1955.

In January, 1961, the City of Miami expanded the scope of the work being done by the Department of Slum Rehabilitation and Prevention. The Department was reorganized and renamed the "Department of Neighborhood Rehabilitation".

Among this Department's objectives are:

- 1. To enforce the minimum housing code that has been adopted.
- 2. Do planning and research basic to Urban Renewal.
- Make relocation studies. One major relocation problem confronts this area—the forthcoming displacement by the North-South Expressway of 1700 families in the Central Miami Area.
- Encourage a program of citizen participation and promote a program of education among the persons of the affected areas.

The Department is coordinating these Urban Renewal activities with those of Metropolitan Dade County.

At the present time no formalized working program for urban renewal is in effect. Until such time as a definite program has been established it will be impossible to determine the extent to which the City will be obligated to furnish Capital Improvements in renewal areas.

During 1962, the Federal Government approved a grant for the City to undertake a Community Renewal Program. This is a two-year study which is now under way.

In November, 1962, the voters of the City of Miami amended the City Charter to authorize the City to undertake urban renewal.

DOWNTOWN REHABILITATION

Downtown Miami is generally described as that area bounded by the F.E.C. Railroad, Biscayne Bay, the Miami River, and North 5th Street.

It contains one-quarter of a square mile of the most valuable land within the City Limits and contributes about \$1 2/3 million annually to the City in real and personal property taxes. Like the downtown areas of many large cities, it has reached a point of partial strangulation due to its own congestion.

The Magic City Center Plan

The City of Miami, in cooperation with Dade County entered into a joint study of Miami's Central Business District. In September, 1960, the "Magic City Center Plan for Action", was released. This plan and report outlines a general framework for revitalizing the Central Business District. (The area covered by the study exceeds that of the Downtown Miami area as defined above. The study area included as far north as N.E. 17th Street, and west to N.W. 7th Avenue.)

Some of the improvements called for in this plan are:

- Redevelopment of blighted areas within the C.B.D., and renovation of deteriorating buildings.
- Construction of additional office and commercial space throughout the C.B.D., including a DuPont Plaza Office and Commercial Complex.
- 3. A Cultural Center.
- 4. A Government Center.
- 5. Special expressway distributors and "Downtown Loop".
- Arterial street improvements, a new C.B.D. street circulation plan, and curb space usage.
- A transportation terminal.
- 8. New bridges over the Miami River.
- Expansion of off-street parking facilities.

DOWNTOWN REHABILITATION

- 10. Two Malls (Flagler Street and Miami Avenue).
- 11. Removal of the F.E.C. Railroad Station.
- 12. Improvement of Bayfront Park.

It has been estimated that about \$300 million in private investments will be made in Downtown Miami during the next 25 years in carrying out the Magic City Center Plan,

Even more will be required from various levels of government. Some examples of the recommendations of the Magic City Center Flan together with some preliminary estimated costs indicative of the magnitude of the project involved are as follows:

An estimated \$38 million will be required for public parking lots and garages, a transportation center, and exhibition facilities in the new cultural center. These might possibly be self-supporting projects financed through revenue bond issues.

Additional non-revenue producing improvements suggested in the Magic City Center Plan:

Street Improvements	\$ 5,000,000
Government Center Site	3,600,000
Cultural Center Site Development	1,900,000
Cultural Center - Museums	10, 200, 000
Park Improvements	200,000

Projects Now Under Construction - Several projects are now under construction which are either part of the Magic City Center Plan, or complement it. Included are:

The New Port of Miami at Dodge Island.

The Expressway System.

The Federal Building.

The New Miami Herald Building. (Completed)

Projects Contemplated - Several additional projects by both governmental agencies and private enterprise are now being contemplated. Some of these are actually under design or are awaiting the availability of funds, and others are still in the preliminary planning stage. Included are:

DOWNTOWN REHABILITATION

Removal of Downtown F.E.C. Station.

Two high-rise apartment buildings on Biscayne Boulevard.

Downtown Beautification.

A new office building at S.E. 3rd Avenue, between S.E. 1st Street and Flagler Street (by the First Federal Savings and Loan Association).

A new Flagler Street Bridge.

The Expressway System in the Downtown Area.

A 750-car Parking Garage.

A Coliseum (on the old port site).

Modernizing the Bayfront Park Marina.

The last three of these are proposed to be constructed by the City of Miami and are discussed in greater detail in their respective chapters elsowhere in this report.

A program for carrying out the Magic City Center Plan is progressing. A Joint Government Magic City Center Planning Team, appointed by the City and County Managers, has been meeting regularly to coordinate downtown planning activities. One of this group's prime responsibilities is the establishment and programming of immediate goals.

At this time it is not possible to determine to what degree the City will be involved in bearing part of the costs for various Capital Improvements.

PUBLIC HOUSING

What is commonly known as Public Housing has been carried on in Miami through the Miami Housing Authority, an agency of the Federal Government. The City of Miami is affected in three ways:

- 1. The Mayor fills vacancies by appointment.
- The City of Miami, as an inducement to have such a program carried on in this community, has formally entered into an agreement to provide municipal facilities.
- The City receives certain payments for services rendered, in lieu of taxes.

The Housing Authority has thus far provided the Greater Miami Area with ten housing projects, containing 3, 156 units. Six of these projects are within the City of Miami limits. These are:

Edison Courts at NW 3rd Avenue and 62nd Street	-	345	units
Liberty Square at NW 14th Avenue and 62nd Street	-	970	unita
Victory Homes at NW 5th Avenue and 75th Street	-	166	units
Donn Gardens at NW 19th Avenue and 28th Street		64	unita
Abe Aronovitz Villas at NW 18th Avenue and 28th Street	-	55	units
Joe Moretti Apartments at SW 5th Avenue and 6th Street	-	288	units

The other four projects lie in the unincorporated area of Dade County.

These are:

James E. Scott Homes at NW 22nd Avenue and 72nd Street	-	762 units
Little River Terrace at NW 5th Place and 83rd Street	-	108 units
Larchmont Apartments at NW 83rd Street and 2nd Avenue	-	332 units
Jollivette Plaza at NW 63rd Avenue and 24th Place		66 units

Projects currently in the planning stage include a thirteen story, 322 unit, high-rise apartment building for the elderly, and the development of 914 other housing units for large families, and the elderly. These units will be developed to provide housing for low-income families scheduled to be displaced by the North-South Expressway, and the proposed Urban Renewal Program.

In the preparation of a Capital Improvement Report, consideration must be given to providing the facilities that may be needed by the Miami Housing Authority, such as sewers and water. It does not appear that any capital improvements by the City will be required for the housing projects now being built or planned.

CAPITAL BUDGET PROCEDURE

The preparation of a Capital Improvement Report is but one of the stages in achieving a successful Capital Improvement Program. Unless the necessary subsequent steps are taken, the full value of the Report cannot be realized.

The five basic steps in the accepted general procedure of achieving a successful Capital Improvement Program are as follows:

- The assembling of Capital Improvement Requests, and preparation of a Capital Improvement Report.
- 2. A Financial Analysis.
- 3. Preparation of the Recommended Program.
- 4. Consideration and Acceptance by the Governing Body,
- 5. Public Approval.

The Assembling of Capital Improvement Requests and Preparation of a Capital Improvement Report

Assembling of data to be included in the Capital Improvement Program is initiated by the Chief Administrator of the City who issues to all Departments and Division heads a memo, a letter of instruction, and a questionnaire prepared by the Department coordinating the program. (In Miami, these are issued by the City Manager.)

In addition to the requirements of description, justification, and estimated cost of the improvement, other important data should be included. The annual operating expenses as well as initial cost of equipment are necessary to properly consider the improvement in relationship to the annual operating budget of the City. Several improvements suggested by one source should be assigned priorities. The recommended date of construction should also be included. From these, a Capital Improvement Report is prepared.

(In the procedure followed by the City of Miami, the Capital Improvement Request forms are reviewed and evaluated in the budget preparation.

The Capital Improvement Report serves as a source of additional information in evaluating the Capital Improvement Requests.)

Financial Analysis

An analysis of the financial status of the City is prepared. Included is a study of revenues, expenditures, and the effect of additional expenditures upon

the financial structure of the City. This is necessary to determine what monies will be available for capital improvement work,

Preparation of the Program

The next step is to have the Financial Analysis and the Capital Improvement Requests and Report reviewed by a designated authority to develop a desirable and financially possible program. Needs must be balanced with ability to pay, and a complete financial and physical program prepared. This program is then scheduled over the six year period, and the schedule for the first year is recommended as a Capital Budget for the immediate year to follow. The resulting additional load upon the City's annual operating budget because of increased maintenance, operation, and staff expenses due to the proposed improvements must be considered,

Consideration by the Governing Body

The proposed Capital Budget for the coming year and the accompanying program are then submitted to the governing body which reviews the program and revises or accepts the budget recommendations.

Public Approval

The public should be informed of the program and the benefits to be gained by its adoption. This is especially necessary when elections must be held to authorize the financing of the improvements.

Capital Budgeting is a continuing process and the aforementioned procedure must be repeated annually to insure an up-to-date program, giving the city administration a sound method of financing and scheduling its capital improvement needs.

FINANCING CAPITAL IMPROVEMENTS

A Brief Financial History of Miami

Miami existed as a small resort town until the real estate boom of the middle 1920^ts, when its population, and need for improvements, commenced to rise at a sharp rate. By 1930, the population had reached 110,637, almost 300% greater than the 1920 population. During this time more than \$30,000,000 worth of bonds were issued for necessary improvements. These bonds were defaulted with the collapse of the real estate boom and the national depression which followed two years later. The default was relieved by a refunding in 1934, and the refunding situation was improved by subsequent refunding in 1940 and 1944, but the damage to the City's credit had been done and during all of those years it was impossible to finance improvements through borrowed money.

The restoration of the City's credit became complete, just about the time of the Nation's involvement in World War II, but the limitations on labor and material again prevented construction of needed improvements.

The close of the war brought a further problem in the form of rapidly and continuously advancing labor and material costs, preventing the accomplishment of the few postwar plans which had been made. Not until the 1950's did this situation level off to permit definite planning and forecasting of ability to carry out the City's public works program.

Through the deferments made necessary by the chain of adverse circumstances described above, Miami has been faced with the necessity for executing, in a relatively few years, an improvement program which would probably spread over a century in a city of normal growth.

Past Bond Elections

An added obstacle to the realization of a successful capital improvement program in the past has been the disappointing results of General Obligation Bond Elections. Our State Constitution requires that a majority of registered freeholders must vote and that a majority of those voting must vote favorably in order to carry a general obligation bond election. The fact that freeholder registration books were outdated, being loaded with names of people who had died or moved, made a successful bond election under such circumstances extremely difficult. Between 1950 and 1955, a total of twenty-eight individual bond issues were submitted to the freeholders at five separate elections. All

but three of these issues failed to carry, due to an insufficient number of registered freeholders voting. Successful issues were:

Storm Sewer Improvements	Nov. 1950	\$ 2,750,000
Street Improvements	Nov. 1950	\$ 1,000,000
Sewage Disposal System	May, 1952	\$16,000,000

In order to overcome the condition described above, a new method of "special registration for bond elections", is being used. Under this method, freeholders must re-register for each special bond election, and only a majority of these must then vote.

This method proved quite successful in the General Obligation Bond Election of September, 1956. Successful issues in this election were:

Storm Sewer Improvements	\$2,750,000
Highway Improvements	\$5,050,000
Traffic Signs, Signals & Control Devices	\$ 500,000
Sanitary Sewer Improvements	\$9,950,000
Fire Fighting Facilities	\$ 850,000
Garbage & Waste Disposal Incinerator	\$1,100,000

Capital Improvements Financed by Franchise Revenue

In March, 1954, the voters of Miami approved a 30-year franchise for the Florida Power and Light Company. Under the terms of this franchise, the City receives 6% of gross receipts. This revenue has been used as the basis for four Capital Improvement Bond Issues to date, as well as furnishing occasional surpluses also used for Capital Improvements. Bond Issues and surpluses to date from this source are as follows: (Dates are when funds were made available.)

Series "A" Bonds, March, 1955		\$ 6,000,000
Surplus, March, 1955		179,000
Series "B" Bonds, July, 1955		1,250,000
		300,000
Surplus, July, 1955 Series "C" Bonds, November, 1956		1,252,000
Surplus, November, 1956		184,000
Series "D" Bonds, May, 1958		1,800,000
		285,000
Surplus, May, 1958		372,000
Surplus, July, 1959		279,000
Surplus, July, 1960		261,000
Surplus, July, 1961		
Surplus, July, 1962		325,000
Surplus, July, 1963		300,000 *
Surprus, sury, 1700	Total	\$12,787,000

FINANCING CAPITAL IMPROVEMENTS

These have been used to finance a wide range of capital improvements, including such items as:

Municipal Justice Building
Orange Bowl Stadium Addition
Miami Stadium Acquisition
Off-Street Parking Facilities
Parks and Recreational Facilities
Highways and Streets
Sanitary Sewers
Storm Sewers
Watson Building

Methods of Financing

The methods of financing analyzed in this chapter are listed below. Each of these categories will then be discussed individually.

- 1. General Obligation Bonds
- 2. Self-Liquidating Revenue Bonds
- 3. Revenue Bonds
- 4. Current Revenue
- 5. Sale of City Property
- 6. Special Millage
- 7. Budget Allotment
- 8. Deferred Ownership
- 9. Participation by Other Levels of Government
- 10. Combination of Methods

General Obligation Bonds

General obligation bonds may be used for financing certain capital improvements outright. In this case, the City-at-large, by means of a millage levy for debt service, pays off these bonds. General obligation bonds may also be used to finance "local improvements". Local improvements are those improvements described in detail in Section 56 of the City of Miami Charter, and for which assessments are levied against benefited property. Sanitary sewers, storm sewers, sidewalks, and highway improvements are generally financed in this manner.

FINANCING CAPITAL IMPROVEMENTS

General obligation bonds can only be issued by the City after freeholders have had an opportunity to vote. A majority of the registered freeholders must vote in any election held for general obligation bonds. Under the new method of "special registration for bond elections", the financing of capital improvements by means of general obligation bonds has become a method offering more promise than heretofore. This fact was proved in the successful September, 1956, Bond Election.

From a practical point of view, some of the projects listed in this report can be financed only by means of general obligation bonds. Others lend themselves to various methods. The use of general obligation bonds deserves consideration for projects such as:

- 1. Auditoriums & Convention Halls
- 2. Parks and Recreation Facilities
- 3. Marina Facilities
- 4. Fire Fighting Facilities
- 5. Highways & Streets

- 6. Sidewalks
- 7. Rights-of-Way
- 8. Sanitary Sewers
- 9. Storm Sewers
- 10. Bulkhead and Shore Protection

A General Obligation Bond Issue proposed for the Fall of 1963 is currently being studied and evaluated. Items being considered at this time are:

Sanitary Sewers
Storm Sewers
Highways and Streets
A Coliseum

Park and Recreational Improvements
Library Facilities
Fire Fighting Facilities
Dinner Key Marina-Park Expansion
Bayfront Park Marina Development

Self-Liquidating Revenue Bonds

Self-liquidating bonds can be used for financing projects using the revenue from the project itself as either the sole method or a partial method of paying for an improvement. If this method is used as the sole means of financing the project, it requires a thorough feasibility study to determine definitely whether the revenue will amortize the project. An election of free-holders is not needed in order to issue self-liquidating revenue bonds. This method may prove to be a convenient way of financing some projects.

Revenue Bonds

Revenue bonds, as a general term, differ from self-liquidating revenue bonds mentioned above. The revenue may come from a source having little or no connection with the income from the facility being constructed. This can best be explained by some examples.

- Sale of Water Included in the rates charged to consumers for water is an amount sufficient to pay for all the water system expansion carried out in recent years by the Department of Water and Sewers.
- 2. Surcharge on Water Bills The cost of the interceptors, a part of the new sanitary sewage disposal system, is being financed by means of a surcharge on the water bills. This surcharge is applicable only to consumers of water in the corporate limits of Miami whose house sewers are or will be connected to the sanitary sewer collection system. This surcharge on water bills could possibly be used for other sanitary sewer facilities provided it is done within reasonable economic limits.
- Franchise Tax The City of Miaini now receives a 6% franchise tax from the Florida Power & Light Co. Several capital improvement bond issues based on this revenue have been issued already. Additional bonds based upon this revenue can be issued from time to time. Improvements that might readily be financed by this means are similar to those considered for general obligation bonds.
- 4. Cigarette Tax Some cities in Florida have issued revenue bonds pledging the income received from the State of Florida based upon the cigarette tax. The cigarette tax now received by Miami goes into the General Fund, If revenue funds were to be issued against this tax, some other source of income would have to be found to replace the loss to the General Fund.

Current Revenue

Certain of the City of Miami facilities have sizeable amounts of net revenue annually. This net revenue could be used to finance a capital improvement which was a component part of the facility. An example would be capital improvements at the Yacht Docks paid for directly out of this annual net revenue.

Sale of City Property

From time to time real estate owned by the City of Miami has been sold. Therefore, in special cases this is a possible source of financing.

Special Millages

The Charter permits the City of Miami to levy special millages for certain purposes. Among these are libraries and street lighting.

The Main Library downtown and the expanding branch library system have been financed principally by accumulating surplus funds from the special millage levied for libraries. However, in the 1961-62 Capital Improvement Budget, it was necessary to utilize \$85,000 from "Capital Improvement Unallocated" funds in order to initiate construction of the Lemon City Branch Library. Consideration is also being given at the present time to financing some library improvements through a General Obligation Bond Issue. The library millage appears to be a convenient method for financing at least a part of the construction of future branch libraries.

Periodically the suggestion has been made that the City own or install at least a part of its own street lighting system. As mentioned in the Chapter on "Street Lighting", any immediate plan for the City to install and own its own street lighting does not appear to be feasible. However, if it ever were decided that the City should install and own some of its own street lighting system, it might be financed out of the special millage for street lighting.

Budget Allotments

This is a favorite method of financing capital improvements advocated by those who believe in the "pay as you go" plan. There is a great deal to be said for such a plan. The problem is too complex to be solved by merely saying that Miami should have a "pay as you go" plan. In the past some capital improvements have been financed by annual budget allotments. In a rapidly expanding community all of the normal income of the City is needed for operation expenses. At this time no suggestions are made for financing specific improvements out of budget allotments.

Deferred Ownership

A sort of "retained title" method is available for financing certain improvements.

The purchase of parking meters is commonly based upon paying for them out of the revenue from the meters themselves. This has become a rather well established practice throughout the United States.

In some Dade County municipalities street lights have been financed on a sort of deferred ownership plan. This depends upon finding contractors capable of financing the construction of a street lighting project. The contractor then receives payment from the difference between charges made by the Florida Power & Light Co. for street lighting when owned by the Florida Power & Light Co. and a charge for energy when owned by the municipality. This is a rather complex plan and each separate lighting project would have to be carefully analyzed on its own merits.

Participation by Other Levels of Government

Not to be overlooked as a possible means of financing certain capital improvements, is financial aid from other levels of government.

Forty years ago cities collected over 50% of all taxes paid. Today they receive only about 15%. Consequently, cities must turn more and more to other levels of government for aid in financing capital improvements.

A current example of this is the participation by the City of Miami in the Federal Government's Accelerated Public Works Program. To date, the Federal Government has approved spending of over \$1/2 million in Federal funds to assist in the construction of seven projects by the City of Miami. Included are three libraries, a fire station, and street and sewer improvements. Still other projects have been applied for under this program, but have not as yet been accepted.

Other areas of Federal participation could be in such fields as, major highway construction, Urban Renewal, and beach erosion.

Still other projects might be financed wholly, or in part, by Metropolitan Government.

FINANCING CAPITAL IMPROVEMENTS

Combination of Methods

The financing of some capital improvements might logically be done by a combination of any two or more of the methods described above. An example of this is the proposed Coliseum, which could be financed partially by a General Obligation Bond Issue, and partially by self-liquidating revenue bonds.