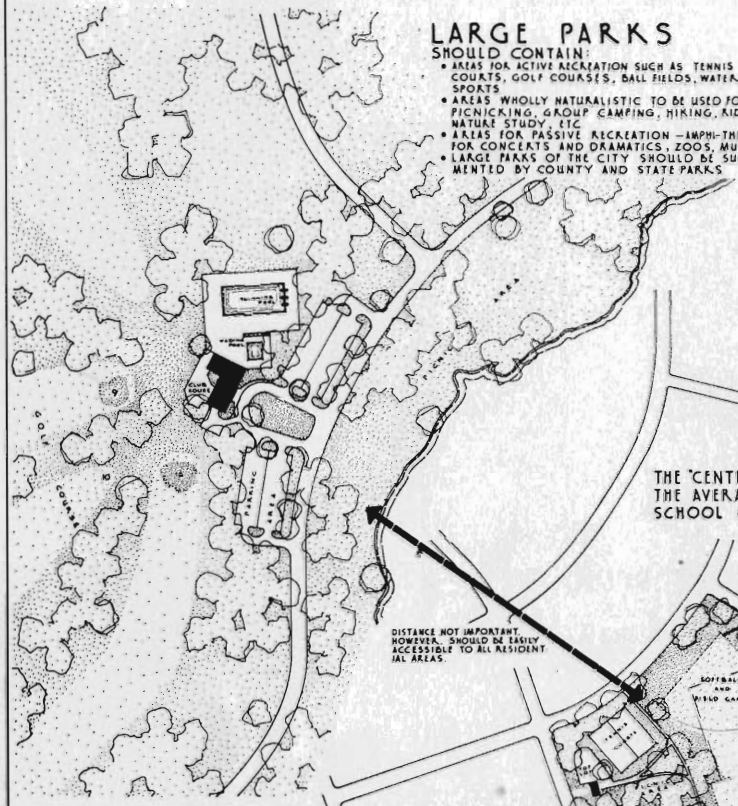
GENERAL STANDARDS FOR RECREATION FACILITIES

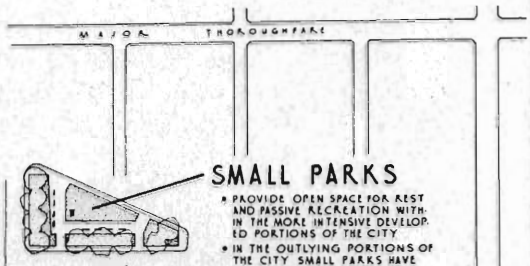
HARLAND BARTHOLOMEW AND ASSOCIATES
CITY PLANNERS
ST. LOUIS, MISSOURI

LARGE PARKS

SHOULD CONTAIN:

- AREAS FOR ACTIVE RECREATION SUCH AS TENNIS COURTS, GOLF COURSES, BALL FIELDS, WATER SPORTS
- AREAS WHOLLY NATURALISTIC TO BE USED FOR PICNICKING, GROUP CAMPING, HIKING, RIDING, NATURE STUDY, ETC.
- AREAS FOR PASSIVE RECREATION — AMPHI-THEATERS FOR CONCERTS AND DRAMATICS, ZOOS, MUSEUMS
- LARGE PARKS OF THE CITY SHOULD BE SUPPLEMENTED BY COUNTY AND STATE PARKS





SMALL PARKS

- PROVIDE OPEN SPACE FOR REST AND PASSIVE RECREATION WITH IN THE MORE INTENSIVE DEVELOPED PORTIONS OF THE CITY
- IN THE OUTLYING PORTIONS OF THE CITY SMALL PARKS HAVE LITTLE VALUE EXCEPT TO IMMEDIATELY SURROUNDING PROPERTIES

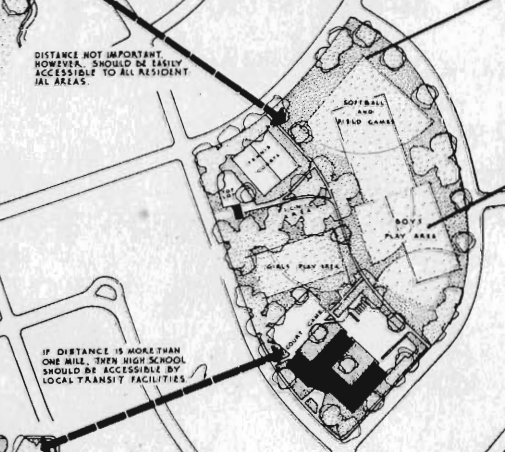
THE "CENTER OF COMMUNITY LIFE" FOR THE AVERAGE FAMILY IS THE ELEMENTARY SCHOOL AND THE NEIGHBORHOOD PARK.

DISTANCE NOT IMPORTANT, HOWEVER, SHOULD BE EASILY ACCESSIBLE TO ALL RESIDENTIAL AREAS.

NEIGHBORHOOD PARK

SHOULD HAVE:

- A SITE OF FIVE ACRES OR MORE.
- A SITE ADJACENT OR NEAR A NEIGHBORHOOD SCHOOL
- FACILITIES FOR RECREATION OF ALL AGE GROUPS COURT GAMES, FIELD GAMES AND PICNICKING
- IF POSSIBLE, AREAS OF SPECIAL NATURAL INTEREST

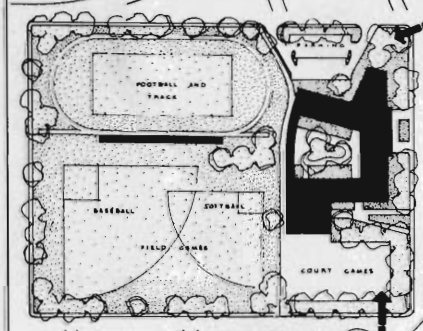


ELEMENTARY SCHOOL

SHOULD HAVE:

- AN ENROLLMENT OF AT LEAST 300 PUPILS AND SHOULD NOT EXCEED 1000
- A SITE OF FIVE ACRES PLUS ONE ACRE FOR EACH 100 ENROLLMENT. SITE SHOULD NOT BE LOCATED ON MAJOR STREETS
- A ONE HALF MILE RADIUS OF SERVICE.
- A PLAYGROUND WITH SUPERVISION
- FACILITIES IN THE SCHOOL BUILDING THAT CAN SERVE AS A COMMUNITY CENTER.

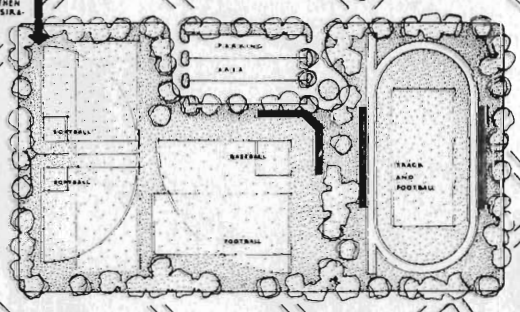
IF DISTANCE IS MORE THAN ONE MILE, THEN HIGH SCHOOL SHOULD BE ACCESSIBLE BY LOCAL TRANSIT FACILITIES.



SHOULD HAVE:

- AN ENROLLMENT OF AT LEAST 1000 BUT SHOULD NOT EXCEED 1500 PUPILS
- A SITE AREA OF TEN ACRES PLUS ONE ACRE FOR EACH 100 PUPILS ENROLLED. THE SITE SHOULD BE LOCATED ON A MAJOR STREET AND ON A LOCAL BUS ROUTE, IF POSSIBLE
- A PLAYFIELD ADEQUATE TO ACCOMMODATE THE RECREATIONAL PROGRAM OF THE SCHOOL
- SPECIAL FACILITIES WITHIN THE SCHOOL BUILDING SHOULD BE AVAILABLE TO THE COMMUNITY

DISTANCE IS NOT IMPORTANT UNLESS ATHLETIC FIELD IS USED AS AUXILIARY PLAYFIELD THEN WALKING DISTANCE IS DESIRABLE.



ATHLETIC FIELD

- SOMETIMES DEVELOPED TO AUGMENT HIGH SCHOOL PLAY FACILITIES, ALSO FOR COMMUNITY SPORTS COMPETITIONS
- SITE AREA DEPENDS ON FACILITIES TO BE PROVIDED. COULD INCLUDE SOFTBALL, BASEBALL, FOOTBALL, SWIMMING POOLS, GOLF COURSE, ETC.
- PROVISION FOR ADEQUATE OFF-STREET PARKING SHOULD BE MADE

PLATE 1

PRINCIPLES AND STANDARDS

The fundamental objective in school and park planning is to provide for a complete range of facilities. These include both formal and informal educational programs, as well as facilities for active and passive recreation.

Although in practice there is wide variations among cities, there are generally accepted standards for the provision of educational and recreational facilities. These standards are discussed in relation to the physical facilities and to the population they must serve.

Relation to Age Groups of the Population

The requirements of the school and park system to serve the entire population of a city differ both as to type of facility and to location in relation to residential areas. The following discussion covers the general requirements of the major age groups.

Small Children

This is the age group which is related most closely to the home. The major source of recreation will be afforded on the home grounds; the most that the city need do is to insure adequate and safe neighborhoods. A limited amount of supervised space and play apparatus should be reserved in recreational parks.

Children of Elementary School Age

The elementary school should provide both the educational and major recreational facilities for children of this age. Because the entire community is served by these facilities during the school year, it is logical that they continue to be used during the summer months.

Youths

Junior and senior high schools provide educational facilities for the age group interested in games and competitive sports. Each high school should provide large playfields which should be available the entire year. Playfield facilities should also be provided in park areas and recreational areas throughout the city.

Adults

Generally adults are more interested in passive recreation than in organized competitive sports. Many adults, however, enjoy such active forms of recreation as tennis, softball and similar activities. Facilities for these sports should be available in city parks and recreational areas.

Facilities

The facilities which comprise the modern recreational system are extremely varied, but may be classified into major types. The use of and requirements for each type are illustrated on Plate 1.

Schools

1. Elementary Schools

The elementary school is the ideal focal point for a neighborhood. Often the school building may be used as a community center and the grounds may be used the year around as a playfield for active sports. The desirable standard is to provide a school for each square mile of residential development and thereby, to provide a school within one-half mile of any home.

It is preferable that a school not be located on major streets because of the traffic hazard. Where this is not practicable or where school sites already are established, special precautions must be taken to minimize noise and for the protection of children as they approach or leave the school.

The ideal condition provides a minimum site of five acres plus an additional acre for each 100 pupils attending. Maximum recreational use may be achieved if the building is located at one edge of the site. Because of their close tie with residential neighborhoods, all school sites should be attractively landscaped and well maintained.

Enrollment should range between 300 and 1000 pupils. Each school should provide a gymnasium, auditorium and certain special facilities as a library, which may be used effectively by the entire neighborhood.

2. Junior High Schools

The enrollment of junior high schools should not be less than 500 nor more than 1000 pupils. A site of 10 acres plus one acre for each 100 pupils is considered desirable, and under these requirements, the minimum site that should be provided is 15 acres. None of the schools in Miami Beach fulfill these requirements, especially during the peak winter season when school enrollment increases corresponding to the increase in winter residents.

3. Senior High Schools

The enrollment of senior high schools should be within the range of 1000 to 1500 pupils, with a minimum site area of 10 acres plus 1 acre for each 100 pupils attending. Because high school students are older and can travel much greater distances, the area served is not of particular importance as long as the school is accessible from major transit routes. It is desirable that high schools be located on or near a major street.

Parks

There is rather general agreement among recreational and city planners as to standards for park and recreational areas. One of the most agreed upon is that a city should provide one acre of park property for every 100 persons living in the city. Approximately one-half of this amount should be nearby facilities for intensive use, such as playing fields, school playgrounds and small neighborhood parks. In Miami Beach there are a number of recreational activities that cannot be generalized, but which play an important part in the overall recreational program. These include: public beaches, canals and waterways connecting many residential properties with navigable waters, municipal auditorium, oceanfront auditorium, fishing pier and other similar facilities.

In order to establish a basis for analyzing the parks and recreational areas of Miami Beach, the recreational areas have been classified in four separate categories. Each type is discussed in the following comments.

Playgrounds

Playgrounds are areas having organized play facilities, such as baseball, softball, tennis or similar games which require a field or court. These correspond to some of the development of the neighborhood park shown on Plate 1 with the

exception that most of the Miami Beach playgrounds fall below the 5 acre minimum suggested by Plate 1. Flamingo Park is the best example of a neighborhood park.

Ornamental Parks

These are small parks containing no organized game areas, and which are used as landscaped areas for passive relaxation. Because maintenance cost for these small areas are disproportionately high, they are usually limited to locations of maximum intensity of use. Because Miami Beach is so dependent on the overall beauty of the city, there is much greater use of this facility than is customary.

School Playgrounds

The area of school sites not covered by buildings or other uses accessory thereto may be considered as recreational area. These areas are particularly important to the recreational program of Miami Beach because of the need for playground area.

Special Facilities

In addition to the above listed facilities, recreation is provided in Miami Beach by a number of special facilities, most important of which are the public beaches. It is safe to state that no other facility offers a greater opportunity for large scale recreation than the public beaches of Florida. It is these and other special facilities which have caused the pre-eminence of Miami Beach as a recreational center. The beaches, auditoriums, pavilions, waterways, fishing pier and other similar facilities certainly add to the pleasure of many persons and provide for their recreational requirements.

SCHOOLS

The Existing System

Under the laws of the State of Florida, a twelve grade school system which is sufficient to meet the educational requirements of all persons of school age must be provided by every community. Because the public school system of Dade County is under the direction and jurisdiction of a school board controlled at the county level, Miami Beach does not maintain a separate school system.

As a result, certain limitations must be accepted in preparing a study of only those schools in Miami Beach. First, the boundaries of districts served by each school do not in every instance correspond with the physical boundaries of Miami Beach. Second, one elementary school serving part of Miami Beach currently is located outside the corporate limits. This is Treasure Island Elementary School located in North Bay Village and serving part of Normandy Island. Every other elementary school lies within the corporate limits and the school district lines are the same as the city limit lines of Miami Beach. School enrollment may be related to population, provided the population figures of North Bay Village are added to those of Miami Beach for a combined population. Unfortunately, this condition does not prevail within the High School system. The Miami Beach junior and senior high schools now serve all of the districts lying immediately north of the city. This includes Bal Harbour, Surfside and the Sunny Isle District. Growth in these areas in recent years has resulted in a great increase in children of high school age and subsequently an increase in enrollment of the Miami Beach high school far beyond that required for Miami Beach population alone.

Within the foregoing limitations, this study has been prepared to establish the relative requirements of the city both by districts and the city as a whole. The system used is based upon a sound relationship between school enrollment and population. By projecting this relationship and comparing it with future population estimates, a reasonably accurate estimate is established concerning the number of pupils for which facilities will be required by 1980. The resulting data may be used in planning future school requirements.

Relationship of Pupils to Classrooms

The currently accepted standard in the State of Florida in planning school facilities is one classroom for every thirty pupils of estimated attendance. This criteria is currently the standard of the Dade County School System.

Because of the fluctuation in population (and subsequently school enrollment) during the school year, it becomes necessary and reasonable to increase the state standard of thirty pupils per room in order to provide a system which will serve both extremes of enrollment. The current ratio in February, at the time of peak enrollment, is thirty-five pupils per room. This is considered to be a reasonable compromise between the extremes of enrollment, and has been selected as a practical standard for future planning.

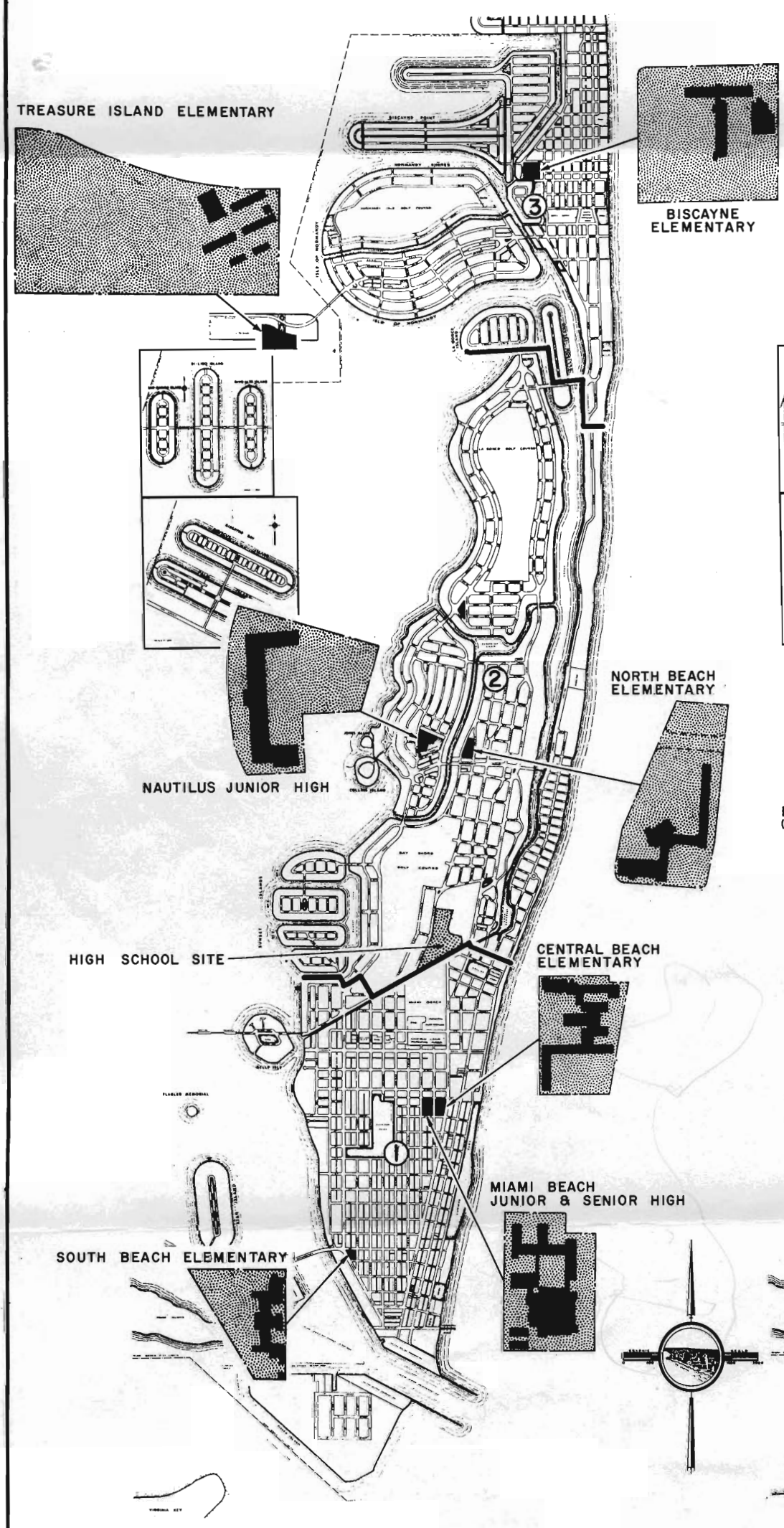
In addition to the public school facilities provided, both private and parochial schools provide additional facilities used by a large number of pupils. These make it possible to care for the peak season increase in pupils without overloading the public schools.

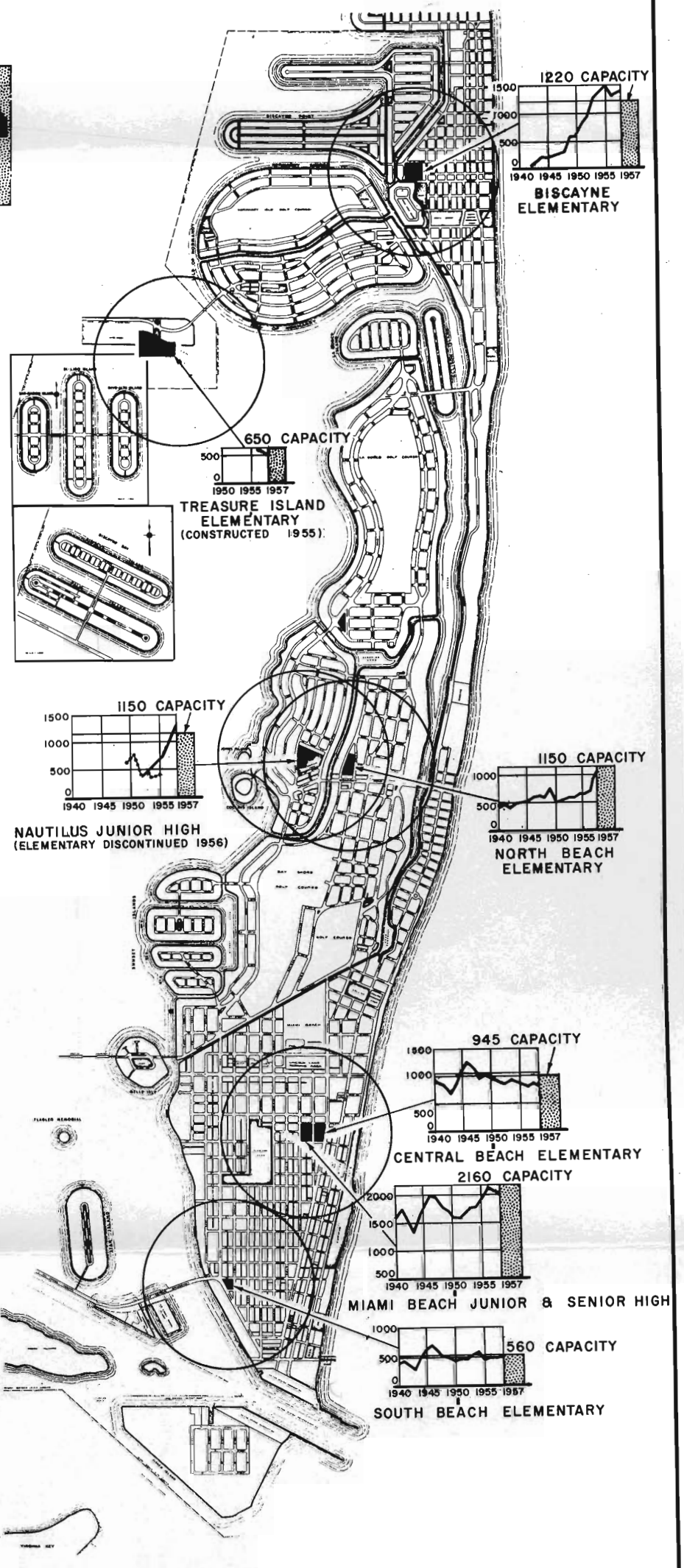
Existing Schools

The present school system in Miami Beach is made up of four elementary schools; one junior high school and one combination junior and senior high school. In addition, Treasure Island elementary school which is located in North Bay Village serves part of the northern section of the city.

The development of a public school system in Miami Beach began in 1925 with the construction of the school known today as Central Beach Elementary at Washington Avenue and 14th Street. The original building on this site, has been enlarged and improved through the years, and is still in use today. In 1926 the school now known as Miami Beach Junior-Senior High School was built on the property across the street. This building likewise has been improved and enlarged and is still in use today. Two additional elementary schools were built in 1935 - North Beach Elementary and South Beach Elementary. In 1941 Biscayne Elementary School was built in the northern part of the city to serve the need of the increasing population in that area. In 1949 Nautilus School was built which, until 1956, served as a combined elementary and junior high school, and then was converted entirely to a junior high school. Treasure Island School was opened in 1955 and serves the population of North Bay Village and part of Miami Beach.

CITY OF
MIAMI BEACH
FLORIDA





COMPARISON OF SCHOOL SITES

ENROLLMENT TRENDS

EXISTING SCHOOLS, 1956-57

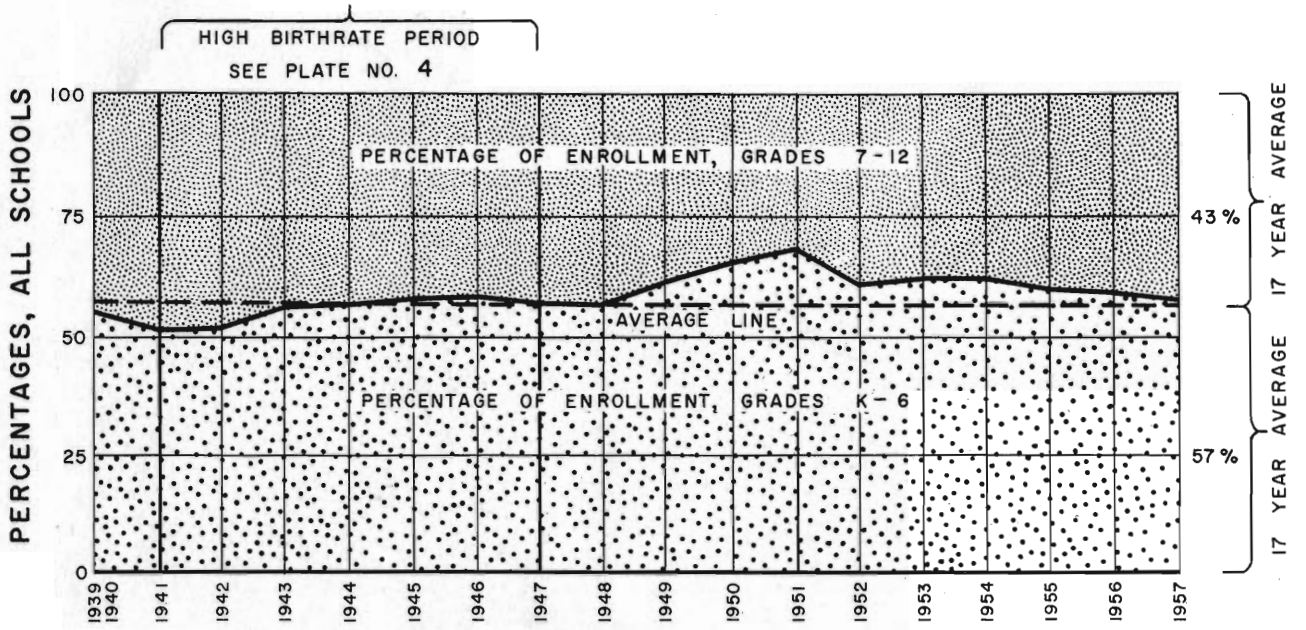
SOURCE: DADE COUNTY SCHOOL BOARD RECORDS

L E G E N D

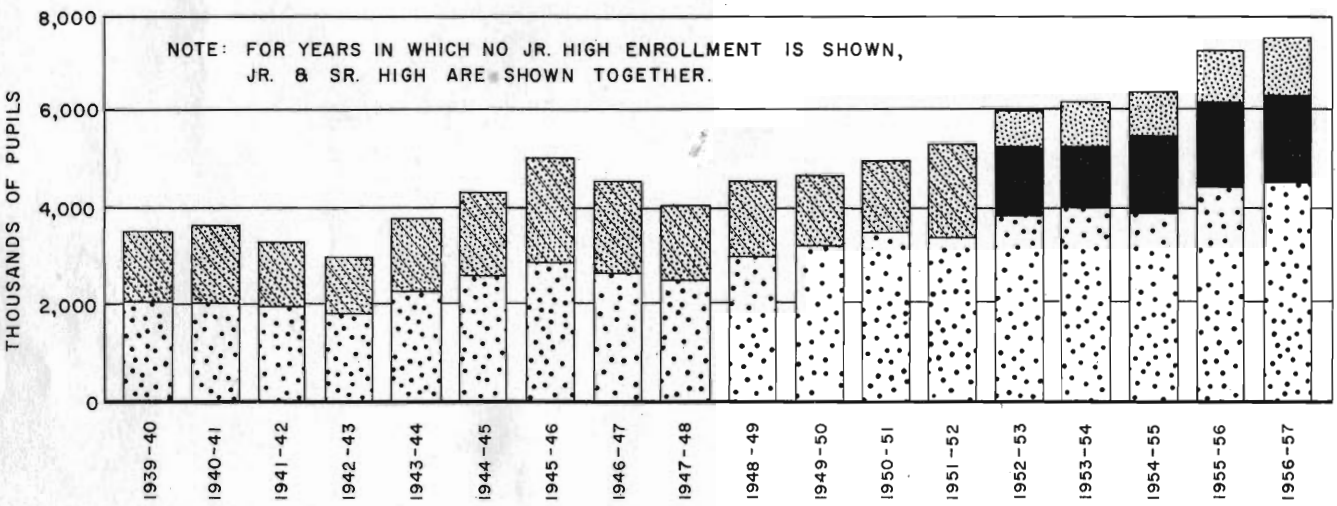
① SCHOOL DISTRICTS

HALF MILE SCHOOL RADII

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING CONSULTANTS
ATLANTA ST. LOUIS HONOLULU



COMPARISON OF ENROLLMENT OF ELEMENTARY TO HIGH SCHOOLS 1940 - 1957



ANNUAL SCHOOL ENROLLMENT, 1940-1957

(ALL GRADES, INCLUDING KINDERGARTEN)

L E G E N D

SENIOR HIGH

JUNIOR HIGH

DATA COMBINED

ELEMENTARY & KINDERGARTEN

CITY OF MIAMI BEACH, FLORIDA

HARLAND BARTHOLOMEW & ASSOC.
CITY PLANNERS CIVIL ENGINEERS
ATLANTA ST. LOUIS HONOLULU

PLATE 2

Table 2

General Data - Existing Schools

	Year Built	Date Major Addn's.	No. Classrooms Perm-anent	No. Classrooms Temp-orary	Area of Site Acres	Grades Taught	Average Pupils Per Room	Other Fac'ls. Gym.	Lby.	Aud.	Cafe.	Enroll-ment 1956-57
Biscayne Elementary	1941		30	5	5.8	K-6	39		x		x	1359
Central Beach Elementary	1925	1939	27		3.2	K-6	29		x	x	x	788
North Beach Elementary	1935	1938 1956	33		4.4	K-6	32		x	x	x	1060
South Beach Elementary	1935		16		2.2	K-6	33		x	x	x	521
Nautilus Junior High	1949		33		5.0	7-9	39		x		x	1276
Miami Beach Jr. & Sr. High School	1926	1934	62		3.5	7-12	32	x	x	x	x	1988
*Treasure Island Elementary	1955		17	1	12.6	K-6	32		x		x	574
Totals			123	6			Average = 35	1	7	4	7	7566

* Located in North Bay Village

Table 1

Enrollment in Public Schools - 1940-1957

	Biscayne Elem.	Central Beach Elem.	North Beach Elem.	South Beach Elem.	Nautilus Elem.	Nautilus Jr. High	Miami Beach High Jr. & Sr.		Treasure Island Elem.	Total Elem.	Total High Jr. & Sr.	Total Enroll-ment
Numbers in ( ) = Grades		(1-6)	(1-6)	(1-6)		(7-9)	(7-12)					
1939-40	*	908	454	453	*	*	1594		*	1815	1594	3409
1940-41	*	871	483	478			1761			1831	1761	3592
1941-42	53	826	418	400			1582			1697	1582	3279
1942-43	147	641	494	338			1322			1620	1322	2942
1943-44	205	858	501	552			1637			2116	1637	3803
1944-45	201	1024	523	670			1807			2418	1807	4225
1945-46	230	1146	596	733			1990			2705	1990	4695
1946-47	252	1047	635	642			1949			2576	1949	4525
1947-48	270	914	605	516			1781			2305	1781	4086
1948-49	581	947	777	523	*		1741			2828	1741	4569
1949-50	587	872	498	466	631		1588			3054	1588	4642
1950-51	740	855	550	499	741	*	1580			3385	1580	4965
1951-52	977	788	586	492	392	387	1676			3235	2063	5298
1952-53	1291	833	588	573	446	489	1767			3731	2256	5987
1953-54	1406	814	646	622	359	566	730	1049		3847	2345	6192
1954-55	1499	780	646	487	383	683	829	1101	*	3795	2613	6408
1955-56	1298	820	664	505	394	785	928	1221	590	4271·	2934	7205
1956-57	1359	788	1060	521	*-*	1276	668	1320	574	4302·	3264	7566

*No School
*-*School Discontinued
. = Jr. High
. Includes Treasure Island Elementary School
Note: All elementary enrollment includes kindergarten

Trends in Enrollment

The growth in enrollment in the Miami Beach schools is shown on Table 1 which records peak enrollment for each school annually since 1940. Peak enrollment occurs during the month of February. Total enrollment has risen from 3401 pupils in 1940 to 7566 in 1957, an overall increase of 122 per cent.

The bar chart on the lower half of Plate 2 shows trends in elementary and high school enrollment graphically for this seventeen year period. The long term trend reflects a moderate increase since 1940. Enrollment dropped considerably during the war years then increased immediately afterwards, reaching a sub-peak in 1946. From 1946 to 1949 enrollment declined slightly then turned upward and has been rising consistently since.

For the past five years a division is shown between junior and senior high schools; lack of adequate records prevent separation of enrollments prior to 1952. During the past five years 17 per cent of the total annual enrollment was in senior high school during which period the enrollment in junior high school has increased from 21 to 25 per cent.

The relationship between elementary and high school enrollment is shown more fully by the graph at the top of Plate 2. This ratio has shown considerable movement. In 1940 fifty-four per cent of the total enrollment was in elementary grades. Elementary enrollment dropped slightly in 1941 and 1942, and rose in 1944 not changing again significantly until 1949. The rise that started in 1949 and terminated in 1951 reached a peak ratio of 68 per cent. This peak resulted from the peak birth rate occurring in 1947. In 1957 the proportion had returned to 58 per cent.

The general trends illustrated by the foregoing Table and Plate are presented for each school on Table 2 and Plate 3. Figure one of Plate 3 gives a comparison of land area of each school while figure two of this Plate is a graphic representation of the trends in enrollment from 1940 to 1957. A summary of pertinent information contained in Plate 3 and Table 2 is contained in the following comments.

Biscayne Elementary School

Biscayne Elementary School was opened in 1941 and since that time enrollment has increased from 53 pupils to 1359 in 1957. There has been a decided drop in enrollment in the past two years as other elementary schools have opened in

that area. This school is situated on a site containing 5.8 acres of land and has a total of 30 permanent and 5 temporary classrooms. Site development permits good recreational use of the property. There was an average of 39 pupils per classroom during the peak 1956-57 season.

North Beach Elementary School

North Beach Elementary School increased in enrollment from 454 in 1940 to 1060 in 1957. Two significant changes occurred - a sharp decline in 1950 and an equally sharp increase in 1957. These fluctuations are explained by the operation of the Nautilus school. Many of the students from North Beach Elementary School were transferred to Nautilus in 1950 and in 1956 were transferred back when Nautilus was converted to a junior high school. The site of this school contains 4.4 acres and there are 33 classrooms having an average of 32 pupils per room in 1956.

Central Beach Elementary School

Central Beach Elementary School has shown a slight decline in enrollment since 1940. This is a result of the overall population shift from this area of the city to the northern section. In 1957 enrollment was 788 pupils. There are 27 classrooms in this school which is situated on a site containing 3.2 acres. The ratio of students to classrooms during the past year was 29.1, the lowest ratio in the city.

South Beach Elementary School

South Beach Elementary School follows the same general trends shown by Central Beach Elementary School. There has been some increase in enrollment - from 453 pupils in 1940 to 521 in 1957. There are only 16 permanent classrooms and one temporary classroom. The site contains 2.2 acres. The ratio of students to classrooms was 32.1 in 1957.

Nautilus Junior High School

Fluctuations in enrollment in this school do not reveal the entire picture because conditions have constantly been changing. The general trend has been upward for all grades. However, in 1955 when the school was converted from a combination elementary and junior high school to a junior high school exclusively, enrollment jumped. The increase in the past two years makes a noticeable decrease in the graph of both North Beach Elementary and Miami Beach Junior and Senior High Schools. Nautilus Junior High had an enrollment

of 1276 in 1957 with 33 classrooms resulting in a ratio of 39 pupils per classroom. The site contains 5.0 acres of land and is adjacent to Polo Park which supplements the school playground area. This is the only school in the city that is so conveniently located to a city park or playground.

Miami Beach Junior-Senior High School

Many factors influenced enrollment in the Miami Beach Junior-Senior High School and the graph shows an erratic pattern. In 1946 high school enrollment dropped severely in Miami Beach, showing both a decline in enrollment over previous years and a decline in percentage of total school attendance. This downward trend ended about 1950, and has shown consistent increases since that time.

The present building used by this school has 62 rooms, 43 of which are classrooms. The other 19 are for special use, such as drafting, band practice, work shops and other similar activities. All rooms, including the special use rooms, are treated as classrooms in this study.

Miami Beach High School is located on a small site which contains only 3.5 acres and is inadequate to meet high school requirements. The 1957 enrollment was 1,988 pupils which resulted in a ratio of 32 pupils per classroom during the peak season.

Treasure Island Elementary School

This school serves all of North Bay Village and part of Normandy Island. The future growth of North Bay Village is limited because of available land area. There are 17 classrooms with a 1957 enrollment of 574 pupils, or 32 persons per room. The 12.6 acre site upon which Treasure Island School is located is the largest of all the Miami Beach school sites, and should be completely adequate to meet future requirements.

School Sites

The area occupied by all seven elementary school sites in Miami Beach total 36.7 acres, an average of 5.2 acres per site. Most sites, however, fall below this average and only Treasure Island provides playground area adequate to meet full recreational requirements.

The area of school playgrounds in Miami Beach are considerably below accepted standards. The shortage of playground space

is relieved to some extent by the presence of two public playgrounds which are in the proximity of two schools - Flamingo Park near Miami Beach High School and Polo Park adjacent to Nautilus Junior High School. North Shore Park is near Biscayne Elementary and could be used for special events, but is not recommended for daily use by elementary school children because of the heavy traffic separating the sites.

Age and Condition of Buildings

Only two Miami Beach school buildings are over thirty years old - Miami Beach High School and Central Beach Elementary. Next in age is Biscayne Elementary, 16 years old, followed by Nautilus Junior High, and Treasure Island constructed approximately 3 years ago.

The general condition of all buildings range from fair to excellent. All of the buildings are basically good and present no immediate replacement problem. However, at least two buildings will require replacement before 1980 and when rebuilt, should provide as large a site as possible.

Future Enrollment

To build an adequate school system for the future, it is necessary to have a reasonably accurate concept of future requirements. There are many methods of projecting future school enrollments, most of which are based on application of the birth rate. These methods tend to be short range, limited to the time during which existing births of record will be enrolled in the school system. This results in a 13 year analysis for elementary schools and a 17 year analysis for high schools. The average analysis is for an 11 year period. Another means of analyzing future school enrollment is to establish trends in the ratio of school enrollment to total population and to project these trends into the future based on anticipated total future population.

The method based on ratio of enrollment to total population is preferred for Miami Beach because of the need for a long range prediction and the increasing effect of migration from other areas.

Earlier studies resulted in a projected population increase in Miami Beach to 64,000 by 1980. This estimate is based upon a continuation of growth trends established in recent years, including a gradual transition to a higher intensity of development in some areas. Any future population estimate

should be used with discretion, but should provide reasonable limits of probable growth adequate to meet planning requirements.

Ratio of Enrollment of Population

The relation of school enrollment to total permanent population is contained in Table 3 and Plate 4. Peak population was not included in this study because information is inadequate for early years, and because the characteristics of the additional population are vastly different from those of the permanent population.

Plate 4 graphs the national birth rate, total school enrollment, high school enrollment and elementary school enrollment by five year periods since 1940. In addition, a general trend has been established and shown for each type of enrollment.

The national birth rate since 1940 has been erratic with a decline during the war and a surge immediately following the war. Since 1947 the birth rate has remained fairly constant near, but not equal to its 1947 peak. The Miami Beach birth rate is compared to the national birth rate by the following table:

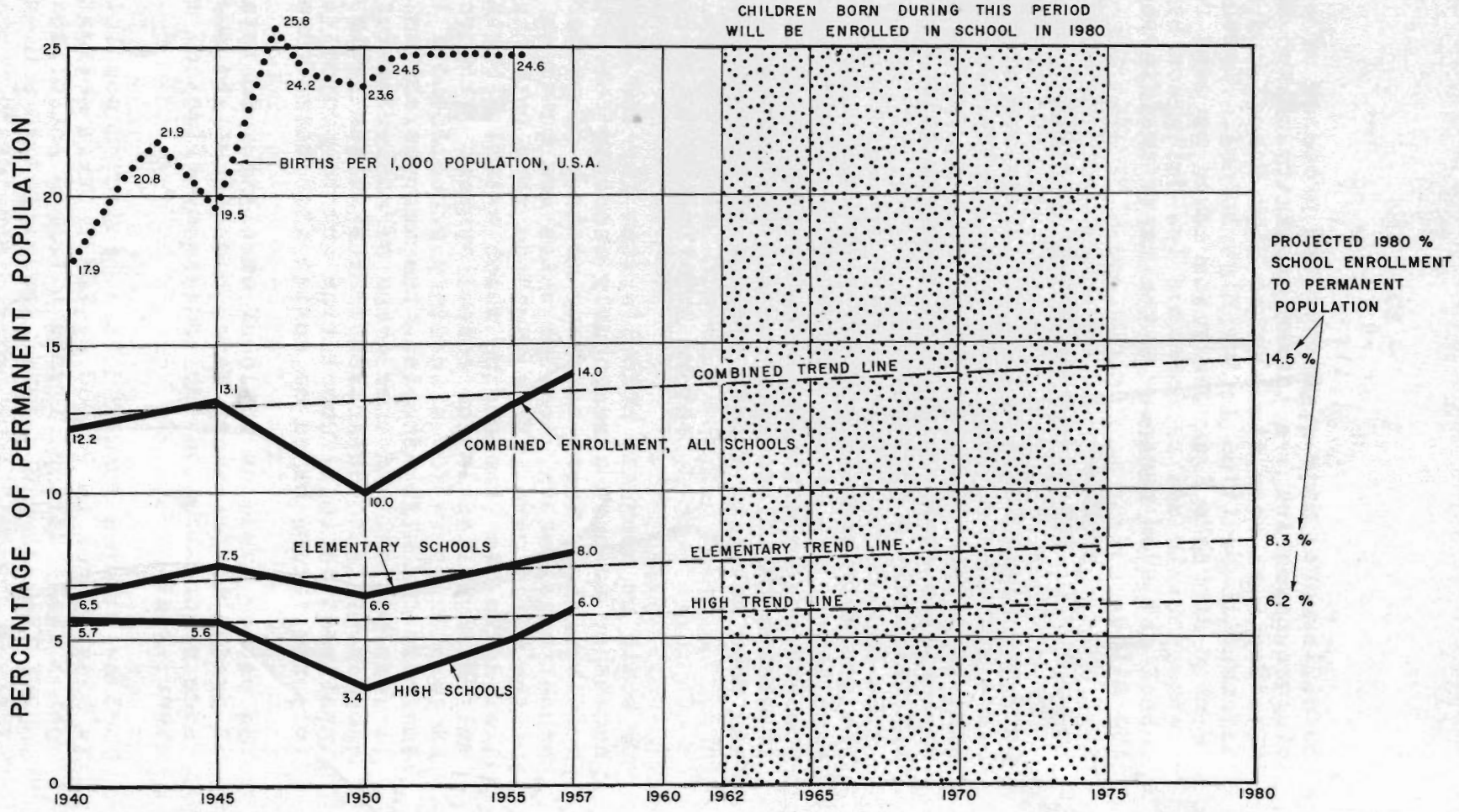
Comparison of Birth Rate

Year	United States	Miami Beach
1950	23.6	10.1
1955	24.5	9.2

All three enrollment graphs show a general and moderate increase with the increase in elementary enrollment greater than high school enrollment. The percentage of total population enrolled in school increased from 12.2% in 1940 to 14% in 1957, although it dropped to 10% in 1950. This decline occurred during a period of consistent population increase and resulted from a slowing rate of increase in enrollment. Enrollments began to catch up with population increase when the effect of the surge in births reached the schools in 1952. Since that time the enrollment ratio has increased strongly.

The projection of enrollment-population trends shown on Plate 4 and listed in Table 3 result in an ultimate or 1980 enrollment 14.5% of total population or 9600 pupils compared with 7566 in 1957. Of this amount, 6.2% of the total

TRENDS OF THE POPULATION - ENROLLMENT RATIO COMPARED WITH BIRTH RATE



CITY OF MIAMI BEACH, FLORIDA

HARLAND BARTHOLOMEW & ASSOC.
CITY PLANNERS CIVIL ENGINEERS
ATLANTA ST. LOUIS HONOLULU

PLATE 4

population or 4100 would be in high school and 8.3% of the total population or 5500 would be in elementary schools.

Future Enrollment by Districts

Table 3 indicates the record of enrollment and population for the major geographical divisions of the city (shown on Plate 3).

District #1	South of Dade Boulevard
District #2	From Dade Boulevard to Sixty-third Street
District #3	From Sixty-third Street to North City Limits including Normandy Island and North Bay Village

Each district has definite characteristics upon which future enrollment projections are based. Projections on a district basis have been limited to elementary schools.

District Number One - South of Dade Boulevard

The ratio of enrollment to population has declined in this area from 6.9% in 1940 to 5.2% in 1957. This is the result of an obvious transition to an older population in the southern area of the city. This ratio is not expected to change much from the current trend and therefore, is projected to be 5.5% in 1980. Since the population for District #1 is estimated at 26,700 persons in 1980 the elementary school enrollment is estimated to become 1,470 pupils.

District Number Two

This district showed an increase from 6.5% in 1940 to 10.0% in 1950, but dropped to 7.1% in 1957. The projected ratio of 7.0% in 1980 results in an enrollment of 1,230 elementary pupils.

District Number Three

This district shows the most significant increase of all districts. There were no schools in that area in 1940 and therefore, no means by which to compare enrollment that year. In 1945, however, the ratio of elementary to total population was 9% and this has grown 10.5% in 1955 and 14% in 1957.

Table 3

Relationship of Population to Enrollment

Year	District	Permanent Population	Peak School Enrollment			% Enrollment Population		
			Elementary	High	Total	Elementary	High	Total
1940	1	19,630	1,361			6.9		
	2	7,057	454			6.5		
	3	1,325						
	Total	28,012	1,815	1,815	3,409	6.5	5.7	12.2
1945	1	21,200	1,694			8.0		
	2	8,800	523			6.0		
	3	2,256	201			9.0		
	Total	32,256*	2,418	1,807	4,225	7.5	5.6	13.1
1950	1	22,800	1,338	1,588		5.9		
	2	10,600	1,129			10.0		
	3	12,882	587			5.0		
	Total	46,282*	3,054	1,588	4,642	6.6	3.4	10.0
1955	1	24,474	1,267			5.2		
	2	12,327	1,029			8.3		
	3	14,180	1,499			10.5		
	Total	50,981*	3,795	2,613	6,408	7.5	5.1	12.6
1957	1	25,500	1,309			5.2		
	2	14,900	1,060			7.1		
	3	13,600	1,933			14.0		
	Total	54,000(1)	4,302(2)	3,264	7,566(2)	8.0	6.0	14.0
1980(3)	1	26,700	1,470			5.5		
	2	17,620	1,230			7.0		
	3	22,180	2,800			12.5		
	Total	66,500	5,500	4,100	9,600	8.3	6.2	14.5

* Population Figures Interpolated (1) Estimated combined population of Miami Beach and North Bay Village

(2) Includes Treasure Island School

(3) All 1980 data estimated

This area is expected to reduce slightly and therefore, is estimated to have 12.5% of its population in elementary schools by 1980. This will account for 2,800 pupils. On this basis the northern district should include slightly more than half the total city enrollment.

In summary, it may be concluded that the ratio of school enrollment to population is expected to maintain a slightly increasing trend similar to that experienced in the past. Based upon these conclusions, the 1980 distribution of pupils may be estimated as follows:

Elementary-Kindergarten - 6th	-	57%
Junior High - 7th through 9th	-	25%
Senior High - 10th through 12th	-	18%

These percentages are based upon past enrollment trends shown on Plate 1.

The Future School System

The most important problem in planning a future school system is to provide sufficient facilities to meet the requirements of the ultimate enrollment. Most of this need is furnished by the existing system. Total enrollment is expected to increase from 7,566 in 1957 to approximately 9,600 in 1980 - an overall increase of over 2,000 pupils. Because nearly all of the school buildings are being used at or above their capacities today, it is obvious that considerable expansion will be required if a sufficient number of classrooms are provided by 1980. If the estimated need is converted to school facilities on the basis of 35 pupils per room about 57 new classrooms will be required to take care of the additional 2,000 pupils. In addition, some of the older facilities will require major improvements or replacement if they are to serve the future program.

In order to obtain a more complete and specific knowledge of the facilities that are needed and their approximate distribution throughout the city, a comparison was made of the existing system to the ultimate requirements. The result of this analysis is presented in the "Summary of Findings and Recommendations". The summary covers both elementary and high schools and presents a program which should provide Miami Beach with a school system that will serve the needs of its people for many years.

Summary of Findings and Recommendations

A comparison of the existing components of the school system with anticipated future requirements is summarized on Table 4. This information presents the record of current enrollment and the projections of future enrollment upon which the physical school system should be designed.

Elementary Schools

There were 4,302 pupils enrolled in kindergarten through the sixth grade in 1957. The total facilities available for their use consisted of 123 permanent and 6 temporary classrooms. The existing capacity based on 35 pupils per room was 4,305 persons. The estimated 1980 enrollment of 5,500 pupils will require a minimum of 157 classrooms when measured by the same standard. To fulfill this need 35 additional classrooms will be required, 2 in District 2 and 33 in District 3.

The two additional rooms required in District 2 would, of course, be built as an addition to existing facilities. The 33 additional classrooms required in District 3 can be provided best by the location of another school site. If the required additional 33 rooms were accomplished by enlarging existing schools, those schools would be greatly in excess of desirable maximum size. The major requirement of the future elementary school system is a new site located to serve the high concentration of school children in the northern quarter of Miami Beach.

Junior High Schools

The trend established since 1953 as shown on Plate 2 indicate that approximately 58% of the total high school enrollment is in the Junior High Schools. The 1957 enrollment was 1944. The anticipated 1980 enrollment will reach 2,380. At the rate of 35 pupils per classroom this 1980 enrollment will require a total of 68 classrooms. Because of the age of the structure and its location in respect to the location of a majority of the pupils, the existing facilities at Miami Beach High School will ultimately need to be replaced. For this reason, only the facilities of Nautilus School have been applied against the future needs. Therefore, the total requirement of 68 classrooms reduced by the 33 rooms in Nautilus leaves a requirement for 35 additional rooms. The most logical solution, in spite of the difficulty in assembling land, would be the location of a new junior high school site somewhere in the northern portion of the city. Because of the

Table 4

Analysis of School System

Elementary Schools

District Number	Schools Included	1957 Enrollment	Classrooms Perm.	Classrooms Temp.	Capacity of Existing Classrooms	Estimated 1980 enrollment	Classrooms required 1980	1980 Net Classroom Deficit
1	South Beach Central Beach	1309	43		1505	1470	42	+ 1
2	North Beach	1060	33		1155	1230	35	- 2
3	Biscayne Elementary Treasure Island	1933	47	6	1645	2800	80	- 33
		4302	123	6	4305	5500	157	- 35
			129					

Junior and Senior High Schools

Junior High	Nautilus Junior High Miami Beach Junior High	1944	33		1155	2380	68	35(1)
Senior High	Miami Beach Senior High	1320	62*		2170*	1720	50	50(1)

* Combined use - both Junior and Senior High

(1) Assumes use of present Miami Beach Junior and Senior High School building to be discontinued by 1980.

difficulty of acquiring land the possibility of joint use of one adequate site by the required elementary school and the junior high school should be considered.

Senior High School

Enrollment in the Miami Beach Senior High School was 1,320 in 1957. By 1980 this is expected to increase to 1720 which will require 50 classrooms.

Current plans of the school board include the construction of a new 33 room high school on the old municipal golf course lying north of Dade Boulevard. The building should be adequate for many years and the site is large enough to permit expansion of the school. The site has one important advantage in that it would be adjacent to municipal property which could be developed as a park, thereby effectively increasing the site of the school.

PARKS AND RECREATION

Planning a park and recreation system assumes greater importance in Miami Beach than in other cities - not because of need, but because of opportunity.

The whole approach to recreation is unique in Miami Beach. Standards or ratios which are adequate in the average city may not apply to this local situation. The primary reason for existence and certainly the basis for recent growth in Miami Beach has been recreation. Recreational opportunities in Miami Beach form an unusual combination of natural, municipal and private facilities unlike those of any other city. Many of these facilities cater to the desires and requirements of the tourist population. Others fill the needs of the permanent population. Little can be accomplished by way of overall planning in improving or adding to private recreational facilities. Nothing is needed to improve the natural advantages of the city. Only the provision of adequate municipal park and recreational facilities falls within the scope of this report.

The Existing Park System

Growth Since 1940

In the report upon land use, it was revealed that an unusually large proportion of developed land in Miami Beach was used for some form of public recreation. Currently 123 acres (3% of total developed area) are used for parks and playgrounds; 294 acres (7% of total developed area) are used for municipal golf courses; and 140 acres additional (3½% of total developed area) used for a private golf course. Not included in these acreages are other extensive recreational facilities impossible to evaluate in terms of acreages or percentages. These are: the waterways and canals which are largely responsible for the open character of the city in addition to their function as facilities for boating and passive recreation; the numerous private beaches of the oceanfront hotels; and the public beaches which occur at the termini of many east-west streets.

Including only those facilities listed above in terms of acreage the city has a minimum of 557 acres of park and recreation land which represents 13% of the total developed area. This amount results in one acre of park land for each 90 persons of permanent population.

In a sense, the computation of a total acreage of recreation

Table 5 Continued

Name or Park or Facility (if any)	Area in Acres				Recreational Playground Facilities												
	Public Beaches	Ornamental Park	School Sites	Play-ground	Base-ball	Soft-ball	Foot-ball	Play-field	Tennis Court	Swimming Pool	Paved Courts	Picnic Area	Shelter	Hand-ball	Band-shell	Building
Biscayne Elementary			5.3													
Miami Beach High			1.3													
Nautilus High			4.0													
	59.70	22.80	18.2	66.2	1	11	1	31	27	2	14	1	9	8	1	3

Total area = 167 acres

Total combined area of Parks, Beaches and Playgrounds = 146.7 acres

Table 5 Continued

Name or Park or Facility (if any)	Area in Acres				Recreational Playground Facilities												
	Public Beaches	Ornamental Park	School Sites	Playground	Baseball	Softball	Football	Playfield	Tennis Court	Swimming Pool	Paved Courts	Picnic Area	Shelter	Handball	Bandshell	Building
Indian Creek at Sixty-ninth		.7														
Normandy Drive and Seventy-first		.2														
Dickins and Seventy-third		4.3														
West of Golf Course		3.3														
Stars Island		3.9														
Bell Island		3.3														
Pier Park	4.4															
Ocean Park and Second	3.9															
Lummus Park	27.6															
Collins Beach	1.7															
Collins Avenue at Forty-seventh	2.7															
Collins Avenue at Sixty-fifth	3.0															
Collins Avenue at Seventy-second	5.1															
Collins at Eightieth	3.5															
Miscellaneous Street Ends (all)	7.8															
South Beach Elementary			1.7													
Central Beach Elementary			2.3													
North Beach Elementary			3.7													

Table 5

Parks, Beaches and Recreational Facilities - Miami Beach

Name or Park or Facility (if any)	Area in Acres				Recreational Playground Facilities											
	Public Beaches	Ornamental Park	School Sites	Play-ground	Base-ball	Soft-ball	Foot-ball	Play-field	Tennis Court	Swimming Pool	Paved Courts	Picnic Area	Shelter	Hand-ball	Band-shell	Building
Biscayne St. and Jefferson Avenue				3.9		1		1			1			2		1
Friendship #2				.6				1			1					1
Washington and Second				.3					1		1					
Collins and Second				.3				1					1			
Flamingo Park				32.4	1	5	1	10	16	1	2	1	1	6	1	1
Polo Park				4.2		2		4	1		2		1			
Normandy Isle Park				3.3		1		3	1	1	1		1			
North Shore Park				11.2		1		4	6		2		2			
Fairway Park				3.7		1		3	2		2		1			
Stillwater Park				1.6				1								
Tatum Waterway Park				1.1				2			1		1			
Crespi Park				1.6				1			1		1			
Girl Scout Camp and Community Center				2.0												
Collins Park		3.8														
Sunset 1 and 2		.9														
Pinetree and Twenty-eighth		.7														
Fisher Park		1.4														
Sixty-third and Alton		.3														

(CONTINUED)

facilities in Miami Beach is meaningless because of the use and value of the tremendous open areas of beach and water. The area of future improvement to be planned for, lies not so much in adding to the total area as in providing certain facilities in specific areas of the city. At present there is an unbalanced ratio between playgrounds and areas for other forms of recreation.

Trends in Parks and Playgrounds

Since 1940 the development of new park and playground facilities in Miami Beach has not kept pace with the overall growth of the city. A substantial increase in the number of facilities has occurred, and the percentage of land used for this purpose compares very favorably with land used for recreation in 1940. Population, however, has increased greatly in almost every section of the city, resulting in the establishment of a greater overall density throughout the city. Because the number of persons per acre has increased, and because the ratio of land use for recreation to total land use has not been increased proportionately, each recreational facility is required to serve a larger number of persons.

The changes that have occurred in land use are shown by the following table.

Trends in Land Used for Parks and Playgrounds

Year	Population	% Increase	Area in Parks	% Increase	% Parks to Total area	Acres Park per 100 Population
1940	28,012		92 acres		3.15	.31
1957	52,500*	Plus 88%	123 acres	Plus 34%	2.97	.23 Less 26%

* Estimated Population

Existing Facilities

The municipal recreational facilities of Miami Beach may be classified under five general headings: playgrounds, ornamental parks, school playgrounds, golf courses and public beaches. Table 5 includes a recapitulation of all facilities

except golf courses. The total used is greater (167 acres) than the total included in the land use study (123 acres). This may be accounted for by the fact that the land use categories of 1940 (which were used in 1957 to permit comparison) did not include street end beaches and school playgrounds as recreation land.

Playgrounds

Playgrounds in Miami Beach range in size from less than one acre to over 30 acres. The smallest is located at the intersection of Washington Avenue and Second Street, and the largest is in Flamingo Park. All of the facilities serve a useful purpose. Although Flamingo Park provides for a diversified program, including a bandshell and stage, it is made-up largely of play space and organized game areas for children and adults. North Shore Park has 11.2 acres and is located near Biscayne Elementary School. The rest of the playgrounds, however, are one to three acres in size limits and are located within neighborhoods throughout the city.

This type of playground utilizes 66.2 acres and represents 40% of the total recreational area in Miami Beach.

Ornamental Parks

This classification covers a wide variety of open landscaped areas usually of small size and containing no facilities for active recreation. They range from an attractively designed island at the intersection of streets to a small park furnished with walks, benches and possibly some feature of special interest, such as a fountain or statue. Miami Beach has many and varied examples of this facility - the median strip on Pine Tree Drive, the street islands in most of the single-family neighborhoods, the Carl Fisher Memorial in Biscayne Bay and "Collins Park" adjacent to the public library. In addition, the ornamental treatment of purely utilitarian areas, such as pumping stations, etc., is commendable. Although relatively expensive to maintain, these ornamental areas add much to the charm of the city and in Miami Beach particularly, are well worth the investment. Ornamental parks account for 14% of the city's total recreational area.

School Playgrounds

Eleven per cent of the total area in recreation is school property used as playgrounds. This amounts to 18.2 acres and is of significant assistance in relieving the shortage in this one facility.

Public Beaches

There are eight major public beaches in Miami Beach which are operated by the city. In addition to these there are over thirty street termini which provide access to the ocean. The city maintains lifeguard and comfort facilities at five of the public beaches and operates a careful program of beach maintenance and cleaning.

The public beaches range in size from 2 to 27 acres and account for 35% of the total city recreation area. Lummus Park is one of the finest beaches in the world and offers more than 4,000 feet of ocean frontage. The existing total public beach frontage is almost two miles, of which 8210 feet are beaches and 1835 feet street ends. This is 27% of the total ocean frontage within the city.

The public beaches serve an extensive local area population in addition to the tourists and residents of Miami Beach. Patronage of the public beaches in Miami Beach reach 3,800,362 in 1956 and 3,917,033 in 1957.

Golf Courses

The area comparisons of the various recreation facilities discussed previously have been computed without including golf courses. The golf courses alone occupy 434 acres of which 294 are municipally and 140 privately owned. What might seem to be an over emphasis on this one recreation facility is actually the answer to a requirement peculiar to this city. The tourist trade upon which the economy of the city is based makes extensive use of this facility. Beaches (whether public or private), fishing and golf are an important part of the stock in trade of most apartments-hotels in the city.

Distribution of Parks and Playgrounds

In order that a city's recreational system may serve the largest number of its population, it is desirable that the areas designated for such purposes be reasonably distributed throughout all of the major centers of population. To obtain a measure of the effect of the population of Miami Beach on the overall area allocated to recreation the city was divided into five major districts, each of which is based generally upon similar land uses. There is, naturally, some overlap in uses when treated in this broad manner. The boundaries of the five recreation districts were formed by re-grouping the 17 statistical districts into which the

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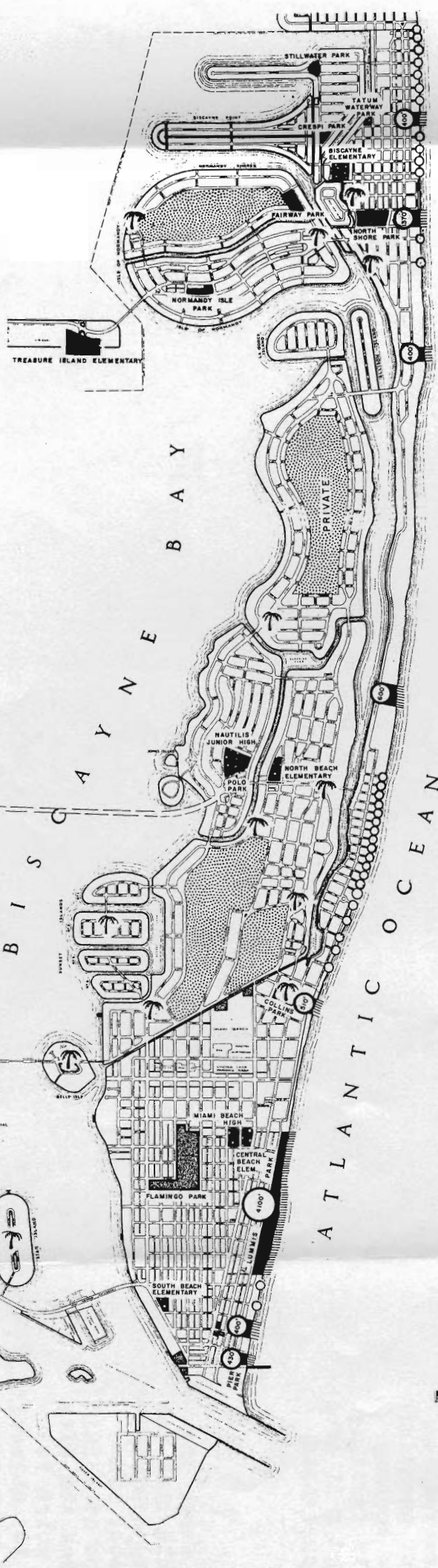
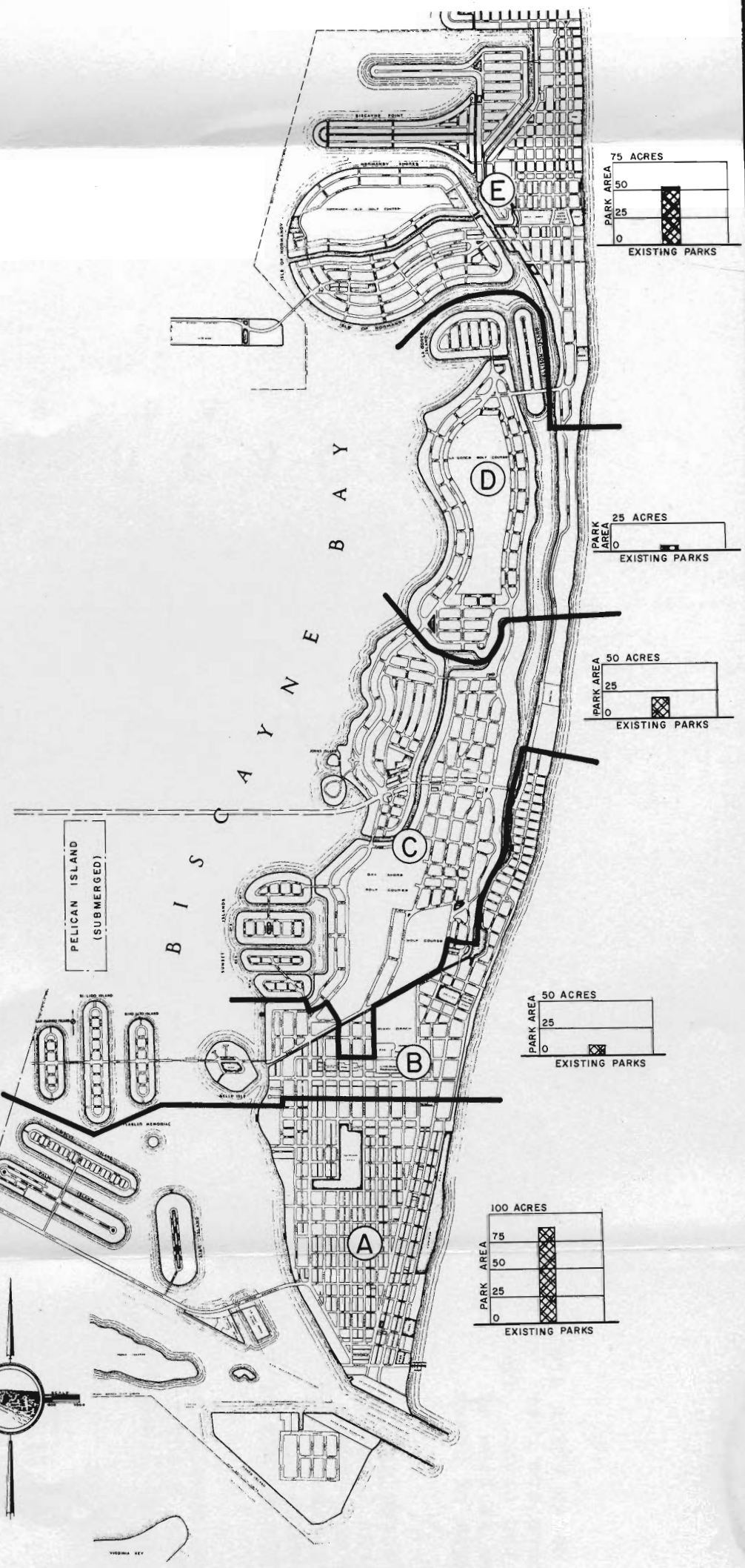


LOCATION OF EXISTING RECREATIONAL FACILITIES



ANALYSIS OF RECREATIONAL AREA RELATED TO POPULATION

EXISTING RECREATIONAL FACILITIES

L E G E N D

- ORNAMENTAL PARKS
- RECREATIONAL AREAS (PLAYGROUNDS)
- SCHOOLS
- GOLF COURSES (MUNICIPAL & PRIVATE)
- PUBLIC BEACHES
- TOTAL ACREAGE IN EXISTING FACILITIES *

LARGE 1000' USEABLE WATER AREA; MEDIUM 400' FOOT FRONTAGE INDICATED; STREET ENDS

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Table 6

Analysis of Existing Parks by Districts

Park District	Contains Geographic District	Area Recreational Facilities in Acres: Landscape Parks	Playgrounds	Public Beaches	School* Grounds	Total Recreational Area	Estimated 1957 Population	Acres Per 100 Population 1957
A	1-2-3 & 16	3.9	37.5	36.6	C.B.E. = 2.30 S.B.E. = 1.70 M.B.H. = 1.30	83.3	19,700	.41
B	4-5-6 & 17	7.1		4.2		13.3	7,320	.19
C	7-8-9 & 10	1.6	4.2	2.7	Nautilus 4.0 N.B.E. = 3.7	16.2	7,900	.21
D	11-12	1.7				1.7	2,900	.06
E	13-14 & 15	8.5	22.5	16.20	Biscayne 5.3 E.	52.5	14,680	.35
				Totals	18.2 acres	167.0	52,500	

* Area School Site less Building Area

city is divided and to which reference has been made frequently. The new districts are made up as follows:

District A - combined sections 1, 2, 3 and 16

District B - combined sections 4, 5, 6 and 17

District C - combined sections 7, 8, 9 and 10

District D - combined sections 11 and 12

District E - combined sections 13, 14, and 15

Present and Future Need

Figure 2 of Plate 5 shows the boundaries of the five districts illustrated in the preceeding section and gives a comparison of the combined existing park and recreational areas in each district on the basis of existing and future conditions. Table 6 gives this same information in statistical form. A summary of the data of both Plate 5 and Table 6 is given next in a discussion of each district.

District A

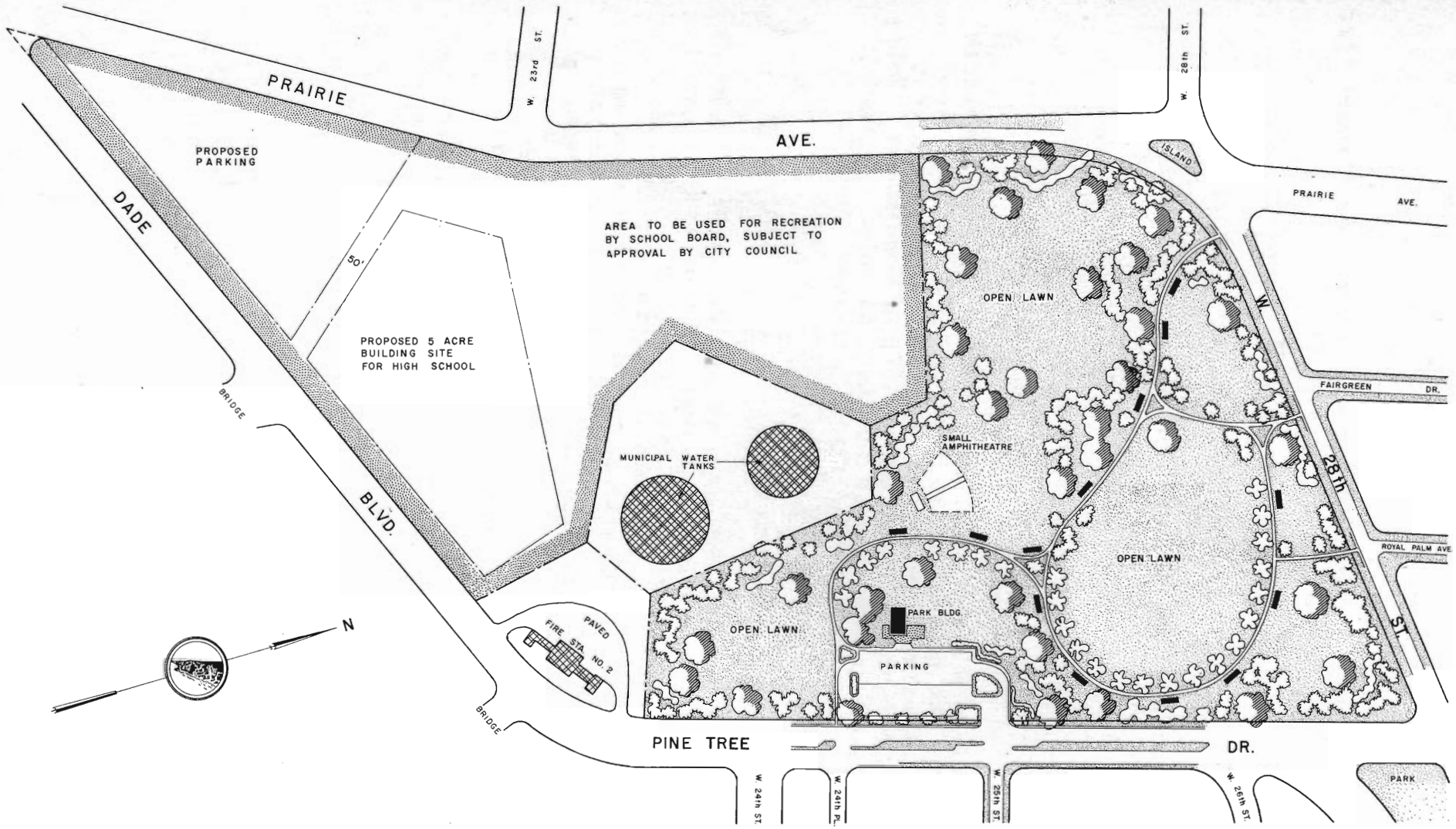
District A has a total of 83 acres of recreational space which is comprised of: 37.5 acres of playground, 3.9 acres of landscaped parks, 5.3 acres of school playground and 36.6 acres of public beaches. The 1957 population was 19,700 and the estimated 1980 population will be 20,400. Because it includes both Lummus and Flamingo Parks, this area furnishes more complete recreational facilities than any other area in the city.

District B

This area had a permanent population in 1957 of 7,320 and is expected to reach 8,350 by 1980. There are only 13.3 acres of recreational area within the entire district which is comprised of 7.1 acres of landscaped parks and 4.2 acres of public beach. There are no playgrounds or schools in this district.

District C

District C is the residential (single-family) district north of Dade Boulevard and extends to Surprise Waterway. This section has a population of 7,900 and will reach 11,140 by 1980. The parks and playgrounds provide 16.6 acres of which



SUGGESTED PARK DEVELOPMENT

CITY OF MIAMI BEACH, FLORIDA

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CITY PLANNING CONSULTANTS
ATLANTA ST. LOUIS HONOLULU

0 100 200 300 400 500
GRAPHIC SCALE

PLATE 7

CITY OF
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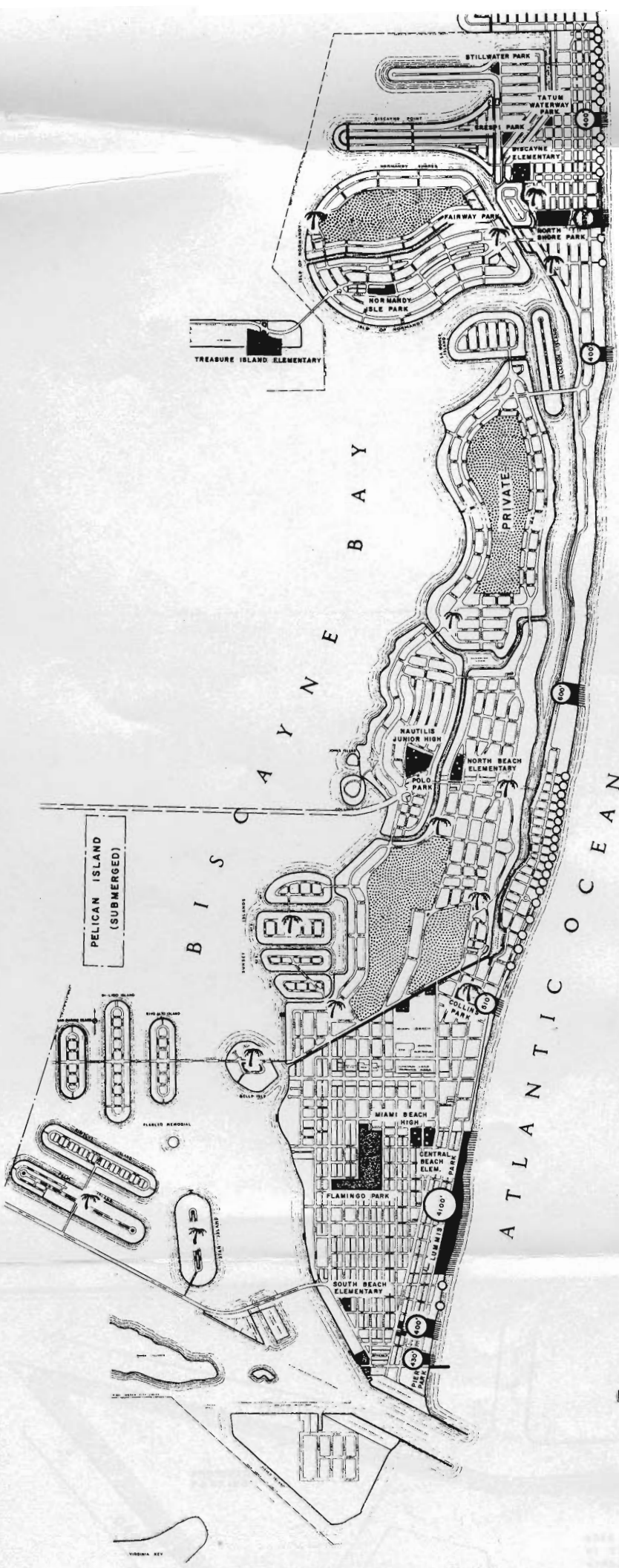
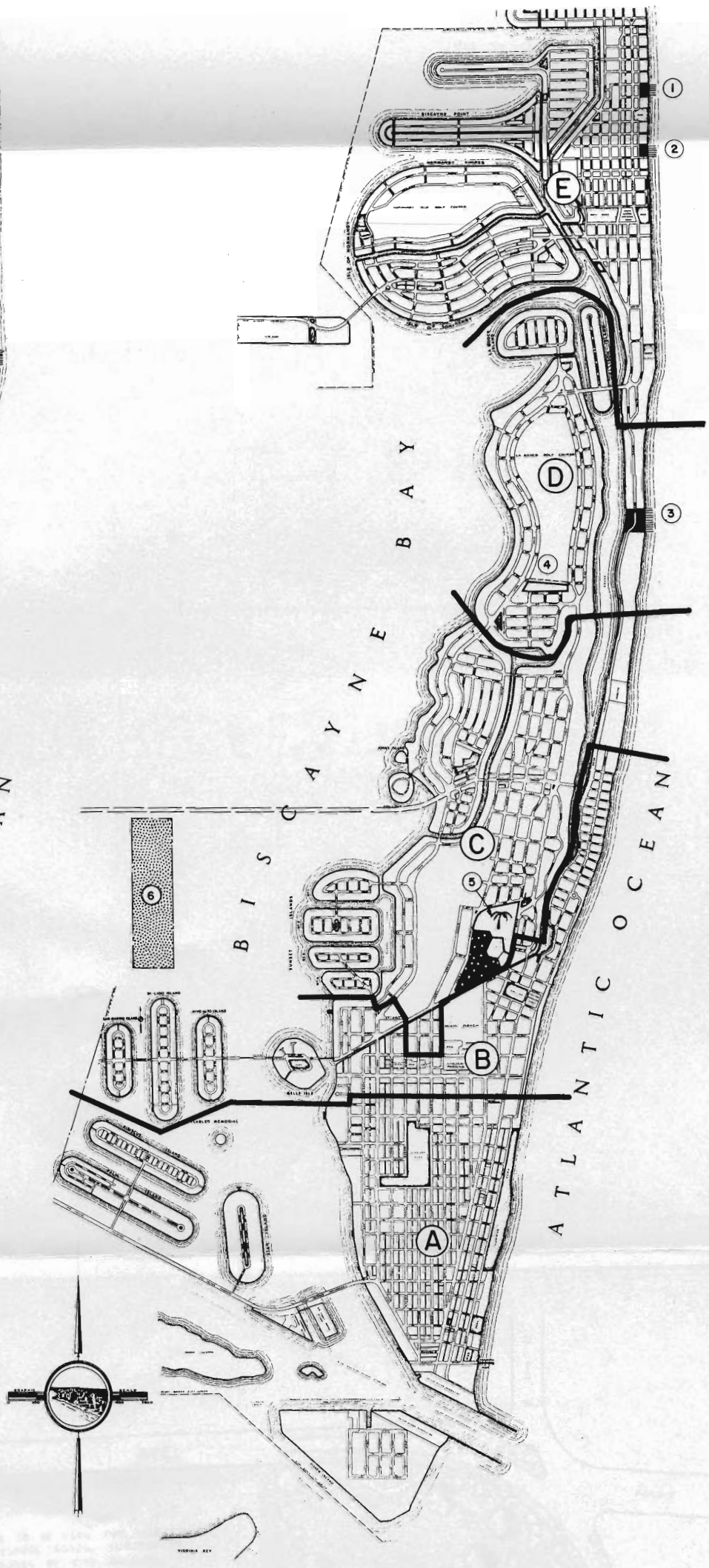


LOCATION OF EXISTING RECREATIONAL FACILITIES



PROPOSED DEVELOPMENTS

(EXISTING RECREATIONAL FACILITIES AND)

PROPOSED PARK & RECREATION PLAN

L E G E N D

- ORNAMENTAL PARKS
- RECREATIONAL AREAS (PLAYGROUNDS)
- SCHOOLS
- GOLF COURSES (MUNICIPAL & PRIVATE)
- PUBLIC BEACHES

LARGE (1000' USEABLE WATER AREA) MEDIUM (400' FOOT FRONTAGE INDICATED) STREET ENDS

1. 300' PUBLIC BEACH, BETWEEN 82nd & 83rd STS.
2. 300' PUBLIC BEACH, BETWEEN 77th & 78th STS.
3. 600' PUBLIC BEACH, PROXIMITY OF 54th ST.
4. SIX ACRE PLAYGROUND FOR YOUNG CHILDREN
5. 25 ACRE ORNAMENTAL PARK
6. PELICAN ISLAND GOLF COURSE – TOTAL FUTURE ACREAGE, 161.40

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4.2 acres are playgrounds, 1.6 acres are landscaped parks, 7.7 acres are school playgrounds and 2.7 acres are public beaches.

District D

The only parks in this district are two small landscaped parks totaling 1.7 acres. There are no schools, playgrounds or public beaches. The present population is 2,900 and the 1980 estimated population will be 4,430.

District E

District E has good playground areas and beaches, and a number of small playing fields. North Shore Park has a site of over 11 acres. There are 52.5 acres of parks in this district divided as follows: 22.5 acres of playground, 8.5 acres of landscaped parks, 5.3 acres of school playground and 16.2 acres of public beaches.

Plate 5 diagrams the location and nature of major recreational facilities and illustrates by a bar graph the total park acreage. The plate illustrates the relatively high ratio of park land in the southern portion of the city (District A) with substantial smaller ratios in all other sections. The effect of anticipated population growth will be to emphasize this existing disparity.

On the basis of this information, the emphasis of future park additions should be in the central and northern portions of the city. Further, the need for additional facilities serving those areas may be expected to increase.

Future Park and Recreational Facilities

The major objectives of a park plan for Miami Beach should be to meet present inadequacies and to provide for future growth. In spite of the limited availability of land, both appear to be possible.

The only important inadequacies in the present system occur in the central (Districts B and C), and northern (District E) portions of the city where a deficiency in playground space does exist.

The pressure of future growth should be anticipated in one of the same areas - District E.

A third major facet of the park plan is included as recognition

of an opportunity and not as a result of a deficiency - the development of Pelican Island.

Almost any addition to the present park system will be expensive. Few alternatives for acquisition exist. The city may acquire new park acreage: by conversion of existing municipally owned land to park use, by assembly of expensive, privately owned land or by the creation of new land by filling bay area.

The proposed park system contains only five proposals which are illustrated on Plate 6.

Old Municipal Golf Course Property

That part of the old municipal golf course lying north of Dade Boulevard and not included as a portion of the proposed high school site is ideally located to provide park and playground facilities in this south central portion of the city. The area involved is 18 acres which is developed for park use would meet the present and anticipated future deficiency in both Districts B and C.

In addition, its location adjacent to the high school establishes a relationship complementary to each function.

A possible plan of development for this area is included as Plate 7.

Fifty-Second Street Playground

The Major Street Plan included a proposed connector route between Collins Avenue and Alton Road located approximately at 52nd Street. Were this location constructed across the lower portion of LaGorce Golf Course, it would isolate a small tract (approximately six acres) to the south. This site is well located to supply some playground facilities in a section of the city having very little park acreage. Development would probably be as a small children's playground. Relocation of greens and fairways would not damage the golf course beyond use.

Public Beaches

Three additions are proposed to the already extensive public beach system of the city. The total area included is only 6.8 acres, but they represent 1200 feet of ocean frontage. The three locations were chosen to provide a distribution of public beaches and to make use of the more parcels on the basis of existing development. The three locations are:

(1) Approximately 600 feet in the vicinity of 54th Street.

(2) Approximately 300 feet between 77th Street and 78th Street.

(3) Approximately 300 feet between 82nd and 83rd Streets.

School and Park Facilities in the Northern Section

The foregoing proposals have met all of the major needs of the city except one - the provision of additional elementary, junior high school and neighborhood park facilities in the northern portion of the city.

The degree of development of land anywhere in the city makes the task of assembling sufficient acreage for such facilities extremely difficult and expensive. One possibility should be investigated carefully - that of filling sufficient area in the bay, probably adjacent to the proposed connecting causeway, to provide for both schools and an adjacent park and playground.

Pelican Island

Pelican Island is a submerged body of land in Biscayne Bay lying immediately north of DiLido Island and south of the proposed 36th Street Causeway. The construction of the new causeway will afford excellent access to this property and render filling and development feasible. The present area of submerged land is 102 acres, but the filling operation may be increased to provide about 160 acres.

As a result of the knowledge of this potential additional land, many suggestions for its use have been advanced. In approaching this choice some criteria for preference should be used. Three major factors influence the best use of this additional 160 acres: first, the geographical location of the property; second, citywide requirements for additional school or recreational property and third, the selection of a use that would be an extensively used attraction and thus contribute to the economic well being of the city.

Pelican Island is too isolated to serve efficiently as a school or neighborhood park. All access to the property must be by automobile. Transportation potential to the site is excellent, but convenient neighborhood accessibility does not exist. The best use therefore is restricted to some citywide function.

The only school and park need for which a specific site has not been proposed is the combination elementary-junior high school and neighborhood park serving the northern section of the city. Pelican Island could not answer this need because of location alone.

An area as large as Pelican Island is an unusual opportunity. Among the suggested uses advanced was that of an additional golf course. The use of the three existing golf courses lends support to the belief that an additional course would be used. It would provide recreational facilities demonstrated to be closely related to the desires of a large part of the resident and tourist population.

The development of Pelican Island as a golf course could be unusually attractive and would add to the overall attractiveness of the city. Its isolated location would not reduce its attraction for this use.

The proposals comprising this plan should provide adequate school and park properties in all sections of the city to meet the requirements of all anticipated growth. The provision of these facilities in most cases will be expensive, but are necessary to prevent a decline in the overall quality of the city as population increases. Providing minimum service has never been the objective in Miami Beach, and the addition of these relatively few areas will keep the city in its pre-eminent position.