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the growth of a university... and plans for its interama campus

florida international university

ADDENDUM

In view of the decision to postpone the implementation of this plan by one year, the first year of the Plan should read 1977-78 rather than 1976-77. All other planning dates need to be set forward one year.

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PREFACE

Florida International University recognizes that more than a million people in North Dade and South Broward Counties have not had reasonable access to the educational services and opportunities provided by a senior local public institution of higher education. The University has, therefore, with the approval of the Board of Regents of the State University System of Florida, developed a plan to serve this community through a second major campus to be constructed on the Interama site. This plan will be implemented in accordance with policies established by the Board of Regents.

The Academic Plan for the Interama Campus reflects the same broad goals and objectives which guide the Tamiami Campus of Florida International University. Because capital and operating budgets cannot accommodate the projected demand for all the programs which the University might offer initially, a decision has been made to limit enrollments and phase the introduction of academic programs over a six-year period. The physical Campus Plan was designed to be built in yearly increments sufficient to meet the planned yearly enrollment increases.

The intensive planning that went into the preparation of this document took place over the three-year period 1972-1975. Data collected and prepared during this period and ultimately presented in this plan were based on the Campus opening early in the second half of the 1970's. To the extent that the opening is delayed beyond this period the numerical base for the planning becomes increasingly less accurate.

The University stands ready to further serve the community by implementing this plan as soon as the necessary resources are available. The Campus will, where appropriate, coordinate its activities with those of other institutions of higher education, public and private, in its region.

MESSAGE FROM THE PRESIDENT

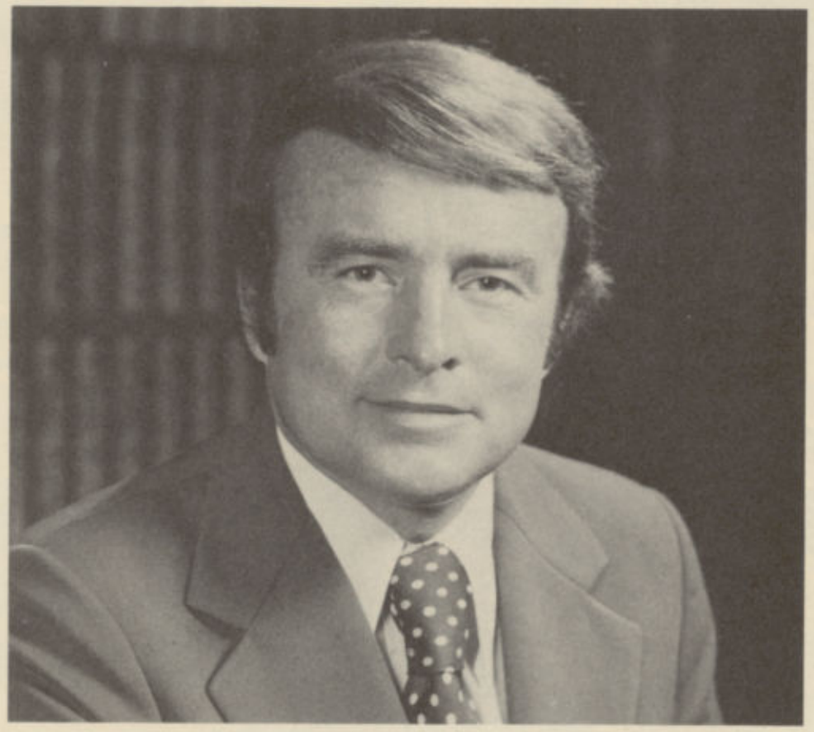
Five years ago the Master Plan for development of the Tamiami Campus of Florida International University was published. This Master Plan for a second campus at Interama testifies to the faith which many people have shown in this University. Scores of public officials and civic-minded private citizens had the foresight to recognize the value of a state university in Greater Miami. Since our arrival, in September 1969, their wish for a new public university has been realized. Some 12,000 students, served by over 1,500 faculty and staff, now attend the Tamiami Campus of Florida International University.

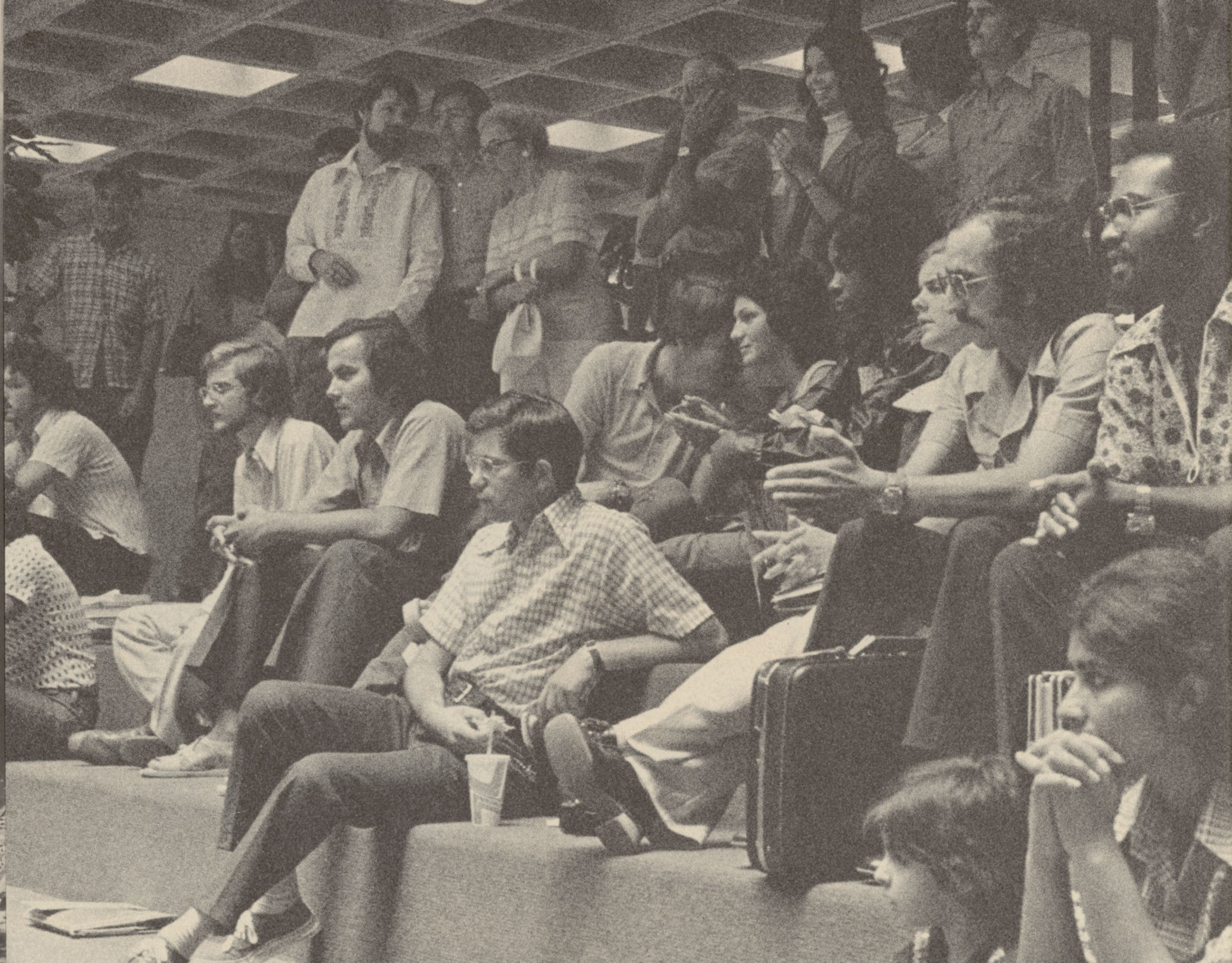
Through the creation of a campus at Interama, the University takes a second major step toward fulfilling its obligations to the people of South Florida. Over one million metropolitan area residents live too far from the Tamiami Campus to take day-to-day advantage of its services. From the beginning, plans for this University have anticipated evolution to a multicampus institution which will make baccalaureate and post-baccalaureate opportunities readily accessible to the entire South Florida population. In a very real sense, plans for the Interama Campus represent progress toward this objective, stated in our original long-range plan. This new effort validates the ideas and ideals propounded for the University in that earlier planning document.

Unlike the University's original plan, this one reflects the collective experience of an ongoing University. Many viewpoints have been expressed and considered. Neighboring public and private institutions have also contributed their experiences. These differing, sometimes conflicting views, have been studied, shaped, reshaped, modified, and integrated into what we believe is a sound plan. This give and take has fashioned a new campus. It must embody the best of what we have already achieved, discard what we have found wanting, and continue the firm commitment of Florida International University to accept new challenges.

CHARLES E. PERRY

September 1975





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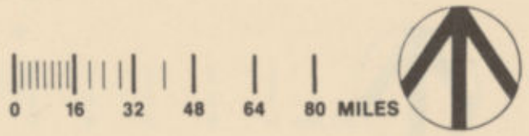
INTRODUCTION

Florida International University opened in the fall of 1972 as a public, upper level, and graduate institution of the State University System of Florida. At the time the University was founded, similar reasons were presented for building the initial campus in South Dade County on the site of the old Tamiami Airport and for locating it on the Interama tract in North Dade. Each area was already heavily populated and growing rapidly. Community leaders and citizens were uniformly interested in having the Campus located nearby. When the Tamiami property proved to be more readily available, it was decided that the first campus of Florida International University would be constructed on the Tamiami Trail.

An initial enrollment of 5,600 students and rapid growth in the second year of operation, to almost 9,000 students, confirmed the need for a public university to serve Greater Miami and South Florida. The original long-range plan, drafted to guide the development of the University, provides the conceptual framework for expansion to a multicampus organization. It seems clear from initial experience that a single campus cannot provide the extensive educational services that the population of South Florida desires.

Recognizing a mounting need for educational services in areas outside the immediate vicinity of the Tamiami Campus, University planners wrote in the original Master Plan, The Birth of a University and Plans for Its Development, that "Florida International will not be limited to programs on the Tamiami Campus ... to the extent feasible, the University must be able to take its programs to its potential students." The University was prepared to offer a variety of activities in the community and, when sufficient need and interest justified the decision, to establish "additional campus sites ... to enable the University to fulfill its mission more effectively."

The long-range plan for the University was even more specific with respect to an Interama Campus. The commitment to serve the South Broward and North Dade region with a local campus was made concurrently with the development of the Tamiami Campus of Florida International University. "Once planning funds become available, development of the Interama Campus of Florida International will begin at the Interama site."



1. SOUTH FLORIDA REGION

Planning funds were appropriated by the Florida Legislature for fiscal 1973-74. Early in 1973 the Interama Authority deeded a 40-acre parcel of land to the State Internal Improvement Fund for use by Florida International University. This acquisition culminated negotiations between University officials and the Interama Authority, predating the appointment of a planning staff. Later in the same year, the Authority recorded its intent to make 100 additional acres available for eventual expansion. The target date for enrolling students at Interama was set for September 1976. Still later, during the fall of 1974, the Board of Regents acquired from the Authority 66 additional acres and a building scheduled for completion in July 1975. The University, at this point, made the decision to master plan the 106-acre site to accommodate 15,000 students.

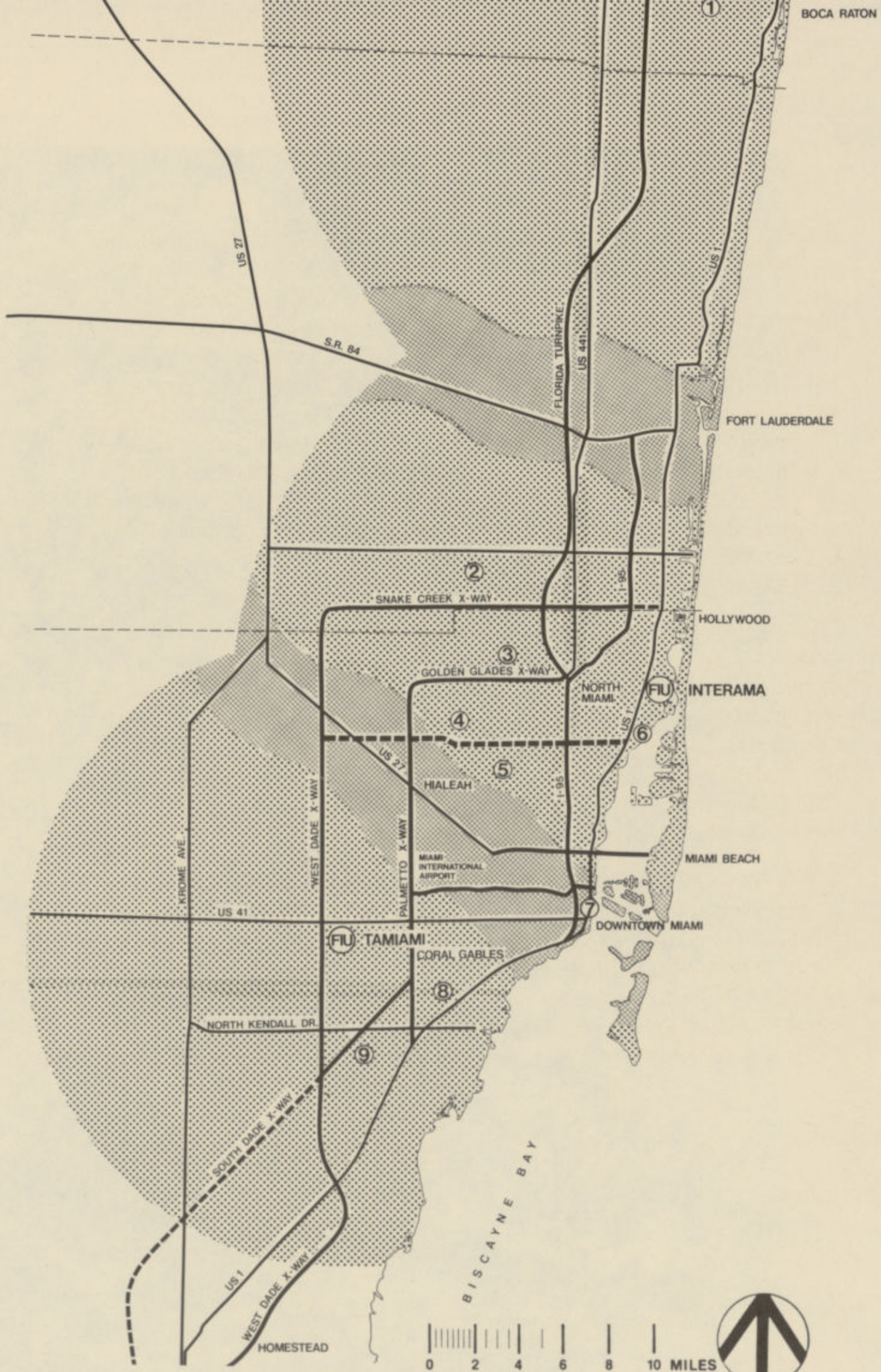
The Interama Campus site is located within a 1,700-acre tract of undeveloped land at the northern tip of Biscayne Bay (see Figure 2). At the present time, more than a million people reside within approximately 30 minutes automobile commuting time of the Campus site. The North Campus of Miami-Dade Community College, enrolling over 20,000 students, is eight miles away. The tourist industry of Miami Beach and the industrial, commercial, and governmental centers of downtown Miami are also close by.

The 1,700-acre Interama tract is one of the few undeveloped parcels of land remaining in the North Dade-South Broward area. Approximately 600 acres of the site have been filled and are suitable for construction. The University Campus will be located near the center of the 1,700-acre tract (see Figure 3). Acreage has also been identified for future University expansion, the Oleta River Preserve, the North Dade Treatment Plant, and the North Miami Recreation Area.

As the first resident of the Interama tract, the University Campus will represent an important element in its future development. With the exception of the regional governmental center of Metropolitan Dade County, other uses of the neighboring property have not been specifically determined. However, there is strong sentiment which has been expressed at the State and local governmental levels to develop the Interama site in a manner which will promote educational, cultural, and recreational objectives. The University looks forward to working cooperatively with its future neighbors to reinforce mutual interests and activities.

Interama Campus planning gained momentum in September 1973 when University task forces were appointed by the President. Membership on each task force was comprised of persons with the knowledge and experience required to develop plans for opening the new Campus by Fall 1976.

The task force structure was selected as the best possible means of eliciting a wide range of information and expertise. To ensure that various viewpoints were represented, task force membership was drawn from all major units of the University, the four senates, students, local community colleges, and area citizens. A large measure of the planning effort has been shared by the representatives of these constituencies. A small planning staff coordinated and integrated the work of the various task forces, provided staff support, established critical planning deadlines, and prepared this Master Plan. The entire planning effort was guided by a Steering Committee chaired by the President of the University. Actions approved by the Steering Committee are reflected in this Master Plan.



CAMPUS SERVICE AREA

OVERLAPPING CAMPUS SERVICE AREA

1 FLORIDA ATLANTIC UNIVERSITY
2 BROWARD COMMUNITY COLLEGE
3 BISCAYNE COLLEGE
4 FLORIDA MEMORIAL COLLEGE
5 MDCC · NORTH CAMPUS
6 BARRY COLLEGE
7 MDCC · DOWNTOWN CAMPUS
8 UNIVERSITY OF MIAMI
9 MDCC · SOUTH CAMPUS

2. INTERAMA LOCATION


NORTH MIAMI BEACH
N.E. 163 STREET
OLETA RIVER
NATURE PRESERVE
U S 1 BISCAYNE BOULEVARD
A 1 A OCEAN BOULEVARD
NORTH DADE SEWAGE
TREATMENT PLANT
INTRACOASTAL
WATERWAY
N.E. 151 STREET
HAULOVER PARK
AND BEACH
FLORIDA INTERNATIONAL UNIVERSITY
NORTH MIAMI
ATLANTIC
OCEAN
BISCAYNE BAY
NORTH MIAMI
RECREATION SITE
N.E. 135 STREET

PART ONE

THE ACADEMIC AND ORGANIZATION PLAN

PART ONE—THE ACADEMIC AND ORGANIZATION PLAN

I GOALS AND OBJECTIVES

The Interama Campus represents a second major opportunity for Florida International University to achieve its primary goals. Many promising educational programs are already under way on the Tamiami Campus. Because the University is just completing its third year of operation, the new Campus is viewed principally as a means of nurturing and facilitating currently planned programs and directions. It provides opportunities to extend a broader range of services to the University's publics and to reach into communities too distant to be served by the Tamiami Campus.

The University's original long-range plan, The Birth of a University and Plans for Its Development, details the goals and objectives which pertain to the Tamiami Campus and by implication to future campuses of Florida International University. The three main purposes to be achieved through University programs are: Education of Students, Service to the Community, and Greater International Understanding. The original Master Plan defines each goal.

Education of Students

To provide a university education for qualified students which (a) prepares them for useful careers in education, social service, business, industry, and the professions; (b) furnishes them with the opportunity to become effective members of the society; and (c) offers them an appreciation of their relation to their cultural, aesthetic, and technological environments.

To enhance the opportunity to fully realize this University goal, the Interama Campus will:

- Bring essentially the same quality and level of University services as are available at Tamiami within a reasonable commuting distance of over one million North Dade and South Broward residents. The distance to existing university campuses presently makes attendance unrealistic for many persons who would otherwise enroll.
- Offer all required courses for a relatively broad range of academic majors for which there is great student demand. In addition, the Campus will make available selected fields of study which can be justified on only one campus or the other.
- Investigate the potentially differentiated instructional needs and desires of special Interama constituencies (the Interama service area has substantial percentages of black, Spanish speaking, and elderly residents) and devise programs to meet those needs.
- Make possible, through a division of labor between the two campuses, a greater concentration of resources in many instructional programs, a greater breadth and depth of faculty talent, and physical facilities to accommodate specialized academic programs.
- Take active leadership in promoting development of University programs and facilities for the fine arts; the School of Hotel, Food, and Travel Services; communication fields and other curricula assigned primarily to the Interama Campus.
- Carefully structure academic offerings and personnel selection so that the two campuses mutually reinforce each other and provide optimum educational services to the South Florida region.

Service to the Community

Service to the Community is the second major University goal. The Master Plan indicates that Florida International intends to serve the Greater Miami and South Florida area in a manner which enhances the region's capability to meet the ecological, cultural, social, and urban challenges which it faces.

This University goal is currently being met with the various programs and activities designed to provide leadership, information, research, and other assistance to residents of South Florida. The specific objectives noted in the Master Plan will be complemented by the Interama Campus. Creation of a campus on the Interama site will enable the University to:

• Make continuing education and special programs more immediately accessible to area residents.

• Further test and non-degree educational needs and demands of adults and other special groups outside the traditional student age ranges and, if feasible, mount programs to meet those needs.

• Bring faculty research and public service expertise within easier reach of local governmental, industrial, and other organizations through the availability of a University faculty.

• Take active leadership in promoting development of the University's conference programs and such other public service units as are assigned primarily to that location.

• Take active leadership in the establishment of a conference center to serve area, regional, national, and international needs for thoughtful communication and deliberation on pressing social and technical issues and problems.

Greater International Understanding

The third major goal specified in the University's Master Plan is Greater International Understanding. The University seeks to become a major international education center with a special mission to create greater mutual understanding among the Americas and throughout the world.

In addition to pursuing the objectives associated with Greater International Understanding outlined in the University's Master Plan, the Interama Campus will make the following specific contributions:

• Bring faculty and students into closer contact with the activities and personnel of internationally oriented commercial and industrial firms and non-profit agencies located in the Interama area.

• Take active leadership in promoting international conferences to be held in the proposed conference center.

• Utilize visiting and adjunct personnel with international knowledge and experience to supplement faculty expertise.

• Locate the University's International Affairs Center on the Interama Campus and utilize both the Interama and downtown environments to develop instructional, research, and public service programs in conjunction with internationally oriented organizations.

• Provide on-campus housing (to be located on expansion site) for first-term international students, as well as visiting international faculty and diginitaries.

Each of the three University goals is considered a guideline for the Interama Campus in the same sense that each has guided development on the Tamiami Campus.

Although there will be a degree of specialization on each campus, giving each a character and identity of its own, the fundamental goals are shared University goals. Education of Students, Service to the Community, and Greater International Understanding are the goals of Florida International University as a whole.

To assist the University in finding the most effective means to meet shared goals, the Interama Campus will actively support and effect a division of labor and resources between the two campuses. An equitable distribution of physical and human resources will enable Florida International to build the greatest possible strength and service potential in both campus communities. For example, Interama will serve as a means of increasing the depth and breadth of University faculty in the fields of study offered on both campuses, as well as those fields offered only on the Interama Campus. It will serve also as a vehicle for development of instructional, public service, research, and administrative opportunities for faculty and staff, encouraging professional development in the areas of their choosing.

Interama Campus personnel must exercise active leadership in securing funds for programs and activities to be housed at Interama. They must also support those activities which enhance overall University programs, but are not identified specifically with one campus or the other.

Throughout the planning process, care has been taken to maintain the flexibility needed to adapt to a changing, growing, maturing campus. The new Campus will share in developing the planning, evaluation, and governance processes which make it possible to allocate University resources to best accomplish University-wide objectives. Careful planning, commitment to common goals, and cooperation between the two campuses is expected to result in optimum educational services.

II ORGANIZATIONAL STRUCTURE

The concept of a single, multicampus University is basic to the organizational structure described. The Interama Campus is expected to become a second full-service campus of the University. When Interama opens, students will continue to be admitted to the University, rather than a campus of the University, select courses from a single catalog, and adhere to a University-wide calendar. Students will have the same access to courses on both campuses that they now enjoy on the existing campus. Course credit for subjects taken at either Tamiami or Interama will be recorded on students' University transcripts. Although students will probably take all or most of their course work in a single location, they may attend classes on both campuses or alternate between the two locations without prejudice. Personal student services, such as academic counseling, will be provided primarily by the campus a person designates as his "home campus" to eliminate the maintenance of complete student records in both locations.

Administrative systems are perhaps the most easily adapted to servicing a single University which operates in two or more locations. Some modifications in present systems should permit the administrative affairs function to reinforce the concept of one unified University. A single set of administrative procedures, policies, and processes will pertain on both campuses.

During the early years of Interama Campus development, a deliberate policy of limited enrollment will result in a campus which is smaller in size and offers fewer academic majors than the Tamiami Campus. Within ten to twelve years the major structures to accommodate a student body of approximately 15,000 persons, majoring in a broad range of academic programs, should be complete. The establishment of an organizational structure appropriate to the second full campus of a multicampus University can be expected to follow a similar pattern of development — from modest beginnings to full campus stature.

The organizational structure outlined represents an expression of confidence in the ability of all personnel to work together in a spirit of cooperation. A structure which emphasizes shared authority is considered necessary to retain the unity and integrity of the University's academic programs and at the same time to give personnel at Interama operating flexibility to respond to local needs and resolve day-to-day problems as they arise.

During the planning years and the initial years of operation, policy responsibility and authority for implementation of individual programs and functions to be carried out on the Interama Campus will reside with the respective University executive officers and their unit deans and directors.

A staff appropriate to the size of the Interama Campus will handle academic administration, finance and business management, facilities maintenance, student and community affairs, as well as public relations and development.

A campus provost will administer the Interama Campus, consistent with policy determined by the University's executive officers. The provost will report directly to the president of the University and will perform additional duties as delegated by the president or agreed upon between the provost and University vice presidents.

Initially, the academic programs offered on the Interama Campus will be organized within the same college and five schools responsible for academic programs on the Tamiami Campus. The College of Arts and Sciences and the Schools of Business and Organizational Sciences; Education; Health and Social Services; Hotel, Food, and Travel Services; and Technology will phase in degree-granting programs at Interama over several years. A School of Communication Arts and several other new programs are being planned. It may be desirable to develop additional programs addressed to local needs.

The administrative structure suggested as most appropriate for the early years of campus development takes maximum advantage of the experience gained by the University's executive officers, deans, and directors on the Tamiami Campus. Such a structure promotes the orderly development of administrative processes and systems and presents a unified, economical, and evolutionary image of overall University growth to the University's publics and funding sources.

The goal of maintaining both campuses as part of a single University is expected to endure, even when the Interama Campus has reached sufficient size to be considered a full-service campus. The economy and efficiency of a multicampus operation is one good reason to continue a strong interrelationship. The broad range of educational services offered by one University with a variety of programs and specialities, the composite of which is available to all enrolled students, is a second powerful incentive to maintain integrated functions and policies. Without attempting to stipulate what new structures may be developed to administer a second full-service campus, flexibility to respond to local concerns should be encouraged. Modification in organizational structure should occur in response to the needs of the growing University and its campus constituents.

To ensure that University-wide systems and procedures operate effectively in all campus locations, certain mechanisms, including locational representation, may have to be employed which assist the executive officers in developing policy. Such mechanisms should be implemented in response to actual needs identified as the campuses mature. The necessity of modifying policy bodies to encourage cooperative and coherent integration of the individual campuses at the University level does not seem like a heavy price to pay in return for the advantages of maintaining a single University in more than one location.

Florida International University is committed to serving the diverse interests of students and community at Interama with the same level and quality of education made available on the Tamiami Campus. A multicampus organization promises the advantages of administrative efficiency and economy coupled with campus flexibility.

III ACADEMIC PROGRAMS

As noted previously, Florida International is a very young University. Its first President was appointed in mid-1969, and students enrolled for the first time in September 1972. The three years between were devoted to extensive discussions, particularly on matters of educational philosophy and academic program. Educational plans for the University are still materializing. Goals and objectives are continually being validated.

Under these circumstances, the Academic Program Planning Task Force elected to view the Interama Campus as a further means of accomplishing the University's recently established educational objectives. Adopting new and substantially different directions for that campus was regarded as premature and inappropriate. During the first several years of operation, most Interama academic programs will provide students from the surrounding community with curricula which are similar to those offered at Tamiami. Over time, each campus of Florida International will offer special programs which meet particular local needs and are enhanced by the availability of nearby facilities. Educational ventures unique to the Interama Campus are both desirable and inevitable, but they will be University programs first and Interama programs second. Students admitted to the University will have access to all programs on both campus sites.

Implicit in the planning of a full-service campus are the assumptions that:

- Essentially the same level and quality of University services should be furnished to the Interama and Tamiami communities.

- Fields of study in high demand, for which an extraordinary investment in physical and human capital is not required, will be offered on both campuses. Complete offerings in low demand and/or high cost programs will be offered on one campus or the other, but not both.

- Enrollment limits will be required to prevent overcrowding of facilities during the early years of program development.

The equal access, full-service campus which is the goal for Interama, cannot be implemented immediately due to funding and facilities limitations. To provide the same level of service that Tamiami area residents now enjoy, the Interama Campus would have to open with a broad range of offerings, an enrollment of 5,000 students or more, and first-year facilities approaching 400,000 square feet of space. First-year capital and operating budgets could not accommodate activity on this scale, so a planning decision was made to limit enrollments and phase the introduction of academic programs.

During the early years, Interama enrollment will be limited primarily by restricting the number of academic majors offered. As each new major is added, required courses and most of the frequently chosen elective courses for that field of study will be offered. From the beginning, this will enable students in selected fields to earn their degrees by attending the Interama Campus only. It should also ensure that new facilities keep pace with the addition of major fields of study.

Limiting enrollments by restricting the addition of majors will produce a headcount enrollment substantially below the projected demand for higher education in the Interama area. The Campus is expected to open with approximately 1,600 headcount students, grow to 5,800 by its fifth year of operation, and reach an ultimate size approaching 15,000 students before 1990. Both the phasing of programs and the ultimate academic plan seek to develop a program mix which will ensure a stimulating intellectual environment and secure the academic integrity of the Interama Campus, as well as the Tamiami Campus.

To control the first year student enrollment, it will be necessary to restrict the fields of study offered. Additional means of controlling enrollment may also be required. The University will make every effort to match facilities with enrollments in order to serve its students well.

The first year of operation at Interama will make courses available for majors in the Schools of Business and Organizational Sciences, Education, and Health and Social Services.

Undergraduate instruction will be offered in all three Schools. Some graduate courses may be available to students in Business and Organizational Sciences, and in Education.

During the second year, students on the Interama Campus will have a choice of majors in most areas of Business and Organizational Sciences, provided facilities are available. During the third year of operation, the School of Hotel, Food, and Travel Services will move to Interama, majors in the fine arts will be offered, additional majors in Education and Health and Social Services will be added, and communications curricula will be introduced.

Most Arts and Sciences majors will be available at Interama by the fourth year, although science majors slated to be offered at Interama will not be introduced until facilities can be made available near the end of the development period. Most Technology programs are similarly scheduled for introduction in the decade of the 1980's.

By the sixth year of operation, it is anticipated that the planning guideline of offering the same level and quality of University services to Interama and Tamiami will be met with respect to academic programs and facilities. A summary of estimated Fall-quarter enrollments generated by these phased curricula is shown in Table 1. A more complete description of the program phasing itself is found in Table 2.

TABLE 1

HEADCOUNT ENROLLMENTS—FALL QUARTER

Year	Uppper Level Undergraduate	Beginning Graduate	Advanced Graduate	Total
1976-77	973	627	—	1,600
1977-78	1,813	687	—	2,500
1978-79	2,488	1,012	—	3,500
1979-80	3,444	1,456	—	4,900
1980-81	3,934	1,816	—	5,750
1981-82	4,342	2,058	—	6,400
Ultimate	10,265	4,525	210	15,000

TABLE 2

INTERAMA ACADEMIC PROGRAM PHASING[1]

(yearly increments)

1976-77

Business

- Accounting & Control
- Management
- Marketing
- Finance
- Public Administration
- MBA

Education

- Childhood & Early Childhood Education
- Special Education

Health & Social Services

- Criminal Justice
- Health Science
- Social Work

1977-78

Health & Social Services

- Nursing

1978-79

Business

- All additional majors

Education

- Education Administratio
- Health & Physical Education
- Recreation Management
- Secondary Education in Art & Music

Hotel, Food & Travel

- All Programs

Arts & Sciences

- Art
- Music
- Theater
- Economics

1979-80

Education

- School Psychology
- School Counseling
- Adult Education
- Secondary Education in Math & Modern Languages

Arts & Sciences

- Psychology
- Sociology-Anthropology
- Mathematical Sciences
- Modern Lanugages
- Liberal Studies
- Political Science

1980-81

Education

- Secondary Education
- Social Science
- History
- English
- Humanities

Arts & Sciences

- English
- History
- Philosophy-Religion
- Humanities

Technology

- Industrial Operations
- Construction Management
- Architectural Technology

1981-82

Education

- Secondary Education in Sciences

Arts & Sciences

- Selected Science Programs

Technology

- Marine Technology
- Transportation
- Urban Systems
- Planning
- Environmental Technology

[1]The academic program phasing presented here, and in plans for the college and schools, provides a means of controlling enrollment while coordinating facilities with the addition of academic programs. Adjustments in the program phasing may become necessary as the campus matures.

College of Arts and Sciences

The faculty of the College of Arts and Sciences is committed to the three basic goals of the University and recognizes its central role in furthering those goals. In addition to providing the sources of theoretical knowledge upon which the various Schools of the University build, the College of Arts and Sciences has the special and primary responsibility of offering all students an atmosphere and environment in which they can exercise free inquiry directed to an understanding of the nature of the University and their role in it. To preserve from the past that of greatest value to the present and to encourage a critical evaluation of human goals, individually and collectively, are objectives in the best interest of both the student and the society in which he lives. The College of Arts and Sciences, therefore, offers courses and programs essential to the development of the individual student and to the advancement of society's collective intellectual resources. Thus, the College, while providing a wide range of specialized studies, also enables the student to explore areas of general concern regarding man and his history, his environment, and his creativity — in short, those concerns which, when carefully attended to, mark the truly educated man or woman.

Simply stated, the College of Arts and Sciences is committed to quickening and enlarging the intellectual capacities of the members of the University family and the community and to preserving and disseminating the results of all serious intellectual inquiry.

The College of Arts and Sciences recognizes both service and degree-granting responsibilities. It has taken leadership in building cooperative programs with other schools in such fields as criminalistics, school psychology and medical technology .... The College also supports the development of certain professional programs by agreeing to supply the disciplinary courses that majors in the professional schools require.

The College faculty, curriculum, and special programs affirm internationalism and interdisciplinary activities in order to encourage that variety of perspective and openness which offers a bridge to other cultures, fresh experiences, and new richness of the mind. Heretofore, faculty recruitment has supported these emphases. They affirm the three stated goals of the University: Education of Students, Service to the Community, and Greater International Understanding.

During the first two years of operation, the College of Arts and Sciences will provide service courses on the Interama Campus, supporting development of the professional schools.

In the third year, the College will begin phasing in major programs to be completed in the mid-1980's. Depending upon available facilities, the Fine Arts department will initiate curricula supporting majors in Art, Music, and Theater. In addition, the Economics department will begin offering majors to supplement programs of the School of Business and Organizational Sciences (particularly in the area of urban and international economics). Thus, the service commitments of the College are manifest in the phasing-in process.

During the fourth year of operation, five additional departments: Mathematics, Modern Languages, Political Science, Psychology, and Sociology/Anthropology, will initiate major programs on the Interama Campus. A faculty advisor in liberal studies will be assigned to the Interama Campus to develop individual programs from the curricula available, not only in the College but in the professional schools.

By 1980, the remainder of the Humanities division, English, History, and Philosophy/Religion, will begin operation with major programs at Interama. The University will not make the significant investment in facilities and equipment necessary to develop major programs in the Physical Sciences and Biological Sciences until near the end of the development period.

By planned, responsive implementation, the order of phasing here proposed may change slightly depending upon the realities demonstrated by the praxis of the initial years. Close coordination of facility planning and academic program planning, nevertheless, should allow for the completion of at least ten major programs in the College of Arts and Sciences by the early 1980's.

School of Business and Organizational Sciences

The School of Business and Organizational Sciences recognizes the needs of business and government for highly skilled management graduates. To help meet this need, the School offers academic programs leading to both graduate and undergraduate degrees. At the undergraduate level, the School offers the degree of Bachelor of Business Administration; at the graduate, the Master of Business Administration and the Master of Science in Management.

In general, none of these programs require unique or specialized facilities or resources. Therefore, in order to meet the considerable demand of the community for programs of this type, the School of Business and Organizational Sciences plans to offer a virtually complete set of programs at both the Tamiami and Interama Campuses. At the Interama Campus, for example, undergraduate programs will be available in Accounting, Management, International Business, Marketing, Finance, and Public Administration. At the graduate level, students will be able to work toward the Master of Science in Management, and the Master of Business Administration.

In addition, the establishment of the Interama Campus provides the School of Business and Organizational Sciences with a number of unique opportunities to expand its service in the Greater Miami area. The Interama site provides a natural vehicle for developing various programs for executives, as well as programs for serving the international business and public administration sectors of the community. In particular, the School is implementing an International Management concentration in the MBA which will provide course work to students both here and abroad. The administration of this program will ultimately be centered at the Interama Campus. In addition, an Executive MBA is being developed, as are a number of certificate programs for management personnel. The Interama site provides an extraordinary vehicle for the School of Business and Organizational Sciences not only to expand its present program offerings, but also to initiate a number of new degree and certificate programs aimed at the international manager.

School of Education

The School of Education will extend to the Interama Campus its efforts to develop and operate performance-based curricula for the preparation of educational personnel. This is an approach to preparation which requires that training goals be expressed as statements of "behaviors essential to teaching." It also requires that the evaluation of accomplishment by trainees of these behaviors be made against independent and predetermined criterion statements. By its very performance-oriented nature, it is essential for students to have opportunities to practice and demonstrate skill achievement in real settings. Therefore, the overall design of the program requires that students spend a significant amount of time in the field, and proportionately less on campus.

In addition, the School of Education is committed to maximizing self-instructional possibilities for trainees, and increasing options for learning by utilizing a multi-media based instructional process linked to some emerging instructional technologies. Lastly, and as a further effort toward the individualization of instruction, attempts are made to use a modularized format in courses and laboratories that encourage self-pacing in the accomplishment of competencies. Laboratory facilities and media capability to support these program characteristics are being included in the Interama plans.

In the initial year at Interama, the School of Education will operate undergraduate and graduate programs in Childhood and Special Education only. This decision is based on a combination of factors. One is the demonstrated interest of students in these two areas of study. Another is the demand by public school systems. Further, these are areas which are less dependent on the offerings of the College of Arts and Sciences than many Education curricula. Other fields of specialization in Education are planned for implementation in the late 1970's and early 1980's, as other academic units in the University move to Interama and furnish the needed support. Ultimately, the School will include a full range of offerings preparing teachers, counselors, school psychologists, supervisors, and ad-

ministrators for years K-12 in the public schools, and for post-secondary settings as well. A full range of offerings will be phased in over a period of several years, in the sequence indicated by Table 2.

School of Health and Social Services

The School of Health and Social Services is dedicated to providing educational programs in the health professions and the social services areas. The objectives of the School are:

- The development of needed manpower to deliver health and social services in a manner suited to meet the requirements of a complex society.

- The continued renewal and updating of competencies for practicing professionals in the South Florida area.

- The development of new and better methods of delivering health and social services care through faculty and student research.

- The development of mechanisms which enable students who do not have traditional credentials to achieve additional training, certification, and/or licensure.

- The development of a professional who can view the individual as a whole, who combines skills from various professions in meeting the total health and social service needs of our citizenry.

- The development of a sense of community.

The major goals of the University will continue to serve as the basis for the School of Health and Social Services' role in education and service. The team approach to solving health and social service problems will be utilized. Special efforts will be made to employ faculty qualified to teach interdisciplinary material. An interdisciplinary focus provides enriched educational programs for students and adds the flexibility needed to respond to changing manpower requirements for the future.

The School of Health and Social Services accepts responsibility for helping to establish high quality health and social service care in this area. This will be accomplished in the following ways:

- Training students in health and social services institutions.

- Helping to promote the collegiate atmosphere in service institutions by periodically employing qualified professionals on a part-time basis.

- Providing continuing education courses, workshops, conferences, seminars, and institutes for practicing professionals.

Emphasis will be on prevention as well as treatment or cure. The School is committed to the proposition that a concerted community effort, stressing prevention, is required to meet the health and social service needs of the area. Emphasis will be placed on the use of computers and modern technology to improve the delivery and evaluation of services.

The School of Health and Social Services seeks to balance the production of majors with the needs of the South Florida area. Programs producing professionals for which there is a limited market and programs requiring substantial resources will be located on one campus or the other. These programs include undergraduate education in Medical Technology, Dietetics and Nutrition, Physical Therapy, and Occupational Therapy. Nevertheless, a number of courses will be available on both campuses in the undergraduate programs restricted to a single campus. Undergraduate programs in Criminal Justice, Health Sciences, Nursing, and Social Work will be offered on both campuses. Table 2 indicates the year in which each will be phased in at Interama.

The location of graduate programs in the School will be decided according to need. The availability of resources, results of feasibility studies, and the interests of area citizens will help determine offerings.

The School will continue to teach courses in the four-county area now served from the Tamiami Campus, but with the opening of Interama, a second home base will be available to students pursuing their work in locations throughout the community. The development of new clinical experiences at various health service institutions will continue to be a major thrust for the School.

A number of new programs are being considered for development on the Interama Campus. These include: medical records administration, speech pathology and audiology, therapeutic sciences, nuclear medicine technology, and other professional preparation that may arise out of service commitments.

Another program thrust particularly appropriate to the Interama area will involve the problems of care for senior citizens. The School hopes to establish training and service centers in various locations throughout the community. The service centers will help meet community needs while simultaneously providing field experience for students.

School of Hotel, Food and Travel Service

A career in the hospitality or "leisure industry" is a highly specialized business opportunity. The current demand for college-educated middle and upper level management personnel far exceeds the supply being trained in four-year college hotel and food service programs. In addition to demands for qualified professional managers in the state and national hospitality industry, international hotel management offers an ever increasing opportunity for professional personnel.

The School of Hotel, Food, and Travel Services offers undergraduate majors in the hospitality professions and a Master of Science degree in Hotel and Food Service Management. The philosophy of the School demands that each student combine practical experience with classroom theory to meet graduation requirements. With the cooperation of industry executives, the School has created an internship program which utilizes local hotels, motels, restaurants, clubs, airlines, travel agencies, and cruise lines as practice laboratories for students. The advanced phase of the internship program has been designed to provide each student a structured and closely supervised management experience normally not available until after graduation. Greater Miami is one of the world's largest and most modern hotel-motel-food-and-travel centers, and is thus ideally suited to provide the bridge between theory and practice essential to training for leisure industry professions.

The School intends to limit enrollment to somewhat under 500 students in the mature phase of program development. Although employment opportunities for graduates in the hospitality professions are very good and industry encourages the development of college-trained professionals, the School is committed to maintaining a closely supervised, well integrated program of classroom instruction and internship experience. Limiting the size of the student body helps to ensure that each student receives the individual attention required. The decision to remain small precludes offering majors on both campuses of Florida International University. Some courses will almost certainly be offered in both locations, as a service to students, but complete majors are expected to be available at the Interama Campus only.

The Interama Campus has been selected as the future home for the School of Hotel, Food, and Travel Services because of the unique

combination of on and off-campus facilities which will be available for classroom study and internship opportunities. Special University laboratory and classroom facilities as well as University conference facilities are expected to provide the laboratory experiences needed to make Florida International University's School of Hotel, Food, and Travel Services a leader in the field of hospitality management. The School will relocate from the Tamiami Campus to Interama by about the third year of operation at Interama.

The close proximity of the Campus to the most modern tourist facilities and to industry leaders in the hospitality field will further enhance internship and off-campus learning experiences already being enjoyed by students enrolled in the School.

From its inception, the School of Hotel, Food, and Travel Services has placed special emphasis on international hotel management programs and opportunities. It is anticipated that hospitality leaders and educators from around the world can be brought to the Campus to teach, do research, and to participate in seminars and workshops. Students will have the opportunity to spend an academic quarter in various areas of the world where they will study under one of their own professors and simultaneously gain international hotel experience. This program has already been initiated, but will greatly increase in magnitude with the opening of Interama.

The professional course offerings within the Division of Hotel and Food Services are supplemented by and closely correlated with required courses in the School of Business and Organizational Sciences. Joint research in many areas of hotel and restaurant development are expected to be carried out in conjunction with the School of Technology, with assistance from the hospitality industry. A natural outgrowth of these joint activities is the creation of a tourism institute concentrating initially on the needs of Dade County, but expanding gradually to incorporate both national and international data. Such an institute, located on the Interama site, will be a logical complement to the activities of the University's International Affairs Center.

School of Technology

The programs of the School of Technology are highly specialized and, in most cases, require facilities and laboratories designed for their implementation. The general philosophy of the School is to avoid unnecessary duplication of resources and to concentrate programs in order to make maximum use of facilities. As a consequence, the School of Technology does not plan to offer full programs in all of its divisions on both the Tamiami and Interama sites. Generally speaking, the programs in Engineering Technology and Construction will be concentrated primarily on the Tamiami Campus where laboratory support and allied service courses will be readily available. The major laboratories for electronics, mechanical engineering, materials processing, construction technology, civil engineering, electrical power, and environmental sciences will be concentrated at the Tamiami Campus.

Technology programs at the Interama site will include those for which specialized facilities are constructed or for which there are limited specialized facilities necessary. Program development is anticipated in several areas:

• Programs in the area of Communications Technology will be developed in conjunction with the College of Arts and Sciences and the planned School of Communication Arts as part of the University's general communications programming. Areas such as media production, radio, and television are anticipated which require specialized laboratory facilities and a close tie-in with the many communications oriented activities of the University. The success of these programs should be enhanced by the proximity of commercial media and communications facilities.

• Selected programs in Environmental Technology are anticipated as a part of the Division of Environmental Technology and Urban Systems. These will be follow-on programs to accommodate students graduating from environmentally oriented technology programs in community colleges. These are expected to require some specialized laboratory facilities.

• Industrial Technology programs will be operated at both the Interama and Tamiami Campuses and will stress Technical Supervision, Industrial Operations, Industrial Safety, Merchandising, and Technical Management. These programs require less sophisticated laboratory facilities and student numbers should be sufficient to justify programs at both sites.

• Sufficient student demand is expected to warrant Construction Management tracks on both campuses. Limited laboratory facilities are required. If it is not feasible to duplicate needed laboratories, students may be required to take a limited number of courses on the other campus in order to complete a degree program. Architectural Technology will be developed, initially, on the Tamiami Campus, but will be shifted as a major emphasis in the Construction Division to the Interama Campus as that campus develops.

• The programs in Transportation and Urban Planning, which constitute the Urban Systems thrust in the School of Technology, will be operated on both campuses. As the Interama Campus matures, the emphasis on Transportation and Urban Planning will be shifted to the Interama Campus.

• The School of Technology will evolve Master's level programs in several disciplines, some of which will be offered at the Interama Campus. These programs will include Engineering Administration, Construction Management, and Environmental Systems.

Because of the need for supporting facilities, the School of Technology will begin to phase in its operations at Interama as these facilities become available.

New Programs

Opportunities to develop new University programs will be afforded by opening a second campus at Interama. Some of the factors which are expected to influence the development of special program emphases include the urban environment, the unusual mix of age and ethnic groups, close proximity to inter-American businesses, and a heavy concentration of governmental organizations. Several new program opportunities have already been identified.

• School of Communication Arts

Florida International University is planning to establish a degree program in the Communication Arts to offer professional training to qualified students. Over the past year, the University has studied in depth the feasibility, role, and program of a communications education curriculum. These studies established a broad community need and a student demand. Extensive opportunities for internships and work-study experiences were also verified.

The Communication Arts program will include journalism at its inception. Other subject areas, as well as interdisciplinary programs, will be encouraged as resources and interests permit.

• Masters in Public Health

The Interama Campus is expected to offer a Master's level program in Public Health when supporting facilities and academic programs have been established. The degree program will be designed to serve the diverse needs of the community for skilled personnel in the health professions.

• Urban and Regional Planning

A program in Urban and Regional Planning is a natural outgrowth of the University's continuing concern for environmental issues. The School of Technology and the Office of Environmental and Urban Affairs have stimulated research interests in the broad area encompassed by urban and regional planning. A degree program to serve students interested in planning careers and to provide further research and public service to the South Florida region is a particularly appropriate program focus for the new Campus.

• School of Public Service

A School of Public Service would bring together programs from a variety of disciplines to provide students with an opportunity to pursue public service careers. South Florida's economic dependence upon the public service sector makes this new program thrust an important University response to local need.

• Education Institute

The University's interest in research and public service activity is expected to culminate in a variety of institutes and special programs aggregated together at Interama as an Education Institute. Although specific plans for such a development have not been formulated, space has been identified in the physical plan for the Interama Campus which could accommodate a variety of University activities devoted to the public welfare.

Special University Activities

The Community Affairs area has been established to provide the University and community with education and research services beyond the traditional academic programs of the College and Schools. In most cases, the special units draw upon the expertise and interest of University faculty and staff, although activities are designed primarily for purposes other than formal credit instruction. When the Interama Campus opens, each unit will continue to function on behalf of the University as a whole, but the opportunity to expand activities to a new community and clientele will enhance overall University service.

• The Division of Continuing Education and Special Programs

The Division of Continuing Education and Special Programs includes Conferences, Off-Campus Credit Activities and School Services, the International Institute for Creative Communications, the Institute for Women, the Real Estate Institute, and the Urban Agent Program. The Division of Continuing Education and Special Programs also serves as the focal point for sponsored activities that might otherwise not be securely housed in a university. An example of a recently sponsored program that is interdisciplinary in nature and experimental in design is a Course by Newspaper which allows students to earn college credit without coming on campus.

University Conference activities are planned in conjunction with virtually every unit of the University to provide a wide variety of conferences, short courses, seminars, workshops, symposia, and other non-credit continuing education programs which are jointly sponsored by the appropriate College or School. Audiences are regional as well as national and international. Topics for the programs are generated from the education needs identified by the groups to be served.

The Department of Off-Campus Credit Activities and School Services coordinates and directs off-campus credit and non-credit courses, and School Services consulting.

The Department offers credit course service to a four-county area (Broward, Collier, Dade, and Monroe) in cooperation with many academic units of the University. Requests for credit courses to be offered at locations other than the Tamiami Campus are evaluated by the Director of Off-Campus Credit Activities. The acceptance of a course request is contingent upon an adequate class enrollment and the availability of a suitable instructor. All necessary details are worked out jointly with the respective Dean and the Director of Off-Campus Credit Activities. Centers are currently being established to serve the four-county area.

The School Services function is intended to provide assistance to public schools in ways other than the traditional course/degree programs. The Department assumes the responsibility to survey education requirements of public schools in Florida International University's service area and to design programs utilizing total University resources to help meet such requirements. The Department attempts to utilize the resources of appropriate academic units to provide service. Thus, it affords a mechanism for liaison between public schools and the total University staff.

The International Institute for Creative Communications undertakes instruction in creative communications in the United States and internationally. The Institute has the goals of teaching techniques of multimedia communication and providing higher education with a forum for the discussion of educational theories related to creative communications practices.

The Institute for Women provides credit and non-credit educational services, through the College and Schools, for women throughout South Florida. Programs are co-sponsored with community organizations. The Institute provides career and educational counseling; disseminates information on programs for women including scholarships, fellowships, and grants; maintains a talent bank listing of women qualified to serve on boards and committees, and collects library materials and audiovisual resources by and about women.

The Real Estate Institute develops programs to meet the special educational needs of those engaged in the real estate business. Real Estate courses are offered through the Institute, both on-campus and in the community, which are designed to enable participants to acquire further skill in the profession and to meet state requirements for the realtor's license.

The Urban Agent Program utilizes the resources of higher education to meet the needs of the various ethnic groups living in South Florida. Academic programs develop a greater cultural awareness, facilitate professional adaptation, and generally increase development of human potential; cultural programs promote interaction with native Americans; research projects investigate current problems in health care, education, and other areas of interest.

- Office of Environmental and Urban Affairs

The Office of Environmental and Urban Affairs represents a joint effort, with Florida Atlantic University, to study the environment, particularly the urban environment, in South Florida.

The Joint Center assists governmental agencies, business organizations, civic groups, and individuals as they work to improve the quality of urban life and our environment generally.

The addition of a second campus of the University will not alter the cooperative relationship between FAU and FIU in sponsoring the Office of Environmental and Urban Affairs. It will provide a third site suitable for hosting the conference and short course activities of the Office.

• Office of Federal Liaison and Labor Affairs

The Office of Federal Liaison and Labor Affairs provides educational, consulting, and research services for organized labor organizations throughout the State of Florida. Programs have been designed to meet the needs of locals, central organizations, and international unions.

The Office of Federal Liaison and Labor Affairs has the second major responsibility of providing articulation with federal and state agencies regarding resources available at the University for funded public service activities.

• External Degree Program

The External Degree Program is a self-directed, largely off-campus academic program for residents throughout the state. Students in the program earn the baccalaureate degree through a combination of credit for previous academic work, life experience, independent study, equivalency testing, and regular classroom courses at any college or university in the state. Together, the student and faculty advisor write an individual program of study known as the Education Contract Plan. This is a state-wide program administered for the State University System by Florida International University.

The External Degree Program operates through the faculty of the College and Schools. With the exception of the School of Education, degrees throughout the University can be achieved through non-residential methods of study. All degrees are granted by the College or School sponsoring the student, and they are identical to the baccalaureate earned in the other academic programs of the University.

• International Affairs Center

In addition to the activities sponsored by units within the Community Affairs area, the University has made a particularly strong commitment to international activities. The International Affairs Center is conceived as a catalyst and coordinating body for international activities throughout the University. It relies upon and develops the interest and expertise of both faculty and students in activity areas of international significance. The Center pays special attention to the relationship between Latin America and the Caribbean nations, on the one hand, and the United States on the other hand.

Some of the international activities of the University have been: the development of certified programs of area studies; presentations by distinguished professors and lecturers; conferences, workshops and seminars; exchanges of students and athletic teams; action oriented research in several circum-Caribbean nations; international travel on the part of faculty for the purposes of research, participation in academic events, and the establishment of contacts for additional international activities.

International programs represent a University-wide commitment. The Interama Campus is not viewed as the sole or even primary means of fulfilling that commitment. Nevertheless, the Interama site does offer some special opportunities to foster programs developed by the International Affairs Center. The University conference center being planned for Interama should house many of the Center's international conference programs. As a service to international corporations and other agencies in close proximity, the new Campus should accommodate whatever information base the Center considers appropriate to compile on international subjects.

According to this plan, the activities of the International Affairs Center will be located both at Interama and at Tamiami. Until the Interama Campus has reached a large enough enrollment to justify a substantial faculty and staff, events sponsored by the International Affairs Center will probably remain largely at Tamiami. Once the Interama Campus has developed a critical mass of faculty and has opened a conference center, proximity to the governmental and commercial sector of Miami, and to the concentration of large international corporations in Miami make the Interama site particularly appropriate for many Center activities.

IV STUDENTS

The characteristics of students currently enrolled at Florida International University have constituted most of the data base from which planning for academic programs, student services, enrollment potential, and other activities have proceeded. A community survey conducted early in the planning process revealed some significant but not crucial differences in the demographic characteristics of the Interama and Tamiami populations. The Interama service area is made up of a higher percentage of elderly people and blacks. These populations provide an opportunity for the University to extend educational services to persons who have been under-represented in academic activities. However, senior citizens are primarily interested in courses for self-satisfaction taken on an occasional or part-time basis. Of the persons surveyed who were degree-seeking, very little difference was found in the age or ethnic backgrounds of respondents and students currently enrolled on the Tamiami Campus. Similarly, academic preferences of Tamiami students and those who wish to enroll at Interama did not reveal marked differences. The assumption that students at Interama will be much like students at Tamiami was supported by the questionnaire respondents.

Student Profile

Recent data (Fall 1973) collected to describe Tamiami Campus students showed that undergraduates were slightly more likely to be single (50.1%) than married (43.3%), male (54.9%) rather than female (45.1%). The mean age of undergraduate students was 27.5 years.

Graduate students were more likely to be married (64.1%) than single (30.7%) and, like undergraduates, male (61.5%) instead of female (38.5%). The mean age of graduate students was 29.6 years. Twenty-one percent of all undergraduates were enrolled for nine or more credit hours while graduate students enrolled about as often for 1-5 credits (51.3%) as they did for 6 or more credits (48.7%).

The fact that most students take enough credits each term to be considered full-time students conceals the fact that many work full or part-time in addition to pursuing a degree. This is frequently accomplished by enrolling evenings. To satisfy student demand, the University offers nearly as many evening courses as it does daytime classes, particularly in the professional schools. Graduate course offerings are heavily concentrated in the evening to accommodate working students.

Both graduate and undergraduate students are predominantly Florida residents (94%) with a permanent residence in Dade County (67.5%). Approximately 6% of all students are non-Florida residents. Of the 6%, most are foreign students (approximately 500) who come to the University from Latin America and the Caribbean.

Although these data describe current students enrolled on the Tamiami Campus, there is every reason to expect that characteristics of Interama students will be similar. The primary exception to the student profile projected for Interama, based on experience at Tamiami, will probably be a function of the University's ability to design programs which will encourage participation by senior citizens.

The academic preferences of Interama area residents surveyed were very similar, for like age groups, to those of Tamiami students. When all respondents were compared with current students, the survey showed a somewhat greater potential demand for Arts and Sciences subjects, Health and Social Services programs, and Technology majors. Somewhat less interest was expressed in Business and Organizational Sciences, Education, and Hotel, Food, and Travel majors than prevails on the existing campus. Preferences of students now enrolled on the Tamiami Campus who commute from the Interama area tend to confirm some differences in the educational interests of citizens residing in the two communities, although the differences are not substantial.

The curricular design for the Interama Campus seeks to take into account those programs for which there appears to be a higher demand and to encourage the development of special services to accommodate the interests of non-traditional clientele. In addition, the University will continue to encourage enrollment by students who have completed two years of academic work in an undergraduate collegiate setting and will honor the Florida articulation agreement which guarantees admission to state community college graduates.

Student Services

The career counseling, financial aid, veterans affairs, foreign student affairs, cooperative education, vocational counseling, and student activities advisement which form the foundation of the Student Services Office on the Tamiami Campus will be developed at Interama. The delivery of these services is considered an integral part of the University's commitment to the education of its students.

Besides these basic services, the Division of Student Services can be expected to examine appropriate avenues to address the needs and interest of the Interama Campus potential student population. Older students, ethnic minorities, women, and other persons who have been underrepresented in higher education may require programs which are specially constructed to provide the types of services most germane to their needs.

Student organizations will be encouraged as a way of involving students in the intellectual and cultural life of the Campus. Student participation in the decision-making processes of a new University should help ensure that special student interests are considered during the planning and implementation stages of the developing Campus.

University Housing

Limited housing facilities have been recommended by planning task forces. The University has already experienced difficulty in finding accommodations for international students and other visitors participating in University-sponsored programs. Short-term housing for foreign students is considered highly desirable, particularly for students entering this country for the first time. Furthermore, the magnitude of the housing problem is expected to increase as larger groups of exchange students, foreign athletic teams, conferees, and distinguished visitors are invited to take part in University activities. The consensus is that Florida International's ability to attract distinguished faculty and international visitors will be greatly enhanced if short-term accommodations can be provided at less than seasonal tourist rates. However, the recommended housing will be constructed only if a feasibility study shows that it can be self-sustaining at rentals significantly below seasonal rates.

Recreation and Athletics

The physical site plan for the Interama Campus integrates both indoor and outdoor recreation areas with other facilities. This represents a deliberate attempt to make recreation facilities easily accessible to all members of the educational community. Informal recreational activities, intramurals, and club sports will receive the greatest emphasis in the early years, and the facilities to support these activities will be given priority over the facilities needed for physical education or intercollegiate athletic programs. However, the facilities designed initially for recreational use are to be constructed according to specifications which will permit later use by physical education. If, at some future date, the University initiates an intercollegiate athletic program at Interama, joint use of some recreation space is also anticipated.

Recreation facilities planned for the inner Campus include tennis courts, an olympic size swimming pool, a large athletic field, multipurpose activity rooms, and handball courts. Bicycle paths are planned to provide easy access to the Campus. Water frontage on the headwaters of Biscayne Bay will undoubtedly make sailing and other water sports a popular form of recreation for students and staff.

V FACULTY

Florida International University will continue to have a single faculty. Although the Interama Campus will create the need for an increase in total University staff, persons recruited as a result of opening the second Campus will not be hired specifically for service at Interama. Instead, they will be appointed as Florida International University staff members. Both campuses can be expected to draw upon the competencies of any group of faculty or any individual faculty member. During a given term, however, the majority of faculty will devote their services to one or the other of the two campuses.

A variety of advantages accrue from a faculty which is associated primarily with one locale. Students and the community benefit by access to faculty members who are aware of local problems, interests, and needs. The investment of time and energy in one campus prompts commitment to that campus, and is probably necessary to develop the distinctive character and special emphasis of the Campus.

The importance of ensuring flexibility in faculty resources is recognized, however. The option of assigning a faculty member to one campus or the other in succeeding terms promises the University as a whole the greatest possible depth and breadth of faculty expertise. Commuting by faculty (to share unique skills with students enrolled on both campuses) is expected to be most common in highly specialized disciplines.

The University will continue to follow a deliberate policy of reserving some resources for the employment of visiting faculty and for the appointment of qualified adjunct faculty. This option provides the University with an additional range of scholarly talents and professional experience.

A decision regarding faculty organization at Interama is premature, although it is very likely that faculty members will choose to establish a University-wide faculty body in addition to campus organizations. The policies pertaining to tenure and academic freedom will be uniformly applied on both campuses as will faculty development programs and rules regarding teaching loads. The single-University concept which has been adopted for planning purposes will result in comparable service by faculty and the application of one set of rules, policies, and procedures to govern faculty life on both campuses of the University.

University faculty recruited as a result of opening the Interama Campus can be expected to satisfy criteria of scholarly achievement and commitment to their disciplines. In addition, Florida International expects faculty members to evidence a genuine commitment to the University's goals and objectives. The University furnishes a variety of opportunities for participation by faculty in community, state, national and international teaching, research, and service. Joint appointments, adjunct appointments, and off-campus credit and non-credit activity enhance faculty possibilities for professional development and enrichment of the teaching experience. Although the University expects a commitment from faculty in terms of the Education of Students, Service to the Community, and Greater International Understanding it offers in return the opportunity to be integrally involved in academic program development, campus governance, and other activities associated with a new university.

PART TWO

THE RESOURCE REQUIREMENTS PLAN

PART TWO—THE RESOURCE REQUIREMENTS PLAN

I THE ESTIMATION PROCESS

The purpose of this section is to provide estimates and to describe the process for estimating faculty, staff, facility and fiscal needs of the Interama Campus. This section translates the academic plan presented in Part One into quantitative measures which serve as the basis for the development of the Campus Plan. The resources required to develop the Interama Campus for an ultimate enrollment of 15,000 students are presented in the following sections.

For the most part, the processes used to determine resources have been developed by the State University System as both an operational resource management technique and a long-range planning tool. They are employed here in the latter sense, but when updated on a year-to-year basis they also serve to determine institutional capital and operating fund needs.

Human and other resource requirements are calculated on the assumption that Interama will be a second full-service campus of Florida International University. Since both economies and diseconomies are likely to occur in a multicampus operation, careful fiscal planning and management are required to ensure that economies outweigh the diseconomies. For example, operation of libraries on two campuses will be more expensive than on one campus alone. However, prudent management can make the operation of the two libraries more cost-efficient than the operation of two independent libraries at unrelated institutions. The net result should increase resources available to the University as a whole.

Derivation of the educational resource requirements is essentially a four-step process. The first step involves determination of the academic programs to be offered and estimation of program enrollments. This provides the basis for step two, determination of faculty and staff needed to serve students in the curricula to be offered. These two steps are combined to generate facility and space needs. Appropriate data on all of these factors then make it possible for the planner to estimate both capital and operating fund requirements.

II ENROLLMENT PROJECTIONS

Institutional enrollments in the State University System of Florida are calculated in terms of full-time-equivalent (FTE) students. FTE's are defined as the quotient of the total number of credit hours for which students are enrolled divided by 15 hours for undergraduate and 12 hours for graduate students. Projected FTE enrollments constitute the principal basis for allocation of resources with the State University System. FTE enrollments determine to a great extent the number of faculty and staff required, the space and facilities needed, and capital and operating budget allocations. Reasonably accurate student enrollment projections constitute a crucial step in determining resource requirements.

Experience at the Tamiami Campus furnished valuable data for the development of Interama Campus enrollment projections. The geographic areas to be served by the two campuses of Florida International University and the Boca Raton Campus of Florida Atlantic University were determined on the basis of a student questionnaire which identified average student commuting times. Students were presumed to prefer the nearest campus offering the desired curriculum. Defining the service areas was necessary both to estimate accurately the enrollment potential of the new Campus and to estimate its impact on the enrollments of Florida Atlantic University and the Tamiami Campus of Florida International University.

Once the Interama Campus service area was determined, an analysis was made relating student enrollments at the Tamiami Campus to the following demographic characteristics, by metropolitan area zip code:

- Population density in the 20-34 age bracket.
- Median family income.
- Average automobile commuting time to Campus.

The relationships which were found to exist were then applied to the Interama Campus service area and a base enrollment figure was derived. This base enrollment was modified to reflect projected population growth rates, the projected number of community college graduates, and the educational interests of the community to be served. Community interests were obtained from the results of a questionnaire mailed to a sample of over 15,000 residents living within the Interama Campus service area and to approximately 5,000 students attending Miami-Dade and Broward Community Colleges.

On the basis of this initial enrollment projection, it was estimated that if all programs now offered by the Tamiami Campus were introduced at the Interama Campus in the first year, the opening enrollment would exceed 4,500 students and could be as high as 7,500 students.

In early planning for the Interama Campus it was decided that the Campus would not open with its full potential student enrollment. The Tamiami Campus enrolled 5,600 students the first term; this opening strained both human and physical resources. A second reason for beginning operation at the Interama Campus with something less than its full student potential is the impact that a large opening would have on the enrollments of Florida Atlantic University and the Tamiami Campus. The final reason for limiting opening student numbers is the desire to provide optimal enrollments for the physical facilities which are expected to be available.

For these reasons, a limited but balanced set of academic programs is planned for the Interama Campus during the opening year. Additional academic programs are to be phased in as new academic facilities are added to the Campus. Enrollment estimates shown in Table 3 for 1976-77 to 1981-82 reflect both the addition of new academic programs, as physical facilities become available, and the growth of existing programs. The table presents Fall Quarter student enrollments by School/College and by student level. The projections are based on data obtained from studies described earlier and reflect, in great part, experience gained from Tamiami Campus operation. The "Special" category represents on-campus students who take courses but do not seek a degree. Enrollment of special students is to be controlled on a space-available basis.

To convert student headcount enrollments to the full-time-equivalents necessary to project faculty and staff requirements, estimates are required for the number of credit hours in which the

students will be enrolled. This was accomplished by generating an Induced Course Load Matrix (ICLM)* based on Tamiami Campus operating experience. Matrix factors were then applied to Interama Campus headcount enrollment projections with the aid of a Resource Requirements Prediction Model (RRPM).* The ICLM calculates the average number of credit hours taken in each discipline by students in each academic major. The RRPM employs this information to determine the student credit hour teaching loads imposed on academic departments. These are translated into full-time-equivalent students. Table 4 shows the projected FTE enrollments distributed by School/College.

*Developed by the National Center for Higher Education Management Systems at Western Interstate Commission for Higher Education.

TABLE 3

HEADCOUNT ENROLLMENT PROJECTIONS

	1976-77		1977-78		1978-79		1979-80		1980-81		1981-82		Ultimate	
College-School	U.G.	Gr.[1]	U.G.	Gr.	U.G.	Gr.	U.G.	Gr.	U.G.	Gr.	U.G.	Gr.	U.G.	Gr.
Business & Organizational Sciences	463	437	686	479	851	564	890	606	901	642	910	679	1734	1234
Education	251	190	366	208	456	337	515	598	575	740	610	821	1174	1839
Health & Social Services	228	—	497	—	505	—	516	104	518	207	521	262	1370	830
Arts & Sciences	—	—	—	—	132	—	751	—	1063	46	1155	104	2485	486
Hotel, Food & Travel Services	—	—	—	—	322	36	343	38	352	41	358	45	419	87
Technology	—	—	—	—	—	—	—	—	—	—	200	—	1022	90
New Programs	—	—	—	—	20	75	35	110	50	140	100	147	244	169
Subtotal	942	627	1549	687	2286	1012	3050	1456	3459	1816	3854	2058	8448	4735
Special Students	31		264		202		394		475		488		1817	
TOTAL	1600		2500		3500		4900		5750		6400		15,000	

[1]U.G., Undergradute; Gr., Graduate

TABLE 4

FOUR-QUARTER AVERAGE FTE ENROLLMENTS BY SCHOOL/COLLEGE
(from imposed SCH loads)

Undergraduate	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Ultimate
Arts & Sciences	148	282	428	931	1,172	1,301	2,875
Business & Organizational Sciences	316	502	567	613	651	702	1,469
Education	148	238	282	345	371	397	904
Health & Social Services	150	321	329	356	370	379	844
Hotel, Food & Travel Services	—	—	299	329	331	342	439
Technology	—	—	—	—	—	153	846
New Programs	—	—	17	26	35	70	265
TOTAL UNDERGRADUATE	762	1,343	1,922	2,600	2,930	3,344	7,642
Graduate							
Arts & Sciences	—	—	—	—	36	71	347
Business & Organizational Sciences	216	224	259	270	280	291	564
Education	127	152	214	364	431	458	937
Health & Social Services	—	—	—	71	133	187	587
Hotel, Food & Travel Services	—	—	27	32	35	37	61
Technology	—	—	—	—	—	—	—
New Programs	—	—	45	67	85	89	102
TOTAL GRADUATE	343	376	545	804	1,000	1,133	2,598
TOTAL FTE 4-Quarter Average Enrollment	1,105	1,719	2,467	3,404	3,930	4,477	10,240

III FACULTY AND STAFF

During 1975-76 the State University System outlined a three-step plan to develop a new funding formula for Higher Education in Florida. The project has a single goal: the development of a new mechanism for securing funds for the educational and general activities of the State University System. Desired characteristics include:

- The facility to focus financial decision-making on program objectives.
- The capability to assess appropriate levels of future financial support.
- The capacity to relate future resource needs with actual historical resource utilization.
- Recognition and acceptance by decision makers at all levels.

The first step was the development of an expenditure analysis or "cost study" of existing historical expenditures. The objective was to focus in a uniform manner the expenditure patterns of an institution by program, by discipline, and by level in a direct cost per student quarter hour and a full cost (including all support functions) per quarter hour. This analysis of historical cost is basically patterned after the NCHEMS* Information Exchange Project.

The second step was the development of a program analysis to support the cost study data and to provide analytical capabilities for handling the probable large variations in cost between institutions. Program analysis data should provide quantitative and qualitative measures to evaluate each program and the program's need for resources.

*National Center for Higher Education Management Systems

The third and last step will be the most important; the development of a new formula for funding. The goal is to develop a mathematical relationship between the expenditure data and the program information that will accommodate differences in the offerings of various types of institutions while maintaining equity in funding for similar programs.

Since this project is not completed at the time of the development of this Master Plan, the resource requirements shown are based on the allocation formula used for fiscal year 1974-75. These formulas will represent closely the actual minimal needs of the Interama Campus for planning purposes.

The projections for faculty and staff, shown in Table 5, are related directly to the academic program mix described in the Academic and Organization Plan and the enrollment estimates just described. The accuracy of the staffing requirements can be no greater than the accuracy of the components from which the requirements are derived. Nevertheless, they serve as an important indicator of resources which will be needed to implement the programs now planned.

The number of teaching positions is determined by dividing student credit hours by a teaching productivity factor. The teaching productivity factors are averaged by student level and discipline for the State University System. Different institutions producing the same number of student credit hours may generate different numbers of teaching positions, depending on the program and student-level mix of the institutions. Productivity factors (student credit hours per teaching position) shown in Table 5 reflect the State University System averages by level for 1974-75.

Research positions were withdrawn from the traditional formulas and are now allocated as competitive research projects. The old formula is shown to illustrate typical research needs for the Interama Campus. Research positions relate to the number of teaching positions according to the formula: one FTE research position for every twelve teaching positions at the undergraduate level; one for every four FTE teaching positions at the beginning graduate level; and one for every two at the advanced graduate level.

Public service positions are generated on the basis of one FTE position for every 75 FTE teaching positions.

Academic advisement positions are generated on a more complicated basis involving headcount and FTE enrollments at both the institution level and the State University System level.

In the recent past this relationship has been approximated by figuring one counseling position for every 225 FTE students.

Teaching, research, public service, and academic counseling are all included in total instructional positions generated for the institution. Academic administration positions are generated on the basis of one position for every thirteen FTE positions included as part of the total instructional positions. Non-academic positions which support the areas of instruction, research, and public service directly are generated on the basis of one position for every 3.2 academic positions.

Ninety-eight percent of all State University System academic positions are allocated on the basis of the formula described above. The number of administrative positions, in general, reflects the size of the student body and previous operating experience. For purposes of Interama Campus planning, Tamiami Campus operating experience is reflected.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1975

TABLE 5

PROJECTED STAFFING
1976-82 and Ultimate

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Ultimate
Student Credit Hours							
Upper division undergraduate	11,430	20,145	28,830	39,000	43,950	50,160	114,630
Beginning graduate	4,116	4,512	6,540	9,648	12,000	13,596	29,697
Advanced graduate	—	—	—	—	—	124	1,479
SCH per Teaching Position							
Upper division undergraduate	300	300	300	300	300	290	285
Beginning graduate	240	240	230	230	230	225	220
Advanced graduate	—	—	—	—	—	120	115
FTE Teaching Position							
Upper division undergraduate	38.1	67.2	96.1	130.0	146.5	173.0	402.2
Beginning graduate	17.2	18.8	28.4	41.9	52.2	60.4	135.0
Advanced graduate	—	—	—	—	—	1.0	12.9
TOTAL FTE Teaching Positions[1]	55.3	86.0	124.5	171.9	198.7	234.4	550.1

[1]FTE Teaching positions, as used here, are equivalent to manyears.

TABLE 5 (continued)

PROJECTED STAFFING
1976-82 and Ultimate

FTE Research Positions[1]	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Ultimate
Upper division undergraduate	3.2	5.6	8.0	10.8	12.2	14.4	33.5
Beginning graduate	4.3	4.7	7.1	10.5	13.1	15.1	33.8
Advanced graduate	—	—	—	—	—	0.5	6.5
TOTAL FTE Research Positions	7.5	10.3	15.1	21.3	25.3	30.0	73.8
FTE Professional Service Positions[2]	0.7	1.1	1.7	2.3	2.6	3.1	7.3
FTE Counseling Positions[3]	4.9	7.6	11.0	15.1	17.5	19.9	45.5
(Total Instructional Positions)	(68.4)	(105.0)	(152.3)	(210.6)	(244.1)	(287.4)	(676.7)
Administrative Positions[4]	5.3	8.1	11.7	16.2	18.8	22.1	52.1
Initial Staffing Increment	20.0	10.0	—	—	—	—	—
(Total FTE Academic Positions)	(93.7)	(123.1)	(164.0)	(226.8)	(262.9)	(309.5)	(728.8)
Non-Academic Positions[5]	23.0	35.3	51.3	70.9	82.2	96.7	227.8
TOTAL Positions—Instruction and Research	116.7	158.4	215.3	297.7	345.1	406.2	956.6

[1]One FTE research position for every 12, 4 and 2 FTE teaching positions at the upper division undergraduate, beginning graduate and advanced graduate levels, respectively.

[2]One FTE professional (public) service position for every 75 FTE teaching positions.

[3]One FTE counseling position for every 225 FTE students.

[4]One FTE academic administration position for every 13 FTE academic (total instructional) positions.

[5]One FTE academic support position for every 3.2 academic positions (excluding the initial staffing increment).

TABLE 5 (continued)

PROJECTED STAFFING
1976-82 and Ultimate

Administrative Positions[1]	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Ultimate
Provost's Office	2/2	2/2	2/3	2/3	2/3	2/3	3/7
Univ. Relations & Development	2/2	2/2	2/2	2/2	3/3	3/3	4/9
Administrative Affairs	4/23	6/34	6/42	7/52	7/57	7/62	10/83
Registration, Admissions and Community College Relations	4/11	4/12	4/14	5/20	5/25	5/25	5/50
Student Services	7/7	8/9	9/12	10/15	11/18	12/20	15/40
Computer Center	4/12	5/16	6/21	7/26	8/30	8/30	10/50
Physical Planning	2/1	2/1	2/2	2/3	2/3	2/3	3/4
Institutional Research	1/1	1/1	1/2	2/2	2/2	2/2	2/4
Library, including Media	9/20	14/30	16/35	18/40	20/42	21/44	35/65
Physical Plant	4/50	4/78	5/108	6/133	7/157	7/163	12/250
TOTAL Administrative Positions	38/108	48/185	53/241	61/296	67/340	69/355	99/562
TOTAL FTE POSITIONS	262.7	391.4	509.3	654.7	752.1	830.2	1617.6

[1]The numbers read as Professional/Clerical.

IV SPACE AND FACILITIES

The determination of future space requirements for universities is a complex task. The State University System has used a formula approach to forecast long-range needs. Over the past ten years the formulas have been more and more refined, each refinement attempting to resolve the basic conflict between intricate compilation and manipulation of data, on the one hand, and simpler methods which lack supporting documentation or tend to gloss over important detail, on the other.

In 1967 the State University System's capital outlay request for buildings and improvements was first submitted using direct formula relationships to the number of students, faculty, and programs to be served. Since then, the State of Florida has consistently reaffirmed its objective of developing a logical and systematic approach to projecting space needs. The State University System, the Departments of Education and Administration, and the Florida Legislature have mutually shared the work of refining methodology to realize these objectives. A uniform, explicit, well-documented formula system has resulted.

The formula system relates space needs and capital outlay requests to four institutional factors:

- Enrollment projections.
- Use and size standards for each type of space.
- Existing inventory of each type of space at each institution.
- The cost of construction for each type of space.

The first two items will be analyzed in this section to arrive at a statement of facility requirements. The figures developed here will be used in Part Three, in conjunction with estimated building increments and accumulated inventory, to project the physical plan.

University System Space Requirements

The State University System's procedure for documenting building space needs is divided into ten major sections — one for each major type of space as noted in Table 6. A description of the types of space and the standards for each follows:

- Classrooms and Teaching Laboratories

Three distinct factors drive the formula generation of classroom and laboratory space:

Number of FTE students: The enrollment projections by school are outlined in Section II, Table 4, for graduates and undergraduates through 1982, as well as for the ultimate planned enrollment.

Program Mix: The distribution of students through each of the academic majors has been made to arrive at an overall program mix. The discipline enrollments are multiplied by the associated student contact hours to determine particular program space requirements. The discipline mix used reflects enrollments for a relatively complete complement of academic programs. The use of this discipline mix rather than those of earlier phases of development is necessary to establish uniformity as well as a long-range perspective for facility development.

Space Utilization. Instructional space is assigned on a scheduled basis, and the area required is therefore closely related to the efficiency of its use, i.e., the student station size, hours of use, and percent of stations occupied when the room is in use. Listed below are the recommended utilization standards for instructional facilities.

Space Description	Student Station Size (NASF)*	Periods of Use (Hrs./Wk)	Percent of Occupancy
Classrooms	15	36	60%
Teaching Labs	Varies by discipline	20	80%

Employing the above utilization factors in combination with the enrollment projections and hours per week of use per FTE by discipline and student level, the total need for each type of space is calculated. Although the method appears cumbersome, once established, the calculations are comparatively simple considering the complexity of the factors. More important, the methodology identifies factors which are critical in determining maximum use of instructional facilities.

*NASF is net assignable square feet.

• Research Laboratories

Space for research is generated only by graduate enrollments, using the following standards. Again, data for one year are employed to derive a factor used with the out-year enrollments.

Beginning Graduate	NASF Allotment	For Each
Life Sciences & Engineering	90	FTE Student
Physical & Behavioral Sciences	75	FTE Student
Social Science & Other	3	FTE Student

Research Faculty	NASF Allotment	For Each
Life Sciences & Engineering	450	FTE Research Faculty
Physical & Behavioral Sciences	375	FTE Research Faculty
Social Science & Other	75	FTE Research Faculty

• Offices

Office space is generated by a net assignable square foot allotment of 145 for every full-time-equivalent faculty or staff position requiring an office. The square feet generated by the allotment include all space for office support, i.e., conference rooms, files, office storage, operational circulation, reception areas, etc.

• Library	NASF Allotment	For Each
Reading Room	6.25	FTE Undergraduate
Carrels	5	FTE Beginning Graduate
	1	FTE Science Faculty
	5	FTE Non-Science Faculty
Stack Space		
1-150,000 Volumes	0.1	Volume
150,001-300,000	0.09	Volume
300,001-600,000	0.08	Volume
600,001-up	0.07	Volume
Service Area — 5% of other library area		

• Auditorium & Exhibit	NASF Allotment	For Each
	3	FTE Student

• Instructional Media
5% of total NASF in classrooms and teaching labs.

• Student Service	NASF Allotment	For Each
	7.5	FTE Student

• Gymnasium	NASF Allotment	For Each
	38,000	Minimum faculty for first 5,000 students
	3	Additional FTE student

• Support Space
3.5% of total NASF required for all other functions.

Using the projections for student enrollment and faculty and staff growth detailed in Tables 3, 4, and 5, the State formula generates the amount of space, by type and year, presented in Table 6. This table reflects the amount of space required for Florida International University's Interama Campus through 1982, as well as for the anticipated ultimate enrollment.

As stated in the original Master Plan for the University, the State formula provides an effective tool for projecting total system space needs; however, it must be emphasized that it does not develop space requirements tailored to the programs of a particular university. Each university is responsible for determining its own priorities and emphases, and must develop its own building program based upon its unique location and academic requirements.

Maintenance of this flexibility in the formula approach is especially important for the Interama Campus, because of its status as one campus of a multicampus institution. Part of the planning process of Florida International will be regular analysis and assessment of physical growth of the Interama and Tamiami Campuses. It is difficult to predict this interaction now, with great precision, especially its impact on physical facilities. As Florida International grows and its instructional programs mature, it will be possible to make greater refinements in space requirements.

While only limited adaptations of the State formula to specific Interama needs can be made now, the programs and operating philosophy envisioned for Interama do provide some indications of the future use of physical facilities. The following section details fundamentals with impact on the projected use of space.

Space Use Goals for Interama

Florida International University seeks maximum prudent use of gen-

TABLE 6

PROJECTED BUILDING SPACE REQUIREMENTS
(State formula)

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Ultimate
Classrooms	9,222	14,475	20,769	28,615	32,978	37,573	85,933
Teaching Labs	10,505	17,857	25,576	34,790	39,476	45,030	102,931
Library	18,442	23,863	38,640	50,154	58,710	63,118	120,833
Research Labs	6,513	10,227	15,111	17,851	19,544	20,814	35,036
Offices	38,092	55,303	70,949	92,032	106,155	116,754	229,477
Auditorium and Exhibit	3,315	5,157	7,401	10,212	11,790	13,431	30,720
Instructional Media	986	1,617	2,317	3,170	3,623	4,130	9,443
Student Service	8,288	12,893	18,503	25,530	29,475	33,578	76,800
Gymnasium	38,000	38,000	38,000	38,000	38,000	38,000	53,720
Support Space	4,668	6,279	8,304	10,512	11,891	13,035	26,071
GRAND TOTAL Net Assignable Square Feet Required	138,031	185,671	245,570	310,867	351,643	385,463	770,964
GRAND TOTAL Gross Square Feet (Net X 1.67)	230,512	310,071	410,101	519,148	587,242	643,723	1,287,510

eral purpose classrooms, as set forth in the original Master Plan. The following factors control the success of accomplishing this goal:

- Central control and assignment of general classrooms.
- Maximum flexibility in use by furnishing classrooms with fixed equipment suitable for varied programs.
- Utilization of convertible partitioning systems and other special designs for varying the size of instructional spaces.
- Scheduling of classes, to the extent possible, for a full 15-hour day.

These policies should enable Florida International to improve the percentage of occupancy of classrooms and exceed the weekly room utilization stated earlier. This will be particularly important in the early years of operation, when rapid growth produces a need for extremely efficient use of space. The need for flexibility requires capability to expand or subdivide areas and to convert functions from classrooms to office, library to office, and so forth. Success in retaining flexibility will depend upon the ability of the architect to provide appropriate space, within economic constraints, and the ability of the University to control and fully utilize its physical facilities.

The category for office space includes all areas for faculty and staff to prepare materials, counsel students, hold conferences, maintain office storage and files; in short, it includes all associated office space necessary to carry out the functions of the University. The State formula for this category is considered minimal, particularly in view of the University's heavy use of adjunct and visiting faculty. Therefore, the office facilities envisioned will be developed as flexible office cores with partitioned offices arranged around clerical, storage, and circulation areas and will be designed to accommodate changing programs.

The library requirements listed provide adequate stack and work space, but do not accommodate the demand for on-campus study space. Experience on the Tamiami Campus, and studies of other non-residential institutions, indicate that the University should be in a position to accommodate twenty percent of the undergraduate student population in varied study areas, both in and out of the library, at any given time. Florida International will fulfill the demand in two ways; first, by making available classroom space not in use during particular periods, and second, by introducing informal lounge-study areas where appropriate.

Adequate student service space is important to a non-residential university. The provision of space for recreational and social functions is essential to promote interaction of students, faculty, and staff, and to impart vitality to the University community. Space generated for student services by the State formula is considered minimal for Florida International. Student activities space will be incorporated with some of the space the formula designates as "gymnasium." Exercise rooms and informal outdoor areas for recreation, instruction, and activities of student organizations will be dispersed throughout the Campus. About half of the indoor space allocated for student services will be centrally located, in a student services building, to house many of the non-curricular needs of the University community.

Accurate determination of future resource requirements for the new campus of one of the fastest growing universities in the nation is a difficult task. This section of the Master Plan has attempted to make rational estimates of resources required by the Interama Campus and to explain the process for determining these requirements. Successful development of the Campus will rely on continual reappraisal and updating of requirements to meet immediate and long-range objectives. The reevaluation of these estimates will be an integral part of the planning process as Florida International University's Interama Campus matures.

V FISCAL RESOURCES

In the classical educational planning model, analysis of fiscal resource requirements constitutes the last planning step. After institutional goals and program objectives have been defined, when student enrollments, staff, and physical facilities requirements have been estimated, it is then possible to anticipate operating and capital costs. Capital fund requirements for construction of buildings and development of the Campus are determined largely by the need for various kinds of building space. These, in turn, depend primarily on student enrollments, curricular programs, and the numbers of faculty and staff needed.

In a rapidly changing economy, it is extremely difficult to specify capital funding in detail a decade into the future. Although capital cost cannot be forecast ten years ahead with great precision or confidence, estimates revealing general orders of magnitude are useful. They furnish the citizen and the public policymaker with a general picture of the scale of the undertaking and the approximate public funding needs which will have to be met.

The schedule of capital funding shown in Table 7 outlines construction and campus improvement dollars necessary to implement the academic plans of the Interama Campus as previously described. Estimates in Table 7 are stated in 1974-75 dollars.

The figures do not include adjustments for probable future inflation beyond 1975. They should be regarded as indicative of the physical development cost of the Interama Campus, if that development were to take place at estimated 1974-75 prices. The square-foot construction cost figures employed are those furnished for higher education in the Miami area by the Florida Board of Regents. The figures estimate total project costs including professional fees, furniture and equipment, utilities, and site development. Costs reflect the gross square footage outlined in Table 6.

TABLE 7

CAPITAL FUNDS REQUIREMENTS
(in 1974-75 dollars)

Year	Construction Gross Sq. Ft.[1]	Cost
1976[2]	50,000	$ 4,000,000
1977	112,000	8,000,000
1978	100,000	5,869,000
1979	184,000	10,798,960
1980	100,000	5,869,000
1981	100,000	5,869,000
Ultimate Capacity[3]	691,510	40,584,000

[1]Figures represent year of completion for formula-based space.

[2]Trade Center Building

[3]Ultimate size based on 15,000 headcount and 10,240 FTE students.

Fiscal resources in the form of annual operating budget dollars have been estimated in much the same manner. Again, the purpose is to give the reader a general picture of the scale of the enterprise contemplated and the dollar implications of the undertaking. During fiscal 1974-75 the operating budget of Florida International University amounted to $3,050 per full-time-equivalent student. This figure has been applied, without adjustment for future inflation, to enrollments projected for the Interama Campus. The mix of students at Interama, with respect to both curricula and graduate versus undergraduate status, will be somewhat different that the current mix on the Tamiami Campus. Nevertheless, both the details of this plan and past experience indicate that many of these differences will average out in the calculation of cost per full-time-equivalent student. Table 8, therefore, translates academic plans previously described into annual operating budget requirements at today's educational prices.

While projections at today's prices are easiest to comprehend, they do not consider future price increases. If current rates of inflation continue, then Tables 7 and 8 obviously understate by a substantial margin, the capital and operating fiscal resources needed to implement this plan.

TABLE 8

OPERATING FUNDS REQUIREMENTS[1]
(in 1974-75 dollars)

Year	Full-time-equivalent Enrollment	Operating Costs
1976-77	1,105	3,370,000
1977-78	1,719	5,243,000
1978-79	2,467	7,524,000
1979-80	3,404	10,382,000
1980-81	3,930	11,986,000
1981-82	4,477	13,655,000
Ultimate capacity	10,240	31,232,000

[1]Based on 1974-75 operating cost of $3,050 per FTE student.

PART THREE

THE CAMPUS PLAN

PART THREE — THE CAMPUS PLAN

I CAMPUS PLANNING GOALS

Detailed plans for the academic development of the Interama Campus of Florida International University were presented in Parts One and Two. Part Three details the physical plan for the new Campus. The physical plan for the Interama Campus takes cognizance of the relatively small parcel of land which must ultimately accommodate a campus for 15,000 students. The plan responds to energy conservation and environmental considerations. It seeks to emphasize the amenities afforded by South Florida's subtropical climate and the uniquely attractive features of the Interama site. And, the physical plan for the Interama Campus is designed so that growth can be phased over a development period as funding is made available. The following goals were developed to guide physical planning for the Campus:

- Begin academic operations with approximately 1,600 students, expand to 5,750 students, and ultimately accommodate 15,000 students.
- Address the needs of commuter students at an urban institution.
- Respond to incremental funding by phasing the development of physical facilities.
- Accommodate growth and expansion of facilities with minimal disturbance to ongoing University operations; establish a sense of permanence amid growth and change.
- Meet future development requirements with a flexible plan capable of accommodating changes in the educational program.
- Demonstrate leadership in responding to critical environmental and energy conservation principles.
- Take maximum advantage of opportunities offered by South Florida's subtropical climate.
- Maximize interaction of students, faculty, and staff by making facilities appropriately interrelated and accessible.
- Integrate active and passive education and recreation functions throughout building and outdoor areas of the Campus.
- Recognize the open space and view opportunities associated with the waterway and Biscayne Bay on the eastern edge of the site.
- Provide economy and efficiency in construction and operation.

II PLANNING ANALYSIS

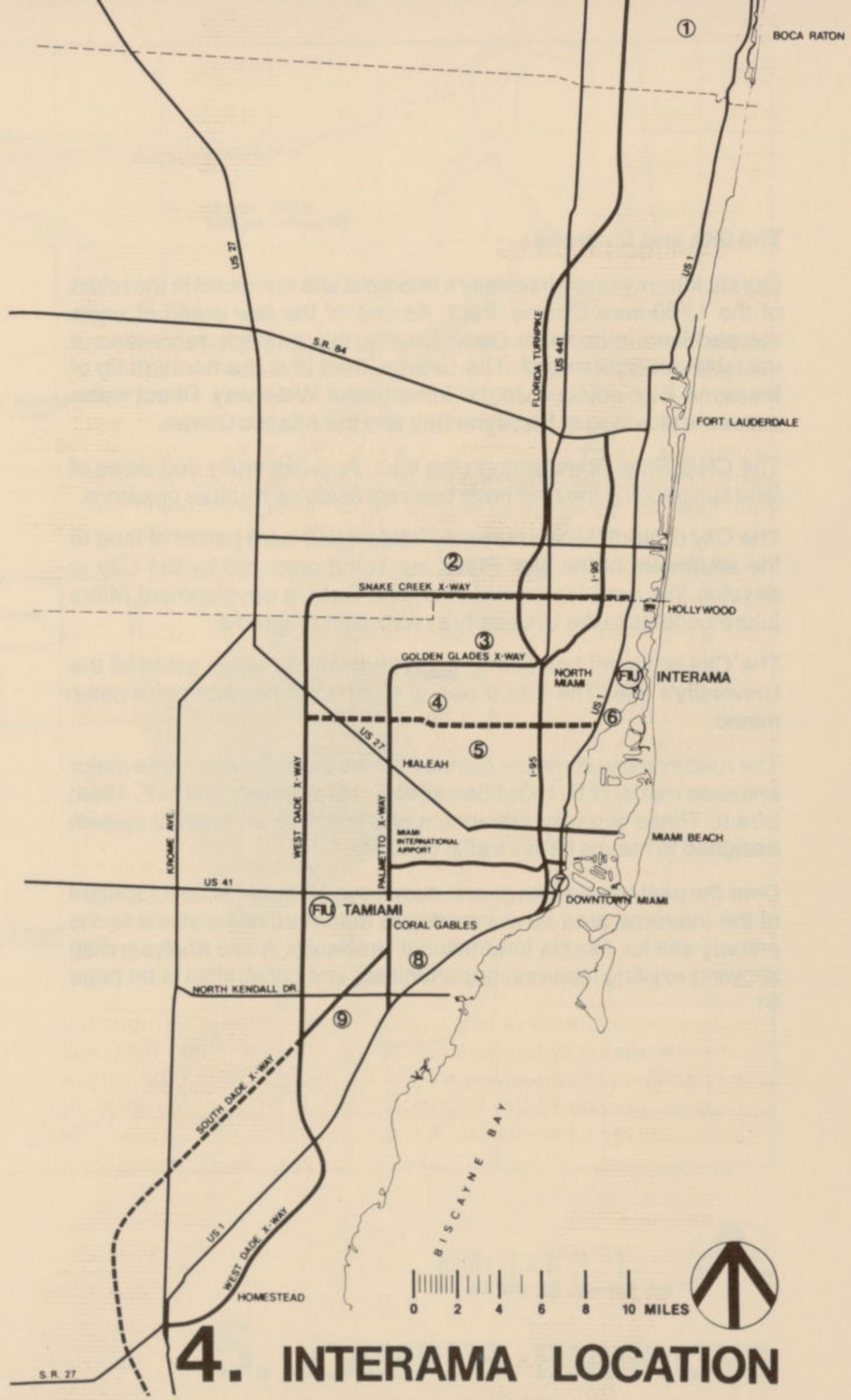
Region

Florida International University's location in South Florida places it in the heart of major international, economic, and cultural centers. The Interama Campus is located within the overlapping metropolitan areas of Miami and Fort Lauderdale, close to the Dade-Broward County line. The Interama site offers a rich variety of supporting elements — a subtropical climate providing year-round use of outdoor facilities; proximity to a large urban area undergoing rapid growth; unique recreation and cultural facilities, and an outstanding site for campus development.

During the past 25 years, South Florida has experienced one of the most rapid rates of growth and development in the nation. The population of Dade and Broward Counties exceeds 2.2 million; 1.6 million of this total represents a net increase since 1950. It is currently estimated that the population of this area will increase to 2.5 million by 1980 and approximately 3 million by 1990.

Rapid growth of the Tamiami Campus has demonstrated the need and desire for public educational facilities to serve South Florida. Florida Atlantic University at Boca Raton is the only other State supported university in the region. Four private institutions of higher education service the region: The University of Miami, Florida Memorial College, Biscayne College, and Barry College. Community college systems in Dade and Broward Counties have a combined enrollment which approaches 50,000 students.

Excellent regional access is provided to the Interama Campus by automobile. Proximity to Interstate 95, the Sunshine State Parkway, and the Palmetto Expressway link the Campus to major urban activity centers. Service to the Interama Campus by the Metropolitan Dade County rapid transit system is also planned.



1 FLORIDA ATLANTIC UNIVERSITY
2 BROWARD COMMUNITY COLLEGE
3 BISCAYNE COLLEGE
4 FLORIDA MEMORIAL COLLEGE
5 MDCC · NORTH CAMPUS
6 BARRY COLLEGE
7 MDCC · DOWNTOWN CAMPUS
8 UNIVERSITY OF MIAMI
9 MDCC · SOUTH CAMPUS

4. INTERAMA LOCATION

The Site and Environs

Florida International University's Interama site is located in the midst of the 1,700-acre Graves Tract. As one of the few areas of undeveloped land in northern Dade County, this property represents a valuable public resource. The Graves Tract is at the northern tip of Biscayne Bay, adjacent to the Intracoastal Waterway. Direct water access is provided to Biscayne Bay and the Atlantic Ocean.

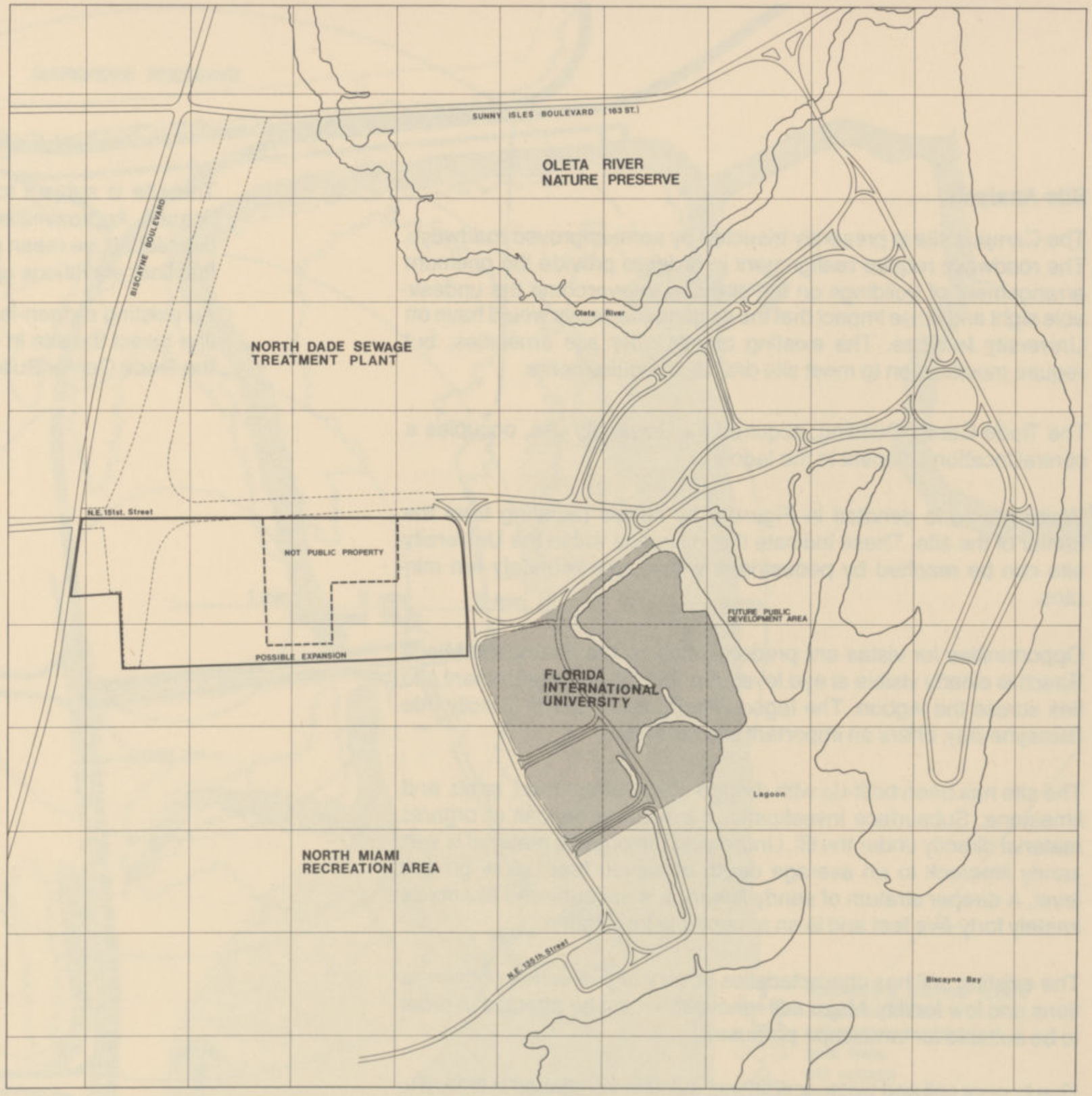
The Oleta River flows through the tract. Approximately 200 acres of land surrounding the river have been set aside as a nature preserve.

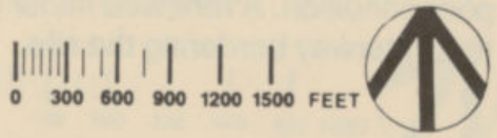
The City of North Miami currently holds a 350-acre parcel of land to the southwest of the site. Plans are being prepared by the City to develop this area for recreational use. Such a development offers future benefits to the University's recreation programs.

The City of Miami has title to approximately 93 acres south of the University's site. The future use of this parcel has not been determined.

The road system ultimately planned for the area includes three major entrance roads: N.E. 163rd Street; N.E. 151st Street; and N.E. 135th Street. These two-way entrance roads lead into an internal system designed to handle heavy traffic volumes.

Over the past twenty-four years, numerous attempts at development of the Interama area have introduced man-made alterations to the primary site for Florida International University. A site analysis map showing existing features, opportunities, and constraints is on page 61.





5. CAMPUS ENVIRONS

Site Analysis

The Campus site is presently trisected by semi-improved roadways. The roadways require realignment in order to provide the optimum arrangement of buildings on the site and to overcome the undesirable sight and noise impact that the existing roadways would have on University facilities. The existing canals offer site amenities, but require modification to meet site drainage requirements.

The Trade Center Building, acquired for University use, occupies a central location adjacent to the lagoon.

Walking time is denoted in Figure 6 by circles radiating from the center of the site. These indicate that all space within the University site can be reached by pedestrians within approximately ten minutes.

Opportunities for vistas are predominately to the southeast. Miami Beach is clearly visible at eye level. A prime future development site lies across the lagoon. The lagoon itself, which opens directly into Biscayne Bay, offers an important site amenity.

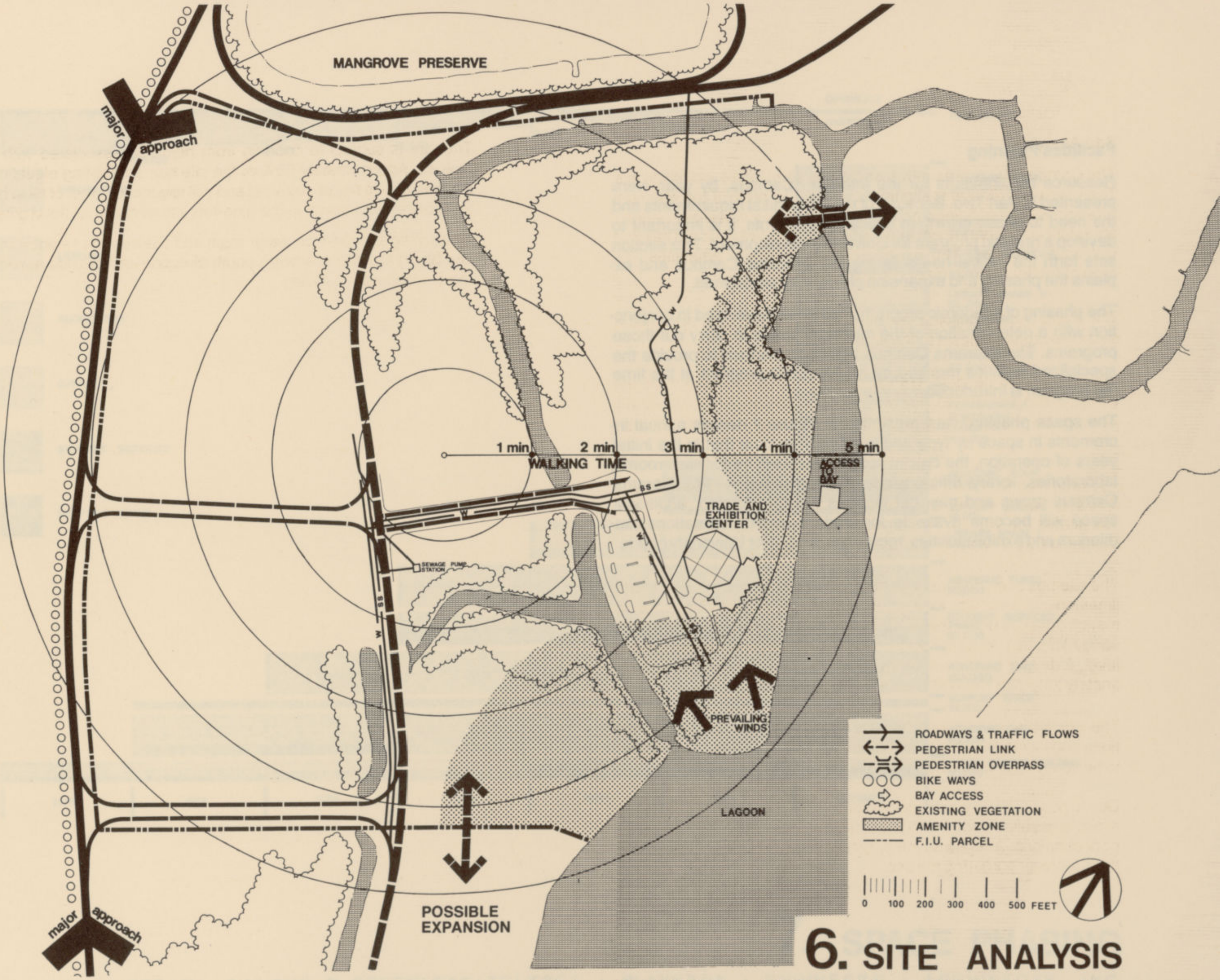
The site has been built-up with dredged bay bottom marl, sand, and limestone. Subsurface investigations indicate a deposit of organic material directly under the fill. Underlying the organic material is soft, sandy limerock to an average depth of eleven feet below ground level. A deeper stratum of sandy limerock is encountered at approximately forty-five feet and is an acceptable foundation.

The existing soil has characteristics of very high chloride concentrations and low fertility. Major soil renovation must be effected in order to be suitable for landscape purposes.

Due to poor soil and water conditions, existing vegetation is limited to areas sparsely wooded with Australian pines, many of which are in poor condition. A renewed minor growth of mangroves occurs along the waterway bordering the site.

The site is subject to flooding from high tide associated with hurricanes. Approximately 50% of the site has an existing elevation of five feet above mean sea level and will require four feet of fill to bring first floor elevations up to the nine-foot mean sea level flood criteria.

An existing sixteen-inch water main and twelve-inch sanitary sewer line bisect the site in a north-south direction and provide service to the Trade Center Building.



6. SITE ANALYSIS

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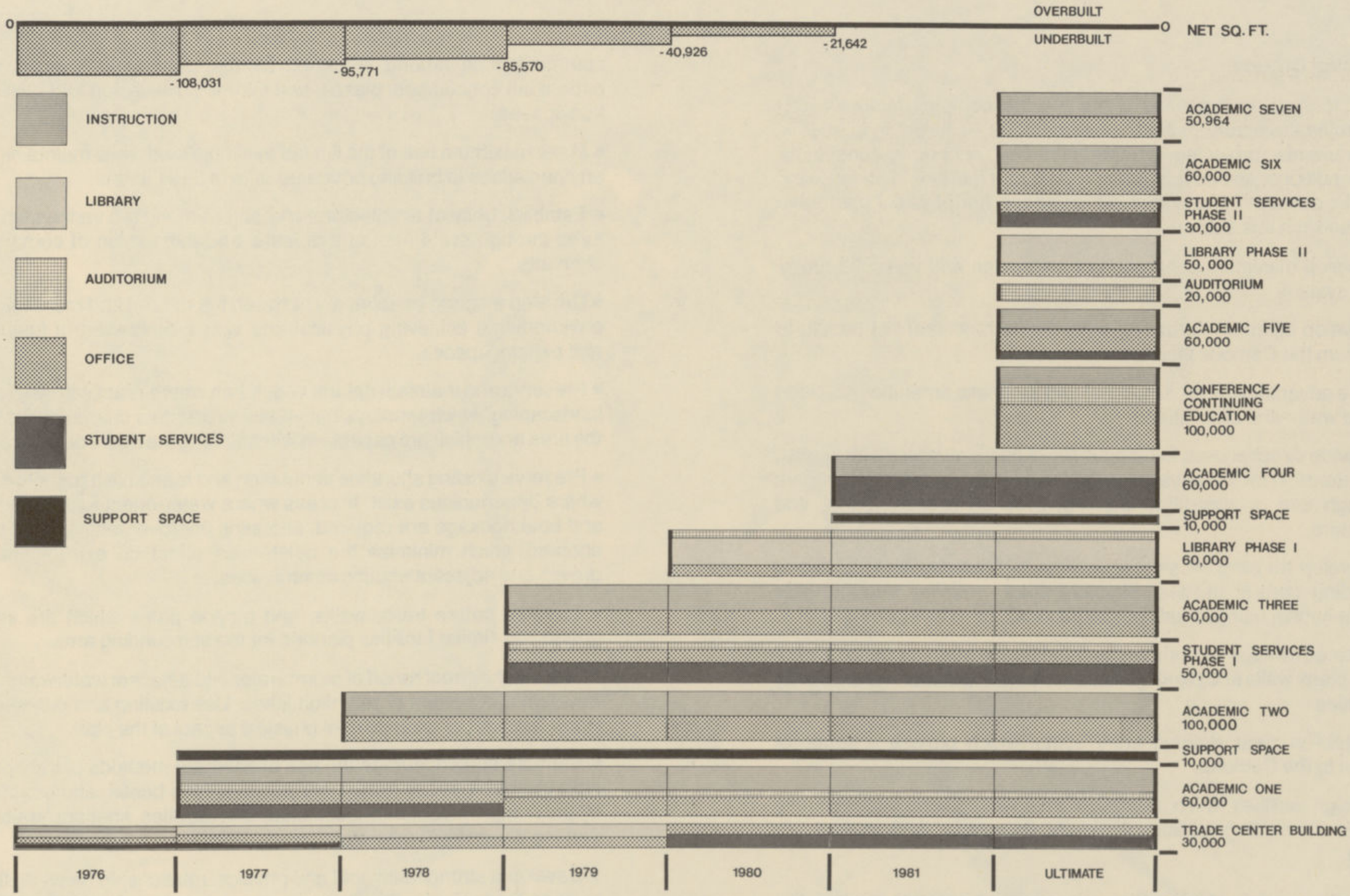
Facilities Planning

Resource requirements for the Interama Campus, by year, were presented in Part Two. Because of the large initial requirements and the need to phase growth in building increments, it is important to develop a realistic program for University development. This section sets forth the critical needs facing the Interama Campus and explains the phasing and expansion philosophy envisioned.

The phasing of academic programs has been developed in conjunction with a determination of the minimum space to carry out those programs. The Interama Campus has been planned to provide the specialized facilities required by an academic program at the time the program is introduced.

The space phasing chart presented in Figure 7 depicts annual increments in space by type and building. It is clear that in the initial years of operation, the crucial space needs will be for classrooms, laboratories, library, office, and support facilities. As the Interama Campus grows and physical facilities are constructed, additional space will become available for student service operations, auditorium and exhibit facilities, recreation, and other University needs.



7. SPACE PHASING

Planning Criteria

This planning analysis has examined the complex factors which determine the nature of a university campus — including academic requirements, projected growth estimates, economic constraints, site conditions, and development of adjacent facilities. The following specific concepts and criteria which shape the physical plan have evolved from this analysis.

- Develop maximum separation of pedestrian and vehicular movement system.
- Develop optimum horizontal and vertical movement of people to and from the Campus facilities.
- Take advantage of the functional and aesthetic amenities provided by the water and open space.
- Provide direct access to campus facilities for all users with special consideration for the physically disabled. Eliminate physical barriers through use of controlled parking, drop-off areas, ramps, and elevators.
- Develop an efficient service system to house support functions including central utilities, physical plant, building and grounds maintenance, campus safety, campus mail, central receiving.
- Take advantage of normally unused space such as building rooftops, blank walls and parking areas for formal and informal university activities.
- Establish clear, defined entry points which provide a sense of arrival to the Campus.
- Design facilities which recognize the special needs of commuting students including facilities for study, recreation, and student services.
- Create a variety of interaction spaces which promote contact and communication among students, faculty, and staff — including pedestrian concourses, plazas, and informal discussion and recreation spaces.
- Make maximum use of the limited available land while maintaining an open space to building coverage ratio of three to one.
- Establish unity of architectural character among the various structures through scale, use of materials, and expression of common elements.
- Develop a strong relationship between the natural and man-made environments achieving physical and visual integration of interior and exterior spaces.
- Preserve and maintain natural vegetation where practical; develop landscaping which employs native plant materials characteristic of the area and which are capable of withstanding the rigors of the site.
- Preserve existing shoreline vegetation and reestablish mangroves where opportunities exist. In areas where water-oriented recreation and boat dockage are required, shoreline improvements should be adopted which minimize the deleterious effect on existing mangroves and adjacent aquatic communities.
- Develop nature trails, walks, and bicycle paths which are integrated into similar facilities planned for the surrounding area.
- Prevent the direct runoff of storm water into adjacent waterways by developing a system of retention lakes. Use existing and proposed water features as an important physical aspect of the plan.
- Promote and encourage the use of alternate methods of transportation including mass transit, car pools, shuttle buses, and bicycles by providing conveniently located support facilities, shelters, special parking areas, and walkways.
- Develop a strong functional and physical relationship between the existing Trade Center Building and other future University facilities.

III THE PHYSICAL PLAN

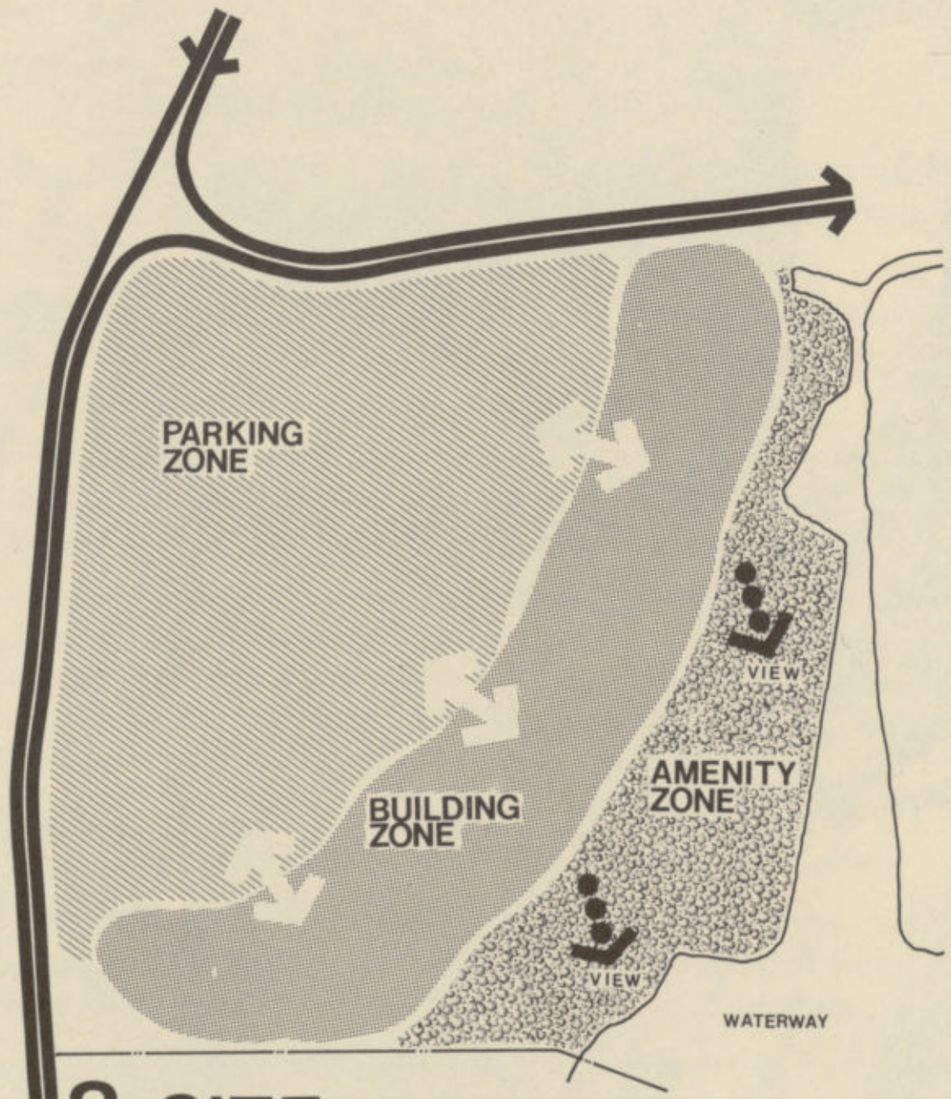
General Description

The natural features and amenities of the Interama site are significant factors influencing the development of the physical plan. The concept for utilizing the site is represented in Figure 8. The site has been divided into three distinct zones. The eastern zone, along the waterway, is designated an Amenity Zone which preserves this highly desirable and unique environment for passive and active open space. The middle zone is the established Building Zone where construction of all major campus facilities are concentrated. A Parking Zone has been designated in the western portion of the site in keeping with the goal of maximum separation of pedestrians and vehicles. Figure 8 illustrates the strong physical linkage between the zones, both in terms of user interaction and view opportunities.

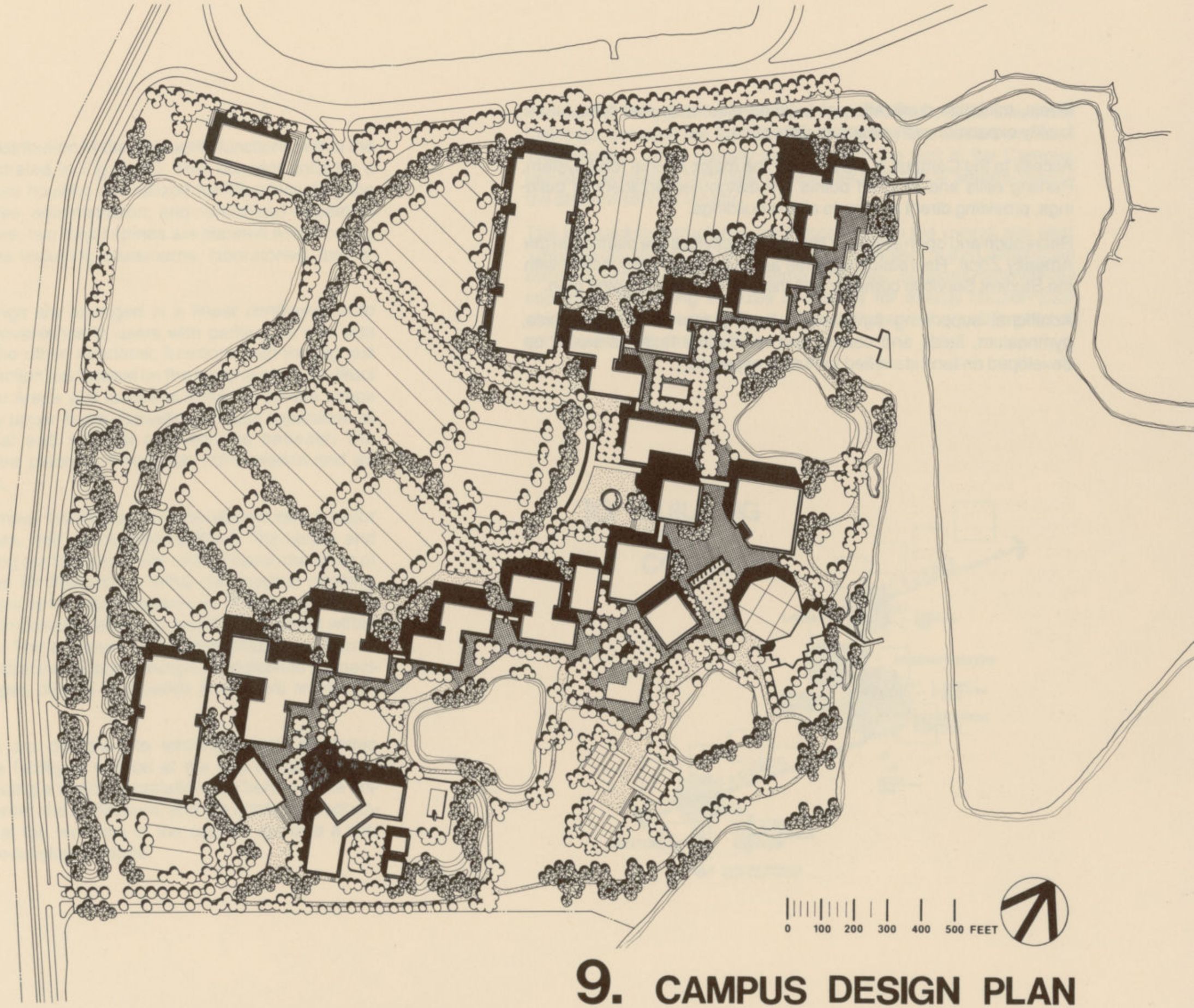
As a result of the site characteristics and the goal of developing highly accessible facilities, the Building Zone evolved into a strong linear configuration with parking on one side and open space on the other. The plan is organized around two axial spines which converge in the central plaza area. Major pedestrian movement is accommodated at ground level throughout the Campus. The linear distribution of the Campus is reinforced by a pedestrian concourse on the water side of the buildings. The pedestrian concourse serves as a unifying design element to organize spaces, activities, and movement of people.

Siting of the entire complex was carefully undertaken with consideration for energy conservation principles. The building orientation was established to maximize the benefits of prevailing breezes and minimize sun control problems. Vistas were also a major consideration in orienting the buildings.

The buildings have been distributed in order to provide orderly, phased growth. Entrances and common stairs are planned to reinforce the connection between building phases and provide compact development. These connections serve to unite building growth, provide for horizontal pedestrian and service movement at upper



8. SITE UTILIZATION CONCEPT



9. CAMPUS DESIGN PLAN

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levels, minimize duplication of building elements, and offer future facility expansion with minimum disruption.

Access to the Campus is provided by the major arterial road system. Parking cells and drop-off points are distributed adjacent to buildings, providing direct access to all the buildings.

Recreation and open areas for University activities are planned in the Amenity Zone. Recreation facilities are planned in conjunction with the Student Services complex and the Campus landscaping plan.

Additional supporting functions, including recreation complexes, gymnasium, fields and courts, and residential facilities would be developed on land identified for future expansion.

The Buildings

The concept for the distribution of the University functions within the Building Zone is illustrated in Figure 10. This concept calls for a centralized activity core housing specialized facilities including the library, student services, administration, and centralized recreation facilities. Off of this core, two major spines are planned which house all academic functions including classrooms, laboratories, and offices.

The academic buildings are arranged in a linear configuration to provide maximum convenience to users with parking on one side and open space on the other. Academic functions with the highest degree of public interaction are located on the lower levels with direct access. More isolated areas and functions requiring private space are distributed on the upper floors, providing vertical separation of functions. Horizontal and vertical connections between the academic buildings are planned to maintain convenience and accessibility at all levels.

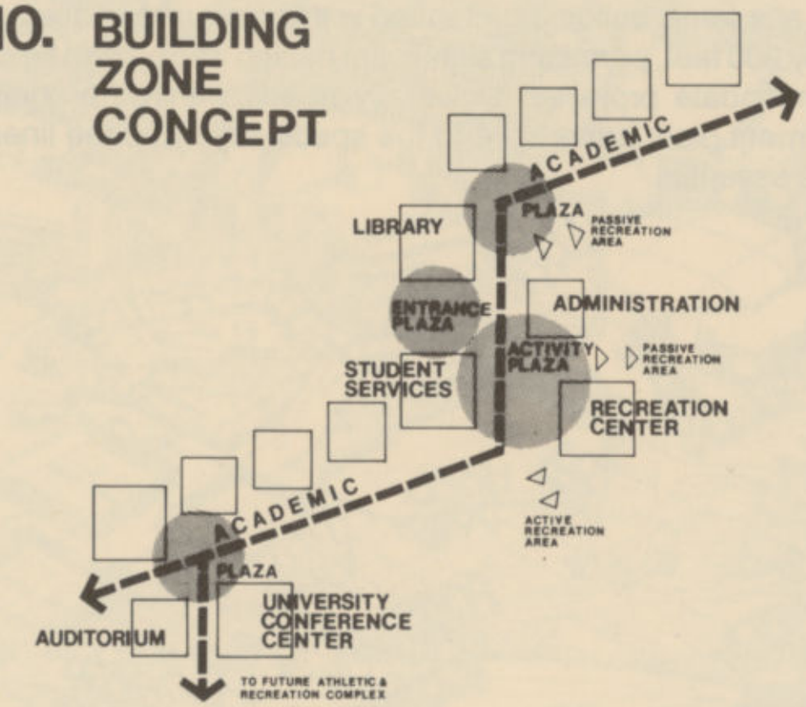
The center of the campus building zone is developed with a major entrance, central plaza, and specialized facilities. The library and student service building are located off the central plaza; the siting of these buildings allows for flexibility in initial construction phasing, and also provides capacity for future expansion. The library, with its high rise tower, is an important visual and functional element within the Campus scheme. The entrance and activity plazas are formal expressions of the central interaction concept; in addition to connecting buildings, they open directly to passive and active recreation areas.

Specialized facilities are designed to terminate both academic spines. A conference facility is located at the end of the western academic spine providing a direct interrelationship between the university conference center, the auditorium, and the continuing education center. Located at the terminus of the eastern spine is a site allocated for a future education institute.

The central utility plant is positioned near the center of the University buildings, between the first academic building and student services. This location, while visually isolated from the rest of the Campus, provides access to the utility building as well as the service core of the student service facility.

The two parking structures are integrated into the overall site plan. They are situated close to the high activity centers of the Campus but out of important vistas. At the same time, their locations minimize the impact on prevailing breezes necessary for energy conservation objectives. Each parking structure is designed to be built in phased construction increments.

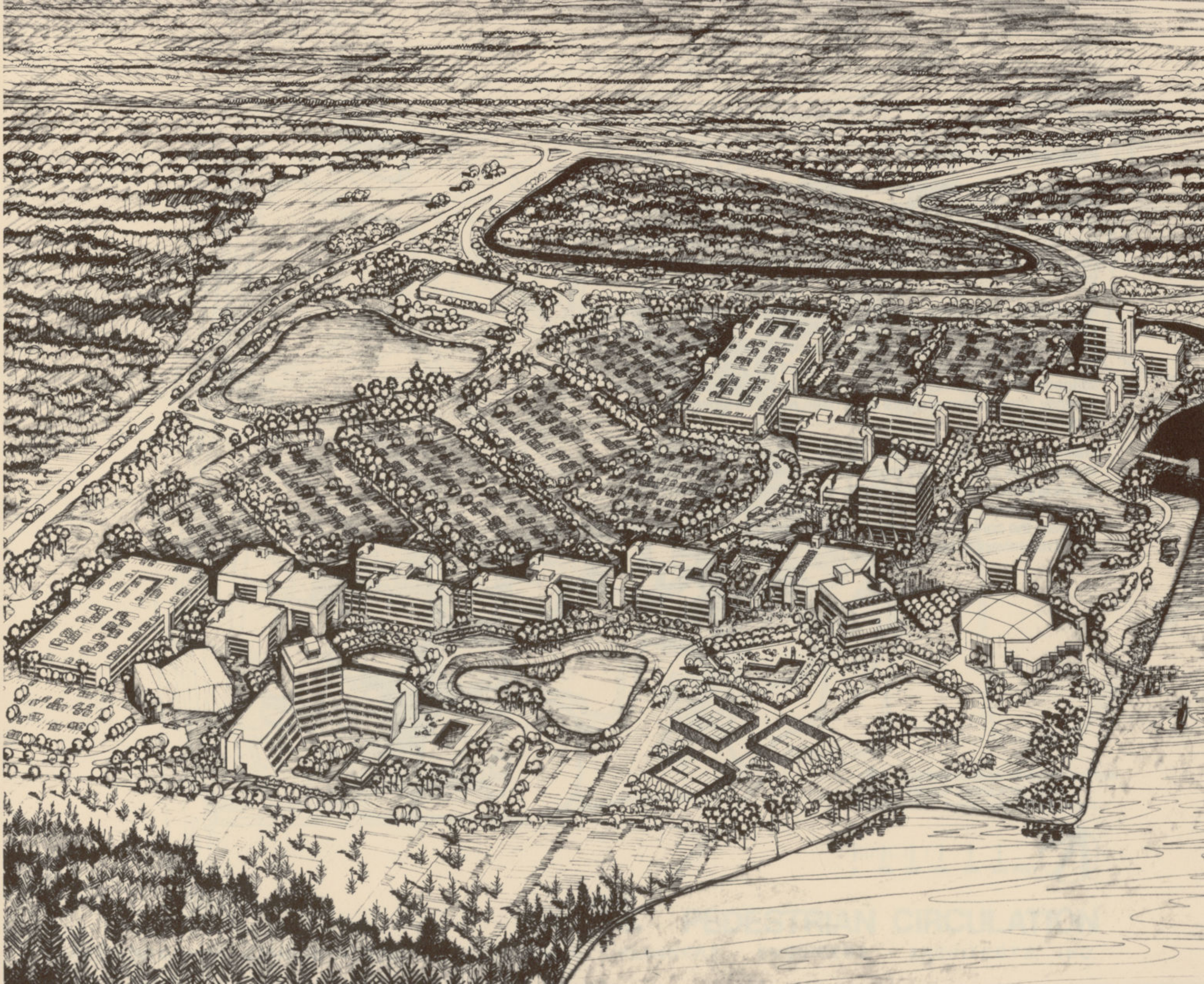
10. BUILDING ZONE CONCEPT



The buildings are planned to maximize energy conservation. The orientation of the buildings takes advantage of the prevailing ocean breezes from the southeast, while minimizing solar radiation problems, particularly from the southern and western exposures. Sheltered outdoor circulation is provided throughout the buildings enabling convenient movement at minimal construction and operating cost. Open air design will contribute to natural lighting as well as ventilation. Building massing allows air to circulate between the buildings and permits zoned control of air conditioned spaces.

The academic buildings are designed to provide direct connections to adjacent facilities, and are sufficiently flexible to be built as campus needs and funds dictate. At linkage nodes the use of common stairs minimizes construction costs and maximizes pedestrian access by providing multilevel connections. Although this linkage system establishes a tightly organized framework for future growth and development, it also allows for the design flexibility necessary to provide the specialized spaces which the University requires.

Each academic building is planned within a square space zone, 200 feet by 200 feet, permitting significant design and growth flexibility. To accommodate projected University needs within the compact development plan, adherence to the space zone and the lineage system is essential.

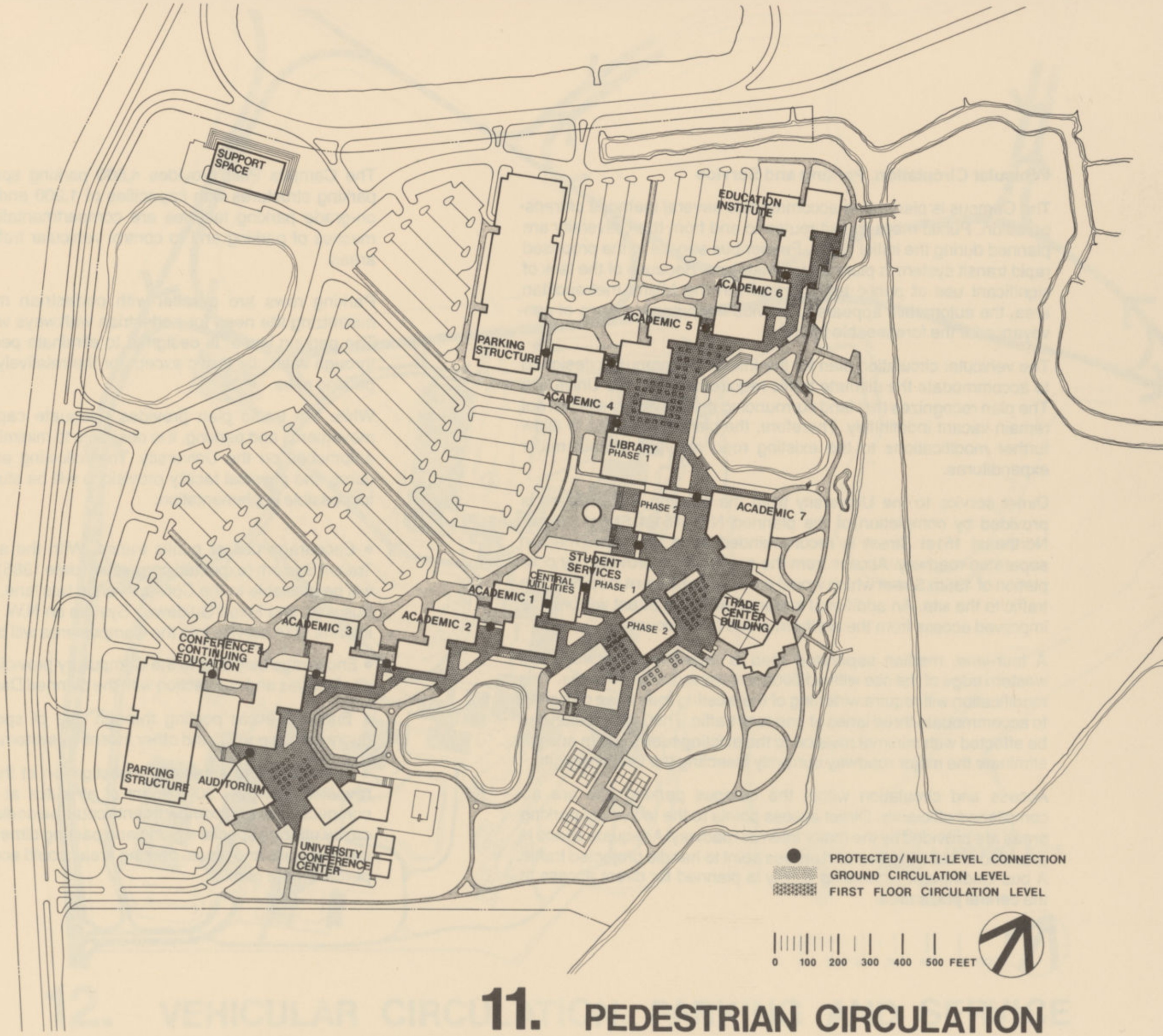


Pedestrian Circulation

A well-planned pedestrian circulation system is important to the efficient operation of the campus. Vehicular approaches and drop-offs are distributed along the linear band separating the parking and building zones. This pedestrian circulation system allows direct access to campus facilities while separating pedestrians and vehicular traffic.

A pedestrian concourse on the water side of the buildings is maintained at the first level throughout the Campus. This concourse is planned to provide pedestrians with continuous, covered protection. The pedestrian concourse, which is raised to ground floor level, connects all formal plazas and informal ground level walks within the Amenity Zone. Informal walks have been provided along the entire water's edge.

Walking time across the entire campus is less than ten minutes. Walking time between the most widely separated academic buildings is approximately seven minutes. Students and faculty can easily move between classes in the normal ten-minute break period. In addition, the convenience offered by the campus layout invites full use of all University facilities.



11. PEDESTRIAN CIRCULATION

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Vehicular Circulation, Parking and Service

The Campus is planned to accommodate several methods of transportation. Public mass transit routes to and from the University are planned during the initial years. Feeder bus service to the proposed rapid transit system is planned for the future. Because of the lack of significant use of public transportation in the Miami metropolitan area, the automobile appears to provide the primary means of conveyance for the foreseeable future.

The vehicular circulation plan for the Interama Campus is designed to accommodate the ultimate traffic requirements for the University. The plan recognizes that land surrounding the University site will not remain vacant indefinitely. Therefore, the plan is designed to allow further modifications to the existing road network without major expenditures.

Direct service to the University from the existing road system is provided by completion of the planned N.E. 151st Street project. Northeast 151st Street is recommended as a four-lane, median separated roadway. Access from the south will be provided by completion of 135th Street which would provide an efficient loop bringing traffic to the site. An additional entrance at 163rd Street will provide improved access from the northern areas of the county.

A four-lane, median separated road is recommended along the western edge of the site with additional recessed left-turn lanes. This modification will require widening of the existing road base designed to accommodate three lanes of one-way traffic. This modification can be effected with minimal revision to the existing road system and will eliminate the major roadway currently bisecting the University site.

Access and circulation within the campus parking lots are accomplished efficiently. Direct access points to the individual parking areas are provided by the major internal roadway. Adequate space is provided at each ingress and egress point to handle projected traffic. A bus loading and unloading facility is planned for direct access to the central plaza area.

The Campus Plan provides 4,500 parking spaces including two parking structures with capacities of 1,200 and 900 vehicles. The on-grade parking facilities are compartmentalized to avoid large masses of parking and to control vehicular traffic through parking areas.

Parking rows are parallel with pedestrian movement, thereby minimizing the need for pedestrian walkways within parking areas. The parking layout is designed to eliminate pedestrian movement through vehicular traffic except for the relatively minor traffic along parking rows.

While the traffic plan provides adequate capacity for vehicular movements and parking, it is desirable to minimize the impact of the automobile on the University. The following administrative procedures and physical facility provisions will be studied and evaluated for possible implementation:

- Encourage use of public transit. With the advent of the Rapid Transit System (expected completion date 1985), feeder bus service will be available to the Collins Avenue bus lane, Interstate Route 95 bus way, and Fixed Guideway System on N.W. 27th Avenue. In the interim, MTA service into the Campus area will be provided.

- Encourage bicycling to the Campus by providing adequate University facilities and connection with the planned Dade County bikeway.

- Encourage car pooling through use of special parking areas, guaranteed spaces, and other incentive systems.

- Emphasize the small car. Investigation at the Tamiami Campus revealed that over 50 percent of all autos at any given time are compacts. Several compartments could be dedicated to the compact car by utilizing special signing and parking dimensions. With smaller parking stalls and lanes, parking areas could accommodate 20 to 30 percent more cars.

12. VEHICULAR CIRCULATION, PARKING AND SERVICE

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- Administer parking fees which reflect the value of land and the construction cost of parking lots and parking structures.

The system for servicing campus buildings is planned at the ground level to provide vehicular access and minimize conflict of pedestrians and vehicles. Service areas have been located to be unobtrusive. Architectural and landscape treatment will isolate and screen these areas from public view.

A dual-use service drive and walkway is planned for the buildings where minimal service is required. Service access to such buildings is provided by the road systems servicing parking lots. Controlled access to a service point in each building will be provided. Special treatment of these lanes will enhance their use by pedestrians.

Landscape Design

The landscape plan has been designed to achieve the following objectives:

- Definition of exterior areas for active and passive use — study, lounge, recreation, and relaxation.
- Buffering and screening of undesirable or incompatible land uses, traffic noise, and service areas.
- Integration of interior building areas with the outdoor areas.
- Creation of environments which complement the building and give character to existing land.

The existing vegetation consists primarily of Australian Pines. In the areas where these trees are to be preserved, thinning and pruning is recommended. Proper adaptation will provide immediate natural landscaping to be used for buffering and screening.

New landscaping will rely heavily on the use of materials indigenous to the area. Native plants allow for development of a campus with a strong relationship to the surrounding environment and also ensure success in adapting it to the rigorous climatic conditions of the site such as high winds, salt spray, and poor soil. Landscaping will be developed to meet these microclimatic conditions in order to achieve an attractive, low maintenance landscape.

Open areas within and around buildings will be designed to provide for formal and informal activities and encourage use of exterior space.

Earth mounding is planned for use where appropriate to add variety and interest to the horizontal ground plane. In addition to their virtues as landscape elements, mounds provide direct benefits by introducing high quality soil to aid horticultural practice. Mounding is designed to screen areas of incompatible use and provide visual and acoustic buffering from the roadway system.

Existing waterways and planned retention lakes are used to enhance views, soften courts, and guide circulation throughout the Campus. In the plaza areas, more active water treatment is planned involving moving and splashing water to add an aural dimension to the landscape treatment.

Architectural elements are to be used to reinforce landscape concepts. Paved areas will utilize a variety of surfaces and define transitions between areas. Planters will be used to create variety and interest. Seating will be provided to accommodate functions planned for the various activity zones. Building perimeters will be used for shade, seating, informal study, outdoor teaching areas, and informal meeting.

13. LANDSCAPE PLAN

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The Campus Design Image

Important design principles used in developing the Campus image include:

• Form and Massing

As a result of the building linkage system for the Interama Campus, a distinctive form and character can be established which visually unites all the building elements. The predominant horizontal building massing will be accentuated by the vertical library, University conference center, and education institute buildings.

• Focal Point

The library, student services building, and central plaza establish the functional and symbolic focal point of the Campus. The library will serve as a dominant vertical element to reinforce the focal point.

• Visual Orientation and Entry

The Campus has been planned for clear visual orientation to the buildings. The road is designed to simplify orientation and provide for selection of the appropriate parking location. Surface parking is compartmentalized to serve adjacent buildings. Entrances to the Campus are dispersed for maximum convenience and will be emphasized through architectural and landscape treatment.

• Edges

Landscaped lakes, the waterway, and earth mounding are important edges which provide further identity to the Campus areas. These edges are used for visual definition of building zones, landscaped areas, and circulation paths.

• Spatial Objectives and Scale

Individual spaces should be well defined, distinct in form, with variety yet strongly related to the whole. Spaces are to be conceived as a continuum of changing experiences, especially as one moves along the pedestrian concourse. The scale of the Campus is planned to relate to the pedestrian. Architectural and landscape elements should be designed at a human scale to establish a sense of place and promote use of the interaction spaces.

• Views and Vistas

The major vehicular approach to the Interama Campus will be via Northeast 151st Street. Moving east along this street, the skyline of the Campus will become visible over the mangrove preserve. The entire Campus profile will become visible as the roadway swings around the mangroves. Other important views occur as one moves along the roadway boundaries to the north and west of the Campus. These vistas offer perspectives of the Campus which are an essential element of the design image.

• Architectural Character

Visual unity of the Campus architecture is to be achieved through consistent use of design elements. With design of the first major building, the University will establish architectural elements and finishes appropriate for all future Campus facilities, and will establish design guidelines and controls especially for the academic buildings. Specialized facilities such as the library and student services should be designed as focal points for the Campus. Appropriate use of architectural elements and materials include: (1) Exterior Walls — exposed concrete poured in place or precast with random board patterns, coarse texture or exposed aggregate finishes; (2) Fenestration — glass with a standard solar finish; (3) Exposed Metal Surfaces — dark bronze anodized aluminum; (4) Exterior Paved Areas — concrete, quarry tile, brick, and other compatible materials; (5) Common building elements such as stairs, mechanical cores, space frames, and lighting units should be consistent; (6) Accent Materials — compatible accent materials — stone, brick, tile, copper, metals, etc. — should be selected to define areas and provide visual interest; (7) Graphics and Colored Surfaces — standard typeface, colors, and design for buildings and graphics should be established. Colors should be used as accent surfaces.

IV UTILITIES

Site Drainage

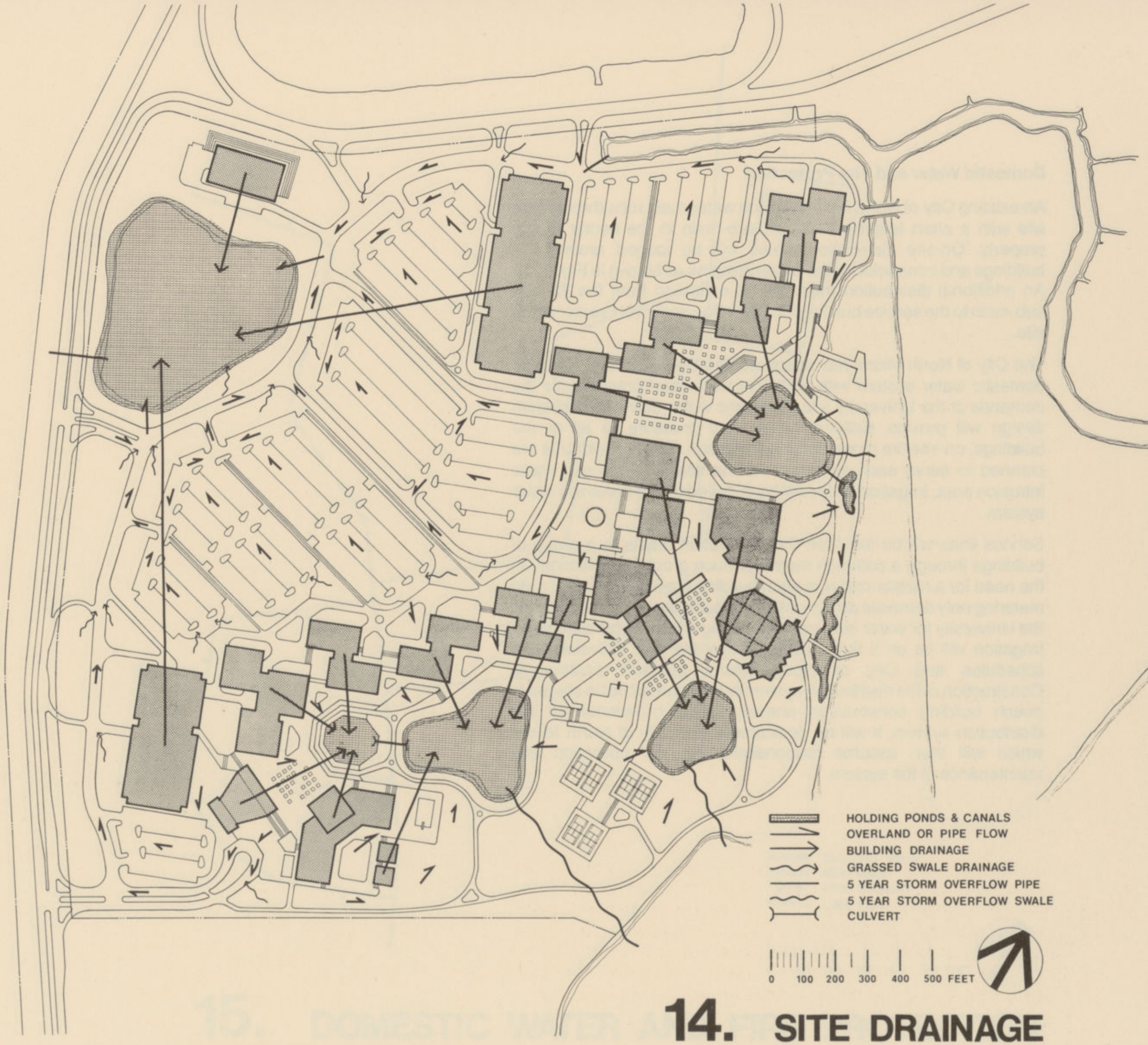
The drainage concept used in this plan was originally developed for the overall Interama project by the Inter-American Center Authority. Pertinent details of the concept were submitted for and received preliminary approval of the State of Florida, Department of Pollution Control, Metropolitan Dade County Pollution Control, U.S. Army Corps of Engineers, and the State Board of Environmental Regulation. Portions of the man-made, dead-end and partially plugged canals presently crossing the property will be filled and reshaped to provide for better campus layout. Converting the canals to lakes will provide for adequate drainage and improve the estuarine water quality. The alterations of existing waterways will not have adverse impact on the ecology of the surrounding area.

The drainage system will provide for on-site containment of all surface runoff up to the five-year storm criteria. Water will flow overland or through pipes to holding ponds for percolation into the groundwater table. Seepage trenches will be used as necessary for isolated drainage where the flow to the holding ponds is not feasible. Excess water from storms of greater intensities will be directed to the shoreline through grassed swales and through overflow pipes (from the westernmost pond) to a drainage ditch west of the property.

The principal environmental factors influencing the proposed drainage system are:

- Water quality
- Water table levels
- Salt water intrusion
- Salt water dilution

The drainage plan with runoff containment and overland flow will allow maximum seepage of storm waters to replenish the water table. Maintenance of groundwater levels will retard further intrusion of salt water and avoid the dilution of surrounding saline waters. The drainage system will also minimize the introduction of runoff-borne nutrients, silt, and other contaminants into the aquatic system, thereby protecting the marine environment against eutrophication.



14. SITE DRAINAGE

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Domestic Water and Fire Protection

An existing City of North Miami 16-inch water main runs through the site with a short length of 12-inch sub-main in the center of the property. On-site distribution mains will be looped around the buildings and connected to the existing mains as shown in Figure 15. An additional distribution main will be extended from the 12-inch sub-main to the service building located in the northwest sector of the site.

The City of North Miami has adequate potable water to service the domestic water system with sufficient water and pressure for the demands of the University site. Domestic water distribution system design will provide sufficient water and pressure to all of the buildings, on-site fire protection, and irrigation. Two fire hydrants are planned to serve each structure. As the site is in the salt water intrusion area, irrigation water will be supplied by the domestic water system.

Service lines will be run from the distribution mains to a group of buildings through a common meter for each group thus eliminating the need for a master meter in each building fire line connection. By metering only domestic and irrigation consumption, direct charges to the University for water consumption during a fire can be eliminated. Irrigation will be on a timed basis compatible with University use schedules and City of North Miami demand parameters. Construction of the distribution system can be carried out in stages to match building construction phases. Upon completion of the distribution system, it will be dedicated to the City of North Miami, which will then assume responsibility for the operation and maintenance of the system.

15. DOMESTIC WATER AND FIRE PROTECTION

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Sanitary Sewer

The City of North Miami will handle University generated wastewater in their existing on-site collection system upon completion of the first new University building and provided the new regional wastewater treatment plant is completed. Both are scheduled for a mid-1978 completion date. Due to the present moratorium, the delay of the new regional wastewater treatment plant, and the excess cost necessary to put the existing small Interama treatment plant into operation, the first operations in the Trade Center Building should be put into an on-site septic tank with subsequent connection to the existing collection system. At the time of occupancy of the first new University building, the existing pump stations will be renovated as required and put into operation by the City of North Miami.

The new gravity laterals will be connected to the existing collection system as illustrated in Figure 16. Construction of these collection feeders will be staged consistent with the Campus construction phasing and financing schedule.

16. SANITARY SEWER

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Temperature Control

A central chilled water system is planned to serve the first four academic buildings, the library, and student service facilities. This air conditioning system incorporates electrically powered equipment and central controls located in the central utility building. Chilled water will be distributed through a double pipe system to heat exchangers and air handlers located in the other buildings. The central utility building is located to the east of the first academic building and is in line with future construction phasing. As the Campus grows linearly, utility distribution can be achieved with minimum capital and operating costs.

The central utility system is planned to service University buildings beyond those outlined above. Details for the air conditioning systems for these buildings will be resolved by the design professional of each building. The university conference center, conference and continuing education complex, auditorium, and education institute will each have unique requirements. Analysis of these requirements will determine whether these buildings shall be served by the central system, unitary systems, or satellite central plants.

Analysis of the campus layout indicated that unitary hot water heating systems will be most efficient and economical. Independent systems will be installed in each building in accordance with functional needs. The boiler type will be determined by the design professional for each building.

The total air conditioning and heating system will be controlled from a central control system located in the central utility building.

Energy Conservation

Through analysis of a variety of possibilities for energy conservation has been included in preparation of the physical Campus Plan. The site plan for the Campus is designed to take advantage of energy conservation principles. Buildings have been oriented to receive beneficial prevailing winds and to allow for solar protection.

A thorough analysis for the design of the first academic building on the Campus will be undertaken to determine parameters for energy conservation. Items to be reviewed include sun protection devices, maximum benefit from shading, natural ventilation potential, window openings, benefits from solar glass, insulation values for roof and wall areas, air conditioning systems, and so forth. The information compiled in this analysis will be applicable to the entire building development.

Design for utility requirements of the Interama Campus has included analysis of proposed mechanical and electrical systems. Details of this analysis are included in a separate report "Criteria for Design of Mechanical and Electrical Systems." This report sets forth design criteria and proposed operational procedures for utilities including energy conservation principles for the following areas of concern:

- Central power and demand controls.
- Lighting level standards.
- Automatic lighting control systems.
- Exterior lighting systems.
- Central temperature control.
- Air conditioning zoning.
- Air conditioning operating standards.

17. CHILLED WATER SYSTEM

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Communications

A complete duct bank and manhole system for all communications has been planned. Southern Bell Telephone Company will install a complete Centrex System to provide telephone service and inter-campus communications. An electronic master clock with central controls will be used to program systems for clocks, bells, and night lights as well as for other time functions as required. Each building will have a pre-signal fire alarm system annunciated within the building and have this signal carry on to the central utility building where it can be monitored twenty-four hours a day.

Ducts in the central duct bank system will be provided for educational communications including television, radio, and other specialized educational media. This system will be controlled from a master-control facility in the communications/conference center with sub-control units in other buildings.

Power

The University will purchase secondary power from Florida Power & Light Company. Space is provided in the Master Plan for transformer vaults to be constructed for groups of buildings rather than for individual building increments. Florida Power & Light will be responsible for installation, maintenance, expansion, and modernization of the primary electrical system. Service voltage in each building will be determined by the building design professionals based on the particular demand requirements for that increment.

18. COMMUNICATIONS AND POWER

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V GROWTH OF THE INTERAMA CAMPUS

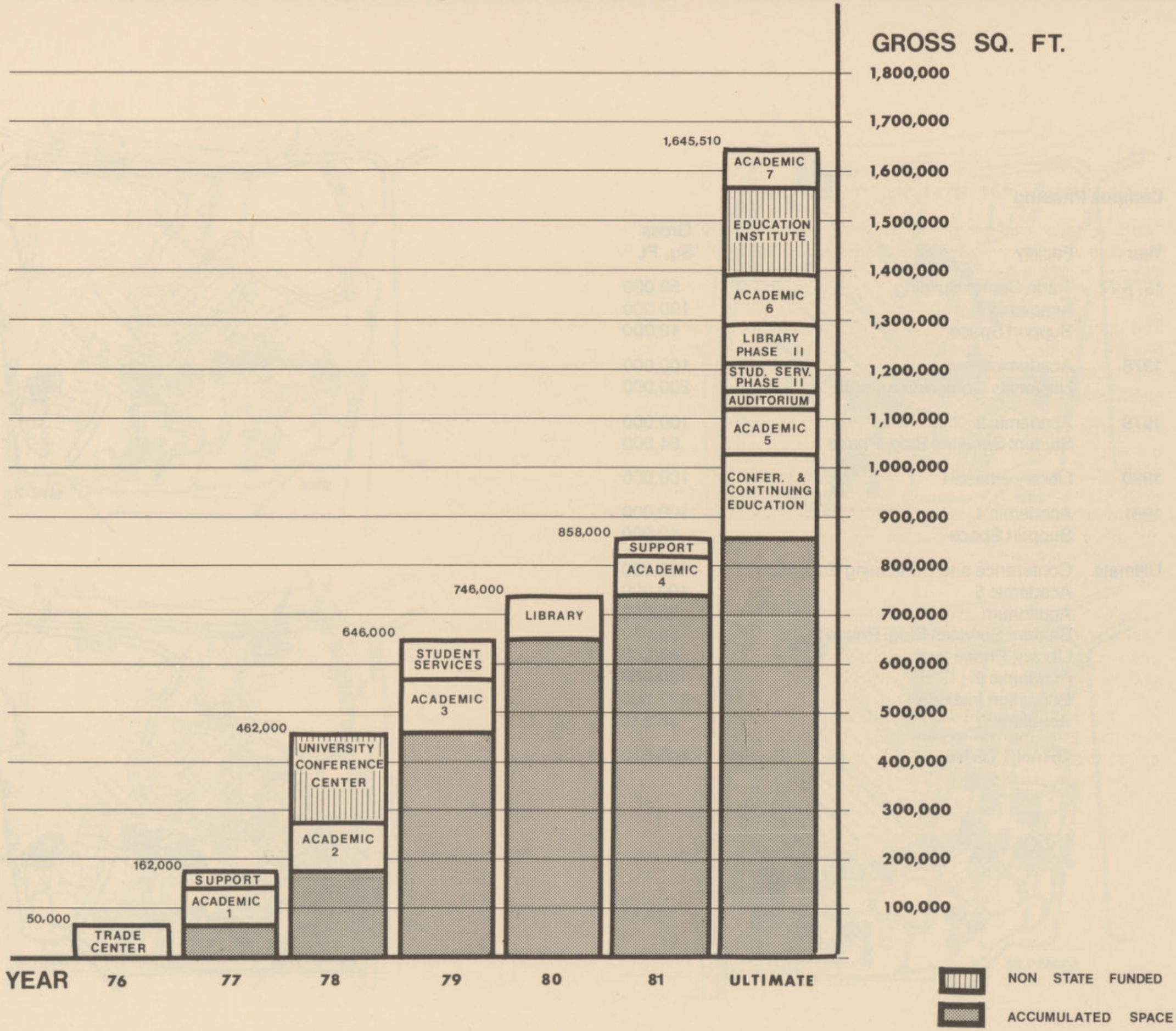
The physical plan for the Interama Campus is designed to provide an attractive and convenient environment for an ultimate student population of 15,000. Initial construction activity begins near the center of the Campus.

The plan for phased development of the Campus is illustrated in Figure 19. Interama facilities are planned to coincide with the academic growth plan outlined in Parts One and Two. Academic space will expand in building increments.

The primary instructional and service facilities will initially expand to the west from Academic I in an orderly pattern. The linear growth configuration reduces the inconvenience and disturbance between existing and new construction by minimizing this interface area to the narrow dimension of the existing structure. Additionally, the buildings should be designed with provisions for common use of stairs, utilities and pedestrian walkways, which will enhance connections to the new building.

Specialized facilities, including the library and student services, are centrally located providing a direct functional relationship to both academic spines. Their location allows for phased expansion beyond the original construction increments.

The drawings on the following pages illustrate the growth of the Campus. Each growth increment is planned to provide a sense of completeness and permanence with the overall campus environment at each stage of growth and change.



19. BUILDING PHASING

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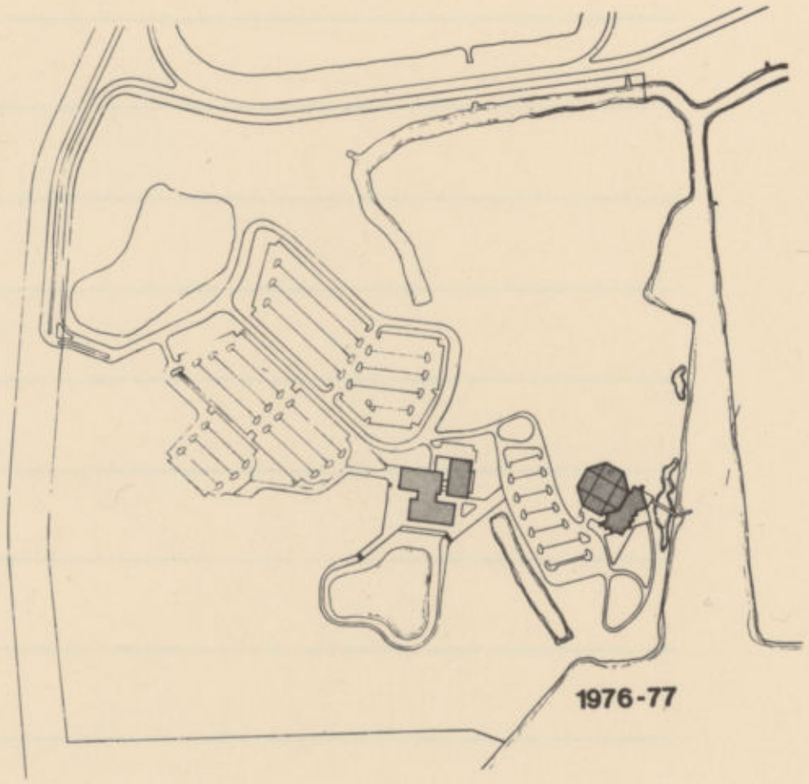
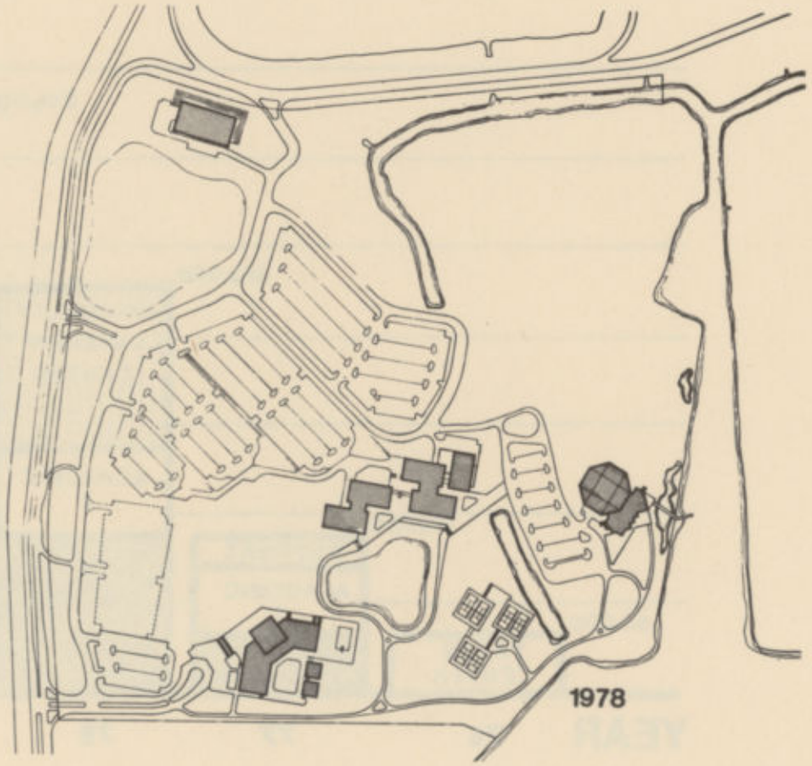
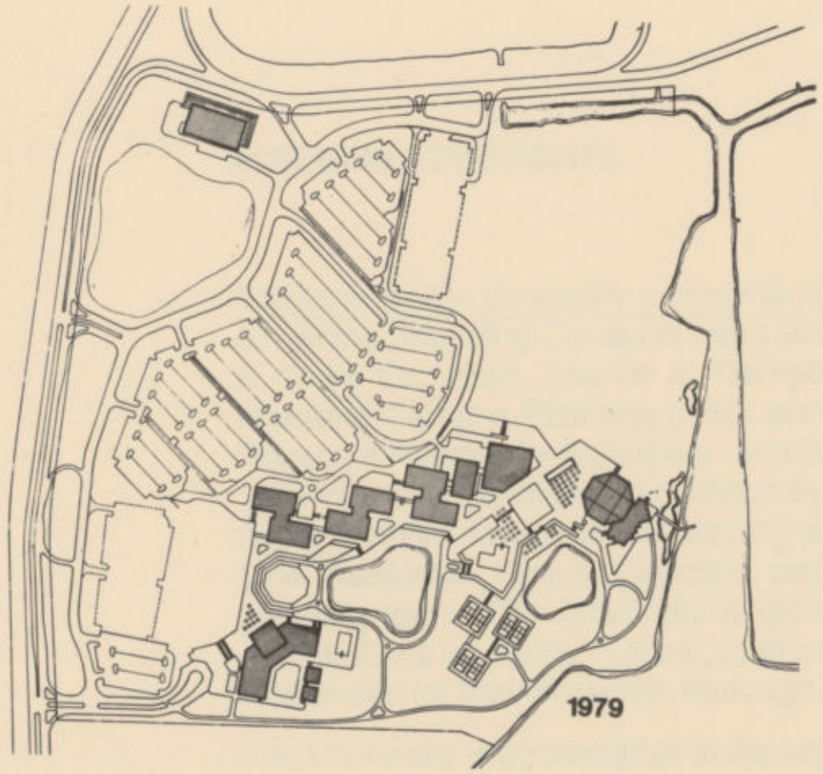
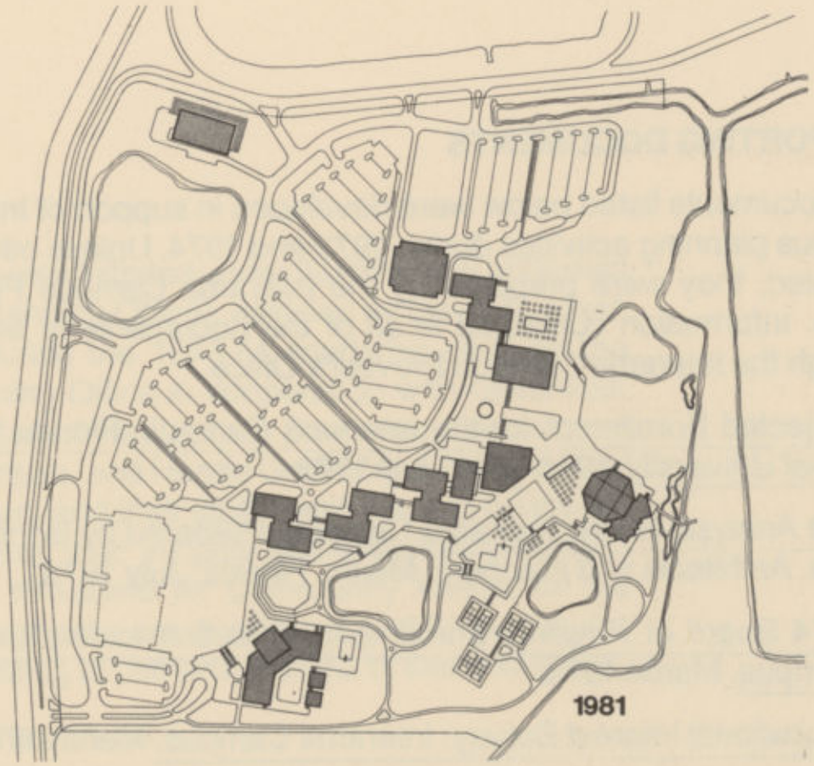
Campus Phasing

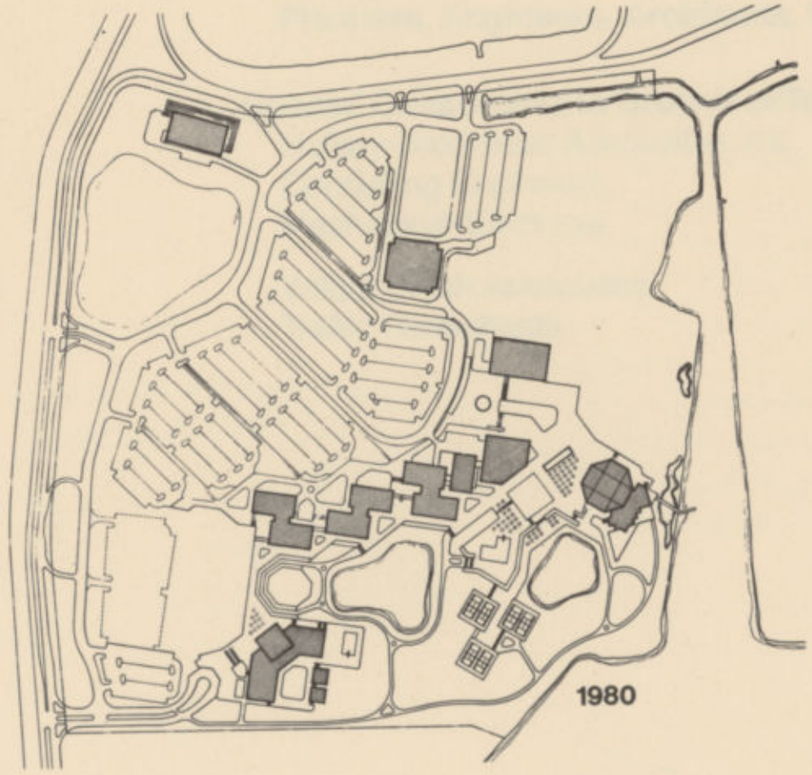
Year	Facility	Gross Sq. Ft.
1976-77	Trade Center Building	50,000
	Academic 1	100,000
	Support Space	12,000
1978	Academic 2	100,000
	University Conference Center	200,000
1979	Academic 3	100,000
	Student Services Bldg. Phase 1	84,000
1980	Library, Phase 1	100,000
1981	Academic 4	100,000
	Support Space	12,000
Ultimate	Conference and Continuing Education	167,000
	Academic 5	100,000
	Auditorium	33,000
	Student Services Bldg. Phase 2	50,000
	Library, Phase 2	84,000
	Academic 6	100,000
	Education Institute	167,000
	Academic 7	86,510
	GRAND TOTAL	1,645,510

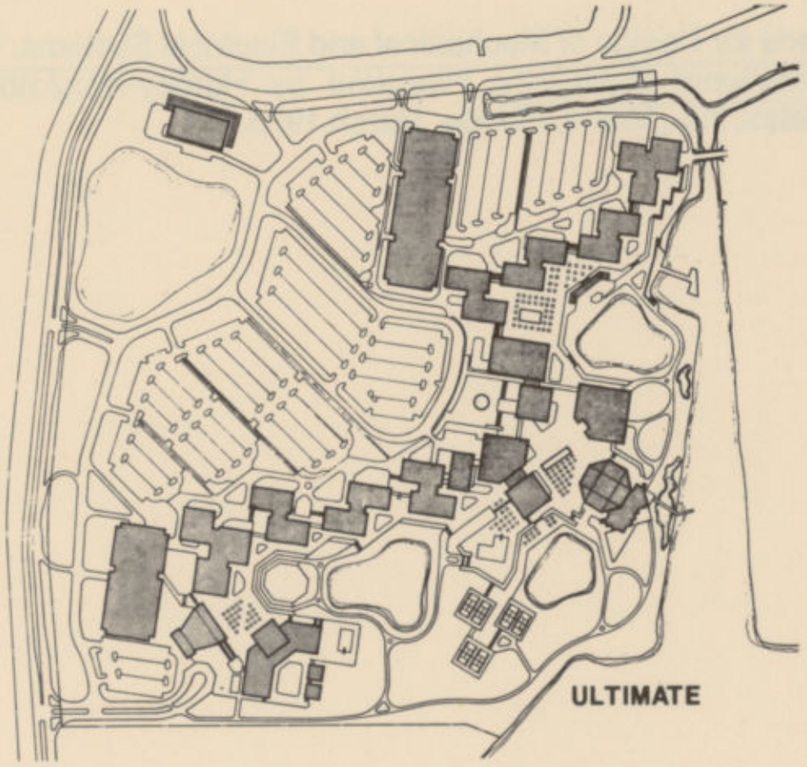





1979


1981


1980


ULTIMATE

SUPPORTING DOCUMENTS

The documents listed below were developed in support of Interama Campus planning activities during 1973 and 1974. Unless otherwise indicated, they were prepared by the Interama Campus Planning Office. Information contained in all of the documents is available through the Interama Campus Provost's Office.

1. Projected Enrollment for the Interama Campus, Florida International University, 1976-1985. July 1973.
2. Site Analysis Study: Interama Campus. Prepared by Borroto and Lee, Architects and Planners, Miami, Florida, July 1973.
3. 1974 Board of Regents Enrollment Projection for the Interama Campus. March 1974.
4. Educational Interest Survey: Interama Campus. March 1974.
5. Schedule of Key Events 9/74 to 9/76 — Interama Campus Planning. August 1974.
6. Criteria for Design of Mechanical and Electrical Systems, Florida International University. Prepared by Hufsey-Nicolaides Associates, Inc., Miami, Florida, March 1975.

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