### A. INTRODUCTION

### BACKGROUND

- One of the most critical problems in downtown highway development is the removal of land for right-of-way. High land values make apparent in some instances that dual use of the highway rights-of-way might be a solution to this critical situation. Spectacular examples of dual use of highway air rights in this country are the development over the Trans-Manhattan Expressway in New York, the Cobo Hall in Detroit over the John Lodge Expressway and the Prudential Center Building over the Massachusetts Turnpike in Boston.
- 2. In its report "Downtown Miami Master Plan", (DOX-USA-MM 3), Doxiadis Associates emphasized the need for an integration of major arterial locations and designs with other urban developments in order to conserve land, to minimize cost, and to produce the best environment. Furthermore, the consultant recommended that a downtown Transportation Center should be proposed as a major transportation node at the general area of the interchange of the East-West and North-South Major Arterials.
- On 2 June 1967 the consultant was authorized by the Downtown Development Authority of the City of Miami to prepare land use proposals and plans for development over the East-West and North-South Major Arterials, as well as for a downtown Transportation Center.

### 2. THE PRESENT REPORT AND METHODOLOGY

- 4. In its report "Downtown Miami Plan: The Governmental Center!"
  (DOX-USA-MM 7) the consultant presented land use proposals and plans which express an urban design which uses in part the air rights over the Florida East Coast Railway and the North-South Major Arterial right-of-way. The present report presents the consultant's proposals for the development of the air rights over the combined system of railroad and road transport rights-of-way provided by the East-West Major Arterial and the area of interchange with the North-South Major Arterial, and a Transportation Center. More specifically, in the course of the present report the following methodological approach is used:
  - a. The project area is defined and investigated as to physical conditions and land use in Chapter B: Existing Conditions, page 4.
  - b. On the basis of conditions and potential related to the downtown Miami Master Plan (DOX-USA-MM 3), development goals are established in Chapter C: Development Goals, page 7.
  - c. In agreement with the established goals, development proposals and a plan reflecting the proposed land uses are elaborated in Chapter D: Development Proposals and Plan, page 8.
  - d. A three dimensional interpretation of the development proposals is presented in Chapter E: The Illustrative Site Plan, page 18, while a brief on the contribution of the proposed development to the overall downtown form and massing is presented in Chapter F: Form in Space, page 22.
  - e. Organization of vehicular traffic in the project area, mass transit considerations, and parking are presented in Chapter G: Circulation and Parking, page 28.
  - A preliminary approach to cost and implementation through evaluation of basic statistics is presented in Chapter H: Preliminary Basic Statistics, and Economic Considerations, page 34.
  - g. The study is completed with Chapter J: Conclusions and Recommendations, page 36.

### 3. ORGANIZATION OF THE STUDY

- This study was performed by personnel of the Doxiadis Associates,
   Inc. offices in Miami, Florida and Washington, D. C. and Doxiadis Associates
   International of Athens, Greece under the direction of Dr. C. A. Doxiadis.
- 6. The work was under the supervison of A. Simeon, Chief Architect and Town Planner, and N. Effessios, Head of Regional and Town Planning Branch. Vasilios Zarboulas, Head of the Doxiadis Associates, Inc. Miami office was project manager. The other senior members of the study team were: Angelos Demetriou, Vice-President Planning and Design, D. A. Inc.; Savvas Kondaratos, Head of Buidling Design Branch, D. A.; John Frantzeskakis, Head of Transportation Branch, D. A.; Emmanuel Glyniadakis, Architect, D. A.; John Dokoumetzidis, Traffic Engineer, D. A.

### DEFINITION OF TERMS

- For consistency and clarity, terms used in this report are defined as follows:
  - a. Study Area: the section of the City of Miami bounded generally by Biscayne Bay on the east, 17th Street on the north, the Florida East Coast Railway and the North-South Expressway on the west, and the Miami River on the south. These are the boundaries included in the Comprehensive Plan for Downtown Miami.
  - b. <u>Central Business District (CBD) or Downtown Miami</u>: the area bounded generally by N. E. 7th Street, the Florida East Coast Railway, the Miami River and Biscayne Boulevard.

### ACKNOWLEDGEMENTS

- 8. Doxiadis Associates notes the courtesy and cooperation received from various public agencies and property owners during the collection of information for this report. More particularly, the consultant extends its thanks and appreciation to the Chairman of the Downtown Development Authority of the City of Miami, the Honorable Stephen P. Clark, Mayor of Miami, the Authority's Vice-Chairman, Mr. Paul S. Walker; the Members of the Board, Commissioner Maurice A. Ferre and Messrs. John S. Gassoway and Harold A. Landfield; and the Director of the Authority, Mr. Lucius C. Williams.
- The consultant pays special tribute to Robert King High, deceased Mayor of the City of Miami and first Chairman of the Downtown Development Authority under whose chairmanship this study commenced.

### B. EXISTING CONDITIONS

## 1. DEFINITION AND DESCRIPTION OF THE PROJECT AREA

- 10. The project area extends from Biscayne Boulevard to the Florida East Coast Railway and is bounded by N. W.-N. E. 7th Street on the north, N. W. 5th and N. E. 6th Streets on the south, N. W. 1st Court on the west and N. Miami Avenue and Biscayne Boulevard on the east.
- 11. A considerable portion of the land within the project area is taken by the Florida East Coast Railway right-of-way and the remainder is used for parking and a variety of other uses. Condition of structures leaves much to be desired, and in general the area is an eyesore for downtown Miami.
- 12. The drawing on the opposite page shows existing predominant land use as determined by that use which accounts for fifty per cent or more of the floor area in the block.

### C. DEVELOPMENT GOALS

- 13. Aside from the objective which is related to the conservation of land for a growing downtown, the creation of a Transportation Center and the development of the air rights in the area which was defined in Chapter B aim at the following goals:
  - To provide right-of-way for the much needed East-West and North-South Major Arterials.
  - b. To minimize cost. Funds spent for right -of-way for the major arterials would to some extent serve the overhead facilities.
  - c. To create a new urban scale which would provide means so that neither the transportation facilities nor the vehicles using them would produce negative qualities.
  - To free downtown of intracity and intercity traffic.
  - e. To provide for intermodal change.
  - To upgrade rapidly deteriorating sections of downtown.
- 14. The development proposals presented in the following sections of this study are basically an interpretation of the above stated goals in conjunction with the space needs forecast for the area in the "Downtown Miami Master Plan" report (DOX-USA-MM 3).

### D. DEVELOPMENT PROPOSALS AND PLAN

### PROPOSED LAND USES

15. The land uses proposed for the project area are consistent with the forecast for major uses for the year 2000 developed in the "Downtown Miami Master Plan", (DOX-USA-MM 3). Major recommended uses are transportation, office, wholesale and storage, and commercial.

### 1.1 TRANSPORTATION USES

16. The transportation uses would encompass a transportation center, parking, rapid transit station, and railroad and road rights-of-way.

### 1.1.1 The Transportation Center

- 17. With buses picking up so much of the intercity traffic lost by railroads, the bus terminal is gaining more importance. Efficient bus terminals downtown are useful to the public and to downtown merchants.
- 18. In its report "Downtown Miami Master Plan", (DOX-USA-MM 3), the consultant has recommended the creation of a downtown Transportation Center to provide terminal points for intercity and intracity modes of travel, intermodal change, and passenger amenities. To fulfill its role, such a Transportation Center should be located in an area that lends itself to the following requirements:
  - a. Provide opportunity for sufficient parking.
  - Be readily accessible by existing and proposed arterial highways and expressways, as well as by feeder bus service.
  - c. Be accessible by intercity and intracity bus lines, without these lines passing through the downtown core.
  - Be close to activity centers.
- 19. On the basis of the above requirements the Transportation Center is proposed to be located in that portion of the site which is bounded by Miami Avenue on the east, N. W. 6th Street on the north, N. W. 5th Street on the south, and the Florida East Coast Railway right-of-way on the west.

- 20. The limited scope of this report precluded a feasibility study that would determine the combinations of functions that would be appropriate to the operation of the Transportation Center from the standpoint of interaction of the various travel modes with each other, both from the functional and economic points of view. Accordingly, in the course of the study only desirable inputs were considered.
- 21. On the basis of the assumed role of the Transportation Center, the Downtown Miami Master Plan, circulation and parking considerations, and information available with regard to rapid transit, the following inputs are incorporated in the proposals:
  - a. Bus terminal serving intercity and intracity buses.
  - b. Rapid Transit Station.
  - c. Ancillary traveler and visitor amenities.
  - d. Terminal for charter buses.
  - e. Transient accommodations.
  - f. Transportation and travel oriented office.
- 22. As with the suitability of functions, the size of the inputs must also be based on forecast of potential use. Since it is not possible to make these forecasts during this stage of the study, the proposals reflect land use and development potential only.
- The proposed terminal for intercity buses would seek to effectuate an optimum relationship of the intercity bus system to intracity transit systems within a publically owned and operated multipurpose facility. The two competing intercity bus companies - Greyhound and Trailways - account for 92 scheduled inbound and outbound buses daily, with special and "seasonal" traffic in addition to above. Both companies maintain facilities located in the Study Area. The Trailway downtown facility is relatively new and no expansion plans exist. The Greyhound Company has recently purchased land for new facilities a few blocks north of the proposed Transportation Center. It appears therefore that at least for the immediate future the consolidation of the intercity bus terminals is unlikely to occur. Expansion for facilities, a better location, and proximity to complementary functions, however, could prove in the future a strong incentive for the intercity bus companies to move to a consolidated terminal which provides ready access to the expressway system, and especially to the local transit system. In the meantime the available space could be effectively used for parking.

### 1.1.2 Truck Terminal

24. A common truck terminal is an important element for promoting pooling of pick-up and delivery operations. Located outside the downtown arterial streets, but still close to the final destination of the freight, the truck terminal could be the ultimate solution in eliminating the continuous flow of trucks through the downtown streets. Deliveries into the downtown area could be made from there early in the morning.

### 1.1.3 Parking

25. The proposed parking use would be distributed over the entire project area. It would be accommodated in parking structures as well as under the North-South and East-West Major Arterials.

### 1.1.4 Rapid Transit

26. The information made available in the March 1968 status report on the Miami Urban Area Transportation Study with regard to a transit plan is inconclusive as to the future of a rapid transit system in Miami. However, in due consideration of the fact that two of the major corridors which were identified in the analysis crisscross the downtown area in the general alignment of the Florida East Coast Railway right-of-way, it is suggested that the location of a major correspondance point be seriously considered. Accordingly, the land use proposals provide for a rapid transit station located immediately northwest of the Transportation Center.

### 1.1.5 Railroad and Road Right -of-Way

27. The land use for the project area provides for the accommodation of the Florida East Coast Railway north-south and east-west tracks, as well as the North-South and East-West Major Arterials.

### 1.2 OFFICE USE

28. The proposed office use represents secondary office use for small firms which cannot afford the rents required in high prestige locations, and firms which would specialize in marine business. The location of the project area between the Dodge Island Port and the Governmental Center is best suited for this type of use. Office use could be intermixed with other uses such as hotel and secondary retail.

### 1.3 WHOLESALE AND STORAGE

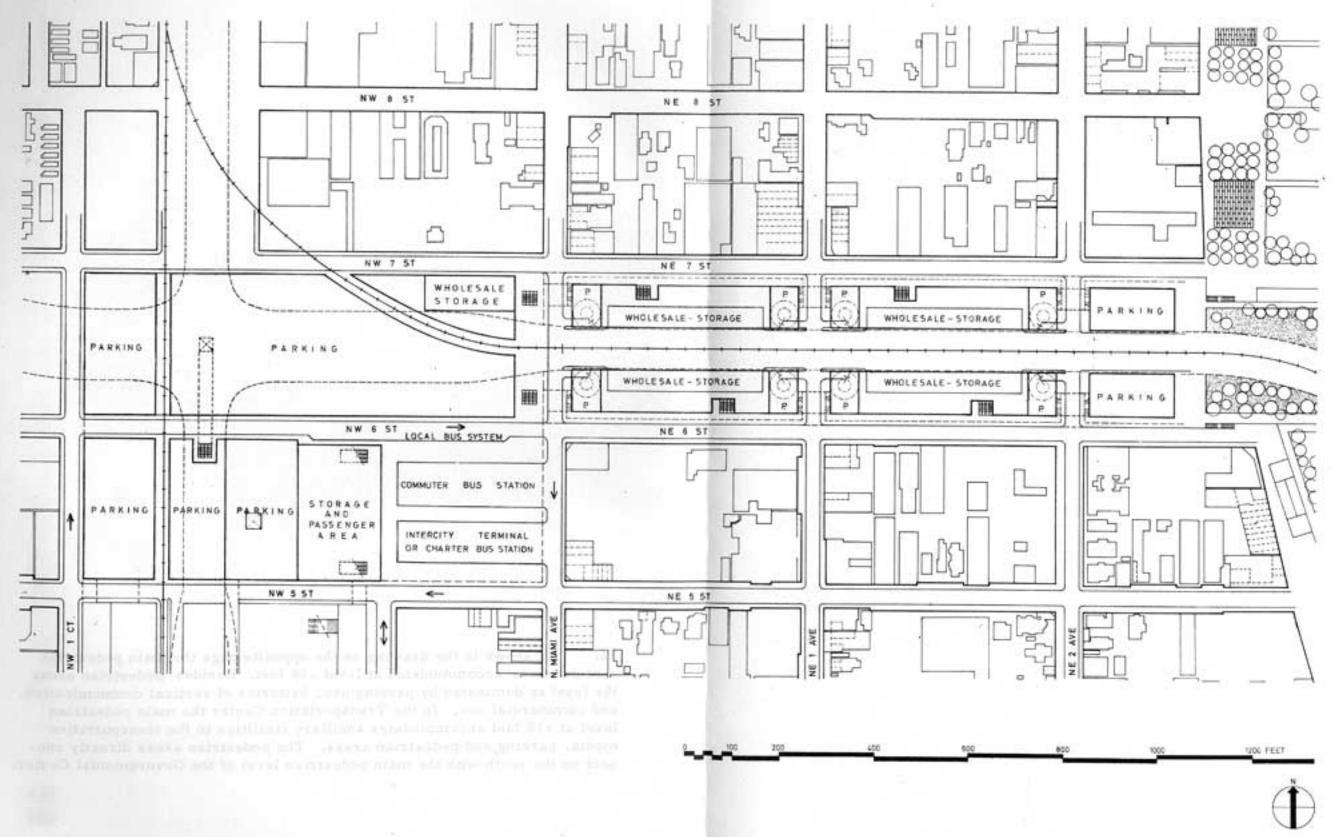
29. Wholesale and storage use would accommodate the need for such space in the area adjacent and in direct communication with the rapidly growing Dodge Island Port.

### 1.4 COMMERCIAL USE

30. Commerical uses reflect the potential for private development related to merchandising and trade. The location of the project area in relation to interstate transportation and intercontinental trade might prove attractive to American firms engaged in the export trade to Latin American countries.

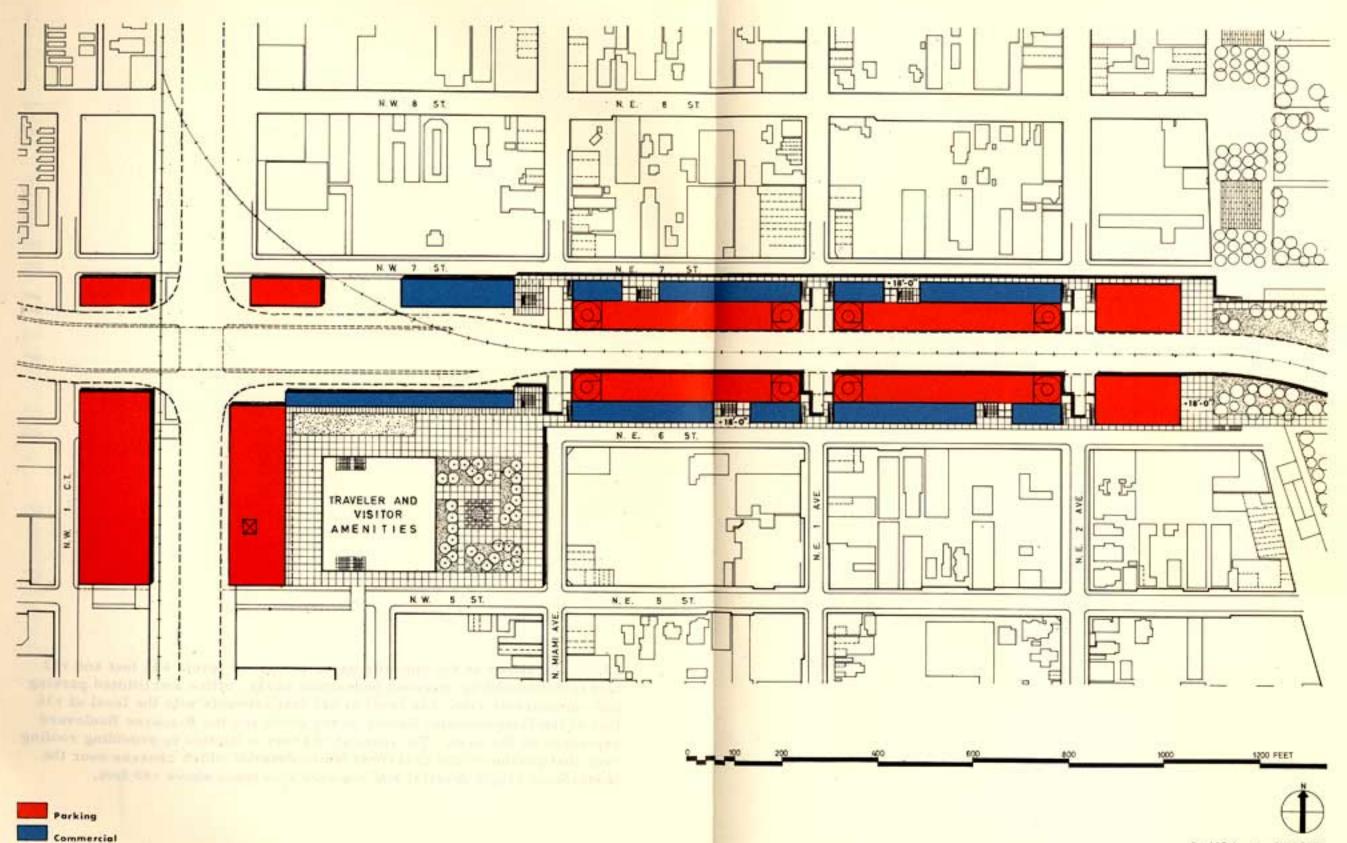
31. The drawing opposite shows the land use at ground level. This level accommodates mainly the Transportation Center, parking, wholesale and storage, access to the rapid transit station, batteries of vertical communication, and the rights-of-way of the Florida East Coast Railway and the North-South Major Arterial. The Transportation Center ground level is mostly used for bus terminal facilities and parking. The intercity and intracity bus terminals would permit stops at various points with direct access to the local bus system stops. Disembarking passengers may reach the amenities area by stairs or escalators. Though no specific recommendation is made for a trucking terminal, it could be located in any of the parcels shown as parking west and northwest of the bus terminal facilities.

# DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER-AIR RIGHTS DEVELOPMENT: ground level



32. As shown in the drawing on the opposite page the main pedestrian circulation is accommodated at level +18 feet. Besides pedestrian areas the level is dominated by parking use, batteries of vertical communication, and commercial use. In the Transportation Center the main pedestrian level at +18 feet accommodates ancillary facilities to the transportation media, parking, and pedestrian areas. The pedestrian areas directly connect on the south with the main pedestrian level of the Governmental Center.

# DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER-AIR RIGHTS DEVELOPMENT: main pedestrian level



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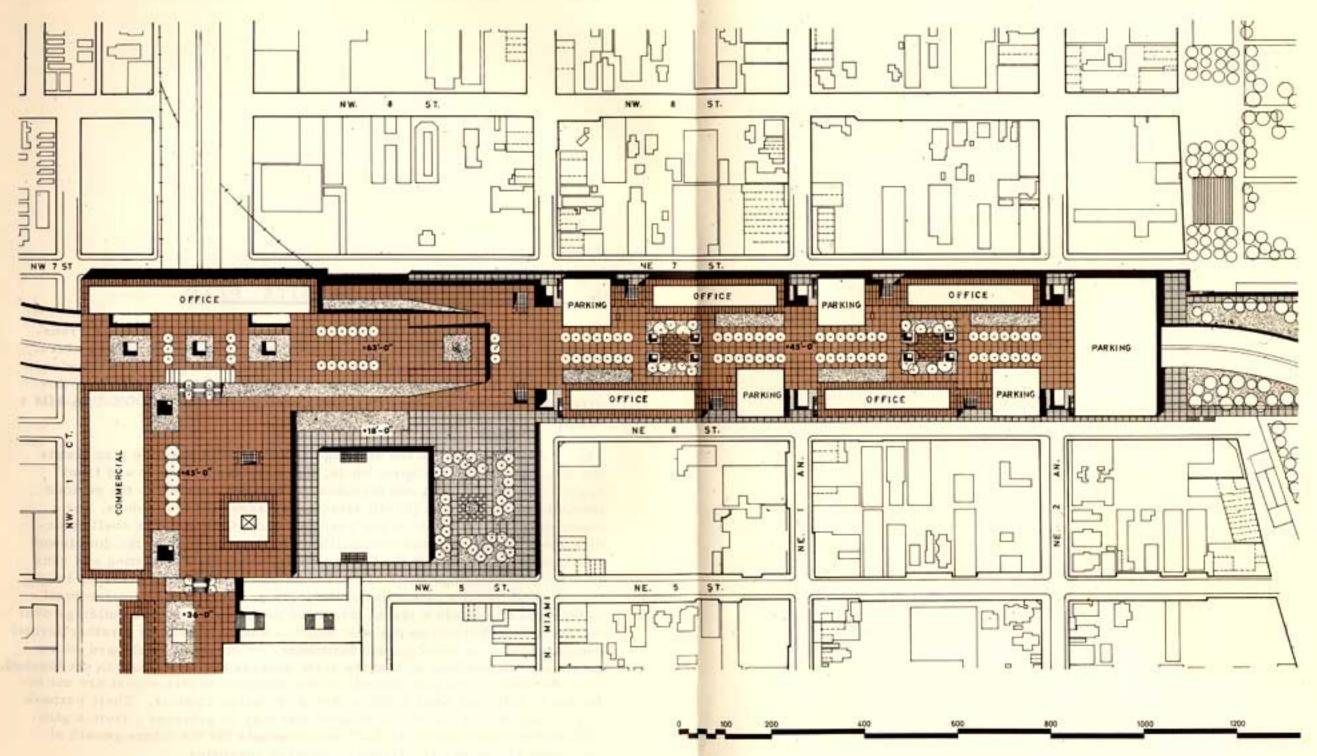
DOXIADIS ASSOCIATES INC. - CONSULTANTS ON DEVELOPMENT AND EXISTICS

BOWNSTOWN MIAWI PLAN

DOX-USA-MM 8 Page 16

33. As shown on the opposite page, the use of levels +45 feet and +63 feet is dominated by extended pedestrian areas, office, and limited parking and commercial uses. The level at +45 feet connects with the level at +36 feet of the Governmental Center on the south and the Biscayne Boulevard esplanade on the east. The level at +63 feet is limited to providing roofing over that portion of the East-West Major Arterial which crosses over the North-South Major Arterial and requires clearance above +45 feet.

## DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER- AIR RIGHTS DEVELOPMENT: upper pedestrian levels



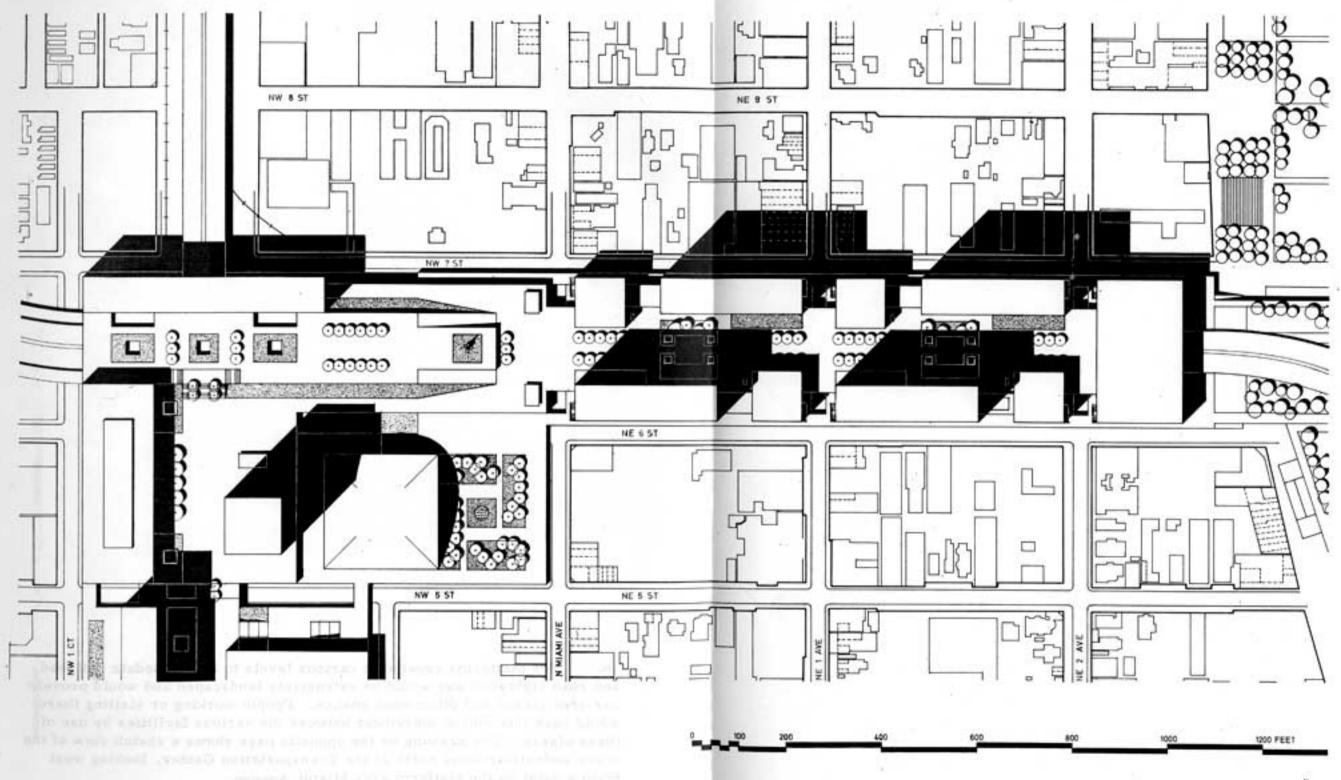


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### E THE ILLUSTRATIVE SITE PLAN

- 34. The basic factors that have influenced the synthesis of the Transportation Center-Air Rights Development stem from the conditions which are imposed by the elevated highway structures incorporated in the plan, and the need for functional, visual and aesthetic continuity with the "Governmental Genter" and the "Bayfront Development" plans (DOX-USA-MM 4 and 7).
- As illustrated in the drawing on the opposite page the plan blends 35. the three levels to a compact whole, and provides access to and from every conceivable point and direction. The area created by the various levels is topped by five (5) tall structures, seven (7) lower ones, and a tower over the west side of the Transportation Center. The shell structure roofing over the terminal facilities is in proportion to the downtown oriented low buildings of the Governmental Center. The setting and synthesis of the buildings north of 5th Street and west of Miami Avenue is intended to transmit a continuity of the form in space of the Governmental Center and to provide a visual transition to the setting of the buildings over the East-West Arterial on the east which is characterized by a rather formal composition. The development terminates on Biscayne Boulevard with a relatively low building so that the vista towards the waterfront is not blocked. The illustrative site plan as well as the drawings in this report are not intended to establish final building layout or design criteria. Their purpose is to illustrate the functional balance that may be achieved - from a planningpoint of view - when the land use proposals for the future growth of downtown Miami are translated to planning quantities.

# DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER-AIR RIGHTS DEVELOPMENT: illustrative site plan



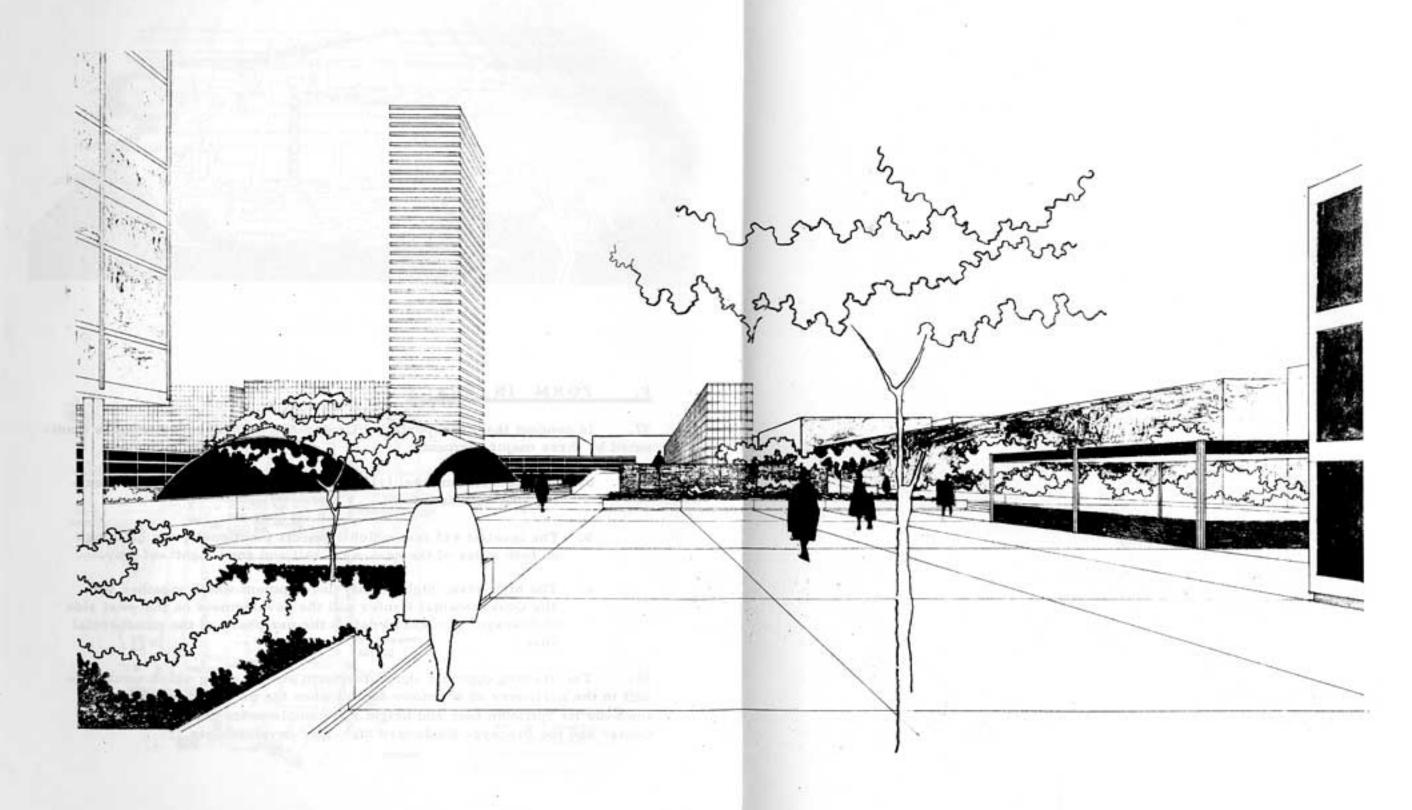


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36. The platforms created at various levels to accommodate railroad and road rights-of-way would be extensively landscaped and would provide car-free plazas and other open spaces. People working or visiting there would have freedom of movement between the various facilities by use of these plazas. The drawing on the opposite page shows a sketch view of the upper pedestrian level north of the Transportation Center, looking west from a point on the platform over Miami Avenue.

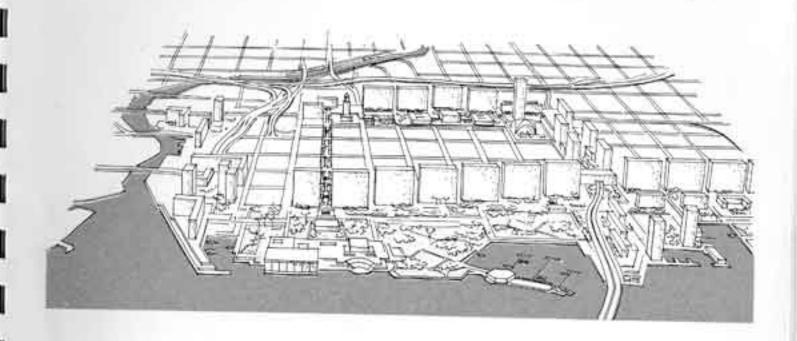


DOX-USA-MM 8 Page 22

### F. FORM IN SPACE

- 37. In concept the Transportation Center-Air Rights Development is dominated by three major elements:
  - a. The pedestrian level (+18') which provides the major connecting link with downtown.
  - b. The level at +45 feet which connects functionally the buildings on both sides of the east-west rail and road right -of-way.
  - c. The high-rise, high density development which together with the Governmental Center and the development on the west side of Biscayne Boulevard define the periphery of the commercial core.
- 38. The drawing opposite shows the form and massing which would result in the periphery of downtown Miami when the proposed development achieves its optimum bulk and height and complements the Governmental Center and the Biscayne Boulevard high-rise developments.

### DOWNTOWN MIAMI PLAN THE GOVERNMENTAL CENTER PLAN: form in space

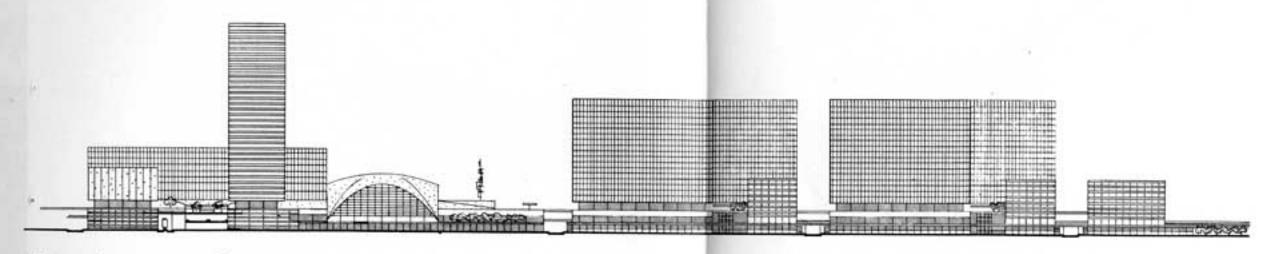




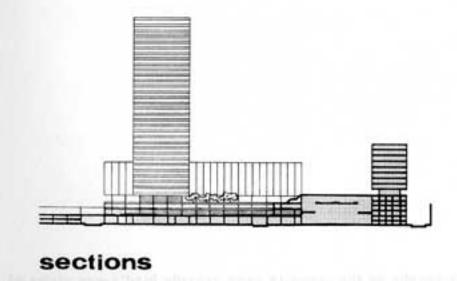
- 1. Bayfront Development
- 2. Riverfront Development
- 3. The Governmental Center
- 4. The Transportation Center
- 5. Air Rights Development

39. The drawing on the opposite page shows the south side view of the proposed development, and characteristic sections defining the accommodation of the rail and road transportation rights-of-way.

## DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER- AIR RIGHTS DEVELOPMENT



### view from south





0 100 200 400 600 800 1000 t200 FEET

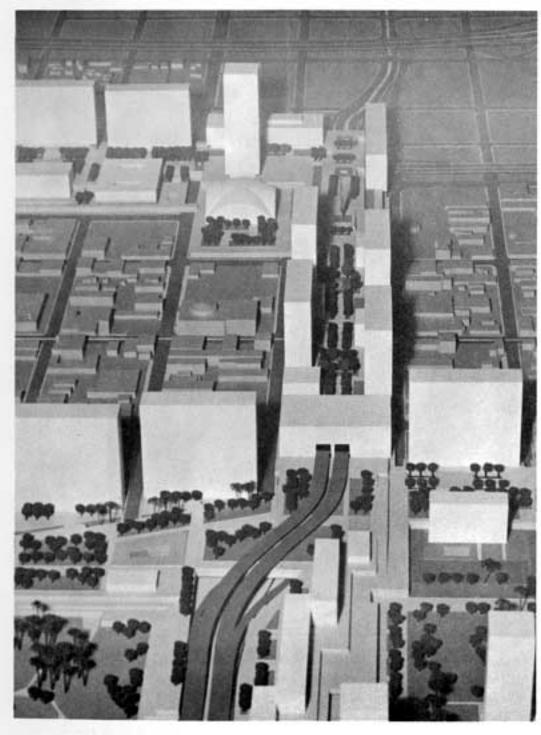
DOX-USA-MM 8 Page 26

40.

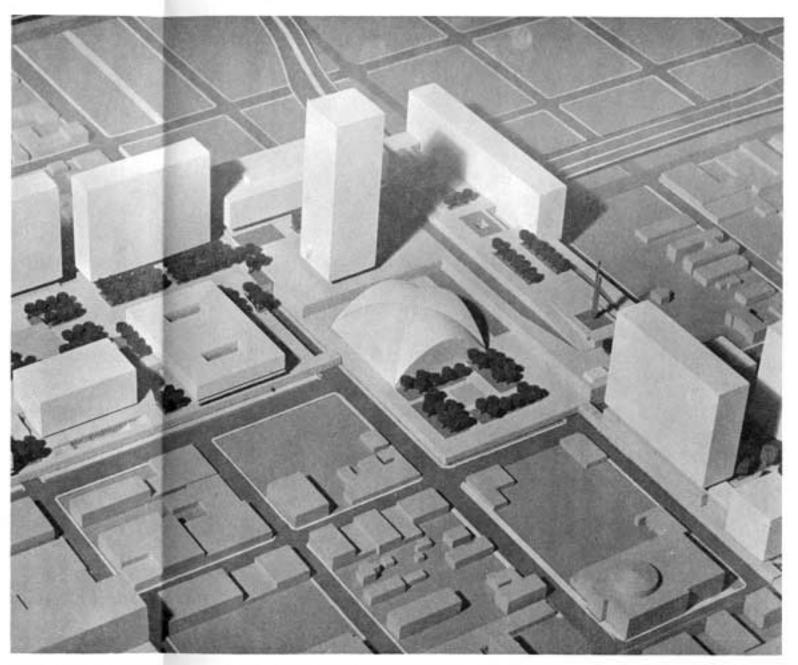
tions.

The photographs on the opposite page provide bird's eye views of the Transportation Center - Air Rights Development from various direc-

### DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER- AIR RIGHTS DEVELOPMENT



VIEW FROM EAST



THE TRANSPORTATION CENTER VIEWED FROM SOUTH -EAST

### G. CIRCULATION AND PARKING

### VEHICULAR ACCESS ROUTES

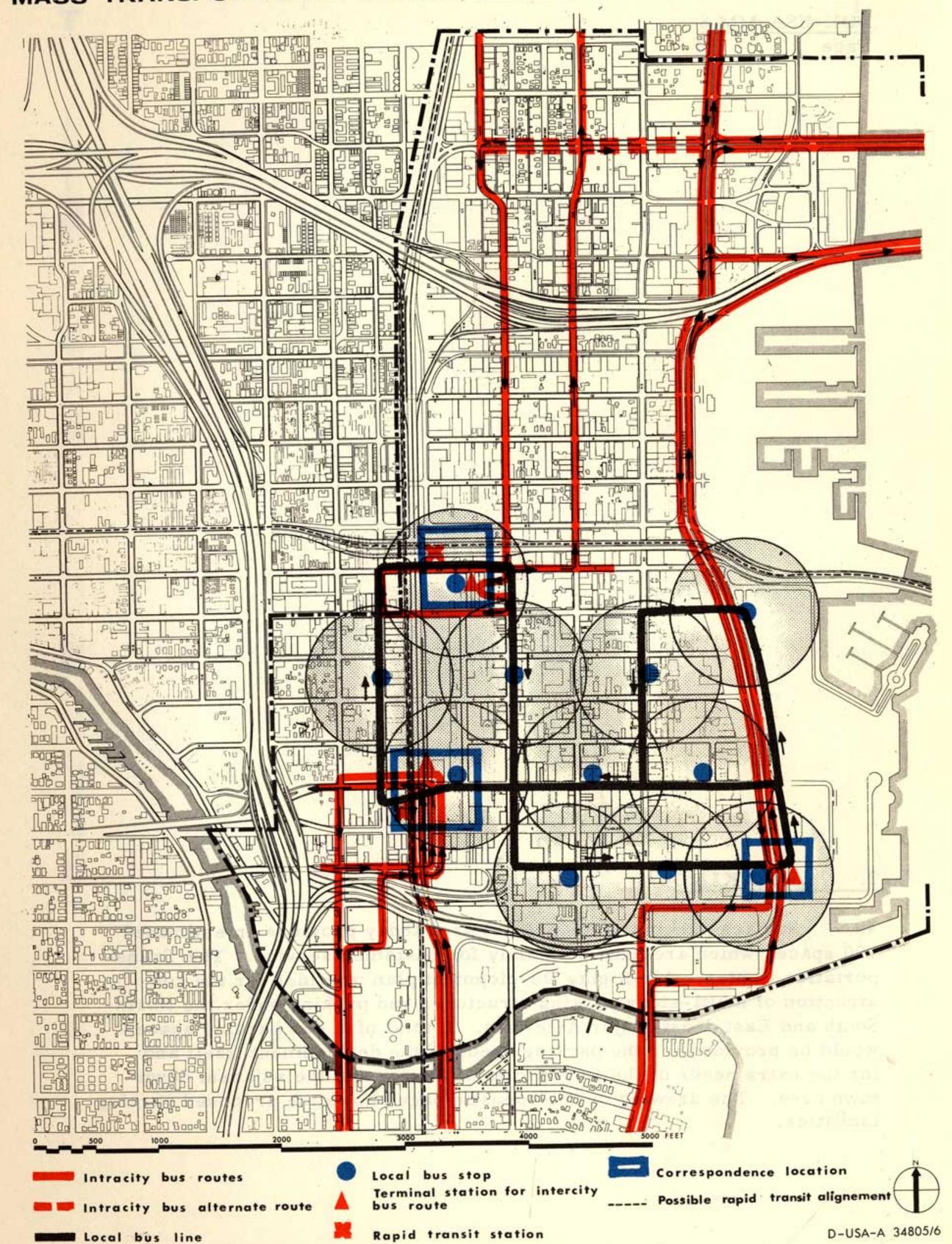
41. To accommodate the proposed land uses for the Transportation Center - Air Rights Development, and the combined system of rail and road transport, the project area must be easily accessible. The drawing opposite shows the proposed method of operation of the streets in the vicinity of the project area, the alignment of major axes of rail and road transport, and the main accesses to the Transportation Center. The provision for clockwise circulation through the one way street system is expected to minimize conflict in turning movements.

PLAN DOWNTOWN MIAMI ENTER- AIR DEVELOPMENT: access routes RIGHTS 2500 4500 FEET 3500 4000 key plan Entering Entering Underground rapid transit station D-USA-A 34805/5

### 2. MASS TRANSPORTATION

- 42. Due to the fact that neither of the major intercity bus carriers (Greyhound and Trailways) is likely to relocate in the proposed Transportation Center in the foreseeable future, the major role of the Center at first will be in relation to intracity bus service.
- 43. During an average peak hour, a great number of buses from different routes crisscross through downtown streets and create conditions which leave much to be desired. Uncomfortable waiting, blocking of streets and pedestrians, and conflict among various modes of travel tend to discourage proponents of mass transit. Since, however, an expanded and efficient mass transportation system is a must, the above unsatisfactory conditions must be eliminated or reduced by introducing new modes of rapid transit and more immediately by improving the existing operation of the mass transit system. The inconclusive results of the rapid transit study suggest that Metropolitan Miami might have to rely on a bus system for many years to come.
- 44. The drawing opposite shows the consultant's recommendations for a downtown Miami mass transportation organization. The plan provides for the following major elements:
  - Three bus terminal points.
  - b. Two rapid transit stations.
  - c. A local (shuttle) bus line.
- 45. The three bus terminal points would remove through bus routes from downtown streets while the local bus line would provide continuous service for multiple visits. The concept of small buses that will circle a loop through downtown could be a factor in attracting riders, reducing traffic congestion and improving business. Local bus line stops would be located in places which besides being adjacent to activity poles, would provide the opportunity for design of comfortable shelters outside the street's pavement.
- 46. The operation of the proposed system of local buses would have to be coordinated with the operation of the intracity bus system. Though it appears desirable to have the system under the management of the Metro Transit Authority, there is no reason to exclude private operators.
- 47. Though the proposed mass transportation organization reflects present and future needs, it is mostly geared to meeting the requirements of a downtown Miami developed according to the Master Plan prepared for the year 2000 (DOX-USA-MM 3). In the meantime, portions of the system required to meet growing needs should be gradually implemented.

### DOWNTOWN MIAMI PLAN MASS TRANSPORTATION ORGANIZATION

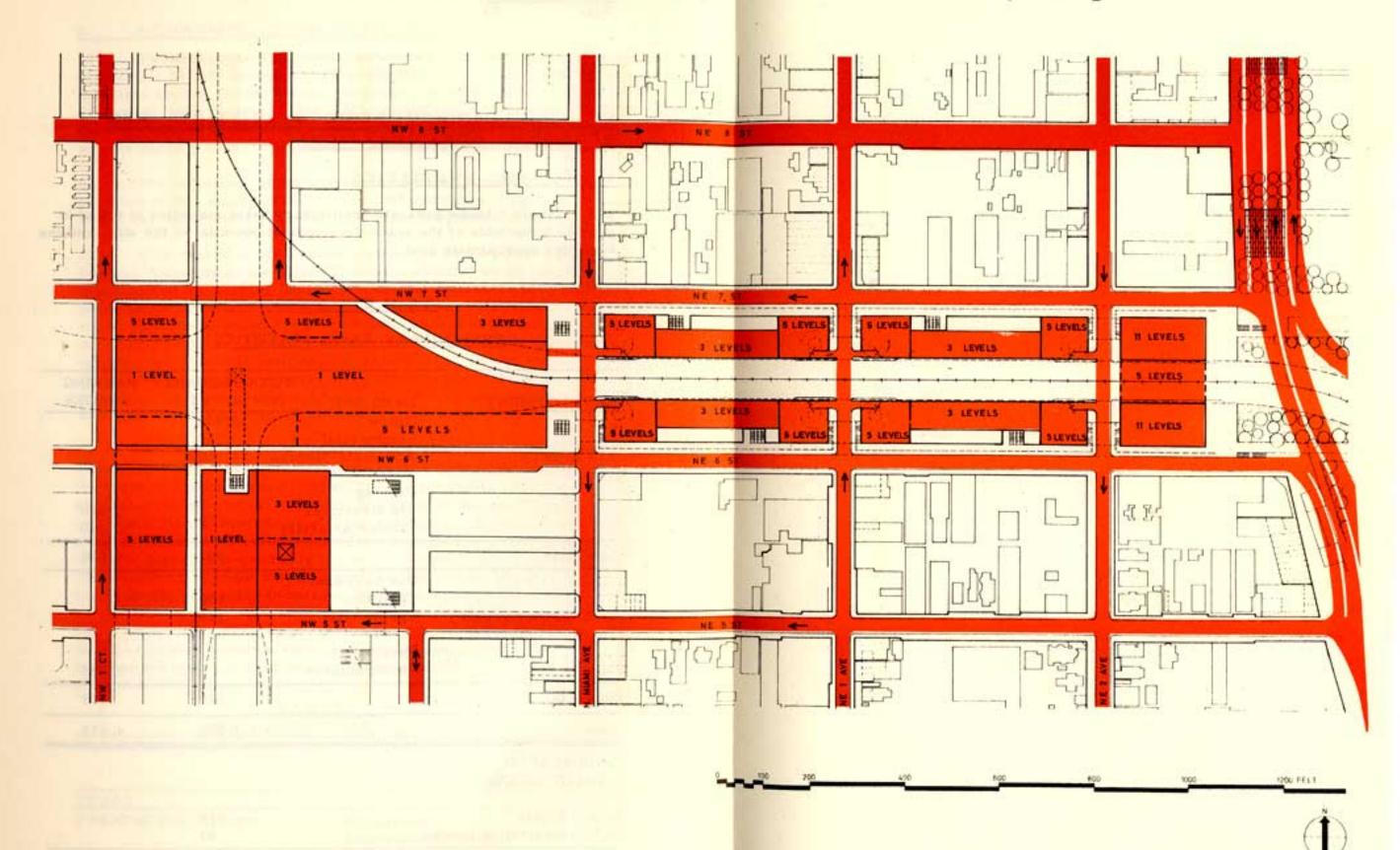


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### PARKING

48. Surface parking in the project area today provides an estimated 700 spaces which are used primarily for customer service. The Transportation Center - Air Rights Development plan provides for the construction of multi-story parking structures and parking under the North-South and East-West Major Arterials. A total of 4,455 parking spaces would be provided for the parking needs of the development itself and for the extra needs of the Governmental Center and the adjacent downtown area. The drawing on the opposite page shows the proposed parking facilities.

## DOWNTOWN MIAMI PLAN TRANSPORTATION CENTER- AIR RIGHTS DEVELOPMENT: parking



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## H. PRELIMINARY BASIC STATISTICS, AND ECONOMIC CONSIDERATIONS

### 1. BASIC STATISTICS

49. Table 1 below presents preliminary basic statistics in order to provide a measure of the space development potential of the site, and the basis for approximate cost.

TABLE I
PRELIMINARY BASIC STATISTICS

DEVELOPMENT	LAND USE	(000 SQ. FT.)	PARKING
	Office	2, 444	
	Commercial	380	
AIR RIGHTS	Wholesale-Stora	ge 168	
	Parking:		
	In Structures		3,580
	Under Arterial	5	490
Sub Total		2,992	4,070
	Bus Terminal		
CONTRACTOR AND	Facilities	150	
TRANSPORTATION	Commercial	120	
	Parking:		
	In Structures		385
Sub Total		270	385
Total		3, 262	4, 455
LANDSCAPED PEDES- TRIAN AREAS:			
In Air Rights		616	
In Transportation Center	ii ii	93	

### 2. ECONOMIC CONSIDERATIONS

- 50. The development proposals presented in this study are mostly directed to private action. The Transportation Center and the parking facilities west of Miami Avenue, however, could and should be developed through public action. This public action would be coordinated with the organization of the proposed mass transportation system in downtown and the parking needs of the area.
- 51. The magnitude of the private investment is not of particular importance at this stage. Preliminary cost estimates, however, for public action are required to get some idea of the magnitude of public cost.
- 52. With regard to the Transportation Center, a public agency (the Parking Authority or the Metro Transit Authority) would construct the terminal and the parking facility between the terminal and the North-South Major Arterial. The agency would further sell or lease the air rights over the terminal for private development of the ancillary commercial amenities. To carry out this portion of the development the original investment is estimated at \$3,250,000. On the assumption that the sale of the air rights would bring no more than the amount paid originally for the land, net cost would be \$2,150,000. Most probably the sale of air rights will bring higher value per square foot.
- 53. The public agency would also play a vital role in starting the implementation of the rest of the development by constructing the parking facilities west of Miami Avenue, and selling the air rights. Such a venture would require a net investment of \$5,290,000 again on the assumption that no profit will result from the sale of the air rights. It must be noted that the parking facilities construction program is conditional to parking demand which is expected to gradually increase with the redevelopment in downtown. The development of the Governmental Center would require the timely implementation of parking to balance the deficiencies in parking demand there.
- 54. The cost estimates presented above are rough estimates. More detailed estimates based on appraised values, engineering drawings, etc. will be required for each item before implementation. Table 2 below provides a breakdown of above sums.

TABLE 2
PRELIMINARY COST ESTIMATES

	COST ESTIMATES	
TRANSPORTATION CENTER:	Bus Terminal	\$1,200,000
	Land	1,100,000
	Parking	950,000
TOTAL		\$3,250,000
PARKING FACILITIES:	Structures	\$3,800,000
	Improvement under	
	Major Arterials	490,000
	Land	1,000,000
TOTAL		\$5, 290, 000

### J. CONCLUSIONS AND RECOMMENDATIONS

- 52. The proposals and plans presented in the course of the study indicate the opportunity for centrally located intracity and intercity bus terminals, and illustrate the potential for a combination of public and private development by taking advantage of the dual use of highway and rail air rights.
- 53. In view of the above the consultant recommends the following action steps:
  - a. Endorsement in principle of the air rights use as a concept for downtown redevelopment.
  - b. Consideration of the downtown Transportation Center as an element of the future Dade County Transportation System, and approval of its plan as to concept and location.
  - c. Further consideration of the Transportation Center in relation to size of inputs, financial feasibility, organization and management.
  - d. Detailed study of the downtown mass transportation system as soon as conclusive results are made available on county wide transit considerations.
  - e. Acquisition of the land for parking facilities in accordance with downtown needs.
  - Implementation of the plan as dictated by the growth of the area and the progress of adjacent development.