

PART I - SUMMARY

RECOMMENDED ACCESS SYSTEM

The recommended ground transportation access system for the ultimate development of the proposed new South Florida Regional Airport, Site 14, consists of a southerly route, and a northerly route, as schematically illustrated on Exhibit 1. Both routes have sufficient right-of-way widths to permit construction of a divided, limited-access highway with rail transit or exclusive buslanes within its median strip. Highways are planned to accommodate the airport-oriented traffic only and to provide traffic operations at a minimum level of service approaching the maximum volume that can be maintained for extended periods of time with the capability to recover from conflicts without undue delay. Table 1 shows the number of lanes for the various segments of both routes. Right-of-way costs are 17.8 million dollars and the total system costs are 146.8 million dollars.

STUDY PURPOSE

A location study was conducted to select the ground transportation access system routes for the proposed new South Florida Regional Airport to be developed at Site 14. Site 14 is a 23-square mile tract of land located in northwest Dade County, just south of the Broward County line and west of Florida's Turnpike. It lies approximately seven miles west of existing urban settlements and fifteen miles northeast of Everglades National Park. The specific location of the site, and its relationship to the projected urbanized areas and the major areawide transportation system are illustrated on Exhibit 2.

In addition to the selection of the most suitable location for the Site 14 ground transportation access system, the other objectives of the study were the delineation of the required rights-of-way, and the determination



RECOMMENDED ROUTES

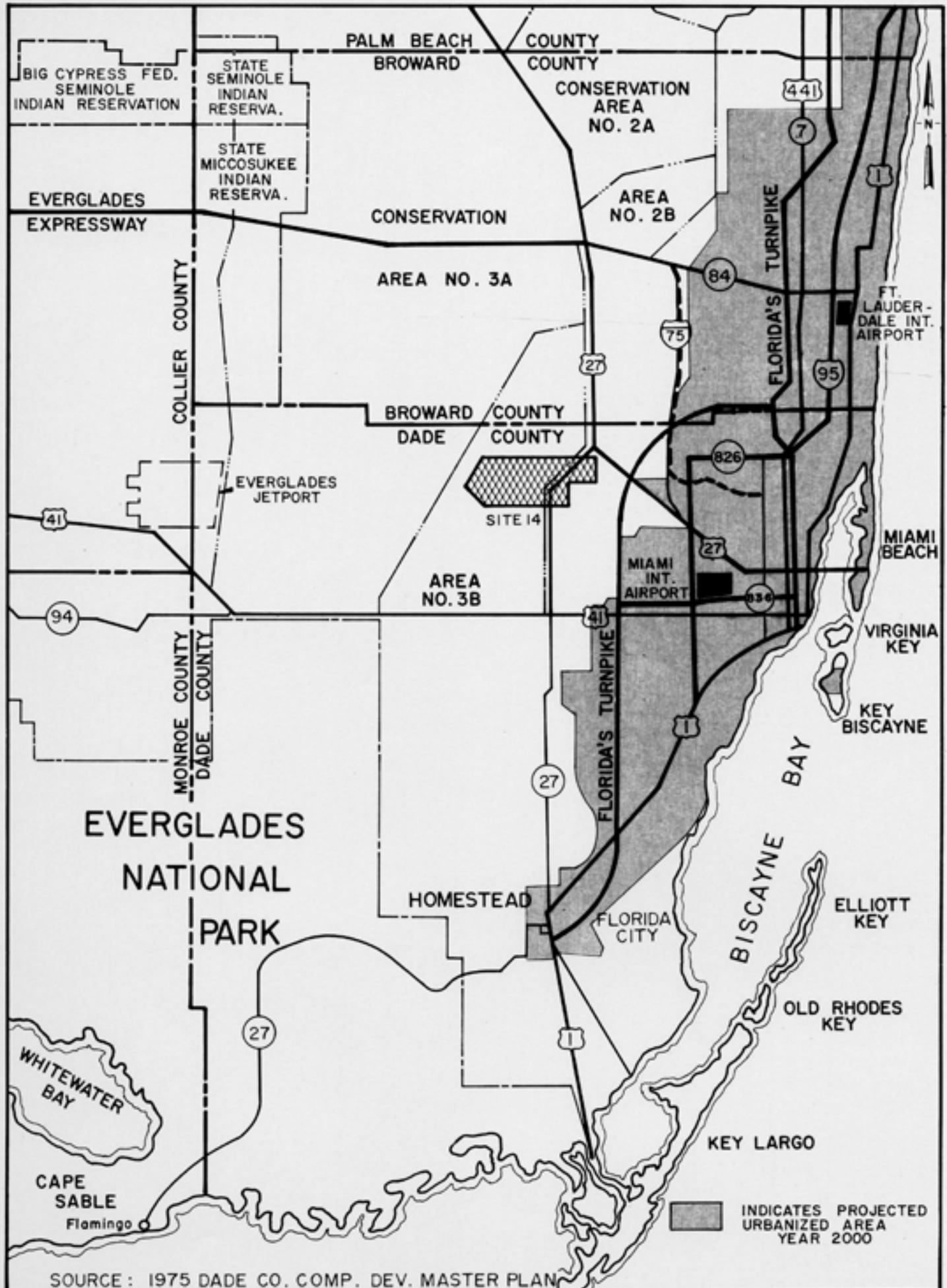
TABLE 1

ULTIMATE AIRPORT DEVELOPMENT

REQUIRED NUMBER OF LANES FOR
THE RECOMMENDED ACCESS ROUTES

Route Designation	Route Segment		
	Site 14 to U.S. 27	U.S. 27 to H.E.F.T.*	H.E.F.T.* to I-75
Northerly Route	6 Lanes	6 Lanes	2 Lanes
Southerly Route	8 Lanes	4 Lanes	4 Lanes

* Homestead Extension Florida Turnpike



SOURCE : 1975 DADE CO. COMP. DEV. MASTER PLAN

GENERAL LOCATION MAP

of the cost of land acquisition and system development. The land costs complement estimates prepared for Site 14, and will be used to ensure that sufficient resources are made available for the acquisition now of all the land that will be needed for the development of the airport and the access system.

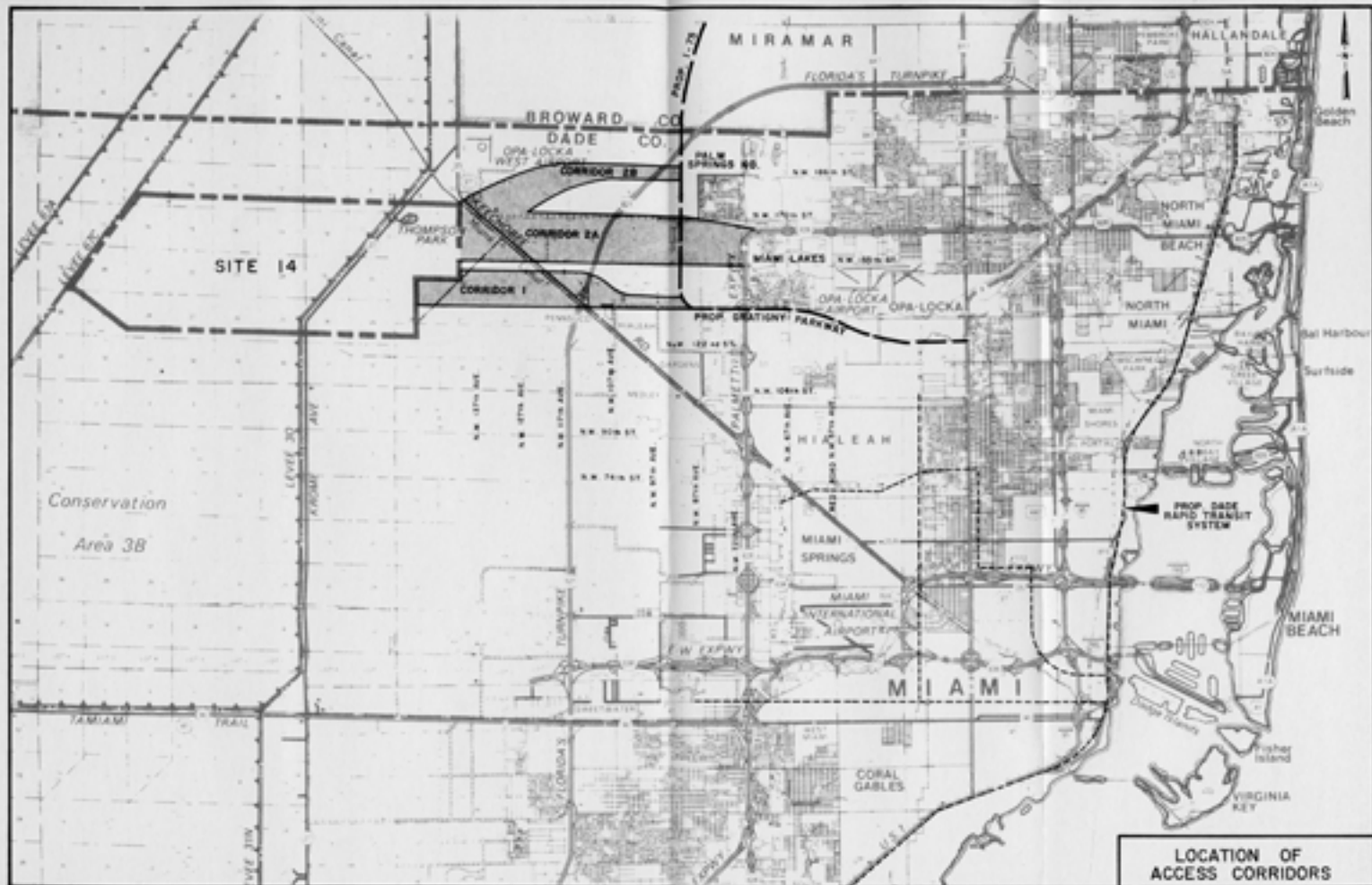
Before the most desirable access system was selected from the alternatives considered, all relevant factors were analyzed, including accessibility to system users, interface with the existing and planned areawide transportation network, estimated traffic volumes, and the impact of these volumes on both the environment and the affected highways and arteries. Planning of the access system itself was guided by the following criteria:

- The system should provide access to Site 14 from the existing and planned highways, and rapid and mass transit systems in Dade and Broward Counties.
- System rights-of-way should be sufficiently wide to accommodate highways, rail rapid transit where appropriate, and utilities.
- The system should accommodate the traffic generated when Site 14 airport operations reach their maximum.
- System highways should have limited access to discourage development of adjacent areas for uses not compatible with the adopted Dade County 2000 Conceptual Metropolitan Development Pattern.

ACCESS CORRIDOR LOCATION

The area within which all potentially viable access routes might best be located was determined to be that area between approximately N.W. 186 Street and N.W. 138 Street, bounded by Site 14 on the west and the urbanized area of Dade County on the east. Within this area, three broad corridors (designated as 1, 2A and 2B) were delineated, as illustrated on Exhibit 3.

Two criteria governed the selection of these corridors - accessibility to major population centers, and connection with the areawide transportation network. All three corridors originate at major area highways (Corridor 1 and 2B at



LOCATION OF
ACCESS CORRIDORS

Interstate 75, and Corridor 2A at the Palmetto Expressway) and extend westward to the eastern boundary of Site 14. The interrelationships among the population centers, the transportation network, and the corridors can also be seen on Exhibit 3.

Corridor 1 originates at Interstate 75 (I-75) and N.W. 138 Street, and follows the latter westward to the eastern border of Site 14. The corridor is 6 miles long and approximately one mile wide, except for the first two miles east of I-75 where its width averages one third of a mile.

Corridor 2A encompasses an area between N.W. 154 and N.W. 170 Streets, extending from the Palmetto Expressway at the "Big Bend" to the eastern boundary of Site 14. The corridor is approximately one mile wide and 6.5 miles long.

Corridor 2B is a curved strip of land originating at I-75 and N.W. 186 Street and extending west and southwest to Site 14. The area is approximately 5 miles long, and ranges in width from approximately 200 yards at its point of origin to one and a quarter miles in its westernmost part.

ALTERNATIVES/SELECTION PROCESS

Thirteen alternative access routes were delineated within the study area. Eight of these routes are located within Corridor 1, three within Corridor 2A, and two within Corridor 2B. Each route was planned with the possibility that it would serve as the only airport access route. Thus each route alignment was delineated with sufficient capacity to accommodate total projected airport-oriented traffic volumes. In addition, the alignments located within Corridor 1 were planned to accommodate non-airport-oriented traffic east of the Homestead Extension Florida Turnpike (H.E.F.T.) in anticipation of the possibility that this segment of the airport access system would become a link between the H.E.F.T. and Gratigny Parkway.

The thirteen alternative route alignments were evaluated and screened by a team of multi-disciplinary professionals to determine the relative impact of each alignment on environmental, socio-economic and operational factors.

In the course of this study, it became apparent that the airport access system would be optimized by development of two independent routes with each route in a different corridor. The decision to select two routes grew out of the following considerations:

- A single access route would be impractical from the standpoint of the highway lanes and interchange complexities required to accommodate the forecast traffic volumes.
- The concentration of the forecast traffic volumes in the vicinity of the connection points to area highways would be considerably higher with a single access route than with two separate routes and their correspondingly greater number of connections. Thus, if a single route were developed, the planned capacity of the year 2000 highway network would have to be substantially increased.
- The convergence of the forecast number of vehicles on a single route would create a high concentration of exhaust emissions, causing a deterioration in air quality in the areas bordering the route.
- The development of more than one route would provide greater accessibility to the airport site and provide redundancy if occasional blockages occur.

Each of the three corridors was reexamined to see which two-corridor combination would provide the best access system to the future airport site. Corridor 1, the closest of the three to Dade County's central and southern urban centers, would connect Site 14 with I-75 and the proposed Gratigny Parkway. It would also most readily accommodate an extension of the Dade County rapid transit system. Because of these factors, the evaluation team determined that this corridor should be part of the two-corridor access system.

A decision then had to be made as to which of the two remaining corridors would best complement Corridor 1. Corridor 2B presented several significant advantages over Corridor 2A. First, existing and expected land use patterns, as well as

environmental considerations, led the evaluation team to view Corridor 2B as the most desirable of the three corridors. Specifically, Corridor 2B would offer minimal negative impacts to the currently developing residential lands in those areas just west of the "Big Bend" on the Palmetto Expressway. Second, Corridor 2B is the preferred corridor to serve the population centers of Broward County and the northernmost portions of Dade County. Third, in combination with Corridor 1, Corridor 2B would have the least negative impact on the Golden Glades link of the Palmetto Expressway and other area highways.

The evaluation team chose the combination of Corridors 1 and 2B to form the Site 14 access system, and then reassessed the route alignments in these corridors which, in combination, would best serve the airport. The reassessment dealt primarily with evaluation factors which would be modified for a two-route system; traffic balance, intersection location, emission impacts, etc. This led to the selection of the two preferred routes for the airport access system.

PART II - CONSIDERATIONS

TRAFFIC CONSIDERATIONS

Forecasts were developed of the traffic volumes that will be generated by the access system users' trips, and the impact of airport traffic on the area transportation network. The information necessary to develop these forecasts was obtained in part from the traffic reports prepared in connection with the site selection study for the replacement of the Everglades Jetport. Additional information was obtained from the Dade County Department of Traffic and Transportation (DOTT) and the State of Florida Department of Transportation (FDOT).

For the most part, the basic assumptions and methods of forecasting previously used were retained, as they reflected the "worst case" situation in terms of demand on the Site 14 access system capabilities. Certain projections and assumptions were modified in view of current socio-economic data projections for the year 2000 for Dade and Broward Counties, the planned year 2000 Dade County DOTT Transportation Plan Network, and the existing public transit plans for Dade and Broward Counties.

Types of Access System Users

People using the airport access system were divided into the following four categories:

- Air Passengers - People traveling to and from the airport in connection with an air arrival or departure.
- Travel-Related Visitors - People traveling to and from the airport to accompany arriving or departing air passengers.

- Employees - People employed at the airport.
- Residual Users - All other people traveling to and from the airport, excluding ground passenger transport drivers.

Table 2 shows the estimated number and origin-destination pattern of the access trips made by each category of access system user.

The forecast of air passengers was based on the forecasts previously developed for Site 14. These forecasts indicated that an annual total of approximately 84,500,000 air passengers could be expected to use the Site 14 access system when the airport is fully developed, generating approximately 84,500,000 annual access trips, or approximately 232,500 average daily access trips. These totals include two subcategories of air passenger access trips: home based, i.e., those trips made by local residents; and non-home based, i.e., those trips made by visitors to the south Florida region.

Travel-related visitor trips are based on the forecasts of air passengers using the auto-drop and public transit access modes. Forecasts of access trips generated by airport employees are based on airport employment projections. Residual User Trips are based on the forecast of home based air passenger trips.

Transportation Modes

The following modes of airport access were identified in this study:

- Private Automobile - This category includes two categories of air passenger: The "auto-drop" and "auto-park". The former is dropped off or picked up at the airport by someone who does not park his automobile at the airport for the duration of the passenger's trip; and the latter parks his car at the airport during his trip.
- Limousine
- Taxi

TABLE 2

ULTIMATE AIRPORT DEVELOPMENT

AVERAGE DAILY PERSON TRIPS BY
CATEGORY OF ACCESS SYSTEM USER AND BY GEOGRAPHIC AREA

USER CATEGORY	GEOGRAPHIC AREA			
	ALL AREAS	DADE COUNTY	BROWARD COUNTY	OTHER (1)
All Users	444,027	219,324	201,272	23,431
Air Passengers	232,516	119,222	97,514	15,780
Home Based	76,102	32,925	38,441	4,736
Non-Home Based	156,414	86,297	59,073	11,044
Travel-Related Visitors	91,585	45,308	39,812	6,465
Airport Employees	100,864	46,532	54,332	---
Residual Users	19,062	8,262	9,614	1,186

(1) Includes Palm Beach, Hendry, Monroe, Collier, and Lee County

- Rental Auto
- Public Transit

Table 3 summarizes the mode choice forecasts by category of access system user.

Where an air passenger lives is an important factor in his choice of an airport access mode. Thus a distinction is made between home based and non-home based air passengers. Home based passengers are assigned the public transit, auto-drop, auto-park, and taxi modes of access; whereas non-home based air passengers are assigned the public transit, auto-drop, rental auto, limousine, and taxi modes.

Travel-related visitors are expected to travel to and from the airport with air passengers using two types of access mode — auto-drop and public transit.

Airport employees are expected generally to travel to and from the airport by two modes — public transit and private auto.

Residual users traveling to and from the airport are expected to use public transit or private auto.

Vehicle Volume Forecast

The volumes of airport-oriented vehicles were forecast on the basis of the estimated number of person trips by mode. To obtain the number of vehicle trips for each access mode, the number of person trips was adjusted by vehicle occupancy factors. The forecast thus obtained indicates there will be approximately 130,000 average daily vehicle trips to and from the airport. (See Table 4).

Assessment of the traffic loads placed on the access system and connecting roadways necessitated an estimate of the numbers of future peak-period vehicle trips. To accomplish this, the forecast average daily vehicle volumes for air passengers and travel-related visitors were converted into peak-day volumes by applying the adjustment factor of 1.4.

TABLE 3

ULTIMATE AIRPORT DEVELOPMENT

AVERAGE DAILY PERSON TRIPS BY MODE
AND BY ACCESS SYSTEM USER CATEGORY

-SUMMARY TABLE-

USER CATEGORY	MODE OF ACCESS						
	ALL MODES	AUTO DROP	AUTO PARK	AUTO OTHER	LIMO.	TAXI	PUBLIC TRANSIT
All Users	444,027	133,734	22,065	91,677	22,121	26,137	148,293
Air Passengers	232,516	55,721	22,065	31,597	22,121	26,137	74,875
Home Based	76,102	23,083	22,065	—	—	1,567	29,387
Non-Home Based	156,414	32,638	—	31,597 ⁽¹⁾	22,121	24,570	45,488
Travel-Related Visitors	91,585	78,013	—	—	—	—	13,572
Airport Employees	100,864	—	—	50,432 ⁽²⁾	—	—	50,432
Residual Users	19,562	—	—	9,648 ⁽²⁾	—	—	9,914

(1) Auto-Rental

(2) Auto-Drop and Auto-Park undifferentiated, including trucks and vans.

Note: Auto other is a combination of (1) and (2)

TABLE 4
 ULTIMATE AIRPORT DEVELOPMENT
 AVERAGE DAILY VEHICLE TRIPS
 BY VEHICLE TYPE
 -SUMMARY TABLE-

GEOGRAPHIC AREA	VEHICLE TYPE				TOTAL
	AUTO	TAXI	LIMO	RENTALS	VEHICLES
DADE COUNTY	46,706	6,867	1,942	8,632	64,147
BROWARD COUNTY	45,237	5,187	942	5,911	57,277
OTHER (1)	6,091	1,031	281	1,105	8,508
ALL AREAS	98,034	13,085	3,165	15,648	129,932

(1) Includes Palm Beach, Hendry, Monroe, Collier and Lee Counties

This factor was derived from the number of air passengers observed at Miami International Airport on an average Friday from December through March, the four peak months of the year in southeast Florida. Since it is estimated that little peaking is associated with airport employees and residual users, no adjustment was deemed necessary for the vehicular trips generated by these groups.

Based on the above assumptions, it is forecast that there will be approximately 173,700 vehicle trips to and from the airport on a peak day.

Traffic Assignments of Vehicle Volumes

It was planned to locate the airport access system in any of the three broad corridors, designated as 1, 2A and 2B. To ensure that proper consideration was given to a wide range of alternatives, traffic assignments of the forecast vehicular volumes generated by airport users were made on the basis of two overall possibilities - total volumes would be accommodated within a single corridor or, alternatively, divided between two corridors. Thus six assignments were determined - three for the single corridor alternative (1, 2A and 2B) and three for the combination of two corridors (1 and 2A; 1 and 2B; and 2A and 2B).

With the exception of the assignments for the two corridor combination of 2A and 2B, which were developed independently and reviewed by the Dade County DOT, peak day traffic volumes were assigned to access corridor links and interchanges, and also to the connecting area roadways by DOT. Traffic assignments for the selected system are shown in Table 5.

Impact of Airport Traffic on Highway System

The Dade County Department of Traffic and Transportation has evaluated the expected impact of airport-oriented traffic volumes on the major highways in the area. This impact was measured in terms of the additional highway system capacity that would be needed and the degree of difficulty associated with attaining this capacity. Table 6 summarizes the impact on the year 2000 area transportation network of the forecast traffic volumes expected to use the selected airport access system.

TABLE 5

ULTIMATE AIRPORT DEVELOPMENT

ASSIGNMENTS OF AIRPORT-ORIENTED TRAFFIC VOLUMES (1)

CORRIDOR DESIGNATION	CORRIDOR SEGMENT		
	Site 14 to U.S. 27	U.S. 27 to H.E.F.T.	H.E.F.T. to I-75 I-75 to S.R. 826
Southerly	102,600	102,600	72,700 ⁽²⁾ NA
Northerly	71,100	69,000	3,900 NA

(1) Peak 24-hour vehicles

(2) Includes 26,200 non-airport oriented vehicles which might potentially use this segment.

**TABLE 6
ULTIMATE AIRPORT DEVELOPMENT**

IMPACT OF AIRPORT-ORIENTED VOLUMES ON AREA YEAR 2000 TRANSPORTATION NETWORK

Expressway/Arterial Description	Miles	Lanes In Year 2000 Plan	Difficulty In Accommodating Added Lanes (1)	Added Lanes
				Corridors 1 & 2B
N.E.F.T. (South of S.R. 826) (To Kendall Drive)	6.6	8	2	2
N.E.F.T. (S.R. 826 to NW 74 St.)	4.2	6	1	2
N.E.F.T. (NW 74 St. to S.R. 25)	4.0	4	1	4
N.E.F.T. (S.R. 25 to NW 167 St.)	1.7	4	1	0
N.E.F.T. (NW 167 St. to I-75)	2.4	4	1	0
N.E.F.T. (I-75 to Turnpike)	8.0	4	1	2
S.R. 826 (South of S.R. 826) (To Kendall Drive)	6.3	10	4	0
S.R. 826 (S.R. 826 to S.R. 25)	9.0	8	3	2
S.R. 826 (S.R. 25 to I-75)	3.0	8	3	2
S.R. 826 (I-75 to "Big Bend")	1.5	8	3	2
S.R. 826 ("Big Bend" to NW 57 Avenue)	2.0	6	3	2
S.R. 826 (NW 57 Ave. to NW 27 Avenue)	3.0	6	3	2
S.R. 826 (NW 27 Ave. to I-95)	2.0	8	4	2
I-95 (South of 826) (To S.R. 112)	8.0	10	4	0
I-95 (North of 826) (To S.R. 820)	7.0	8	3	0
S.R. 826 (N.E.F.T. to S.R. 826)	4.0	8	2	2
S.R. 826 (East of S.R. 826) (To S.R. 9)	9.0	10	4	2
I-75 (North of N.E.F.T.) (To S.R. 820)	4.0	8	2	2
I-75 (N.E.F.T. to NW 167 St.)	1.7	8	2	0
I-75 (NW 167 St. to NW 138 St.)	2.0	8	2	0
I-75 (NW 167 St. to NW 138 St.)	2.0	8	2	0
I-75 (NW 92 Ave. to S.R. 826)	1.5	8	3	2
Gratigny Pkwy (East of S.R. 826) (To S.R. 9)	9.0	4/6	3	0
S.R. 25 (East of S.R. 826) (To S.R. 112)	9.0	6 Art	4	0
S.R. 25 (S.R. 826 to NW 92 Ave.)	2.0	6 Art	2	2 Art
S.R. 25 (NW 92 Ave. to N.E.F.T.)	3.0	6 Art	2	0
S.R. 25 (N.E.F.T. to NW 167 St.)	2.4	4 Art	2	0
S.R. 25 (North of NW 167 St.) (To S.R. 820)	6.0	4 Art	1	0
NW 138 St. (Arterial) NW 92 St. to N.E.F.T.)	2.0	4 Art	1	

NOTE: Added lanes are the additional lanes of expressway required to handle Site 14 traffic, except where designated Art.

(1) Difficulty rating: None 0 Severe 3
Marginal 1 Extreme 4
Moderate 2

Source: The Dade County Department of Traffic and Transportation

Determination of Roadway Lanes

The determination of lane requirements for all the alternative roadways was guided by two principal criteria: (a) roadway capacity should be sufficient to accommodate total projected airport-oriented traffic volumes, and (b) vehicular traffic during the design hour should operate at a minimum level of service "C", i.e. stable flow but restricted speeds and lane changes.

Based on a review of the Miami International Airport Master Plan, and recommendations of the Dade County Department of Traffic and Transportation, design hour volumes (DHV), i.e., the traffic volumes expected during the approximately thirtieth highest hour of the design year were determined. The following assumptions were used to derive the DHV for each link in the system. The DHV will be 10 percent of the average annual daily traffic; the predominant direction of travel during the design hour will be 60 percent of the total two-way DHV; trucks will account for 5 percent of the vehicles during the design hour; and each truck is the equivalent of two passenger cars.

Finally, assuming that the DHV is 91 percent of the hourly volume associated with the peak flow rate during the design hour, the required number of lanes for level of service "C" was obtained by comparing the DHV with the maximum service volumes designated in the Highway Capacity Manual. The number of lanes determined for each roadway segment of the selected system is shown in Table 1.

The number of roadway lanes established is sufficient to enable design hour traffic volumes to operate at a minimum of level of service "C". The established number of lanes was tested to determine the level of service they would provide during the peak hour traffic demand on a peak day. This test showed that, in many cases, service levels would drop to level "D". In no case, however, would the peak hour traffic demand exceed the maximum capacity of the roadway.

LAND USES

Land Uses Surrounding the Corridors

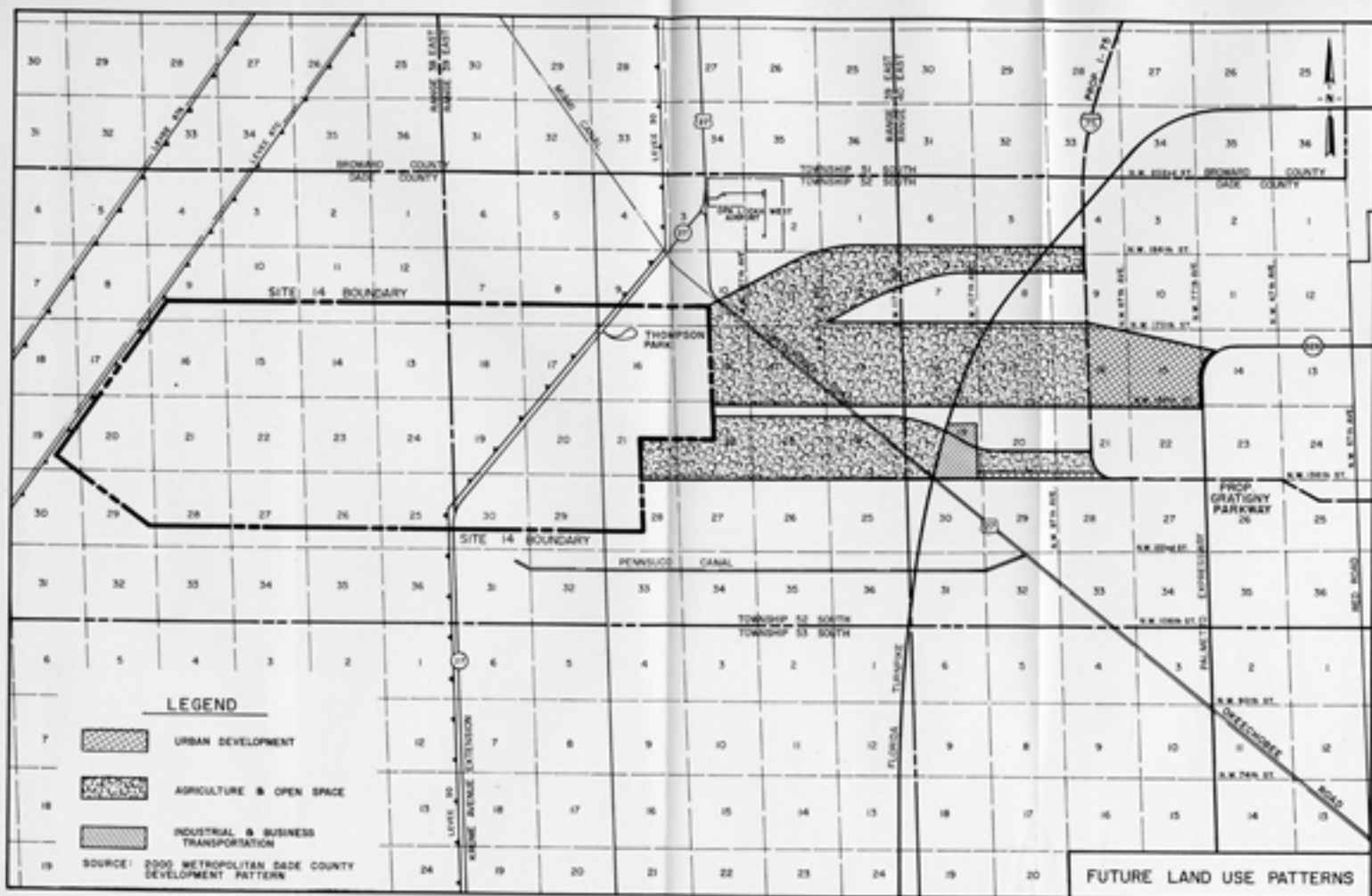
Mixed land uses surround the access corridors. Open land with small farms, grazing and excavations is found to the north and southwest of the corridors, while Site 14 lies to the west. The eastern portions of the corridors are abutted by urbanized areas containing a variety of residential developments, small horse ranches and light industrial and warehousing activities. Light industry and warehousing are found primarily in the areas along U.S. 27 and west of the Palmetto Expressway, while residential developments predominate east and northwest of the Palmetto Expressway.

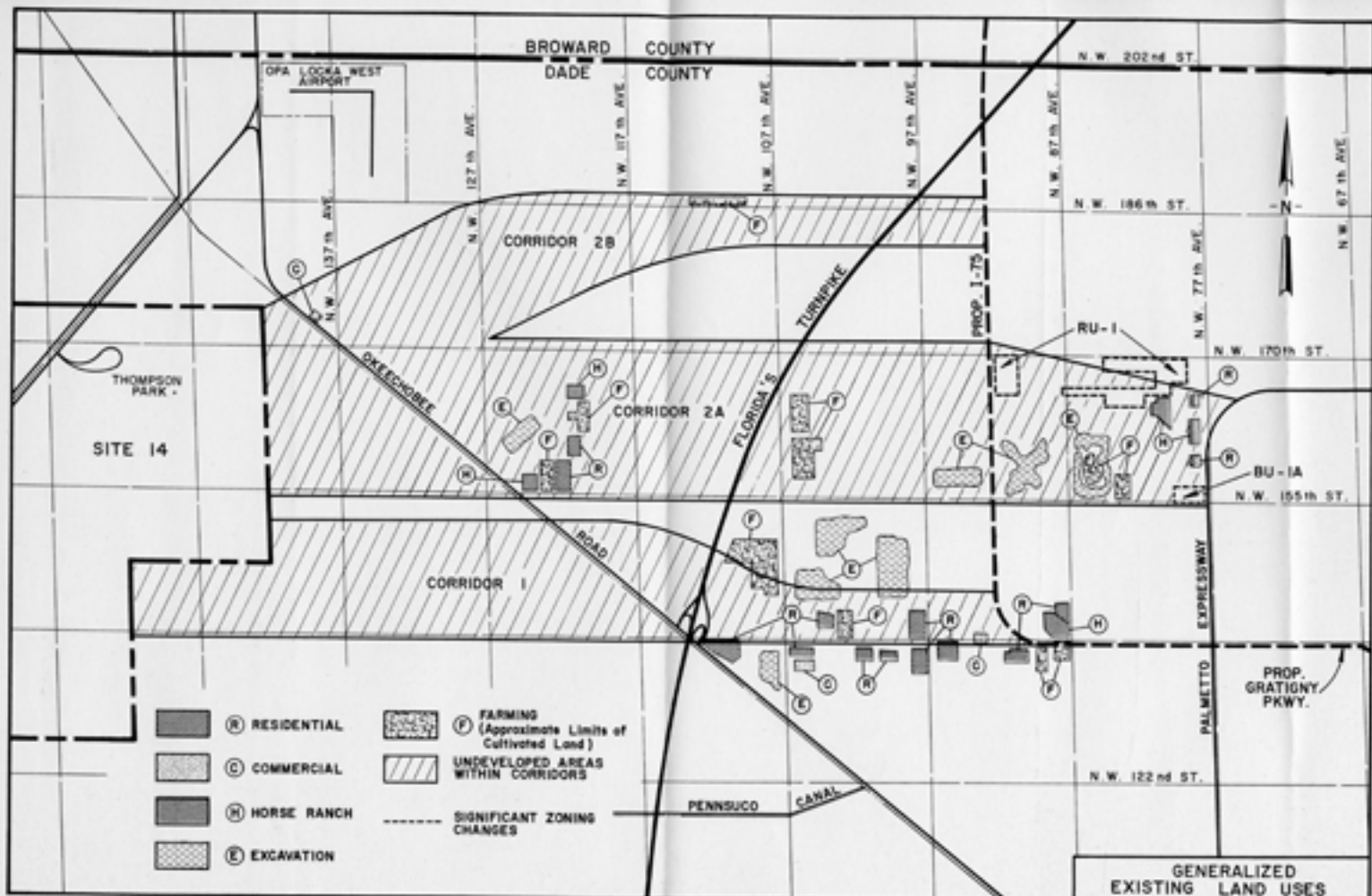
Land Uses within the Corridors

In general, the area encompassed by the three access corridors is sparsely populated open land used primarily for small farming, grazing, excavating and quarrying. An overall survey revealed that urban land uses are not significant within the area as a whole, with a total of 4 commercial establishments and 39 residential units. The residential uses are confined to Corridors 1 and 2A. The former contains 30 units and the latter contains 9.

Generalized existing land use patterns within the three corridors, and the distribution of land uses by type are shown in Exhibit 4.

The future county development pattern is not expected to significantly affect land use patterns within the area encompassed by the access corridors. The adopted Comprehensive Development Master Plan for Metropolitan Dade County indicates only slight changes in the future land uses within the general access corridor area (see Exhibit 5). The 2000 Conceptual Metropolitan Development Pattern designates almost the entire area for open space and agricultural uses.





ARCHEOLOGICAL AND HISTORIC SITES

Six archeological and historic sites were positively identified in the course of the study. One of the identified sites had been destroyed; but assessment of the five others indicated that all are potentially eligible for listing on the National Register of Historic Places.

Each corridor contains one or more of these archeological and historic sites. Corridor 1 holds the one identified architectural site in the study area the Graham House, and the previously destroyed archeological site Pennsuco. Corridor 2A contains one archeologically significant site, Maddens Hammock, and Corridor 2B has three such sites; Mendoza, Donna, and Leo.

This information was taken into consideration when selecting alternative access routes, so as to avoid the potential destruction or severe alteration of cultural resources.

ENVIRONMENTAL CONDITIONS

Soil Formations

All the soils in the area encompassed by the access corridors are in the Everglades series. Except for the easternmost third of Corridors 1 and 2A, and the eastern tip of Corridor 2B, all of the corridors contain shallow phase Everglades peat. The terrain is flat with a few slight depressions and rises. The external drainage is very slow, and when the surface is dry, the internal drainage is medium to slow.

Environmental Protection Zones

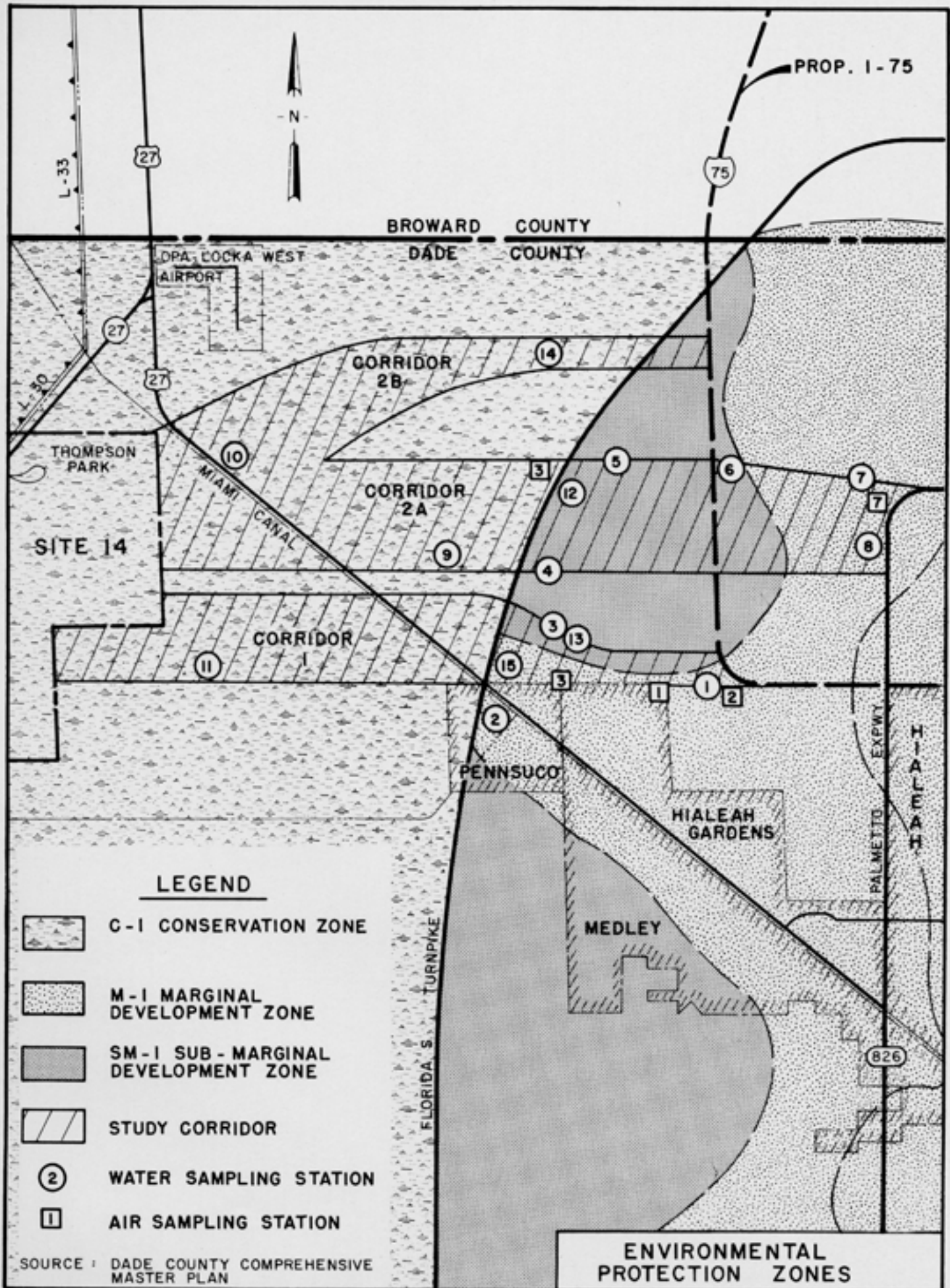
According to the "Environmental Protection Guide" of the adopted Development Master Plan for Metropolitan Dade County (March, 1975), the corridors fall into three environmental protection zones: Conservation Subzone (C-1); Sub-Marginal Development Zone North (SM-1); and Marginal Development Zone North (M-1) (see Exhibit 6). Approximately one half of Corridor 1 lies in C-1, and slightly less than one-fourth each in M-1 and SM-1. Corridor 2A lies slightly more than one-half in C-1, more than one-fourth in SM-1, and less than one-fourth in M-1. Corridor 2B lies in C-1, with the exception of its eastern tip, which lies in SM-1.

Conservation Subzone (C-1) is a recharge zone, where water is purified chemically and physically. Groundwater flows generally northwest to southeast toward the two major water withdrawal points in Dade County. The area acts as a buffer between the urbanized portions of the county and Conservation Area 3.

Formerly a wet prairie, Sub-Marginal Development Zone (SM-1) has been changed by drainage. The water table is, nevertheless, high, and the zone is inundated periodically. This is an aquifer recharge area.

Marginal Development Zone (M-1) generally abuts the Palmetto Expressway and forms a wide belt on either side of U.S. 27 (Okeechobee Road). It is within the water table management area, where for the most part 10- to 25-year flood protection exists. The gradient flows directly into the Hialeah-Miami Springs well field.

In the Conservation Subzone area, some drainage control is accomplished by the western third of the Snake Creek Canal and the northern portion of the N.W. 107 Street Canal. The western portion of the Golden Glades Canal becomes a ditch connecting with the Miami Canal, which traverses the area. Other area ditches are an old levee escarpment ditch running northeast to southwest and the Pennsuco Ditch to the south.



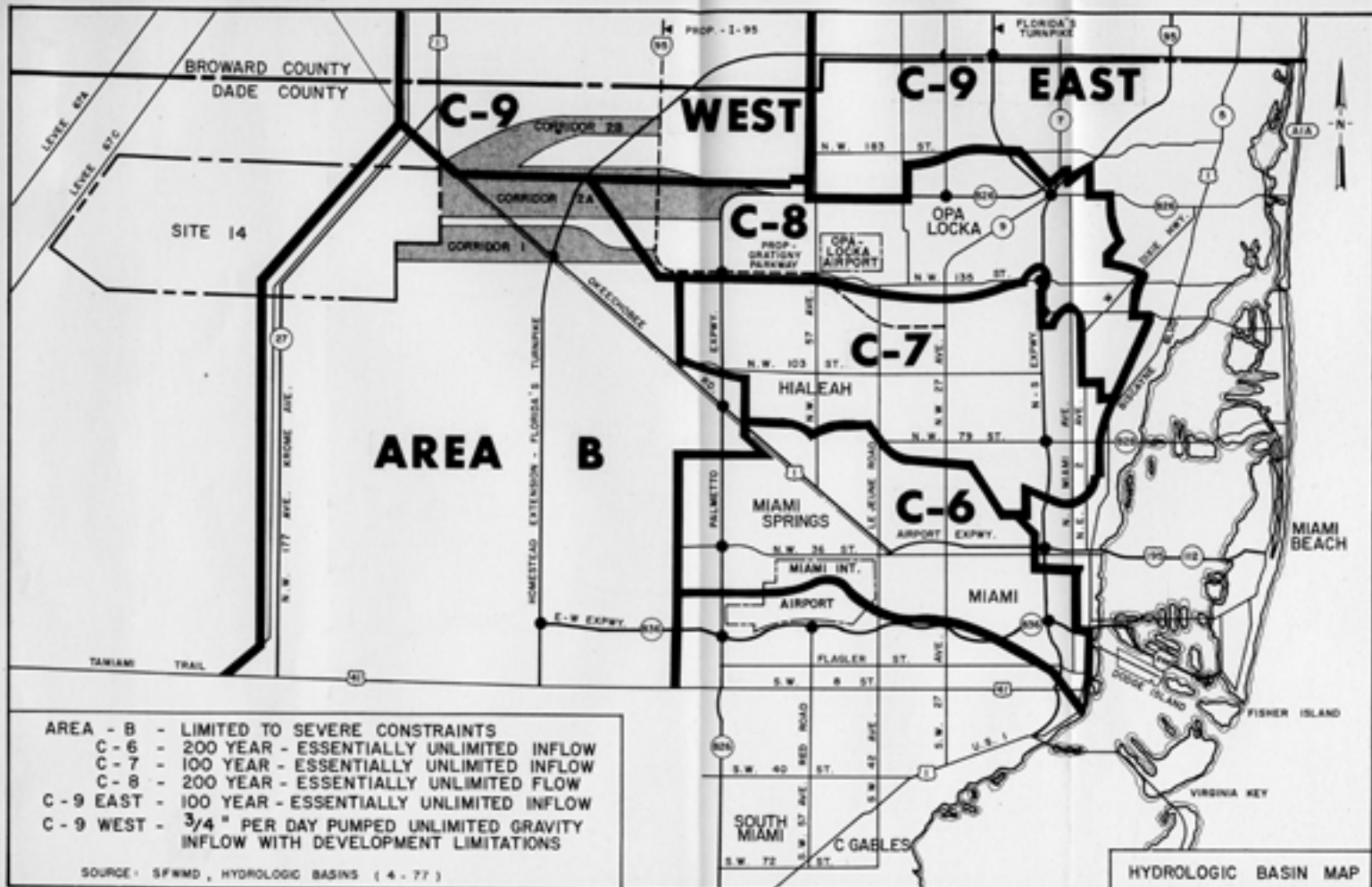
In the Sub-Marginal and Marginal Development Zone areas, drainage is accomplished by existing canals and ditches: Snake Creek, Golden Glades (N.W. 170 Street), Graham's Dairy Canal (N.W. 138 Street), the connecting canal through the development at N.W. 77 Avenue (Peter's Pike Canal), and N.W. 107 Avenue. Another ditch on the west side of N.W. 97 Avenue runs north-south from 138 Street.

Biotic Communities

Drainage, scarification, and burning have left an impacted area consisting of drained prairie and grazing land, higher wooded areas, and berms. The prairie and grazing land is characterized by Broom Sedge. The higher area consists mostly of Blake, Cajeput, and Brazilian Oak (or Australian Pine). The berms are populated primarily with Brazilian Pepper.

Existing Hydrologic Conditions

The western portions of all three corridors lie in the northernmost part of Area B, a 235-square mile portion of Dade County designated by the U.S. Army Corps of Engineers as having poorly drained land (see Exhibit 7). Corridor 1 falls entirely within Area B, but its eastern end is at the dividing line between Area B and Hydrologic Basin C7. The corridor contains a number of secondary canals and ditches which come under the jurisdiction of Dade County. Corridor 2A lies in Area B, except for the eastern 2.5 miles which are included in Hydrologic Basin C8. As in Corridor 1, a number of secondary canals and ditches in Corridor 2A come under the jurisdiction of Dade County. All but the westernmost part of Corridor 2B lies in Hydrologic Basin C9 West. The area drains north to Snake Creek Canal and then east. Included in this corridor are the usual secondary canals and the borrow areas along the turnpike extension. Sheet flow is limited in all quadrants of the study area because of existing canals and ditches.



Water Quality Analyses and Findings

Initial water quality analyses were performed on samples obtained from the major water systems in the study area during the months of November and December. Water quality appeared generally normal, with a few anomalous situations at various stations. Even in apparently stressed areas, balance forces appear to be operative so that deleterious situations do not prevail, with few exceptions. From a water management point of view, the area most amenable as a corridor is 2B. This corridor contains the fewest enterprises, and lies well to the north of the projected new well fields. However, as long as the quality of water entering the aquifer is maintained by passing all drainage water through vegetated sloughs, and as long as the general drainage patterns are not changed, none of the proposed corridors should pose special problems.

COST ESTIMATES

Unit costs for the highway facilities construction on a per mile basis were developed from information provided by the Florida Department of Transportation and from a cost analysis for the Homestead Extension of Florida's Turnpike. Land values were assumed on the basis of known I-75 right-of-way values and established Site 14 property values with adjustments made on the basis of the perceived accessibility of the parcel.

Construction costs for the two recommended alignments were calculated using the unit costs escalated to June 1979 dollar levels on the basis of Engineering News Record Highway Bid Price Indices. These final estimates, shown in Table 7, do not include access system costs within the site boundaries, nor do they include transit construction costs and access system costs outside the study area.

TABLE 7

ULTIMATE AIRPORT DEVELOPMENT

ESTIMATED BUDGETING COSTS FOR RECOMMENDED ROUTES

\$ 6/1979

Route Designation	Right-of-Way Costs (\$ x 1000)	Engineering Design (\$ x 1000)	Construction Costs (\$ x 1000)	Total Costs (\$ x 1000)
Southerly Route	10,800	6,800	68,000	85,600
Northerly Route	7,000	4,900	49,300	61,200