

FHWA-FL-EIS-86-02-D
FEDERAL HIGHWAY ADMINISTRATION
REGION FOUR

ADMINISTRATIVE ACTION

DRAFT ENVIRONMENTAL IMPACT STATEMENT

U.S. Department of Transportation
Federal Highway Administration
and
Florida Department of Transportation

State Project Number 10000-1531
Federal Aid Program M-4047(40)
W.P.I. Number 1113669

NORTHWEST HILLSBOROUGH EXPRESSWAY
Interstate - 275 to S.R. 597 (Dale Mabry Highway)
Hillsborough County, Florida

The proposed action includes adding lanes and improving interchanges on S.R. 60 and Eisenhower Boulevard from I-275 to Hillsborough Avenue and providing a new four lane limited access expressway with interchanges from Hillsborough Avenue to Dale Mabry Highway.

Submitted pursuant to 42 U.S.C. 4332 (2) (C) and 23 U.S.C. 128

JAN 21 1986

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APR 7 1986

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EXECUTIVE SUMMARY

Description

The Northwest Hillsborough Expressway is proposed as a major, high-type, divided, limited access roadway to serve local traffic in the north and northwest areas of Hillsborough County, Florida in the vicinity of Tampa. The route will also form a vital part of a bypass route for I-275, around Tampa Metropolitan area (Figure 1-1). The project is jointly proposed by the Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation.

The general area for the proposed project begins at I-275 south of the Tampa International Airport and thence proceeds northerly and northeasterly in the northwest quadrant of Hillsborough County to a terminus at Dale Mabry Highway (SR 597) north of Van Dyke Road. The remainder of the overall bypass routing to I-75 will consist of two additional and separate projects. The first would be improvements to Dale Mabry Highway from the terminus of this project northward to County Road (CR) 54 in Pasco County and the second would be the improvement of CR 54 from Dale Mabry eastward to I-75. The latter two roadway projects are currently under study by FDOT and are both included in the FDOT five year work program. The local arterial system, Dale Mabry Highway and CR 54, will provide a dual function, serving the general land use in this rapidly growing area while providing the bypass linkage described above.

Early in the Expressway study process a direct easterly extension of the Northwest Expressway to I-75 was considered in detail. Due to potentially severe environmental impacts and low traffic projections, this easterly extension from Dale Mabry Highway to I-75 was dropped from further consideration. However, the improvements to the existing arterial system described above (Dale Mabry Highway and CR 54) will provide the necessary bypass system linkage. The level of improvements that will be proposed for Dale Mabry Highway and CR 54 north of the proposed Expressway terminus with Dale Mabry Highway will be the same with or without the Northwest Expressway based upon the year 2010 traffic projections (24,000 ADT for the No Build alternative verses 27,000 to 28,000 ADT for the build alternatives, see Figures 3-2, 6-2 and 6-1 respectively).

The Northwest Hillsborough Expressway would be approximately 17 miles in length, depending upon the alternative route selected. The Expressway between I-275 and Memorial Highway would involve the improvement of Eisenhower Blvd. to six and eight lanes and the addition of lanes where required in the interchange areas. The remainder of the project would be a new four lane divided facility with median and paved shoulders. Access to the existing street network would be maintained through the local road system, frontage roads and grade separated interchanges. The proposed roadway would typically require from 180 to 250 feet of right-of-way.

Need for the Project and Funding

The project as proposed will provide that portion of the previously described bypass routing with the highest projected traffic demands. Rapid urbanization, makes early construction of the project essential to meet the present and projected needs. Because of the rate of development in the area, postponement or delay in construction could preclude the project ever being built due to unacceptable community disruption and soaring right-of-way costs.

In addition to providing the central linkage for the bypass routing, the Expressway will serve the surrounding local community as a direct high-speed connector to Tampa International Airport, the Tampa Central Business District and destinations along the West Coast of the State. This in turn will relieve Dale Mabry Highway to a significant extent as the burgeoning growth in the immediate area continues. Thus, the Expressway will serve the long distance thru trip as a part of the bypass routing and the local commuters. This dual function is vital to the safe and efficient passage of traffic in the northwest quadrant.

The portion of the Expressway project from Hillsborough Avenue north is proposed to be financed through the sale of revenue bonds supported by tolls because of the demand on public funds at present and in the foreseeable future. However that portion from I-275 on the south to Hillsborough Avenue which was originally constructed utilizing federal and state dollars will be evaluated on the basis of seeking financial support from whatever public funds: federal, state and local, that could possibly be made available. A combination of funding would not be unprecedented for a project of this magnitude and the potential for such joint participation will be examined in its entirety.

Those portions of the bypass system noted above between Dale Mabry and I-75 to the north were not included in this document since they are under study by others for improvement as a part of the local ongoing study process.

The project conforms to the adopted Tampa Urban Area Transportation Study (TUATS) Year 2000 Plan and is consistent with the TUATS Year 2010 Plan which is in preparation for adoption in 1986 by the Metropolitan Planning Organization (MPO). The project as part of the overall transportation system for the area will serve to provide additional highway capacity in the northwest area of the County and relieve I-275 and Dale Mabry Highway.

Alternatives Considered and Rejected

Three major corridors were initially studied for the identification of potential routes for the project (See Figure 4-8). Corridor A, the most distant from densely developed areas was rejected because of the least projected traffic and the potential for substantial impacts on the natural environment. Corridor B discussed below was designated for continuing study. Corridor C located closest to the City of Tampa and in the most populated areas was rejected because of high construction costs making the project financially unfeasible and because of the greatest adverse affect on residential and commercial areas.

Within Corridor B, seven basic alternative north-south alignments were studied (see Figures 4-10 thru 4-12). Of the seven north-south alternatives three were retained for further study. Four East-West alternative alignments of the eight identified were retained for further study and four were rejected. A combination of factors including relative socio-economic and environmental impacts, traffic service, project costs, right-of-way, and relocation factors were used in evaluating the alternatives. In addition, the utilization of local mass transit, the improvement of the local roadway network and the No-Build alternative were considered. None of these latter alternatives could satisfy the needs for which this project was developed.

Reasonable Alternatives

These remaining reasonable alternative alignments identified by location are as follows: Between I-275 and Gunn Highway there is one alternative - the "Eisenhower/West Alignment"; between Gunn Highway and Dale Mabry Highway there are two alternatives - the "Lake Le Clare Alignment" and "The Railroad Alignment"; and connecting these alignments to Dale Mabry Highway there are two alternatives - the "North Termini" and "South Termini" alignments. These alternatives are shown in Figure 4-13 and are discussed in detail in this document in Sections 4.0 (Alternatives Including Proposed Action) and 6.0 (Environmental Consequences). Each was evaluated and compared as to Engineering Factors (design characteristics, length, traffic service, costs and special construction and maintenance problems, see Table 6-4; Community Impact Factors (overall public safety, economic impacts, general social groups, displacements of homes and commercial properties, compatibility with land use and future plans, historic and archaeological preservation, pedestrian and bicycle considerations and visual impacts, see Table 6-6 and Environmental Impact Factors (air quality, noise, wild and scenic rivers, farmlands, floodplain, coastal zone, wetlands, water quality, threatened and endangered species, stream modification and wildlife and construction, see Table 6-11.

1.0 SUMMARY

1.1 DESCRIPTION OF PROPOSED ACTION

The Northwest Hillsborough Expressway is proposed to be a major divided, limited access roadway to serve local traffic in the north and northwest areas of Hillsborough County, Florida in the vicinity of Tampa, as well as be a part of a bypass route for I-275 around the City of Tampa. The bypass route would be comprised of this proposed project and improvements to Dale Mabry Highway thereby connecting the terminus of the Northwest Hillsborough Expressway to County Road (CR) 54 in Pasco County. CR 54 would also be improved from Dale Mabry Highway to I-75. The Dale Mabry and CR 54 portions of the bypass are separate projects presently under study by the Florida Department of Transportation. Figure 1-1 shows the proposed expressway as part of the overall bypass route.

The general area for the proposed project begins at I-275 south of the Tampa International Airport where it proceeds northward to the vicinity of Hutchinson Road and then proceeds northeastward in the northern part of Hillsborough County to a terminus at Dale Mabry Highway (SR 597) north of Van Dyke Road. The length of the proposed route, which will vary depending on the selected alignment and termini, would be approximately 17 miles. The proposed expressway north of Memorial Highway is to be predominantly a four-lane divided facility with median and shoulders. South of Memorial Highway, throughout the continuous interchange areas to I-275, the expressway is wider (6 and 8 lane sections). Access to the existing street network would be maintained through the local road system, frontage roads, and grade separated interchanges. The proposed facility would typically require from 180 to 250 feet of right-of-way.

1.2 DESCRIPTION OF SIGNIFICANT ACTIONS PROPOSED BY OTHERS

The bypass routing, see Figure 1-1, would include the proposed expressway in conjunction with Dale Mabry Highway (SR 597) and County Road 54 (CR 54). Both Dale Mabry Highway and CR 54 north of the expressway's proposed northern terminus are currently under study by the FDOT. The FDOT would improve that portion of Dale Mabry Highway from the proposed Northwest Hillsborough Expressway terminus to the intersection of CR 54, approximately two miles north, and that portion of CR 54 from Dale Mabry Highway easterly to a new interchange with I-75 north of the new I-75/I-275 interchange. The high-speed loop would provide a desirable bypass of the downtown Tampa area with a minimum of adverse impacts.

Significant proposed local roadway improvement projects include the widening of Gunn Highway, Waters Avenue, Ehrlich Road, Dale Mabry Highway, Courtney Campbell Causeway approach and the revising of the interchange at Courtney Campbell Causeway and Eisenhower Boulevard. These improvements will complement the Expressway as part of an overall roadway system. In addition, roadway extensions include Anderson Road as a new north-south

roadway, (Waters Avenue to Gunn Highway), Bearss Avenue (extended west to Dale Mabry Highway), Lynn Road (connector to Turner Road), Twelves Oaks Boulevard (connector to Henderson Road), Nixon Road (Waters Avenue to Gunn highway) and Hanley Road (connector to Wilsky Boulevard)

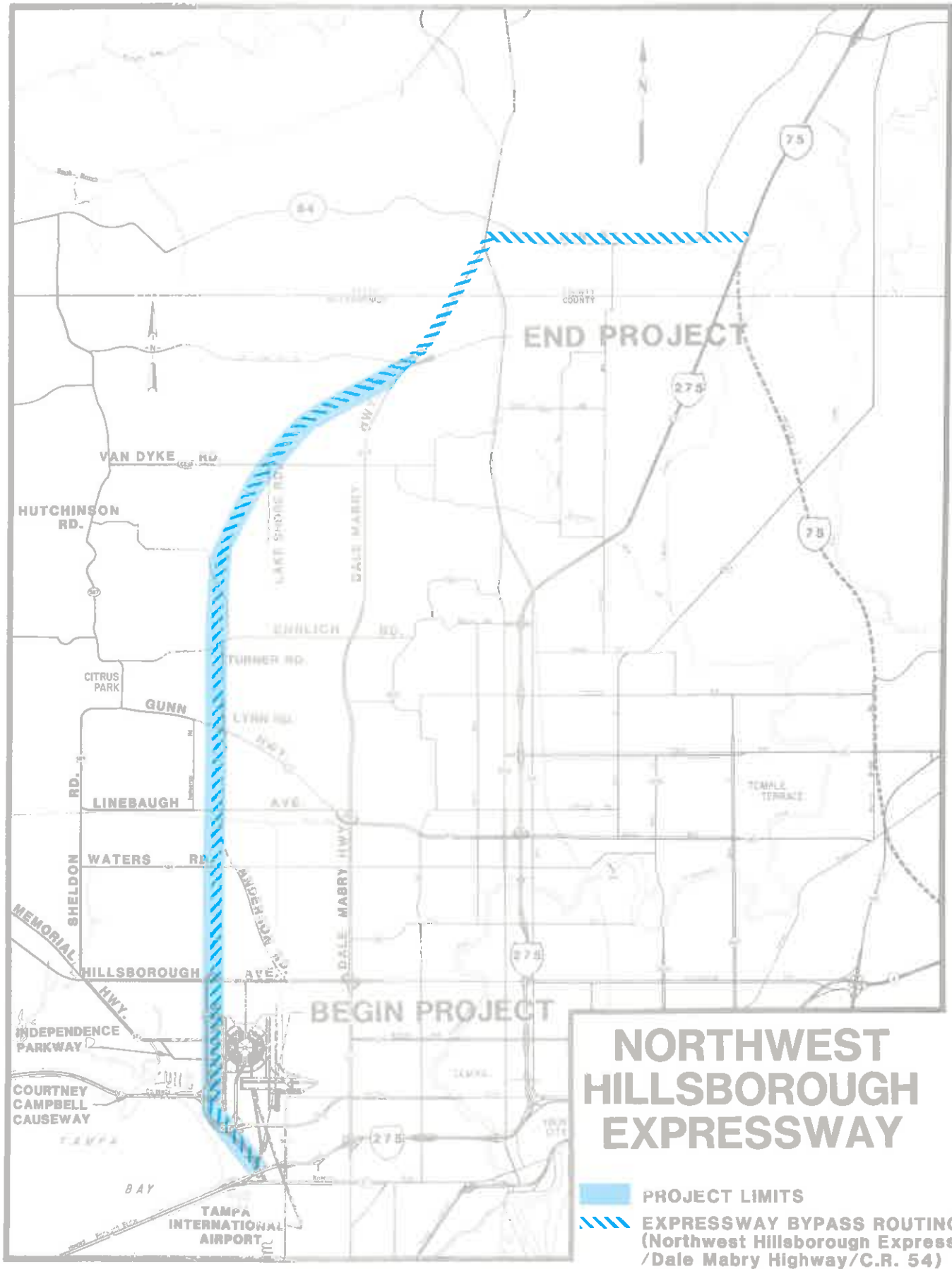
The High Occupancy Vehicle (HOV) Study for Interstate Highway 275 recommends additional lanes on the Interstate for HOV and general use and revision of interchanges. The proposed expressway complements Interstate 275 as part of the area's overall planned expressway system. A demonstration project in the area by the Hillsborough Area Rapid Transit District (HART) is the addition of 25 new buses and express service utilizing existing roadways and new park and ride facilities.

1.3 MAJOR ALTERNATIVES CONSIDERED

Alternatives considered include "No-Build", mass transit improvement, and upgrading of existing facilities in lieu of the project. Basic project alternatives, as shown in Figure 4-13, include one alternative from Interstate 275 to 3,000 feet south of Gunn Highway (Eisenhower/West) and two alternatives north from 3,000 feet south of Gunn Highway to 4,000 feet west of Dale Mabry Highway (Lake LeClare and Railroad). Two termini alternatives are included as the North Termini and South Termini for the north end of the proposed project.

1.4 SIGNIFICANT ENVIRONMENTAL IMPACTS

The proposed project depending on the alignment alternatives chosen will cause the relocations of properties ranging from 111 to 121 residences, from 23 to 24 businesses, and from 1 to 2 public or institutional facilities. Noise will impact several residential areas. Five prehistoric sites, five non site loci, and an older home were identified in the vicinity of the proposed project, however the State Historic Preservation Officer has determined that no resources listed, or eligible for listing, on the National Register of Historic Places would be impacted. Wetlands and flood prone areas will be encountered throughout each alternative alignment, requiring mitigative design considerations.



PROJECT LOCATION MAP

FIGURE 1-1

Impacts during construction include air, noise and localized stormwater runoff pollution. Long term operational impacts include increased air pollution and noise in the immediate vicinity of the proposed facility.

The proposed project will provide a new alternative route to existing congested roadways in Northwest Hillsborough County. It will provide for 50,000 average daily trips in the year 2010 for areas north of Hillsborough Avenue and over 150,000 average daily trips south of Independence Parkway.

1.5 AREAS OF CONTROVERSY

Controversies identified arising from the proposed project are as follows:

- o Impact on residential neighborhoods and communities, both existing and proposed.
- o Effects on watershed areas
- o Impacts on wetlands
- o Using local tax monies for improvement of local roads rather than subsidizing the financial shortfall revenues for expressway during the first years of operation.
- o Location of the expressway further west and north, possibly into adjacent Counties.

1.6 LIST OF OTHER FEDERAL ACTIONS REQUIRED BECAUSE OF PROPOSED ACTION

Permits and approvals may be required from all the Federal agencies listed below:

U.S. Army Corps of Engineers - COE 404 permit for construction activities within the floodplain areas of tributaries flowing into coastal waters.

Federal Highway Administration - The project includes coordination and approval for extensive improvements at the Interstate 275 and Memorial Highway interchange.

U.S. Coast Guard - Permit for construction activities in tidally influenced waterways.

Federal Aviation Administration - The project includes coordination with this agency because of use of properties in and adjacent to Tampa International Airport.

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3.0 PURPOSE OF AND NEED FOR ACTION

3.1 GENERAL

The Tampa urban area has shown consistently high growth rates over the last 20 years with an increase in population in Hillsborough County of 63 percent from 397,788 in 1960 to 647,000 in 1980. A high rate of growth is expected to continue with a 100 percent increase from 1980 to the year 2010 when the County's population is projected to reach 1,295,100. The northwestern portion of Hillsborough County is expected to grow even faster during the same period from a population of 101,568 in 1980 to 241,800 in the year 2010, a rate of 138%.¹

As the Northwest Area has continued to grow, the ground transportation system has not been improved accordingly. All of the major existing east-west routes, Hillsborough Avenue (S.R. 580), Waters Avenue (S.R. 584), Linebaugh Avenue, Gunn Highway (S.R. 587) and Ehrlich Road are presently operating at or over capacity. Also, Dale Mabry Highway (S.R. 597), the major north-south route to the northwest part of the county is operating above capacity and both the morning and afternoon peak periods have increased steadily in duration to nearly three hours. This type of congestion creates unacceptable delays, increases accident rates, and in general degrades the quality of life for all residents affected.

The Florida Department of Transportation and the Hillsborough County Public Works Department have recognized traffic service problems and have programmed improvements for several major arterials in the area (see Section 6.2.1.3 for further discussion). While many of these improvements will enhance traffic flow and levels of service within the study area, the benefits will be localized and segmented. Smaller improvements tend to relocate existing traffic problems to other roadway segments. The primary alternative to improve traffic flow, therefore, is to provide a controlled access facility capable of handling high volume of traffic at reasonable high speeds.

The origin-destination surveys have shown that approximately 50 percent of the traffic on Dale Mabry in the vicinity of Hillsborough Avenue is "through" long distance traffic with neither end of the trip in the immediate area. It is traffic such as this that must be served by a northwest expressway.

¹ Source: Population Projections by Jurisdiction and Census Tract. Hillsborough County City-County Planning Commission, December 1984. Projections for the Town and Country and Carrollwood/Lake Keystone planning areas.

3.2 SYSTEM LINKAGE

The existing roadway network does not provide alternative routes around Tampa. This results in forcing southwestbound continuing trips on I-275 through the downtown area. The project would provide a bypass around the Tampa core area by connecting I-75 in the north with I-275 in the southwest via the existing roadways of CR 54 and Dale Mabry Highway and this project, see Figure 1-1. The bypass concept was originally included in the Year 2000 Principal Street and Highway Systems (TUATS) plan of the Metropolitan Planning Organization (MPO), see Figure 3-1.

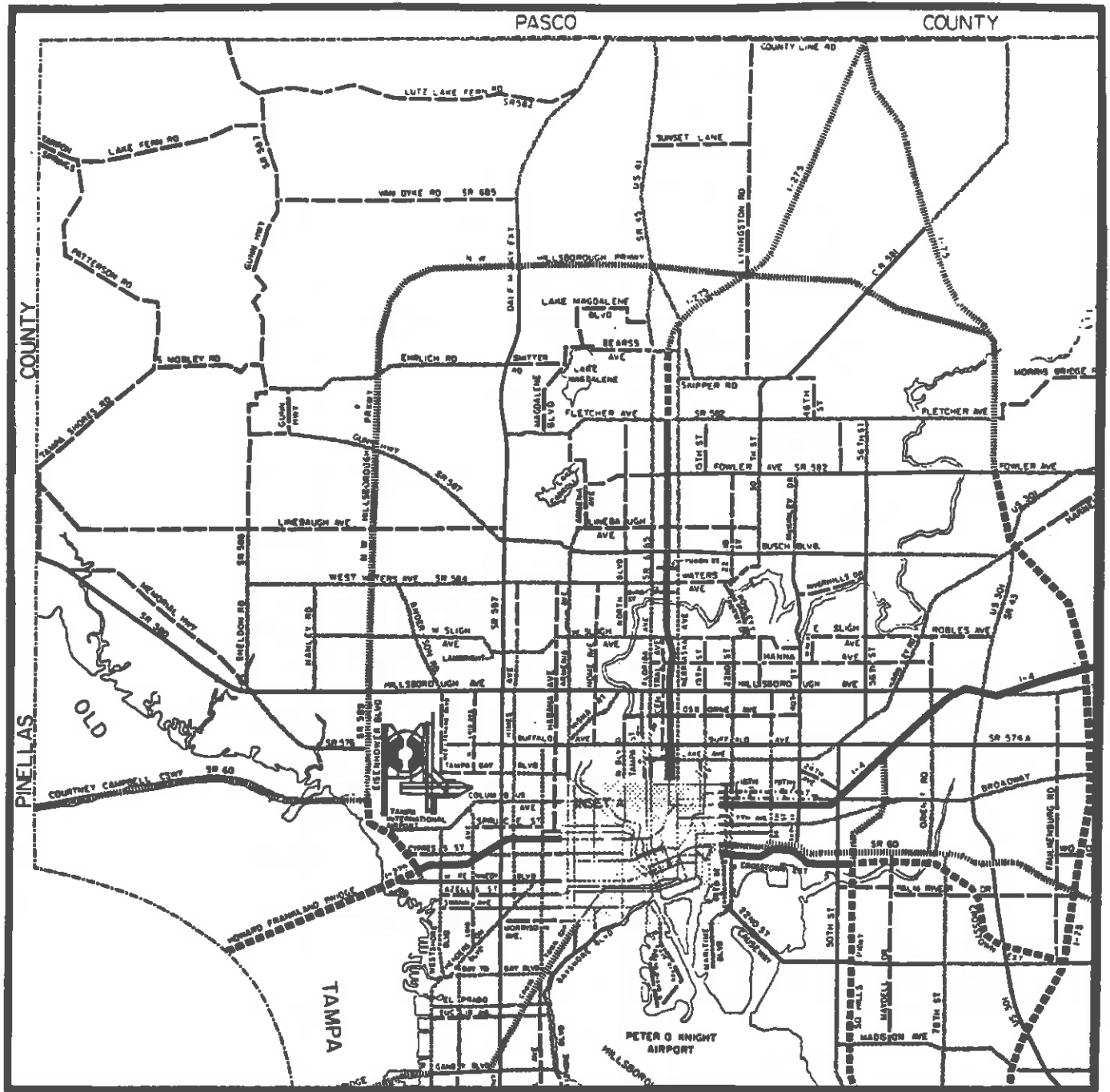
Early in the Expressway study process a direct easterly extension of the Northwest Expressway to I-75 was considered in detail. Due to potentially severe environmental impacts and low traffic projections, this easterly extension from Dale Mabry Highway to I-75 was dropped from further consideration. However, the improvements to the existing arterial system described above (Dale Mabry Highway and CR 54) will provide the necessary bypass system linkage. The level of improvements that will be proposed for Dale Mabry Highway and CR 54 north of the proposed Expressway terminus with Dale Mabry Highway will be the same with or without the Northwest Expressway based upon the year 2010 traffic projections (24,000 ADT for the No Build alternative versus 27,000 to 28,000 ADT for the build alternatives, see Figures 3-2, 6-2 and 6-1, respectively).

The Northwest Hillsborough Expressway would provide a major north-south route that is needed in the study area to relieve Dale Mabry Highway. Dale Mabry is presently experiencing extreme congestion during the peak hours from Busch Boulevard south to I-275. The traffic during this period is principally through commuter traffic traveling between the residential communities in the northwest and the commercial districts in and adjacent to downtown Tampa. Also, the north-south traffic traveling to and from the Tampa International Airport and the St. Petersburg-Clearwater areas has a major impact on Dale Mabry Highway.

The local arterial system, Dale Mabry Highway and CR 54 will provide a dual function, serving the general land use in this rapidly growing area while providing the bypass linkage described above.

3.3 CAPACITY

The northwest area of Hillsborough County has been experiencing severe traffic congestion for many years. There are many reasons for this, the most important of which is rapid population growth in conjunction with an uncohesive and deteriorating roadway network. Improvements to the existing network have not been implemented quickly enough to alleviate the mounting traffic demand of the area.

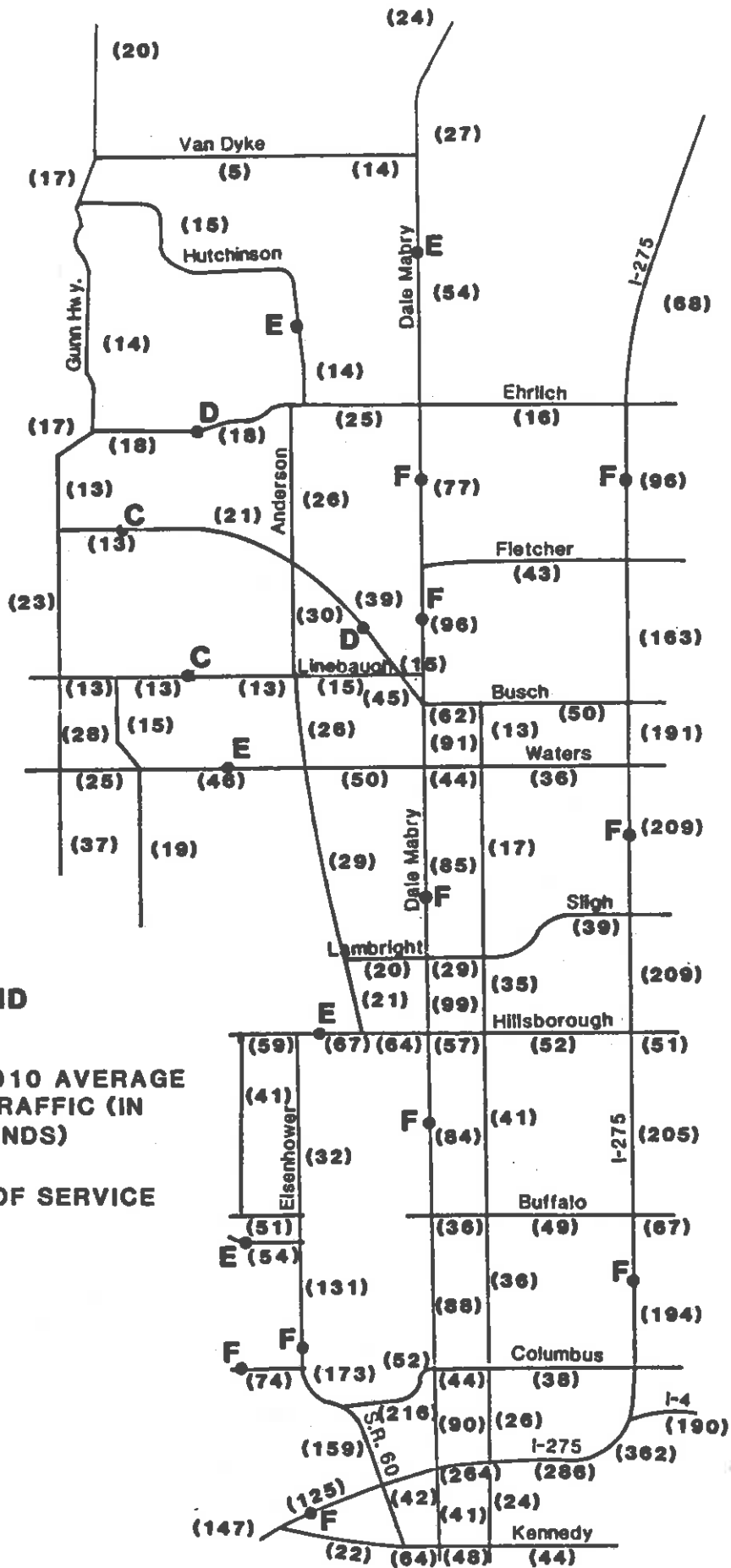


LEGEND

EXPRESSWAY		ARTERIAL / COLLECTOR	
	4 LANE	—	6 LANE
- - -	6 LANE	— —	4 LANE (DIVIDED)
—	8 LANE	----	4 LANE (UNDIVIDED)
— —	10 LANE	- - -	2 LANE
		- —	2 LANE (ONE WAY)
		- —	3 LANE (ONE WAY)
		— —	4 LANE (ONE WAY)

YEAR 2000 PRINCIPAL STREET AND HIGHWAY SYSTEMS (TUATS)

FIGURE 3-1



LEGEND

(00) YEAR 2010 AVERAGE DAILY TRAFFIC (IN THOUSANDS)

E LEVEL OF SERVICE (LOS)

**EXISTING ROADWAY NETWORK (5 YEAR COMMITTED PROGRAM)
(YEAR 2010 TRAFFIC ASSIGNMENTS AND LOS)**

FIGURE 3-2

This has led to major streets in the northwest area which operate at or above capacity. Figure 3-2 shows the existing roadway network and the level of service in the Year 2010 without any high speed facility improvement similar to the one proposed in this document. The level-of-service is a letter designation from A to F which indicates a facility's ability to service traffic with A being the best condition and F the worst condition. (See Section 6.1.3 for further discussion).

Projections of ADT for the Year 2010 on the existing roadway network (including the 5 year committed program) indicate LOS F for portions of Dale Mabry and Interstate 275 south of Linebaugh Avenue as well as for Eisenhower Boulevard south of Memorial Highway. (See Figure 3-2.) With inclusion of the Northwest Hillsborough Expressway in the Year 2010 system, traffic on Dale Mabry Highway, Himes Avenue, Anderson Road, Sheldon Road and Hanley Road is reduced thereby providing an improved Level of Service and increase north-south capacity. (See Figures 6-2 and 6-3.) In addition, inclusion of the proposed project results in reduced traffic on east-west roads between Dale Mabry Highway and I-275 along Busch Boulevard, Waters Avenue, and Sligh Avenue, and on portions of Linebaugh Avenue, Gunn Highway, and Ehrlich Road adjacent to Dale Mabry Highway.

3.4 TRANSPORTATION DEMAND

Design volumes projected for the Northwest Expressway vary from a low of 7,000 to 9,000 at its northern termini with Dale Mabry to a high of 130,000 in the vicinity of the Airport Interchange. These projections are based on proposed significant improvements to I-275 and Dale Mabry Highway and major capacity improvements to the remainder of the arterial system depicted by the MPO long range plan.

Traffic volumes which will be generated cannot be adequately served by the existing arterial street system or with the improvements that are being planned for Interstate 275, Dale Mabry Highway, Anderson Road and other north-south facilities in northwestern Hillsborough County. The magnitude of 2010 traffic volumes projected for the Northwest Expressway south of Linebaugh Avenue and along the Eisenhower Boulevard section and the character of projected traffic north of Linebaugh Avenue necessitates the development of a controlled access highway. It is essential to have a balance of all types of roadways (expressways, arterials and local streets) to properly serve the variety of travel needs. To impose the traffic volumes projected for the Northwest Expressway onto existing or proposed arterials would result in overloaded streets with unsafe driving conditions in the design year. Both north-south and east-west streets would have to assume the additional burden.

In addition, improvements to the transportation system referred to above will take many years to complete due to availability of public funds, acceptance by the community and the normal time frames involved in planning, designing and constructing major transportation facilities. Due to this phenomenon, the Northwest Expressway is expected to serve major increases in traffic volumes beyond those projected by the 2010 system assignments due to construction capacity constraints on I-275 and Dale Mabry. Estimates of additional traffic volumes which will divert to the Expressway due to construction activities on other major north-south roadways range up to 20,000 vehicles per day.

3.5 FEDERAL, STATE, OR LOCAL AUTHORITY DIRECTING THE ACTION

The planning and development of the proposed expressway is the responsibility of Tampa-Hillsborough County Expressway Authority as authorized by Florida Statutes, Chapter 348, Part III. The Expressway Authority is comprised of seven members, four of which are appointed by the Governor of Florida. The other three members are from: Mayor, City of Tampa; Hillsborough County Commissioner; and Florida Department of Transportation, Deputy Assistant Secretary.

The Florida Legislature voted to provide funds to the Expressway Authority for the studies of the proposed expressway, which funds are to be administered by the Florida Department of Transportation. The Department participates in these studies and monitors the performance of the Expressway Authority's engineering consultants and traffic and revenue consultants.

The Northwest Hillsborough Expressway conforms with the adopted Year 2000 Principal Street and Highway Plan of the Urban Area Transportation Study (TUATS), see Figure 3-1. The TUATS plan was officially adopted by the Metropolitan Planning Organization (MPO); see their letter (Appendix E); which is comprised of elected and appointed officials representing local governments within Hillsborough County. The proposed expressway is also consistent with the Year 2010 Principal Street and Highway Plan now under consideration for adoption to supercede the Year 2000 Plan.

3.6 SOCIAL DEMANDS/ECONOMIC DEVELOPMENT

Significant social and economic factors present in northwest Hillsborough County indicate the need for the proposed expressway.

The area in which the project is to be located has undergone tremendous population growth in the past decade and substantial growth is projected for the next 25 years by the Hillsborough County City-County Planning Commission (HCCCPC). See Subsections 3.1 and 6.2.3.3 for discussion of the growth. Residents are dependent on existing roads with limited capacity for travel to work, schools and shopping. As the area grows, more time is consumed in travel and inadequate roads contribute to traffic safety problems. The expressway is intended to divert much of this traffic from these roads to a safer high capacity facility.

Compatible with the adopted Year 2000 Land Use Plan Element of HCCCPC, light industry and office complexes continue to locate in the area surrounding Tampa International Airport. The continued viability of the airport as an economic generator for Tampa, Hillsborough County, and the region is dependent upon accessibility to the airport and surrounding related land use.

The existing roadway system is not adequately serving the needs of the residents of the northwest portion of the County and employment centers of which Tampa International Airport is the hub. Sections 3.1 through 3.4 indicate the extent of the inadequacies of the system as relate to the need for the proposed expressway.

3.7 MODAL INTERRELATIONSHIPS

The proposed facility is a high type, free flowing roadway. Its major benefit will be to the motoring public of northwestern Hillsborough County and those that wish to bypass downtown Tampa. However, through prudent planning the proposed expressway will beneficially interface with other modes of transportation.

The proposed southern terminus of the Northwest Expressway will pass the Tampa International Airport. By modifying the existing interchanges south and west of the Airport, access between the Airport and the Northwest Expressway will be unobstructed.

Tampa International Airport is recognized as a major aviation facility serving the entire Tampa Bay area. With the improved access the Northwest Expressway will provide to the airport, air travellers from the northern parts of Hillsborough County and from all areas north of Tampa will have quicker and easier access to the Airport. Also, those travellers coming from the north will be able to access the airport without going through the congested I-275 downtown area.

In addition to aviation, other modes of transportation will be served. Areas like Port Tampa and McDill Air Force Base on the Tampa Peninsula will be better served by the proposed expressway. Also, shipping and other commercial interests in Pinellas County will have better access due to the northwest bypass route around the Tampa Central Business District.

The Florida Department of Transportation (FDOT) and the Hillsborough Area Regional Transit Authority (HART) currently have a two year demonstration project in progress to provide express bus service in Northwest Hillsborough County. The demonstration utilizes park and ride lots serving the bus system running along Dale Mabry. The development of the proposed expressway will be compatible with and tend to enhance express bus service by relieving congestion on Dale Mabry Highway and by providing a major new alternate route for additional express bus service in the future. The expressway could eventually be expanded within the proposed right-of-way for HOV lanes.

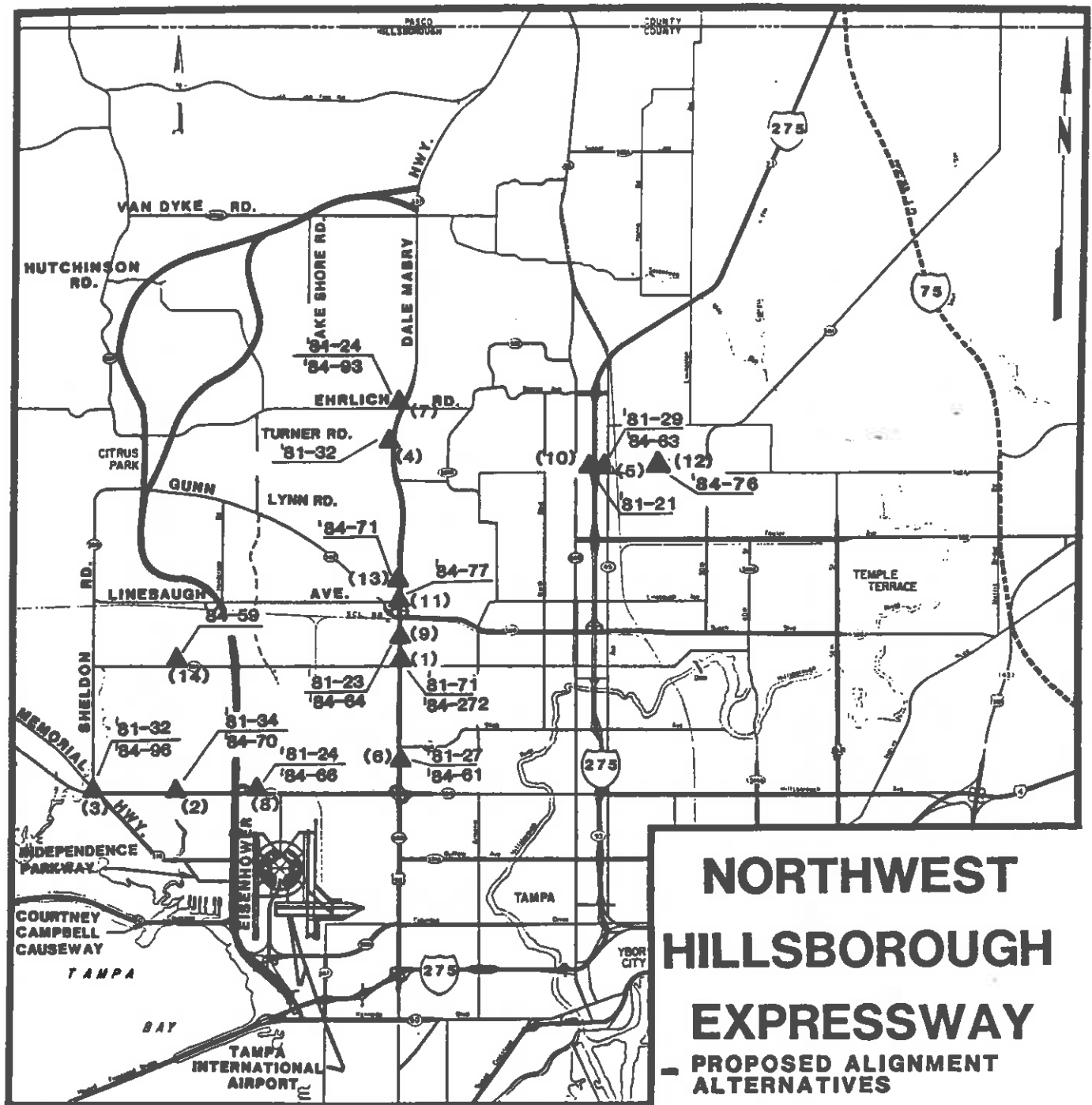
While no rail system is planned at the present time, the design of the proposed expressway would allow for future use of light rail transit within the right-of-way. Alternative modes of transportation are discussed in Section 4.2.4.

The Hillsborough County Comprehensive Bicycle Plan, a policies plan now in preparation by the Hillsborough County City-County Planning Commission for adoption by the Metropolitan Planning Organization (MPO) for the TUATS, identifies existing major thoroughfares for future, as yet unspecified, bicycle improvement projects. The proposed expressway will be designed to allow bicycle traffic to safely flow on those thoroughfares located within the vicinity of the expressway.

3.8 ROADWAY SAFETY

The increased congestion on the roadway network has caused a significant increase in accidents within the study area. The 1981 Accident Profile Report published by Hillsborough County indicated that ten out of the twenty-five "high accident locations" of Hillsborough County are within the study area. By 1984, the report showed an increase to fourteen out of twenty-five locations were in the study area. These "high accident locations" are shown in Figure 3-3 and the accident data is given in Table 3-1.

These high accident rates are indicative of the high volumes on the existing facilities and those facilities' corresponding shortfalls in roadway geometrics and safety features. Hillsborough County and the Florida Department of Transportation have programmed improvements for many of these arterials which should improve safety; however, conflict will continue to exist -- especially at high volume intersections.



LEGEND

▲ YEAR-TOTAL ACCIDENTS

1981 INCLUDES HILLSBOROUGH COUNTY SHERIFF DEPT. & FHP RECORDS

1984 INCLUDES HILLSBOROUGH COUNTY ROAD DEPARTMENT TRAFFIC RECORDS PROGRAM

(3) LOCATION NUMBER

HIGH ACCIDENT LOCATIONS

FIGURE 3-3

TABLE 3-1
HIGH ACCIDENT DATA

Numbers	Location/Description	1981			1984		
		Ranking	Total Accidents*	Persons Injured	Ranking	Total Accidents**	Persons Injured
1	Dale Mabry @ Waters Ave.	1	71	37	1	272	62
2	Hillsborough Ave. @ Hanley Rd.	9	34	24	15	70	N/A
3	Hillsborough Ave. @ Memorial Highway	10	32	9	3	96	17
4	Dale Mabry @ Stall Rd.	12	32	34	NR	NR	NR
5	Fletcher Ave. @	13	29	17	19	63	N/A
6	Dale Mabry @ Nebraska Ave.	14	27	19	21	61	
7	Lambright St.	17	24	39	5	93	25
8	Dale Mabry @ Ehrlich Rd. Hillsborough Ave. @	18	24	26	17	66	43
9	Benjamin Rd.	21	23	7	18	64	N/A
10	Dale Mabry @ Humphrey St.	24	21	12	NR	NR	NR
11	Fletcher Ave. @ I-275 NB Dale Mabry @	NR	NR	NR	7	77	N/A
12	Linbaugh Ave.	NR	NR	NR	10	76	N/A
13	Fletcher Ave. @ 15th St. Dale Mabry @	NR	NR	NR	14	71	N/A
14	Lake Carroll Way Waters Ave. @ Hanley Rd.	NR	NR	NR	23	59	N/A

*Reported by Hillsborough County Sheriff's Department and Florida Highway Patrol
 **From Hillsborough County Road Department/Engineering Unit Traffic Records Program

NR - Not Ranked

N/A - Not Available

On a limited access facility like the proposed Northwest Expressway, safety is greatly increased in proportion to vehicle miles traveled. As stated in the AASHTO publication, A Policy on Geometric Design of Highways and Streets, (1984, pg. 125):

The most significant design factor contributing to safety is the provision of full access control. The beneficial effect of this element has been documented in reports of the cooperative research study between the FHWA and 39 State highway agencies. One of the principal findings of this study is that the absence of access control invariably increased the accident rate.

The study shows that accidents, injury, and fatality rates on Interstate highways are between 30 and 76 percent of comparable rates of conventional highways existing before the Interstate highways were opened to traffic. No other single design element can claim comparable savings.

The main contributing factors for this increase in safety is the grade separations which alleviates major intersection conflicts and the median separation which lowers the rate of head-on collisions.

With implementation of the proposed project, traffic patterns are expected to shift towards the expressway. This will aid the overall safety of the existing roadway network by redistributing traffic away from high-accident locations. All the major east-west routes should experience better directional splits (traffic in one direction as percentage of total traffic) and Dale Mabry Highway's increase in traffic demand should be lower than if the expressway is not built. Thereby, all traffic would experience less delay and safer operations at all the major intersections in the study area.

4.0 ALTERNATIVES INCLUDING PROPOSED ACTION

4.1 CORRIDOR AND ALIGNMENT ALTERNATIVES

4.1.1 Design Characteristics and Standards

The design of all new roadway facilities will be accomplished utilizing the latest design standards provided by the American Association of State Highway and Transportation Officials (AASHTO) and the Florida Department of Transportation (FDOT). It is proposed that the expressway facility be a multi-lane, divided, limited access roadway.

The typical section proposed varies according to the area the expressway traversed. The typical sections used throughout the study for the alignment alternatives discussed in Subsections 4.1.3 Alignment Alternatives Considered But Rejected and 4.1.4 Reasonable Alignment Alternatives are described below.

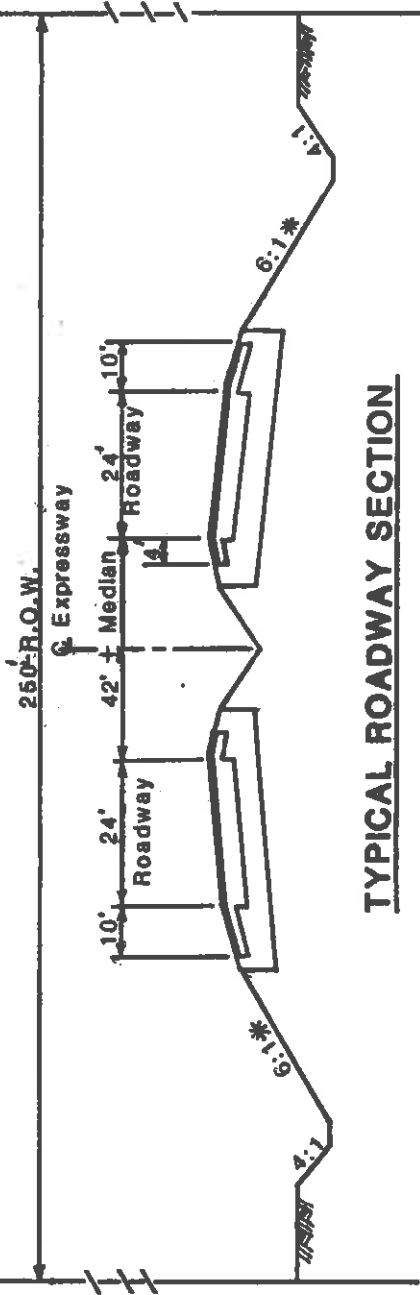
The basic typical section used for most of the alignments studied is the rural typical section, Figure 4-1. This section would provide two 12 foot lanes in each direction with a 42 foot plus or minus median. In the semi-rural and rural areas where the land is not as intensely developed, the proposed right-of-way would be 250 feet. The typical section in these areas, would provide for open drainage in ditches. In high fill areas and wetland areas the side slopes would be 2:1 with shoulder gutter and guard rail instead of the desirable 6:1, see Figure 4-2.

The 42 foot median in this rural section provides for future widening to six lanes by the addition of two lanes in the median separated by a concrete median barrier wall. There are no immediate plans for widening to six lanes, however high occupancy lanes or additional general use lanes may be needed as the area develops beyond the design year 2010.

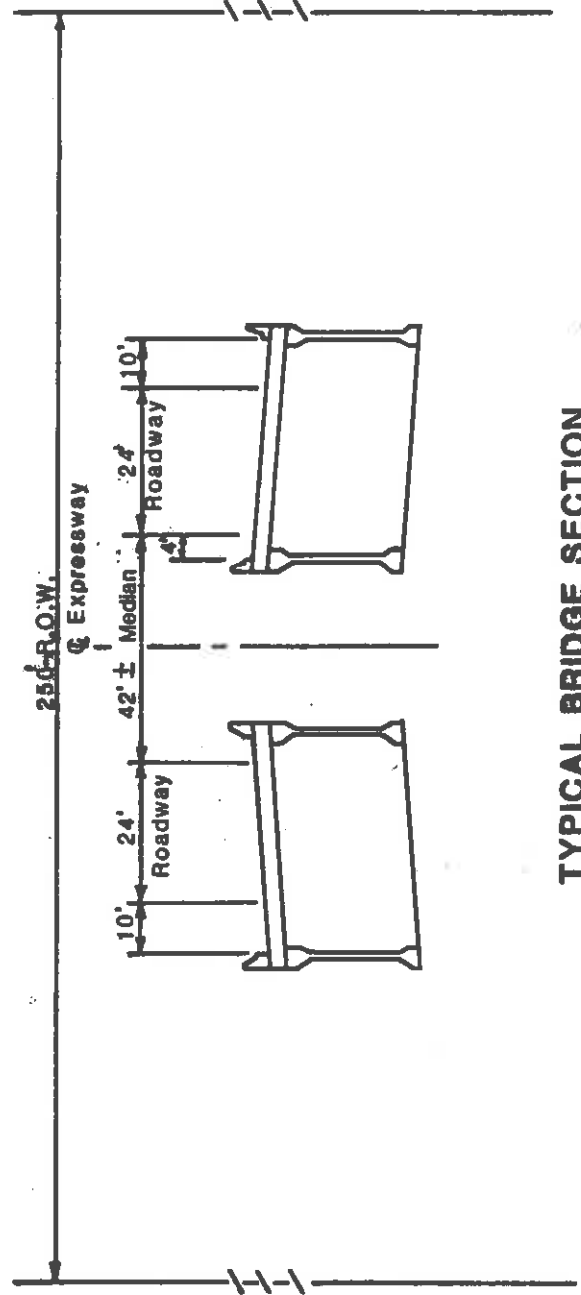
In the urban areas where the land is highly developed and therefore very expensive, the urban typical section, Figure 4-3 is proposed. This section also provides for two 12 foot lanes in each direction with a 42 foot median that could be used for widening to six lanes in the future. A closed drainage system (pipes and inlets) with concrete valley gutter, guardrail and 2:1 side slopes would be utilized throughout to minimize right-of-way purchase requirements. The basic right-of-way width would be 180 foot. For high fill areas, retaining walls would be utilized. In urban areas having extended bridge viaducts, the right-of-way was reduced to a 150 foot width where practical, see Figure 4-3.

In addition to the rural and urban typical sections, three special sections were developed for specific areas of the study.

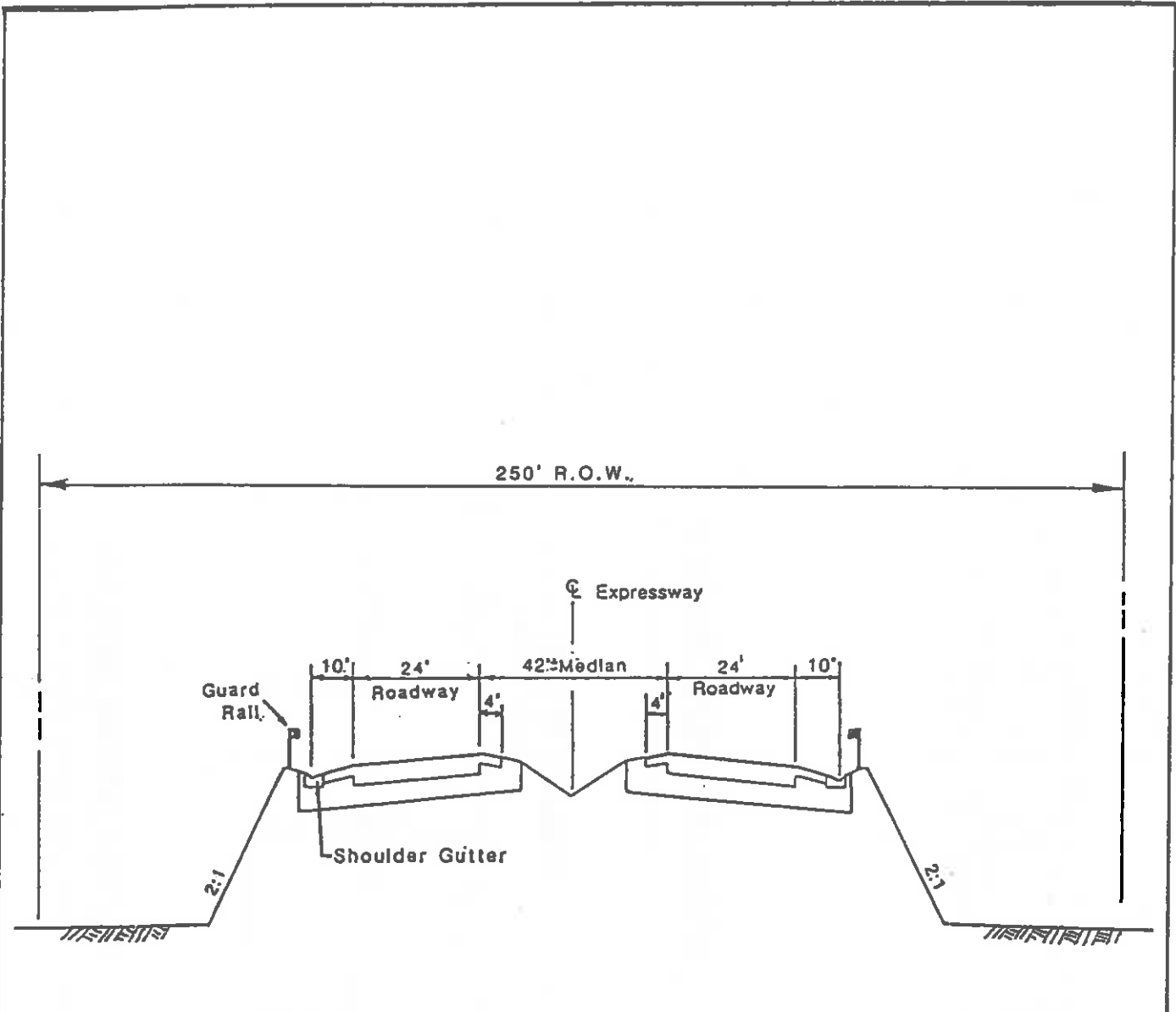
* NOTE:
 2:1 used in high fill areas
 and in wetland areas
 to minimize impacts.
 See Figure 4-2.



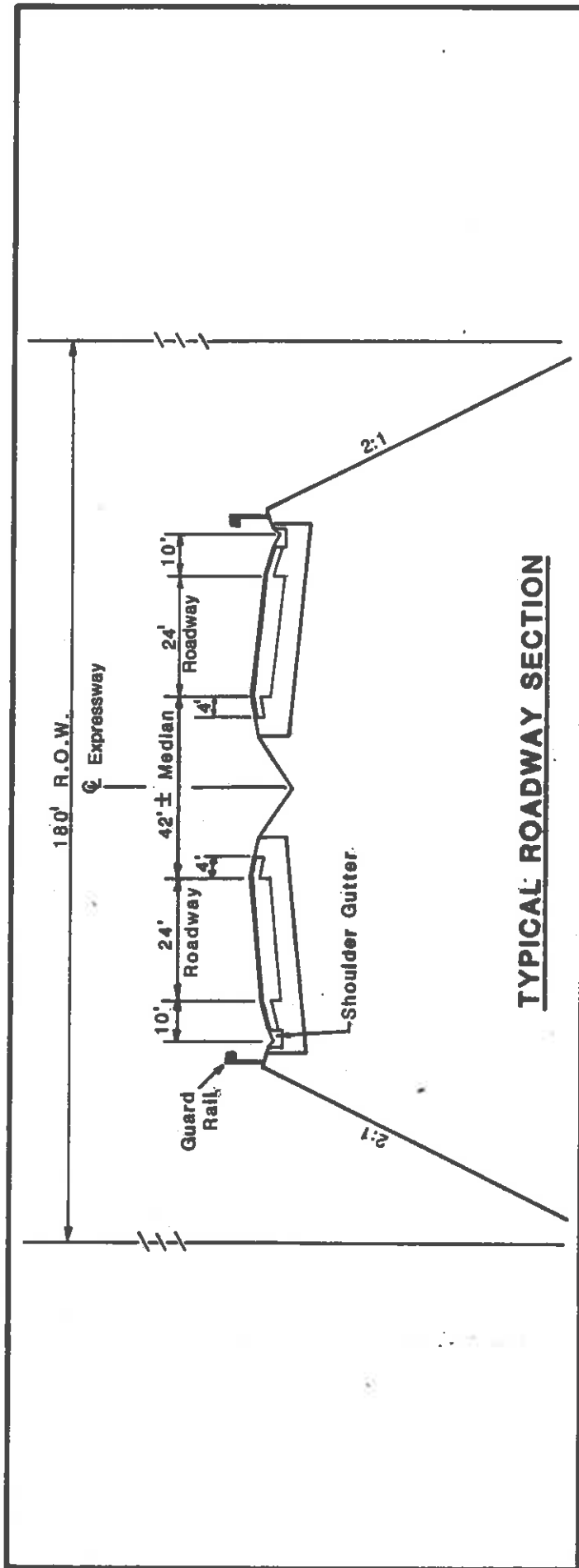
TYPICAL ROADWAY SECTION



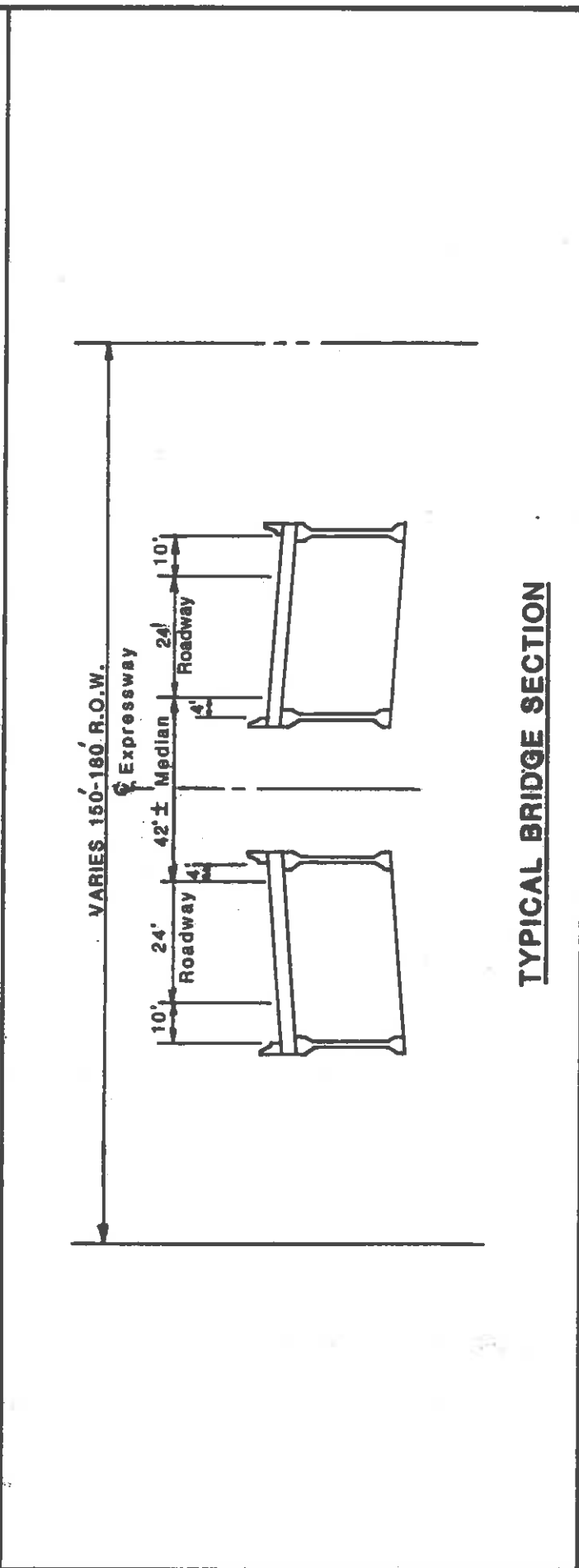
TYPICAL BRIDGE SECTION



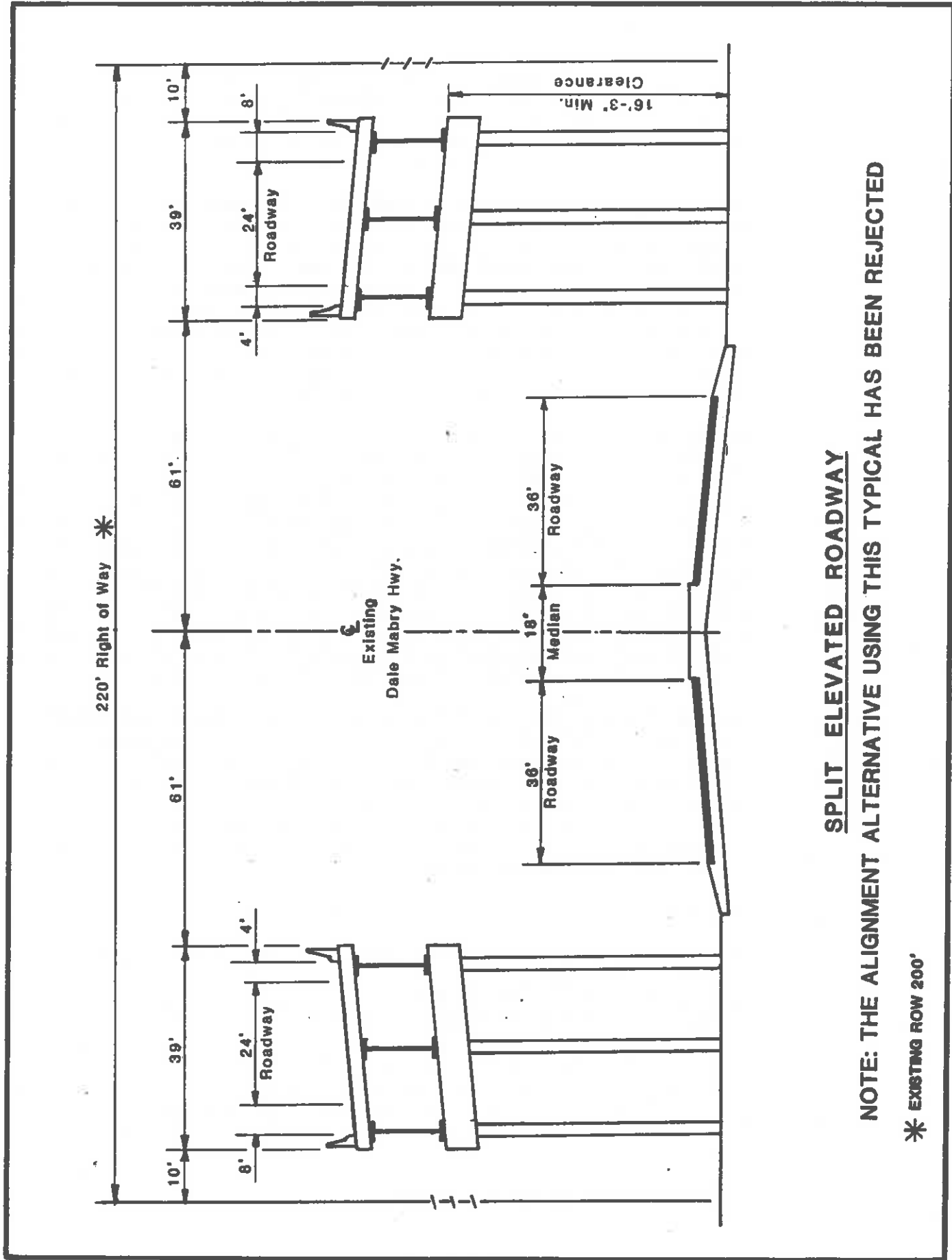
TYPICAL ROADWAY SECTION



TYPICAL ROADWAY SECTION



TYPICAL BRIDGE SECTION



SPLIT ELEVATED ROADWAY

NOTE: THE ALIGNMENT ALTERNATIVE USING THIS TYPICAL HAS BEEN REJECTED

* EXISTING ROW 200'

**TYPICAL SECTION -
EXPRESSWAY AND DALE MABRY HIGHWAY**

FIGURE 4-4

They include: the proposed Expressway along Dale Mabry Highway (Figure 4-4); improvements to Eisenhower Boulevard to accommodate the proposed Expressway (Figure 4-5); and the proposed Expressway using the existing abandoned railroad right-of-way, most of which is currently owned by Hillsborough County (Figure 4-6).

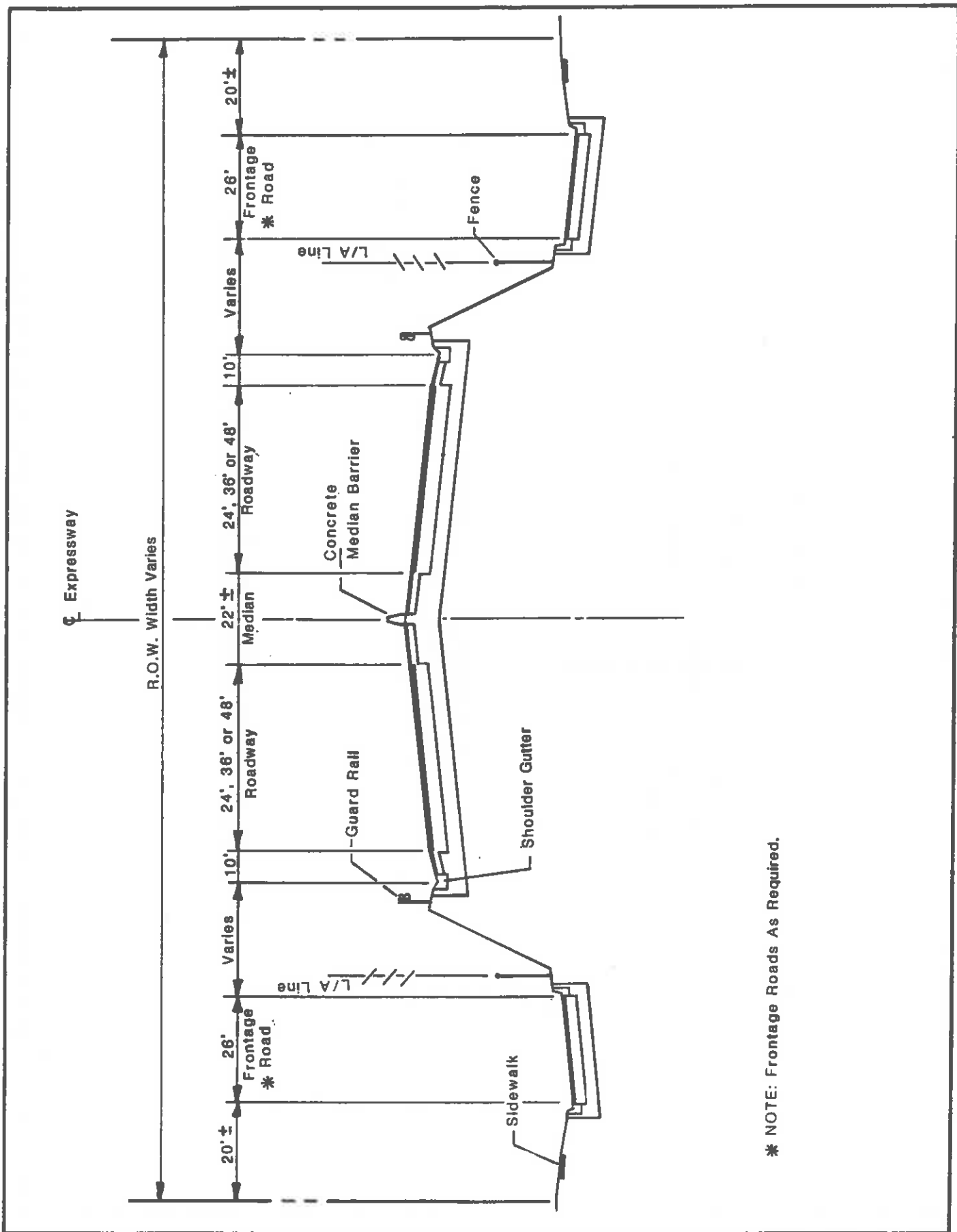
The typical section for the Expressway along Dale Mabry Highway Figure 4-4 shows the northbound and southbound roadways on bridges parallel to the existing Dale Mabry Highway roadway. The northbound roadway would be on the east side of Dale Mabry Highway and the southbound roadway on the west side. This section would have two 12 foot lanes in each direction. The right-of-way was set at 220 foot wide or an additional 20 foot wider than then existing roadway. This typical section is no longer being considered since the alignment alternative using this section has been rejected, see Section 4.1.3.

The typical section for improvements to Eisenhower Boulevard, is the urban section with a narrower median (concrete median barrier with 10 foot inside shoulders) (Figure 4-5). This section provides for a four, six or eight lane expressway with and without frontage roads. The six and eight lane sections are required in the extensive interchange areas along Eisenhower Boulevard for added capacity between entrance and exit ramps. As shown on this section, frontage roads would be provided on each side of the mainline as required. The travel lanes on the Expressway and frontage roads would all be 12 foot wide and the right-of-way required would vary throughout the area depending on interchange configuration and the use of frontage roads.

The typical sections for the area where the proposed Expressway would use a portion of the abandoned railroad right-of-way, Figure 4-6 is the same as the rural typical section described above except for the amount of right-of-way to be acquired. Basically this is a 100 foot wide right-of-way owned by the County. Note there are sections of the abandoned railroad right-of-way that are privately owned. In these privately owned areas, the rural section would also be used.

4.1.2 Corridors

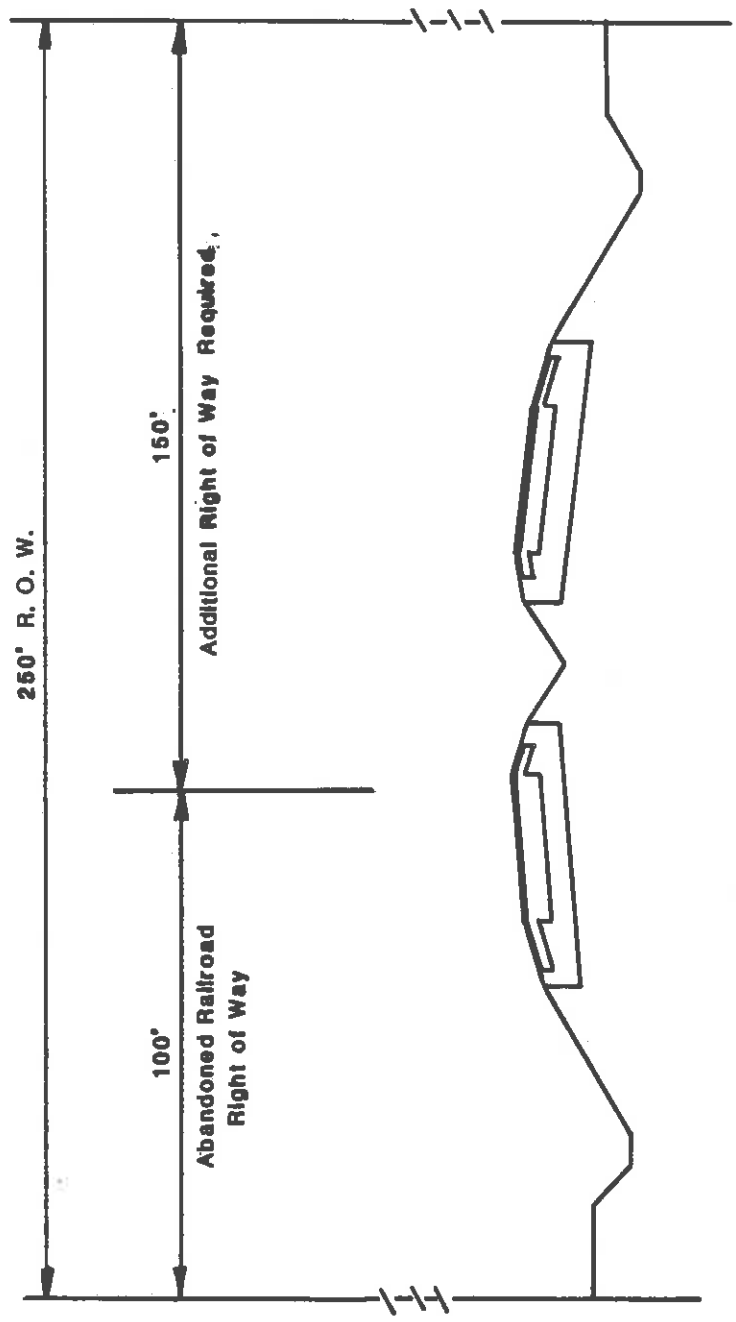
The study area for the proposed expressway was established in and adjacent to Tampa in the northwest portion of Hillsborough County, Florida as shown in Figure 4-7. The study area was based on general guidance provided by the Year 2000 Principal Street and Highway System Map of the Tampa Urban Area Transportation Study (TUATS) Figure 3-1 which showed the Northwest Hillsborough Parkway. The study area represents that area within which potential corridors for the proposed expressway could be developed and areas which could be impacted by the proposed roadway.



* NOTE: Frontage Roads As Required.

TYPICAL SECTION - 4, 6 OR 8 LANES WITH FRONTAGE ROADS

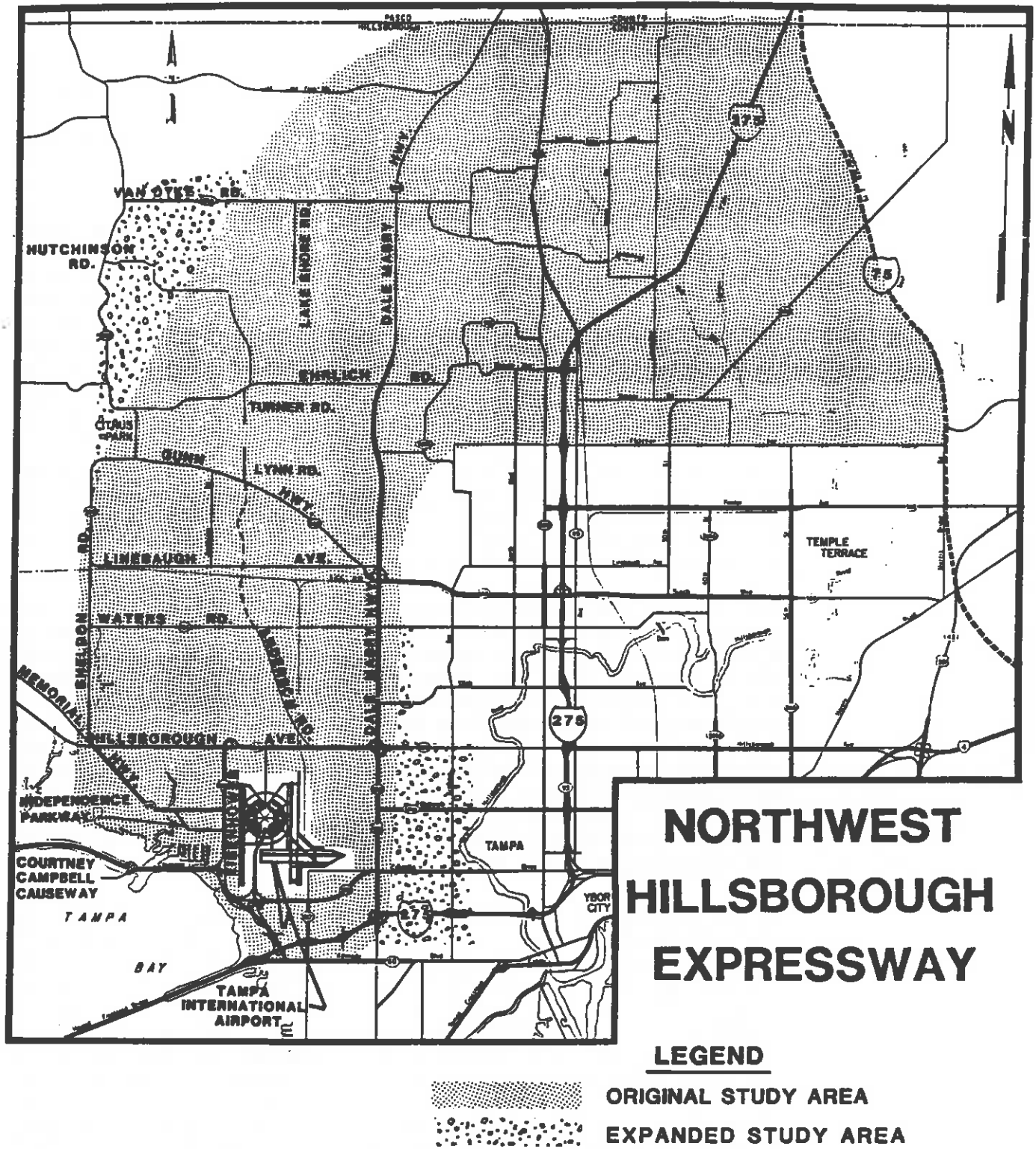
FIGURE 4-5



FOR DETAILS SEE RURAL TYPICAL SECTION FIGURE 4-1

**TYPICAL SECTION —
USE OF ABANDONED RAILROAD RIGHT OF WAY**

FIGURE 4-6



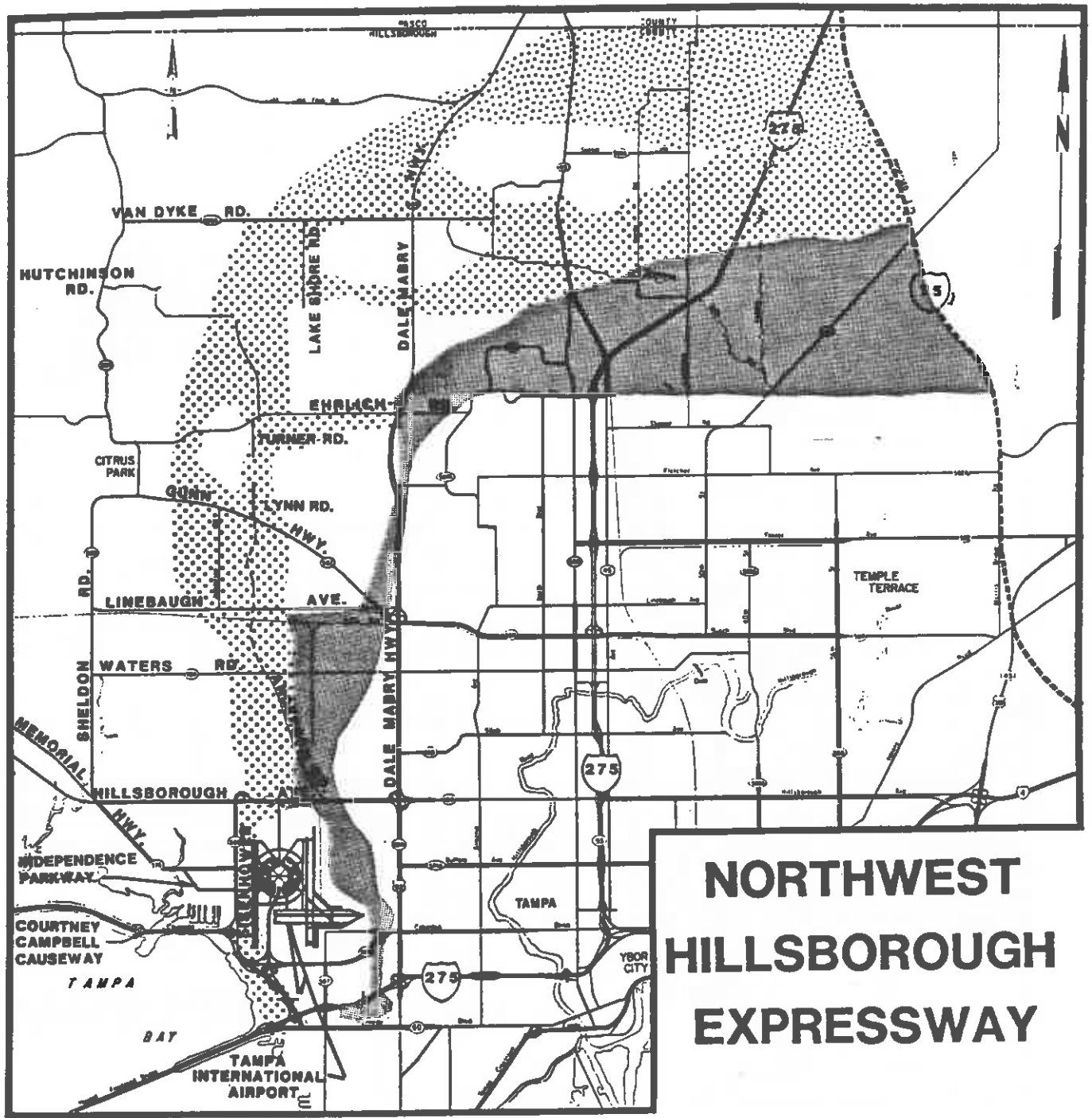
STUDY AREA MAP

FIGURE 4-7

The study area was initially divided into three preliminary study corridors (A, B and C) as presented in Figure 4-8. These corridors represent wide bands of land within which one or more potential alignments could be developed and which would represent a full range of environmental factors. The corridors were defined using aerial photography, field investigation, and existing information of the area. Separation of the study area into corridors was accomplished by dividing the north-south segment into two distinct corridors and the east-west segment into three corridors and joining them as shown in Figure 4-8. The requirement for each corridor was the ability to provide for an expressway entirely within that corridor. Provisions, however, were also made for an expressway proceeding from one corridor into another corridor in order to determine the most viable alternative. The areas outside the corridor and certain areas within or between corridors were eliminated if they included (1) large residential, commercial, and industrial areas which would be adversely impacted by development of the expressway in those areas, (2) large environmentally sensitive areas or recreational areas, (3) large public use facilities, and (4) large wetlands and/or lake areas.

Additional field investigations, updated aerial photography, and public involvement including public workshop comments resulted in a refinement of the preliminary corridors. The study corridors which resulted from the refinement process are shown in Figure 4-9. In addition to Corridors A, B and C mentioned above, Corridor D was added for cost comparison purposes. This corridor comprised the southernmost section of Corridor B connected to the northeast section of Corridor C (connection was between Waters and Linebaugh Avenues). Corridor B was expanded to the west into areas where there was less existing and proposed development and Corridor C was expanded to the east in search of better access to and interchange with I-275.

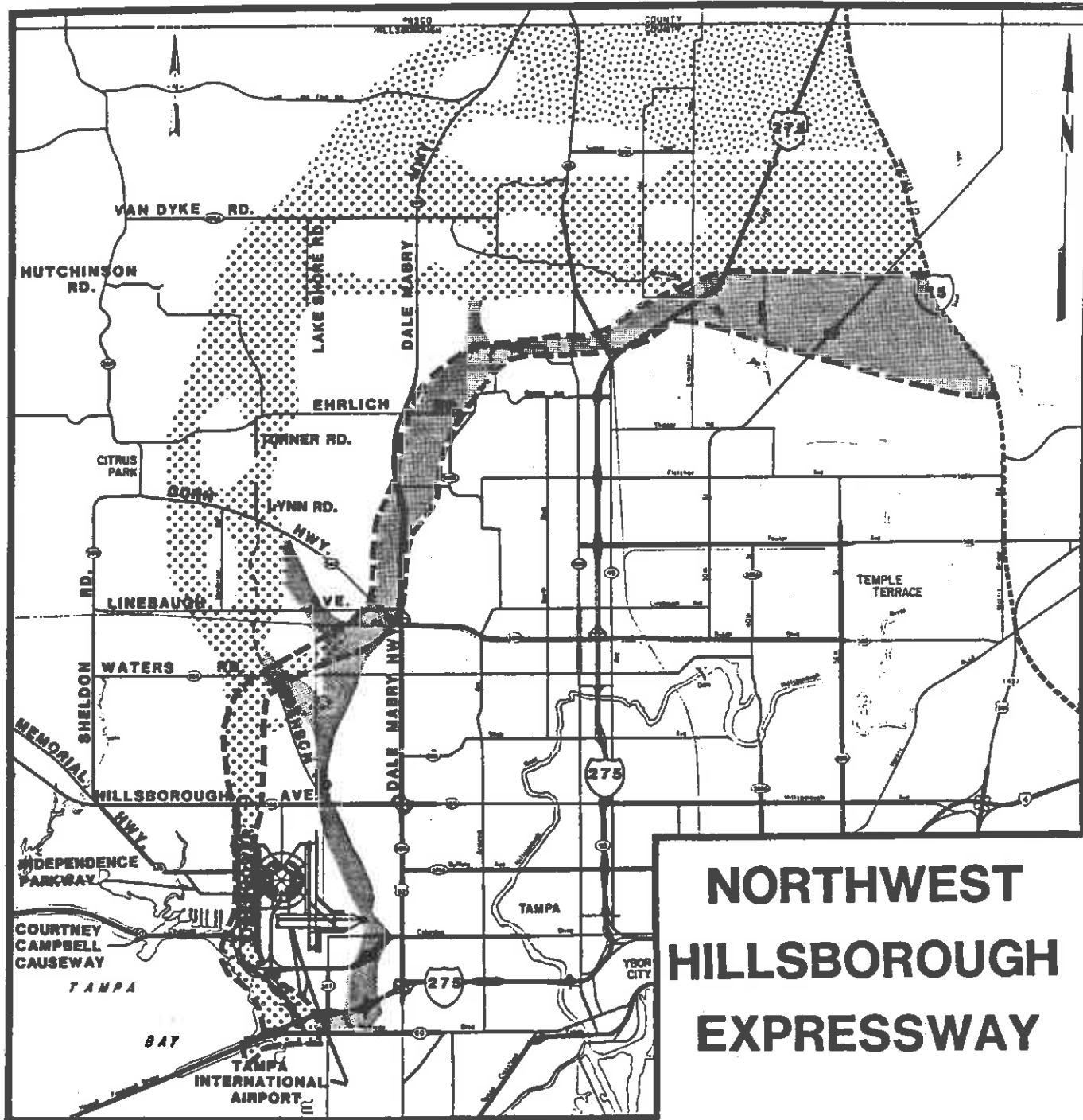
At the conclusion of the corridor study phase and throughout the study of alignment alternatives, the alignments were basically in Corridor B and a small portion of Corridor C south of Gunn Highway as shown in Figure 4-10, Alignment Alternatives Study Area. The corridor evaluation process entailed the use of representative alignments to quantify the various factors of traffic service, environmental and community impacts and costs for the expressway. The corridor evaluation included the comparison of build alternative corridors to the no-build alternative. Three publications entitled Northwest Hillsborough Expressway Phase 1 - Corridor Report, updated July 1983; Supplement to Phase I - Corridor Report, September 1983; and Expanded Corridor Study, March 1984, all of which were prepared by Howard Needles Tammen and Bergendoff for this study, show in detail the procedures followed and quantification of these comparison factors.



NORTHWEST HILLSBOROUGH EXPRESSWAY

LEGEND





-  CORRIDOR A
-  CORRIDOR B
-  CORRIDOR C



NORTHWEST HILLSBOROUGH EXPRESSWAY

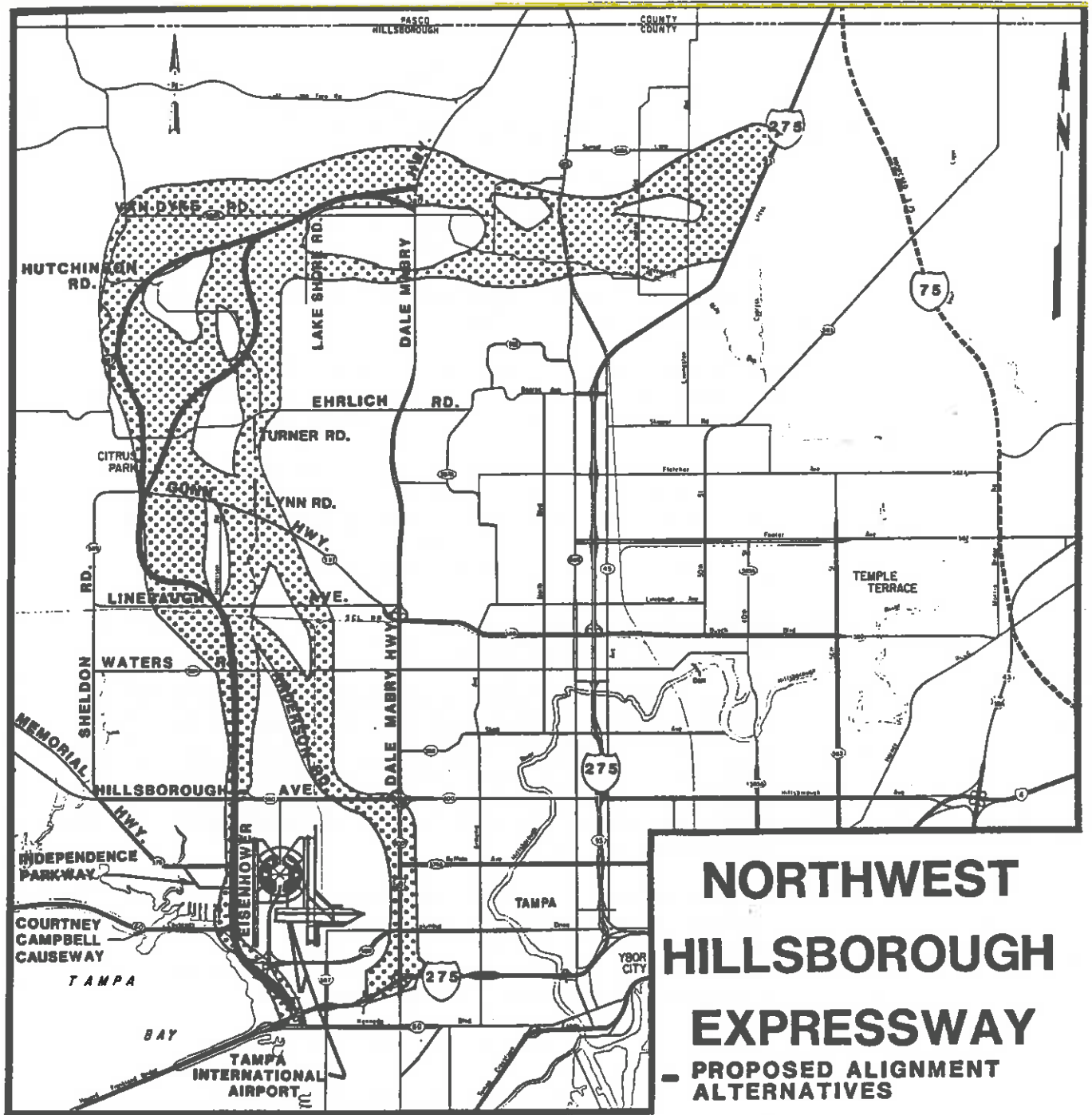
CORRIDORS SHOWN AT
CORRIDOR PUBLIC HEARING

LEGEND

-  CORRIDOR A
-  CORRIDOR B
-  CORRIDOR C
-  CORRIDOR D

REFINED STUDY CORRIDORS

FIGURE 4-9



ALIGNMENT ALTERNATIVES STUDY AREA

FIGURE 4-10

In arriving at the study limits shown in Figure 4-10, the recommendations made in the Supplement to Phase I - Corridor Report and Expanded Corridor Study were adopted by the Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation. Note that all the corridors studied and the "No Build" alternative will be presented in the public hearing and further evaluated prior to selection of the final alternative alignment or No Build Alternative.

The recommendations for delineating the selected study area and reasons therefor briefly stated are:

1. Recommendation: Eliminate Corridors A and D in their entirety and Corridor C from the vicinity of Waters Avenue northward from further consideration.

Reason: Corridor A had less traffic than Corridor B, substantially more water quality and wetland impacts and was not as compatible in serving growth. Corridor D and the northern portion of Corridor C had substantially more community impacts than Corridor B.

2. Recommendation: On the Northeast, eliminate the section of Corridor B lying between I-275 and I-75.

Reason: The main floodplain/wetland involvement was for over one and a quarter mile or approximately 50 percent of the length between I-275 and I-75 within Corridor B. This is the Cypress Creek floodplain area. The projected traffic volumes were negligible and therefore would not justify construction of an expressway with an interchange on I-75.

3. Recommendation: Expand Corridor B to the west to include an abandoned railroad right-of-way which could be used as expressway right-of-way. The railroad right-of-way under consideration, is generally from Linebaugh Avenue north to Hutchinson Road.

Reason: The railroad right-of-way is primarily owned by Hillsborough County and would, therefore, reduce the amount of right-of-way acquisition costs for this section of Expressway. Also, there is less proposed development within this area of the County.

4. Recommendation: Expand Corridor C south of Hillsborough Avenue eastward to include potential Expressway alignment alternatives on Dale Mabry Highway. The area east of Himes Avenue should not be considered for an expressway.

Reason: Use of the Dale Mabry corridor would provide a more direct connection to the downtown area and would provide more flexibility in locating an interchange on I-275 or in using major arterial roadways for access to the interstate system. The area east of Himes Avenue was highly developed and would cause extensive community disruption with one additional neighborhood impacted and a substantial amount of additional residential relocations. Also, project costs were approximately \$175,000,000 or nearly \$25,000,000 more than Dale Mabry's most expensive alternative. Finally, the proposed expressway would traverse an historic district listed on the National Register of Historic Places.

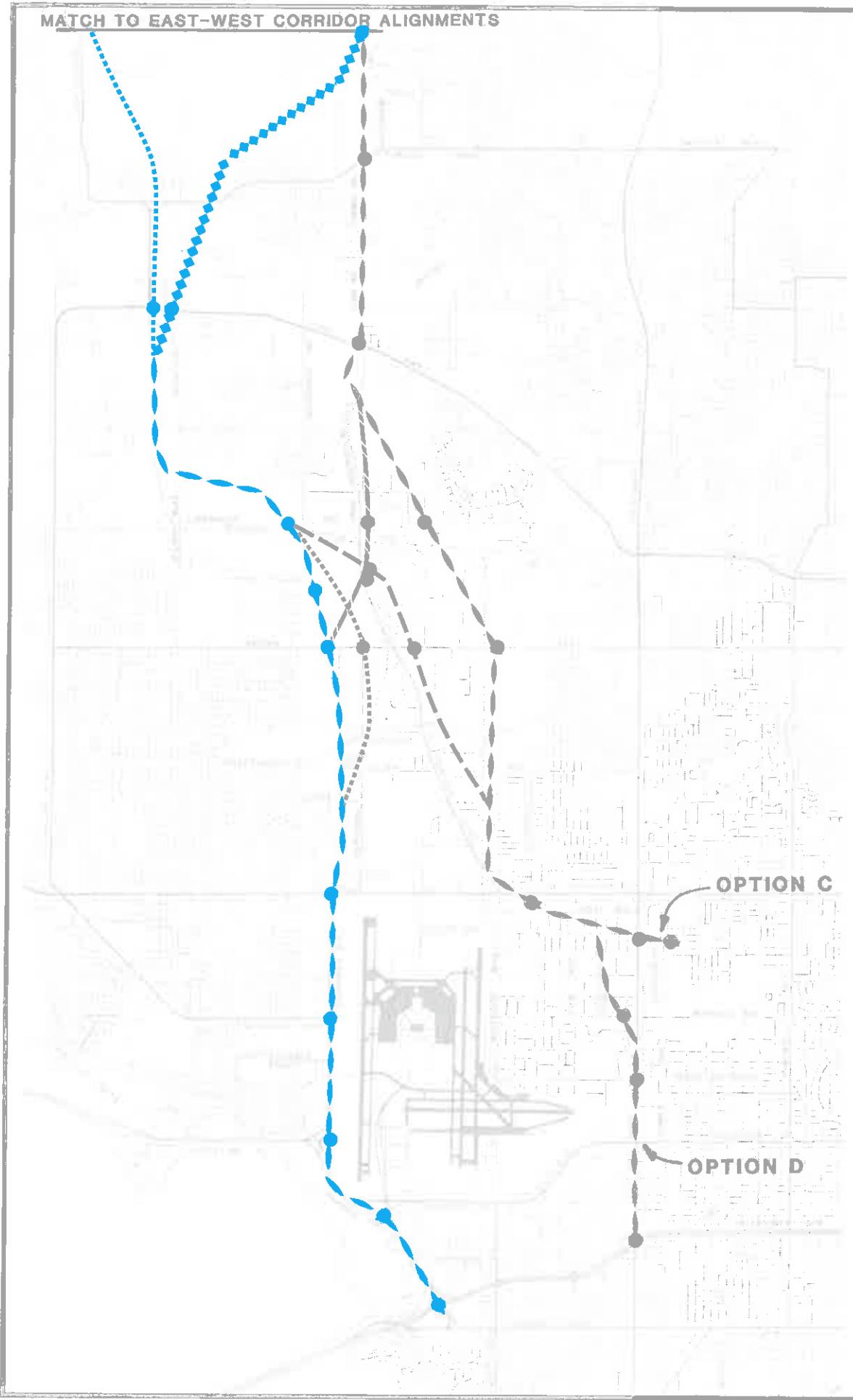
Note that all the alignment alternatives developed (see Figures 4-11 and 4-12) and discussed below in Subsections 4.1.3 Alignment Alternatives Considered But Rejected and 4.1.4 Reasonable Alignment Alternatives lie within the Alignment Alternatives Study Area (Figure 4-10).

4.1.3 Alignment Alternatives Considered But Rejected

The entire selected Alignment Alternatives Study Area was evaluated for its viability to accommodate an expressway alignment. The locations of noteworthy features such as schools, churches, parks, and public buildings were determined. The wetlands and floodprone areas within the corridor were located on aerial photography and the potential impacts of an expressway alignment analyzed. The locations of existing and proposed residential development were obtained and considered in the corridor evaluation. Using these factors, the potential alignments, as shown in Figures 4-11 and 4-12, were developed for detailed analysis.

As these alignments were generated, further study and analysis was performed on each alternative to determine which would provide the best service to the community with the least amount of social and environmental impacts. This analysis included development of project costs (including construction, engineering, administrative, right-of-way and relocation, and escalation costs), traffic service, environmental impacts and social impacts (relocations required and adjacent neighborhoods affected). Throughout the process, each of the alternatives generated for each segment of the corridor were compared to establish the alignment most suited for further study.

Alternative alignments studied and dropped (rejected) from further consideration are discussed in depth in the Engineering Alternatives Report - September, 1984, and the Technical Memorandums "East-West Corridor Evaluation" dated September 11, 1984, see Appendix A, "Railroad Alignment Evaluation" dated



LEGEND

ALIGNMENT ALTERNATIVES CONSIDERED BUT REJECTED

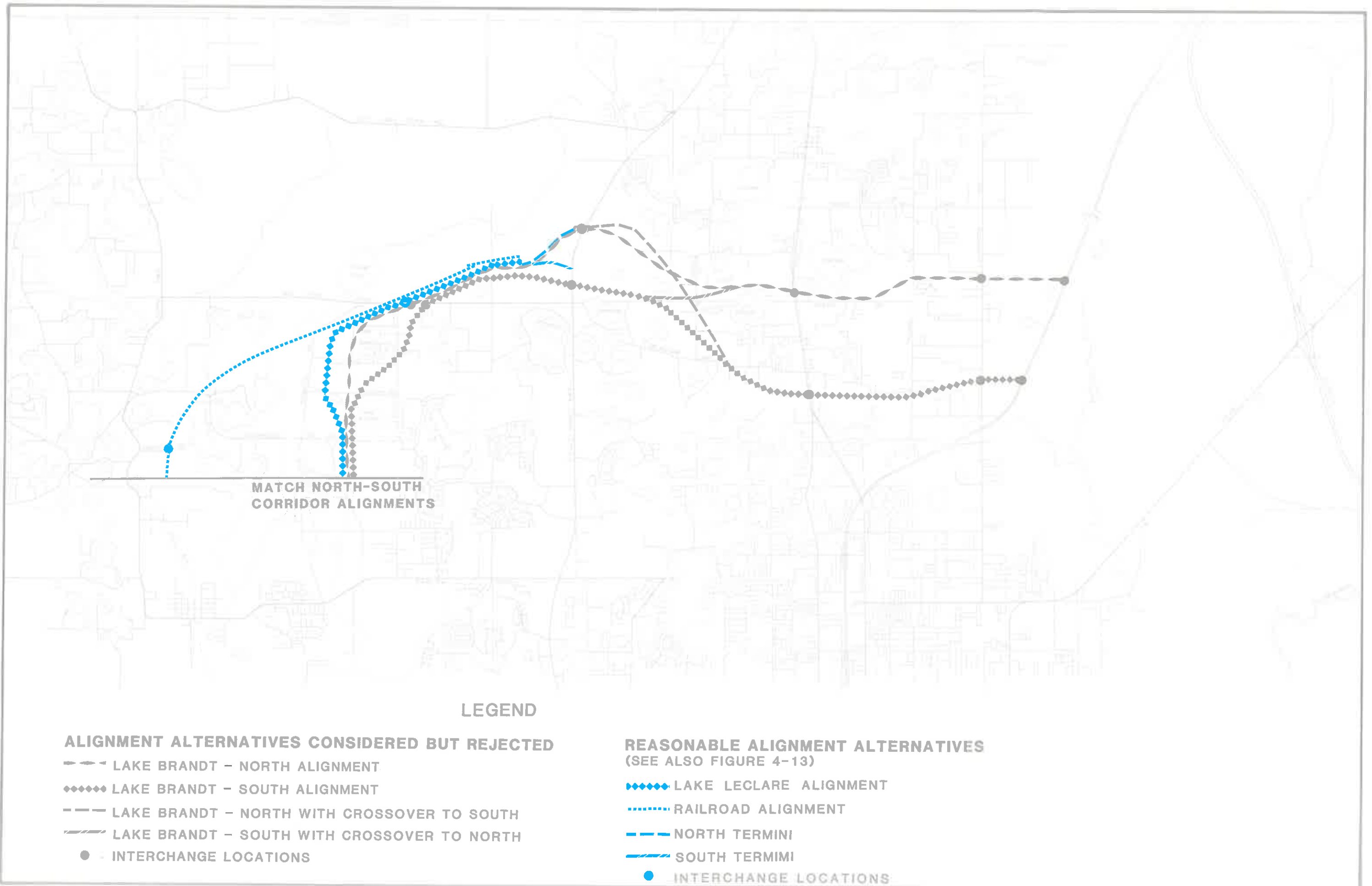
- DALE MABRY / LYNN-TURNER ALIGNMENT
- . - . - . DALE MABRY / LYNN-TURNER TO EISENHOWER / WEST CROSSOVER
- ===== EISENHOWER / WEST TO DALE MABRY / LYNN-TURNER CROSSOVER
- BENJAMIN ROAD ALIGNMENT
- INTERCHANGE LOCATIONS

REASONABLE ALIGNMENT ALTERNATIVES (ALSO SEE FIGURE 4-13)

- EISENHOWER / WEST ALIGNMENT
- ◆◆◆◆◆ LAKE LECLARE ALIGNMENT
- RAILROAD ALIGNMENT
- INTERCHANGE LOCATIONS

NORTH-SOUTH CORRIDOR ALIGNMENT ALTERNATIVES

FIGURE 4-11



EAST-WEST CORRIDOR ALIGNMENT ALTERNATIVES

FIGURE 4-12

February 1, 1985, see Appendix B and "Benjamin Road Alignment Evaluation", dated May 21, 1985, see Appendix C. The rejected alignments are shown in Figures 4-11 (North-South Corridor Alignments) and 4-12 (East-West Corridor Alignments) and are discussed below.

4.1.3.1 North-South Corridor Alignments (Interstate 275 to Hutchinson Road)

The North-South Corridor extends from Interstate 275 south of the Tampa International Airport to the vicinity of Hutchinson Road. All North-South Corridor Alignments considered are shown in Figure 4-11. There were two basic alignments in the North-South Corridor which were considered as potential alignments for the expressway. They are the Eisenhower/West Alignment in combination with either the Lake LeClare or Railroad Alignment as discussed in Subsection 4.1.4, Reasonable Alignment Alternatives and the Dale Mabry/Lynn-Turner Alignment. There was also a series of crossovers between the southern and northern portions of the North-South Corridor alignments near Waters Avenue which provide for combinations of these two main alignments. The Dale Mabry/Lynn Turner to Eisenhower/West Crossover serves to connect the southeast alignment with the northwest alignment of the corridor. The Eisenhower/West to Dale Mabry/Lynn-Turner Crossover serves to connect the southwest alignment to the northeast alignment in the corridor. Another alignment considered was the Benjamin Road Alignment which is an alternative to a portion of the Eisenhower/West Alignment between Hillsborough and Linebaugh Avenues.

The Dale Mabry/Lynn-Turner Alignment, both crossovers, and the Benjamin Road Alignment alternative are discussed in this subsection as alignment alternatives considered, but rejected.

4.1.3.1.1 Dale Mabry/Lynn-Turner Alignment

The Dale Mabry/Lynn-Turner Alignment, briefly described, is an expressway beginning east of the Airport in the vicinity of Dale Mabry Highway and extending northwestward crossing Linebaugh Avenue, then northward following Lynn and Turner Roads along the east side of Corridor B to an ending point north of Hutchinson Road. The southern part of the alignment was developed with an optional beginning either at I-275, designated as Option D, or at Dale Mabry Highway and Himes Avenue approximately two miles north of I-275, designated as Option C. Option C, being two miles north of I-275, relies on future improvements to Himes Avenue and Dale Mabry Highway to provide the necessary access to I-275.

Dale Mabry/Lynn-Turner Alignment, Option D

The Dale Mabry/Lynn-Turner Alignment, Option D, would begin at Interstate 275 with a major interchange serving both expressway and local access to the interstate system as well as local access to the proposed expressway. The expressway would be elevated on structure with northbound lanes on the east side of Dale Mabry Highway and southbound lanes on the west side, see typical section, Figure 4-4. Interchanges are proposed at Tampa Bay Boulevard and at Buffalo Avenue (provision only for access to and from the north on the expressway). The expressway would then turn west-northwest at South Avenue to an interchange at Hillsborough Avenue between Hesperides Street and West Shore Boulevard. The typical section to be used from west of Dale Mabry Highway to north of Hillsborough Avenue is the urban typical section, Figure 4-3 and north of Hillsborough Avenue to the end at Hutchinson Road is the rural typical section, Figure 4-1.

At the crossing of Hillsborough Avenue, the expressway would curve to stay east of Anderson Road and then parallel the east side of the Seaboard System Railroad track.

In the vicinity of Sligh Avenue, the alignment has the option of turning west to connect to the Eisenhower/West Alignment via a crossover or continuing north. This primary alignment continues northward crossing Waters Avenue just to the east of the railroad track and providing an interchange at that location. North of Waters Avenue, the alignment curves to the northwest crossing railroad tracks at two locations and then continuing to an interchange at Linebaugh Avenue.

The Alignment would then continue northwesterly, bridge the proposed extension of Anderson Road before turning northerly and interchanging with Gunn Highway. The Alignment north of Gunn Highway would bridge Brushy Creek and proceed to an interchange with Ehrlich Road. Lynn Road and Turner Road would be maintained along the east side of the expressway for local access to existing residential areas. On the west side of the expressway, new frontage roads would be provided south to Brushy Creek for local access. The expressway would continue northward bridging Rawls Road and Hutchinson Road, ending immediately north of Hutchinson Road.

Based on the conclusions reached in the Supplement to Northwest Hillsborough Expressway Phase II - Draft Environmental Impact Statement, Engineering Alternatives Report - September 1984, prepared by Howard Needles Tammen and Bergendoff, the Dale Mabry/Lynn-Turner Alignment with Option D or with Option C (discussed below) was not recommended for further consideration. The information summarized in Table 4-1 is reproduced from the information presented in the Engineering Alternatives Report.

TABLE 4-1

COMPARISON OF ALIGNMENT ALTERNATIVES (1)

ALTERNATIVE	COMPARISON FACTORS											ENVIRONMENTAL		
	ENGINEERING					COMMUNITY					ENVIRONMENTAL			
	Length (Miles)	1984 Project Costs (\$000,000)	ROW Required (# of Parcels)	Traffic Service	Res. Bus.	Non-Profit	TOTAL Relocations	Costs (\$000,000)	Parks/ Recreation Areas	Arch/ Historic Landmarks	Natural	Man Made	Wetlands Impacted (Acres)	TOTAL
N O R T H - S O U T H C O R R I D O R A L I G N M E N T A L T E R N A T I V E S														
Dale Mabry/ Lynn-Turner Option D	11.0	211.9	388	90% of Eisen/West Volume	184	51	2	237	1.67	Tampa Sports Complex Section 4(f)	None Known	38	16	54
Dale Mabry/ Lynn-Turner Option C	9.0	154.7	344	67% of Eisen/West Volume	124	39	1	164	1.57	Horizon Park Section 4(f)	None Known	38	16	54
Eisenhower/ West	12.2	169.4	209	Highest Volume	116	24	0	140	1.09	None	None Known	26	22	48
E A S T - W E S T C O R R I D O R A L I G N M E N T A L T E R N A T I V E S														
LAKE BRANDT-NORTH	10.0	79.0	88	8,000 to 12,000 ADT	32	5	0	37	0.37	None	None Known	40	6	46
LAKE BRANDT-SOUTH	9.4	81.9	136	8,000 to 12,000 ADT	53	5	0	58	0.62	None	None Known	63	4	67

(1) Summarization from Engineering Alternatives Report dated September 1984 prepared by Howard Needles Tammen & Bergendoff

The Dale Mabry/Lynn-Turner Alignment, Option D, was decidedly inferior to the Eisenhower/West Alignment alternative as shown in Table 4-1. This alignment would serve 10 percent less traffic than the Eisenhower/West Alternative. In addition, locating the expressway adjacent to Dale Mabry Highway would only compound the traffic problems along collector roads servicing Dale Mabry Highway. This alignment's total 1984 project cost was \$42.5 Million (25%) higher and number of relocations was 97 (69%) higher than the Eisenhower/West Alternative. Contributing factors are the intensely developed right-of-way along Dale Mabry Highway and the large amount of bridge structure required. The amount of wetlands impacted is higher by 6 acres (13%) than the Eisenhower/West Alignment. A Section 4(f) property would be involved, Tampa Sports Authority Complex, in the Dale Mabry/Lynn-Turner Alignment, Option D. Considering the above factors, the Dale Mabry/Lynn-Turner Alignment, Option D was rejected from further consideration.

Dale Mabry/Lynn-Turner Alignment, Option C

The Dale Mabry/Lynn-Turner Alignment, Option C, would be the same as the Option D Alignment north of Crest Avenue. The beginning interchange has been developed with consideration of Dale Mabry Highway and Himes Avenue being converted to a one-way pair between Hillsborough Avenue and I-275. The southbound expressway traffic would exit into a southbound Dale Mabry Highway. Northbound traffic would enter the expressway via a loop ramp from Himes Avenue and cross Horizon Park on a bridge. The alignment would proceed essentially due west and then west northwest to Crest Avenue (Option D). The expressway in this section would bridge Grady Avenue, South Street and Lois Avenue. The typical section used from the beginning of this alternative to north of Hillsborough Avenue is the urban typical section, Figure 4-3 and from Hillsborough Avenue North is the rural typical section, Figure 4-1.

Expressway traffic to and from downtown Tampa or to I-275 would utilize the one-way pair of Dale Mabry Highway and Himes Avenue to access the interstate system. Improvements would be required to these roadways, the degree of which is being studied by the Florida Department of Transportation as part of the Dale Mabry Highway Improvement Study. The Option C Alignment, like the Option D Alignment, can continue northward to Hutchison Road or turn westward using the crossover to the Eisenhower/West Alignment.

Option C was dropped primarily due to the proposed expressway beginning over 2 miles away from Interstate 275 causing a large volume of through trips to use major arterial roadways with numerous interseptions to travel between expressways and due to the crossing of Horizon Park which would require Section 4(f) involvement.

4.1.3.1.2 North-South Corridor Crossovers

As mentioned previously, expressway crossovers were considered to provide combinations of the two main alignments. However, since the Dale Mabry/Lynn-Turner Alignments, Options C and D, were dropped from further consideration, both of the following Alignment crossovers were also rejected. These crossovers were in the area of the project where the rural typical section, Figure 4-1, is used.

Dale Mabry/Lynn-Turner to Eisenhower/West Crossover

The Dale Mabry/Lynn-Turner to Eisenhower/West Crossover begins just south of Sligh Avenue where it curves to the west to cross the Seaboard System Railroad track and Sligh Avenue on a lengthy bridge structure. The expressway continued in a northwesterly direction crossing the extreme eastern end of Crenshaw Street before turning to the north on the east side of Anderson Road and providing room for the Waters Avenue interchange.

North of Waters Avenue, the expressway would parallel the east side of the Anderson Road Extension and then turn to the west and would provide an interchange with Anderson Road.

The expressway would continue in a westerly direction, then turn northward to bridge the railroad track and Linebaugh Avenue west of Henderson Road. North of Linebaugh Avenue, the alignment is the Eisenhower/West Alignment.

Eisenhower/West to Dale Mabry/Lynn-Turner Crossover

The Eisenhower/West to Dale Mabry/Lynn-Turner Crossover begins north of Waters Avenue by curving to the northeast to cross the Anderson Road Extension. An interchange would be provided at Waters Avenue on the south side at the Anderson Road Extension. After crossing Anderson Road, the expressway would curve to the north to cross the railroad and Linebaugh Avenue. An interchange is proposed at Linebaugh Avenue.

North of Linebaugh Avenue, the expressway would continue in a northerly direction to where it is the Dale Mabry/Lynn-Turner Alignment.

4.1.3.1.3 Benjamin Road Alignment - Alternative to Eisenhower/West Alignment (Hillsborough Avenue to Linebaugh Avenue)

The Benjamin Road Alignment was developed to consider an alignment that would have industrial development on the east side and residential development on the west side of the expressway. This alignment is a variation of the Eisenhower/West Alignment

Alternative, see Subsection 4.1.4.1 included in Reasonable Alignment Alternatives for the area from north of Hillsborough Avenue to south of Linebaugh Avenue. The rural typical section, Figure 4-1, is used in this area of the project. A technical memorandum dated May 21, 1985, discussing this alignment alternative is included in this document as Appendix C.

The Benjamin Road Alignment begins north of the Hillsborough Avenue interchange and curves to the east away from the Eisenhower/West Alignment north of Johns Road. The alignment proceeds easterly bridging Flora Avenue and northerly bridging Benjamin Road and Sweetwater Creek (Channel G). The expressway continues north to an interchange with Waters Avenue, then turns northwesterly to connect to the Eisenhower/West Alignment south of the Linebaugh Avenue interchange. Also included in this alignment is an interchange with the Anderson Road extension.

The alignment was dropped from consideration due to the greater expense (\$4,100,000 1984 costs) and slightly higher environmental 8.75 versus 8.40 acres of wetlands and community impacts 40 versus 31 relocations.

4.1.3.2 East-West Corridor Alignments (Hutchinson Road to Interstate 275)

The East-West Corridor extends from the vicinity of Hutchinson Road north and east to Dale Mabry Highway, then east to Interstate 275, 3 to 4 miles south of the Pasco County line. The alignments studied within this corridor are shown in Figure 4-12. There were two basic alignments in the East-West Corridor considered as potential alignments for the expressway. These alignments are the Lake Brandt-North Alignment and the Lake Brandt-South Alignment. Crossovers were also considered between the two basic alignments. They begin east of Dale Mabry Highway and end west of Lake Brandt and are designated as Lake Brandt-North w/Crossover to South and Lake Brandt-South w/Crossover to North. Also considered in the East-West Corridor is the northern portion of the Railroad Alignment. The Railroad Alignment and the west end of the Lake Brandt-North Alignment from Hutchinson Road to Dale Mabry Highway (designated as Lake LeClare Alignment and North and South Termini) are still viable alternatives, and are therefore discussed in Subsection 4.1.4, Reasonable Alignment Alternatives. All other East-West alignment alternatives are discussed in this subsection as alignment alternatives considered, but rejected. These east-west alignment alternatives used the rural typical section, Figure 4-1.

As the study and review process continued, the need for an expressway in the East-West Corridor was reconsidered. Upon further study of traffic generation forecasts, social and environmental impacts and related project costs, the Expressway

Authority in response to Technical Memorandum "East-West Corridor Evaluation", dated September 11, 1984, Appendix A, elected to drop the expressway segment between Dale Mabry Highway and I-275 from further consideration and promote improvements to Dale Mabry Highway and County Road 54 in Pasco County. The proposed project along with Dale Mabry Highway and County Road 54 would provide capabilities for a bypass route around the downtown Tampa I-275 expressway.

Low projected traffic volumes 8,000 to 12,000 ADT (see Table 4-1) on the Dale Mabry Highway to I-275 segment of the proposed expressway for either of the East-West alignments and the crossovers was the primary reason for rejection. The expressway segment on the Lake Brandt-South Alignment alternative from Hutchinson Road to Dale Mabry Highway was rejected due to a little more community impact of passing between Lakes LeClare and Helen and greater project costs (\$2,900,000 more, 1984 costs). These alignments dropped include the Lake Brandt-North Alignment (Dale Mabry to I-275), all the Lake Brandt-South Alignment and all of both crossovers, as described below.

4.1.3.2.1 Lake Brandt-North Alignment

This segment of the alignment begins at Hutchinson Road and proceeds north, bridging Hatton Road and Lake LeClare Road, then turns easterly interchanging with Lake Shore Road/Van Dyke Road for access to and from the south on the expressway. The alignment then interchanges with Dale Mabry Highway approximately three-quarters mile north of Van Dyke Road. The expressway turns southeasterly to just north of Lake Brandt. The interchange at Nebraska Avenue would be located south of the Nebraska Avenue railroad grade crossing in the southern part of Lutz. The Nebraska Avenue interchange would be on the west side to miss the railroad tracks along the east side. East of Nebraska Avenue, the expressway continues generally east, interchanging with Livingston Avenue and then I-275.

4.1.3.2.2 Lake Brandt-South Alignment

This alignment begins north of Hutchinson Road and proceeds north, then easterly following a more southerly route through the corridor to its termination at I-275. The expressway would curve to the east, bridge Lake Shore Road and turn northward. The expressway would cross Van Dyke Road with an interchange on the south side for access to and from the south on the expressway.

North of Van Dyke Road, the alignment would proceed east on a more southerly route to interchange with Dale Mabry Highway approximately 0.3 mile north of Van Dyke Road. East of Dale Mabry Highway, the expressway turns in a southeasterly direction crossing Van Dyke Road, Simmons Road, and Crenshaw Lake Road south of Lake Brandt. After crossing Crenshaw Lake Road, the expressway turns eastward to align on the northern side of the electrical power easement before interchanging with Nebraska Avenue. The Nebraska Avenue interchange would be on the western side of Nebraska Avenue to miss the railroad tracks on the east side.

East of Nebraska Avenue, the expressway would parallel the northern side of the power easement, bridge Hanna Road, and provide for a half diamond interchange to the west at Livingston Avenue for access to and from the west on the expressway and an interchange at I-275.

4.1.3.2.3 East-West Corridor Crossovers

The East-West Corridor has two crossovers connecting between the Lake Brandt-North and the Lake Brandt-South Alignments. The crossovers occur in the area between Dale Mabry Highway and Lake Brandt.

Lake Brandt-North w/Crossover to South

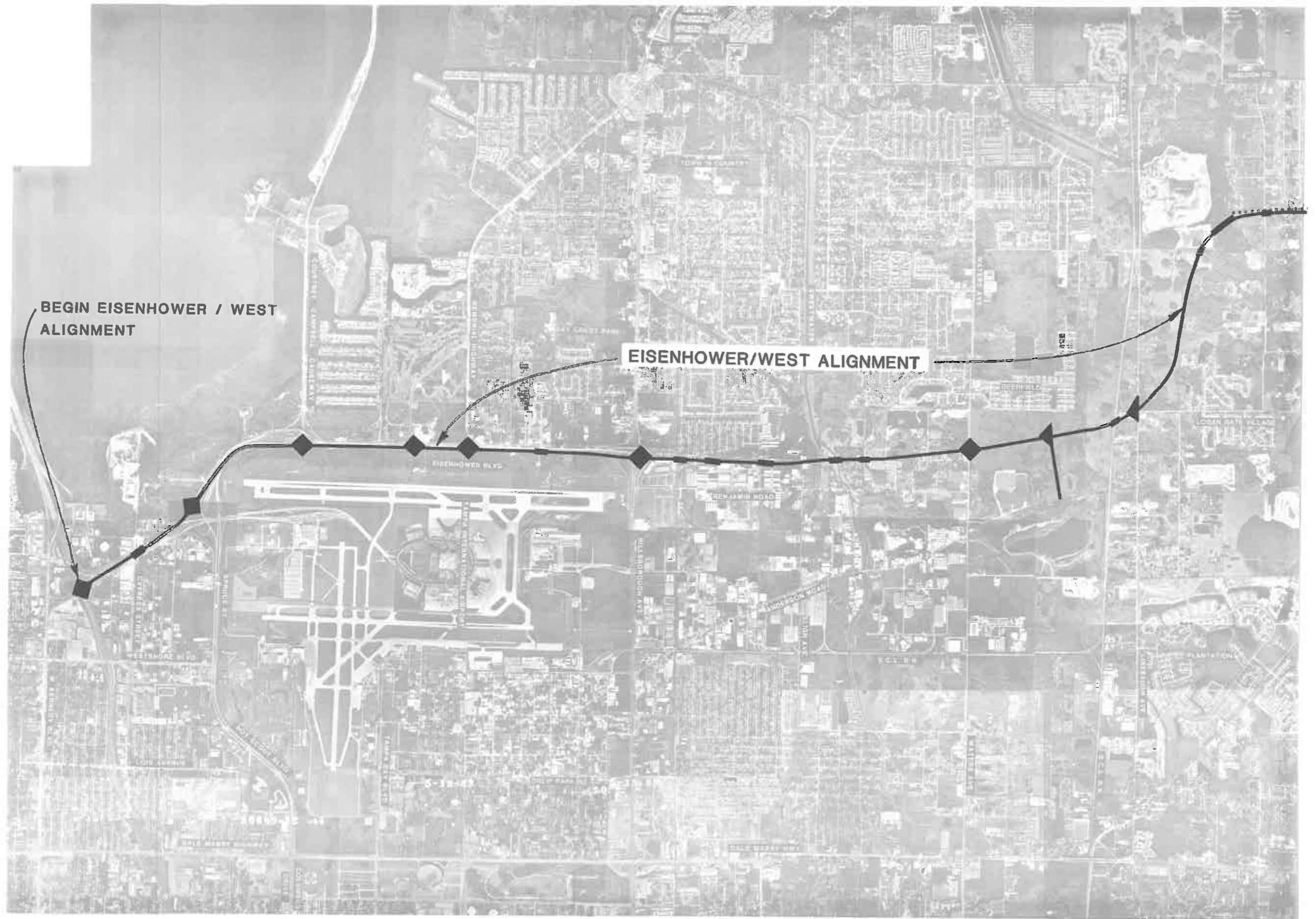
The Lake Brandt-North Alignment with Crossover to the South Alignment would turn sharply south after crossing Dale Mabry Highway and connect into the Lake Brandt-South Alignment south of Lake Brandt to follow that alignment to I-275.

Lake Brandt-South w/Crossover to North

The Lake Brandt-South Alignment with Crossover to the North Alignment crosses Dale Mabry Highway and continues in an easterly direction and connects into the Lake Brandt-North Alignment on the north side of Lake Brandt.

4.1.4 REASONABLE ALIGNMENT ALTERNATIVES

The reasonable alignment alternatives were retained since they had less environmental impacts as summarized in Table 4-1. As mentioned in Subsection 4.1.3, Alignment Alternatives Considered But Rejected, the reasonable alignment alternatives are the Eisenhower/West Alignment in combination with either the Lake LeClare Alignment or the Railroad Alignment. In addition, there are two alternative locations for the north termini of the project at Dale Mabry Highway. They are called the North Termini and South Termini. The beginning and ending points and locations of all the reasonable alternatives are shown on Figure 4-13.



REASONABLE ALIGNMENT ALTERNATIVES

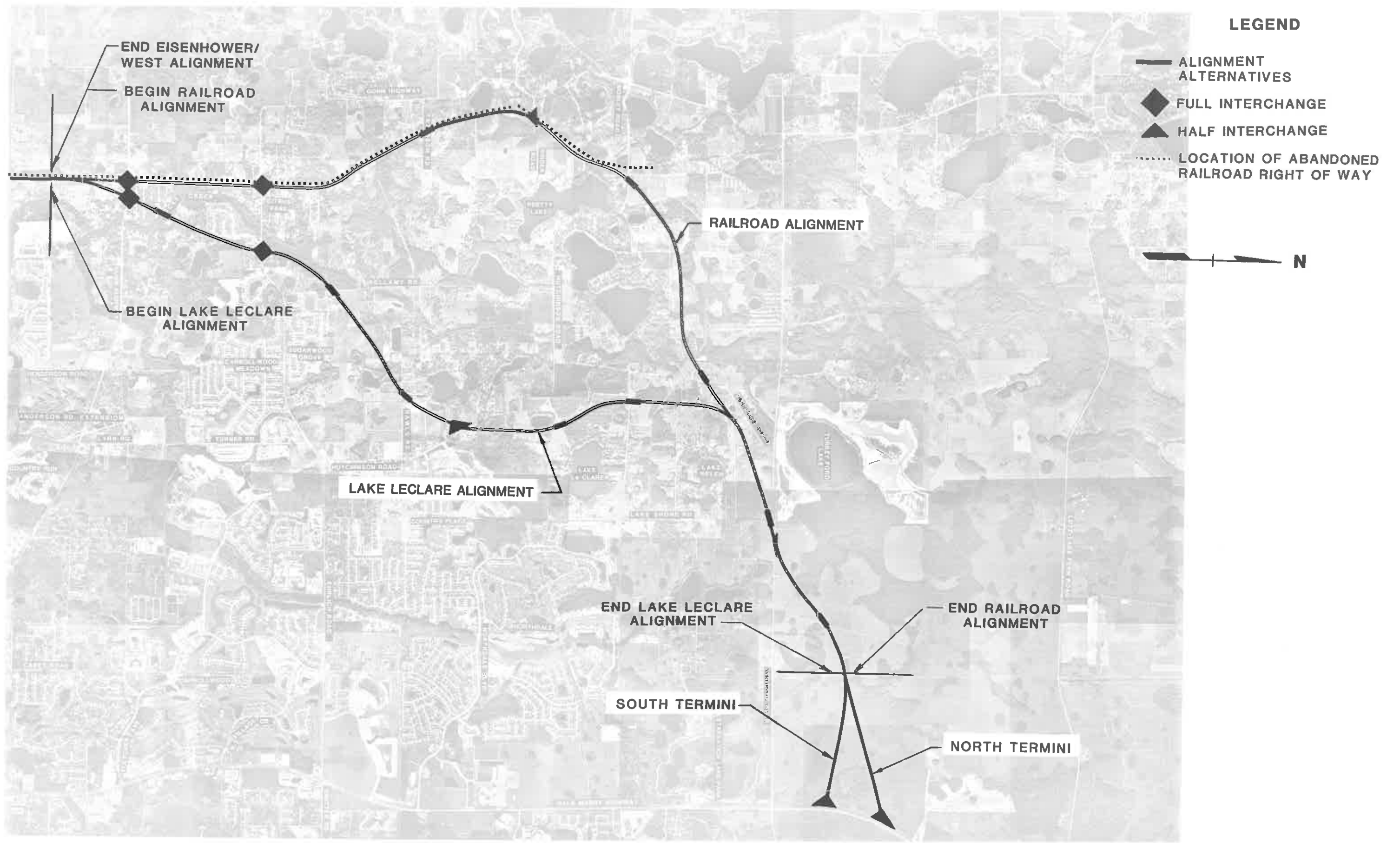


FIGURE 4-13

The factors considered and conclusions reached in analyzing the alignment alternatives including the "No-Build" Alternative are documented in the reports referred to in the previous Subsection 4.1.3. They are: Engineering Alternatives Report - September 1984; Technical Memorandum - "East-West Corridor Evaluation" - September 11, 1984, Appendix A; Technical Memorandum - "Railroad Alignment Evaluation" - February 1, 1985, Appendix B; and Technical Memorandum - "Benjamin Road Alignment Evaluation" - May 21, 1985, Appendix C.

Based upon the recommendations of these and prior reports in conjunction with continuing public input, the alignment alternatives shown in Figure 4-13 are considered viable and are analyzed in detail in Section 6.0 Environmental Consequences. Following is a brief description and discussion of each reasonable alternative.

4.1.4.1 Eisenhower/West Alignment (I-275 to South of Gunn Highway)

The Eisenhower/West Alignment, as shown in Figure 4-10, begins at Interstate 275, follows and upgrades the existing Memorial Highway/Eisenhower Boulevard roadway along the western side of Tampa International Airport, and extends to the vicinity of Gunn Highway.

The proposed improvements between I-275 and Hillsborough Avenue includes new interchanges at Courtney Campbell Causeway (SR 60), Independence Parkway (formerly Gun Club Road), Memorial Highway, and Hillsborough Avenue. The existing Memorial Highway (Eisenhower Boulevard) interchange at I-275 would be greatly improved and the Airport interchange would have only minor modifications to its present configuration. Sections of the expressway south of Courtney Campbell Causeway are proposed to be six and eight lanes with and without frontage roads and would be constructed as shown in the typical section, Figure 4-5.

North of Courtney Campbell Causeway, a frontage road system is included to provide local access. Internal circulation would be provided by mainline overpasses at Independence Parkway and north of West Emma Drive. The mainline expressway would narrow to three lanes in each direction between the Courtney Campbell Causeway and Independence Parkway/Memorial Highway interchanges and to two lanes in each direction north of Memorial Highway to Hillsborough Avenue, see typical section (Figure 4-5). North of Hillsborough Avenue to the end of this alignment alternative the rural typical section, Figure 4-1 was used.

The expressway alignment north of Hillsborough Avenue would continue generally northward with a bridge at Johns Road, Sweetwater Creek (Canal G) and Barry Road with an interchange at Waters Avenue. North of Waters Avenue the alignment would turn slightly to the west and provide for an interchange with the Anderson Road Extension presently under design by Hillsborough County. Access at Anderson Road would be to and from the south on the expressway.

Continuing northwesterly, the alignment would bridge the railroad tracks and interchange with Linebaugh Avenue and then turn in a westerly direction to a bridge over Wilsky Boulevard. At Wilsky Boulevard the alignment turns to a more northerly direction bridging Rocky Creek and then aligning on the abandoned railroad track. The expressway would parallel the track for approximately one-half mile at which point, being approximately 3,000 feet south of Gunn Highway, either one of two alternative alignments, the Lake LeClare Alignment or the Railroad Alignment, would be utilized. This point is the end of the Eisenhower/West Alignment.

4.1.4.2 Lake LeClare Alignment (South of Gunn Highway to Dale Mabry Highway)

Subsequent to the Public Workshops held on August 1 and 2, 1984, and the September 12, 1984 Expressway Authority meeting, several alignment alternatives and variations were generated and studied. Two of these alternatives were recommended for further study as stated in the Technical Memorandum "Railroad Alignment Evaluation", dated February 1, 1985, Appendix B. They are the Lake LeClare Alignment and the Railroad Alignment (discussed in Subsection 4.1.4.3). The Lake LeClare Alignment is in essence a combination of the north end of the old Eisenhower/West Alignment (as it was designated earlier in the study before its northern end was set at 3,000 feet south of Gunn Highway) and the west portion of the Lake Brandt-North Alignment. There was also a location change with the alignment shifted to the west between Hutchinson Road and Van Dyke Road in the vicinity of Lake LeClare. This Alignment starts 3,000 feet south of Gunn Highway at the north end of the present Eisenhower/West Alignment and terminates approximately 4,000 feet west of Dale Mabry Highway. The typical section used for this entire alignment is the rural typical section, Figure 4-1.

From the beginning of the Lake LeClare Alignment south of Gunn Highway, the alignment immediately turns in a northeasterly direction and then interchanges with Gunn Highway.

Immediately north of the interchange, the alignment would again bridge Rocky Creek and then curve more northerly to an interchange at Ehrlich Road. After the Ehrlich Road interchange, the alignment turns back in a northeasterly direction to bridge Bellamy Road and Rawls Road before turning in a northerly

direction at Hutchinson Road. An interchange for access to and from the south on the expressway will be provided at Hutchinson Road.

North of the Hutchinson Road interchange, the alignment continues north crossing Hatton Road and Lake LeClare Road and then turns to the west and then north, west of Lakes LeClare and Helen. Once north of Lake Helen, the expressway turns to the east interchanging with Lake Shore Drive/Van Dyke Road for access to and from the south on the expressway.

North of Van Dyke Road, the alignment turns east to its end at 4,000 feet west of Dale Mabry Highway approximately one-half of a mile north of Van Dyke Road.

4.1.4.3 Railroad Alignment (South of Gunn Highway to Dale Mabry Highway)

The rural typical section, Figure 4-1 is used for this alignment alternative. The Railroad Alignment begins at the same location as the Lake LeClare Alignment where the Eisenhower/West Alignment ends 3,000 feet south of Gunn Highway. From that point, the Railroad Alignment continues northerly utilizing the abandoned railroad right-of-way for the expressway. Interchanges are proposed at Gunn Highway, Ehrlich Road, and Binder Road. The Binder Road interchange would be for access to and from the south on the expressway. Binder Road, approximately 500 feet in length and the intersection of Binder Road and Gunn Highway would be upgraded as part of this project to provide improved access to the expressway. A bridge would be provided at Copeland Road.

The alignment continues along the abandoned railroad right-of-way until reaching and crossing over Mobley Road, then turns north-easterly leaving the abandoned railroad right-of-way, bridging Tobacco Road about one-half mile south of Van Dyke Road. Immediately east of Tobacco Road the alignment continues northeasterly to where it is the same as the Lake LeClare Alignment. It then continues along the Lake LeClare Alignment with an interchange at Lake Shore Road/Van Dyke Road to the end point 4,000 feet west of Dale Mabry Highway.

4.1.4.4 North and South Termini Alignments at Dale Mabry Highway

The North and South Termini Alignment alternatives use the rural typical section Figure 4-1. The South Termini Alignment was developed as an alternative to the North Termini Alignment in order to minimize the impacts on proposed development and to reduce project costs. The alignment for both of these alternatives begins approximately 4,000 feet west of Dale Mabry

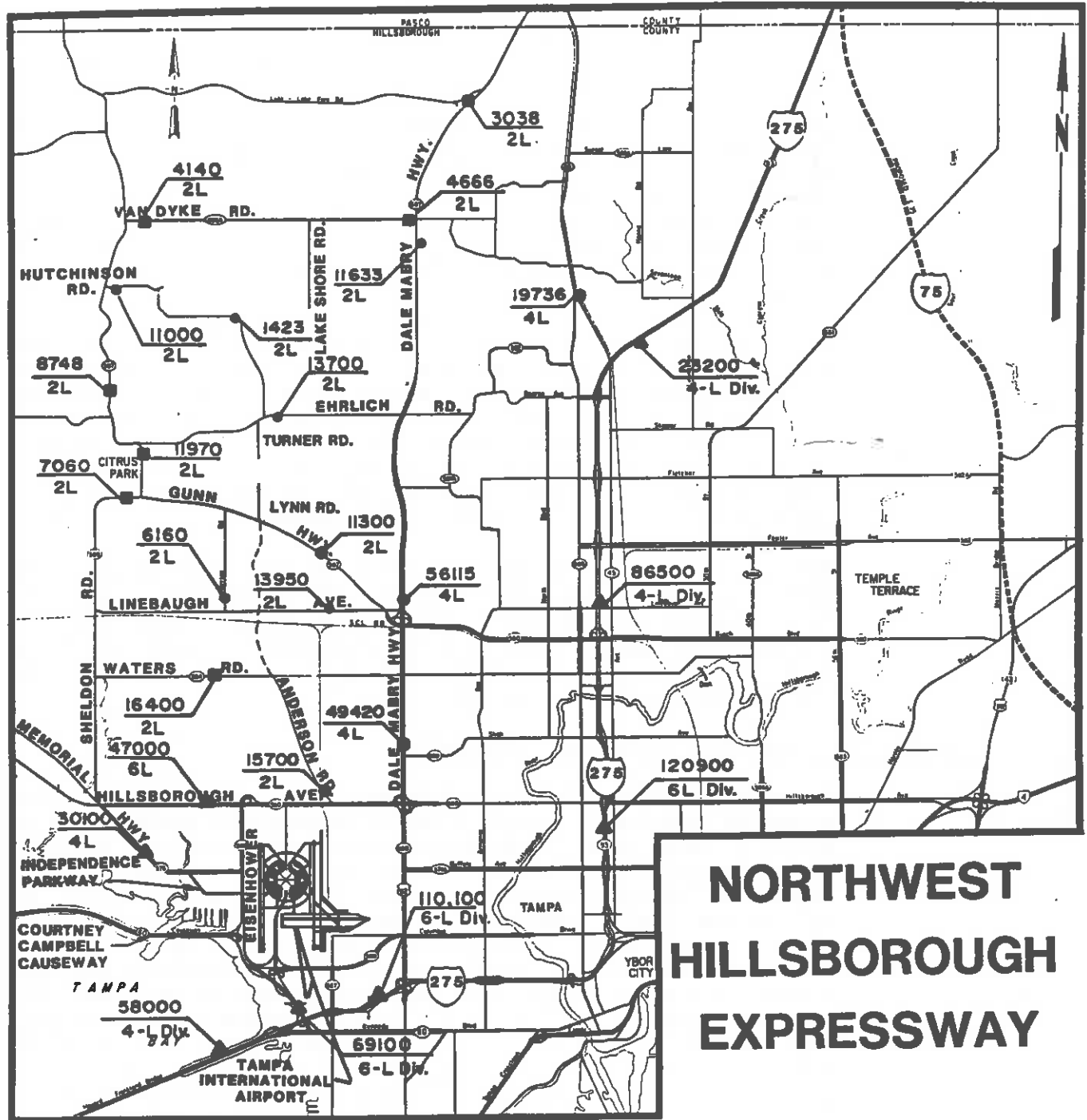
Highway at the connection to either the Lake LeClare or Railroad Alignment. The termination at Dale Mabry Highway is located approximately three quarters or one-half mile north of Van Dyke Road for either the North or South Termini, respectively.

4.2 Alternatives to the Proposed Action

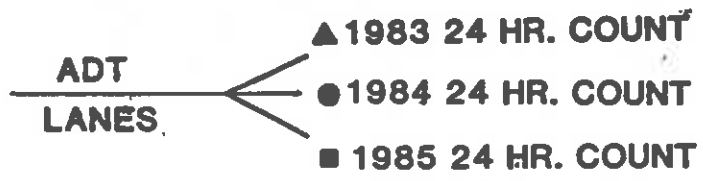
4.2.1 "No Build" Alternative

The "No-Build" alternative is that of including those projects presently shown in the five year work program of Hillsborough County and Florida Department of Transportation and of not providing any other major roadway or transit improvements in the northwest corridor. The primary routes which presently handle the traffic loadings are Dale Mabry Highway and I-275. These routes are heavily congested during peak periods. Figure 4-14 shows current traffic volumes on Dale Mabry Highway, I-275 and many principal roadways in the study area. South of Busch Boulevard, Dale Mabry Highway operates at Levels of Service E and F (stop and go conditions) during peak periods. Indicative of these conditions is that seven of the top twenty-five high accident locations in Hillsborough County are on Dale Mabry Highway. The principal east-west routes, Hillsborough Avenue, Waters Avenue, Linebaugh Avenue, Gunn Highway and Ehrlich Road, which feed Dale Mabry are also operating at or in excess of roadway capacity. While FDOT and Hillsborough County have programmed some roadway improvements which will offer isolated reductions in congestion, the "No-Build" alternative will not provide any means to alleviate the heavy congestion and high accident rates found on most major roadways in northwest Hillsborough County. The major roadway improvements of Hillsborough County and Florida Department of Transportation are discussed in Subsection 4.2.3.

I-275 south of Fowler Avenue into downtown Tampa and west to Dale Mabry Highway is currently operating between Levels of Service D and E (unstable with stoppage conditions). The "No-Build" Alternative will not provide a bypass or alternative route to remove the thru traffic destined for the airport and Pinellas County from traveling via expressways through downtown Tampa. Figure 3-2 shows the existing plus 5 year committed road program Year 2010 traffic assignments and projected level of service for those roadways. I-275, Dale Mabry Highway, Eisenhower Boulevard and Anderson Road, all north-south roadways, will be operating a level of service E and F for many hours during the day. The principal east-west roadways will operate at a level of service D, E and F.



NORTHWEST HILLSBOROUGH EXPRESSWAY



**CURRENT TRAFFIC VOLUMES
ON EXISTING ROADWAYS**

FIGURE 4-14

With the rapid residential and commercial growth in northwest Hillsborough County and minimal transportation capacity improvements being made, severe adverse impacts could be reasonably anticipated. These are the increase of traffic congestion, lengthening of travel times for auto and truck users in the study area, an increase in accident numbers and severity, greater consumption of fuel as vehicles are idled at intersections and rail crossings, and greater localized concentrations of air and noise pollutants from vehicles idling or changing speed.

As noted earlier, the traffic congestion would also inhibit traveling from the northwestern part of the County to the central business district (CBD) and from the north to the airport area and Pinellas County. This could dampen the economic vitality of this regional financial, commercial and governmental center. Failure to provide transportation improvements in the corridor areas is contrary to the objectives of the long range plans for the City of Tampa and for Hillsborough County.

Many of the roadways in the corridor areas are shown in the TUATS 2000 Plan as needing improvements. While Federal, State and local funding to make these improvements is improving with the increased gas taxes, funds were not programmed in local and state five year plans for the existing roadway network to offset the aforementioned adverse impacts.

4.2.2 Transportation Systems Management

The Transportation Systems Management (TSM) concept is an idea which has evolved in recent years to address the maximization of existing facilities. TSM improvements include fringe parking, high occupancy vehicle (HOV) lanes on existing roads, traffic signal timing optimization and other related improvements. At the present time several programs are being implemented in Hillsborough County which should improve effectiveness of the existing system. Improving bus service by the Hillsborough Area Regional Transit Authority (HART), including development of park and ride lots, is underway at this time. Phase I report for identifying improvements for adding high occupancy vehicle (HOV) lanes on the interstate system will be completed in 1985. The bus service project and HOV study is discussed in Alternative Modes of Transportation, Subsection 4.2.4.

The TSM, while improving the effectiveness of the existing roadway and transit system, will not meet present and future need for increased roadway capacity and improved traffic flow in Northwest Hillsborough County as defined by this project.

4.2.3 Major Roadway Improvements

Many roadway improvements are planned for existing facilities in the northwest area. Hillsborough County has the following five major improvements programmed:

1. Gunn Highway - widening to four lanes from Busch Boulevard to Lynn-Turner Road. Design has been completed. Construction on the portion from Busch Boulevard to Casey Avenue is to begin in 1986. Right-of-way acquisition from Casey Avenue to Lynn-Turner Road is in progress. Widening from Lynn-Turner Road to Sheldon Road is in design but construction has not yet been funded.
2. Anderson Road - extending as a two lane roadway from Waters to Gunn Highway with future widening to four lanes. The two lane project has been funded with construction scheduled to begin in the fall of 1985.
3. Waters Avenue - widening to four lanes from Sheldon Road to Hanley Road and to six lanes from Hanley Road to Dale Mabry Highway. The design of this project is expected to be completed in June 1986 and construction to begin in January 1987 on the Sheldon Road to Hanley Road section.
4. Bearss Avenue/Skipper Road - extension of Bearss Avenue from Nebraska Avenue to Skipper Road and the widening of Skipper Road to 30th Street (CR 581) all to be four lanes. Design is complete and construction was started in February 1985. Construction is scheduled for completion in February 1986. In addition, Bearss Avenue is to be extended to Dale Mabry Highway; this is now under design with construction to begin in early 1987.
5. Ehrlich Road - four laning from Dale Mabry Highway to the new Lynn/Turner Road extension. The design is scheduled for completion in October 1985 for the section between Casey Road and Dale Mabry Highway, with construction beginning soon thereafter, and completed by June 1987. The west section from Casey Road to Lynn-Turner Road scheduled for completion of design in May 1986 with construction to start in June 1986.
6. Lynn-Turner Road - This new two lane road connecting Lynn and Turner Roads between Gunn Highway and Ehrlich Road is under construction with completion scheduled by September 1985.
7. Twelve Oaks Boulevard/Henderson Connector - Design for this two lane road connecting Twelve Oaks Boulevard with Henderson Road was started in August 1985 and is to be completed in July 1986. Construction is to start July 1987 and to be completed in April 1988.

8. Nixon Road - This two lane road is to extend from Waters Avenue to Gunn Highway. The portion from Linebaugh Avenue to Gunn Highway is to be under construction in December 1985 with completion in August 1986. The section between Waters Avenue and Linebaugh Avenue is to begin construction in July 1987 with completion in the Spring of 1988.
9. Hanley Road Extension - This four lane road is to connect Hanley Road to Wilsky Boulevard between Linebaugh Avenue and Waters Avenue. Construction is underway with completion scheduled for November 1985.
10. Himes Avenue - Design for widening to four lanes from Hillsborough Avenue to Busch Boulevard is to be completed in September 1986. Construction is to begin in January 1988 and to be complete in January 1989.

Hillsborough County, in cooperation with the FDOT, has conducted an engineering and environmental feasibility study of the Dale Mabry Highway corridor from Hillsborough Avenue to U.S. 41 (Nebraska Avenue) in Pasco County. This study found that it is feasible to convert Dale Mabry Highway to a six-lane limited access facility with urban interchanges and frontage roads between Hillsborough Avenue and Ehrlich Road. North of Ehrlich Road, Dale Mabry Highway would need to be a six lane divided roadway to Van Dyke Road and a four lane divided roadway to U.S. 41.

The Florida Department of Transportation has included two projects in its five-year construction plan for Hillsborough County which are in the study area. The first project is the widening of the Hillsborough County approach to the Courtney Campbell Causeway from Eisenhower Boulevard to the bridge to provide median islands and left turn lanes. The widening will also include improvement to the interchange of Courtney Campbell Causeway and Eisenhower Boulevard/Memorial Highway. Construction is scheduled to begin within the 1986-1987 fiscal budget. The second project is the improvement of Dale Mabry Highway to six lanes from Hillsborough Avenue to Van Dyke Road. This project is scheduled to begin in 1986.

While these improvements will increase traffic flow and raise levels of service in the study area, they do not meet the needs of this project. Such improvements also tend to relocate existing traffic problems to adjacent roadway segments. The primary alternative to improve traffic flow is to provide a high speed, controlled access facility for accommodating the longer distance trips.

4.2.4 Alternative Modes of Transportation

Alternative modes of transportation which have been studied for the northwest area of Hillsborough County include high speed rail, light rail, and improved bus service. Studies for a 1977 report prepared by the Tampa Bay Rapid Transit District (TBART) showed that only 0.88 to 2.5 percent of the trips generated in the study corridor would utilize an improved transit system.

The Florida Department of Transportation (FDOT) and the Hillsborough Area Regional Transit Authority (HART) have a two-year demonstration project underway to provide twenty-five new buses for express bus service in northwest Hillsborough County. This project is developing three park and ride lots along the Dale Mabry corridor for express bus service to the downtown area. The service has only been in operation since May, 1984 using one lot; therefore, there is not sufficient data to evaluate the benefits of this service.

The FDOT also has a study underway of the Tampa interstate system for high occupancy vehicle (HOV) lanes and park and ride facilities. These services would improve the people moving capabilities of the interstate system and surrounding roadway network by encouraging car pools and use of express buses; however, they will offer only minor relief to the congestion in the northwest area.

As a part of the HOV study, a preliminary overview analysis was performed to determine the potential of a rail transit system replacing the HOV/bus lanes proposed for the interstate highway system. Historically, using the characteristics of American cities with established transit systems, broad-based socio-economic "pre-condition" threshold values have been developed as a guideline for implementation of a busway and/or rail transit system. These conditions are summarized in Table 4-2.

By the design year of the HOV project (2010), the Tampa Urban Area should begin to approach the development levels where it could begin considering a rail transit system. The Tampa Central City population may approach 330,000 and the Central Business District (CBD) employment is expected to be over 80,000. The greater Hillsborough County population will have slightly over 1,000,000 people. However, the bus transit volumes today and those forecast volumes by 1995 and even by the year 2010 do not approach the volumes necessary to convert from a busway to a light rail system.

TABLE 4-2

GENERAL CONDITIONS FOR TRANSIT DEVELOPMENT

<u>DETERMINANT</u>	<u>RAIL</u>	<u>BORDERLINE RAIL OR BUS (1)</u>	<u>BUSWAY</u>
Urban area population	2,000,000	1,000,000	750,000
Central city population	700,000	500,000	400,000
High-density corridor development	Extensive and clearly defined	Limited but defined	Limited but defined
CBD function	Regional	Regional or subregional	Regional or subregional
CBD floor space (sq ft)	50,000,000	25,000,000	20,000,000
CBD employment	100,000	70,000	50,000
Daily CBD destinations per square mile	300,000	150,000	100,000
Daily CBD destinations per corridor	70,000	40,000	30,000

(1) A major regionwide bus system should be effectively operating before investigating conversion to rail.

Even if the socio-economic characteristics begin to favor a rail system, the projected transit usage must also favor a rail system. Studies have been conducted to determine the trade off point in terms of passengers per hour between a busway and a rail system. Although these values are influenced by the amount and type of physical construction, peaking factors, operating speeds, prevailing wage rates, and productivity levels and interest rates, the following general conclusions have been reached:

- (1) At 2,000 to 4,000 passengers per hour (about 80 to 100 buses per hour carrying 40 to 50 passengers per bus), buses provide the most economical system on a mile per mile basis.
- (2) At about 4,000 to 8,000 passengers per hour, either a bus lane with on-line stations or a light rail system should be considered.
- (3) Between 8,000 to 16,000 passengers per hour, a light rail system is generally the most cost effective transit system.
- (4) Above 16,000 to 18,000 passengers per hour, heavy rail rapid transit or commuter railroad service with larger vehicles and longer trains are required.

Preliminary forecasts, based on the analysis of the HOV lanes, indicate that for the year 2010 the maximum number of buses during the peak hour in the I-275 North corridor is 60. These buses are expected to carry about 2,400 to 2,700 passengers per hour, which is within the range of a successful busway, but below the required passenger levels of a rail system.

Busways clearly offer the Tampa Urban area initial cost and service advantages. These advantages are as follows:

- (1) A relatively small amount of special construction is required to achieve regional express transit.
- (2) Contra-flow bus lanes, bus streets, or bus terminals can provide effective downtown distribution, thereby eliminating the costs of below-ground construction.
- (3) Utilization of buses for light volume conditions reduces the need for special power distribution, train control, and rail yard facilities.
- (4) Busways can be effectively utilized by high-occupancy vehicles during selected periods of the day.
- (5) Busways can form the first-stage development of an eventual rail system.

The last point is perhaps the most significant one. As the Tampa Urban Area approaches the 21st century, long-range plans for a regional rail system should become more focused. If the Tampa area continues to grow at or faster than its present pace, the need for an expanded transit system will become stronger. Light rail transit is one of the simplest, most versatile, and most effective fixed guideway modes. It is equally adaptable to tunnels, aerial structures, freeway median strips, medians of boulevards, grades, and paved streets in mixed traffic. The right-of-way width required for double-track light rail including adequate platforms is approximately 40 feet, while only 24 to 36 feet of right-of-way width is required between stations. Light rail transit is also especially adaptable with respect to vertical and horizontal curvature requirements. A light rail vehicle is designed to take a curve with a 42 foot inside radius and can accept a vertical curvature radius of 310 feet on a crest of a hill and 460 feet in a sag. Grades from 4 to 6 percent are common, and some systems have been designed with grades of almost 9 percent. All of these facts point out that the Hillsborough County area expressway system may be able to accommodate a light rail system. However, there are no current plans for such a rail system and the first step of developing a good productive regional bus system must be advanced before the planning and development of a more sophisticated system can occur. Even though an expanded bus system and, eventually, a rail system in Hillsborough County will contribute to meeting existing and future travel demand, they do not meet the needs of this project. The proposed expressway will provide needed right-of-way for future improved transit as part of the total long range transportation system.

5.0 AFFECTED ENVIRONMENT

5.1 SOCIAL AND ECONOMIC SETTING

Northwest Hillsborough County is comprised of both residential and commercial areas which would be affected by the addition of the proposed expressway to the area road network. The potential impact on the residential community has been a key factor in identifying alternative alignments for the proposed roadway.

The expressway corridor passes through and is surrounded by existing and emerging residential subdivisions. The extent of residential development relative to the expressway corridor can be seen in Figure 6-4.

For the most part, these areas can be described as middle class single family residential subdivisions. U.S. Census data for the year 1980 reflects an average median income for the area of \$21,357 compared to an average countywide median income of \$14,938.

The 1980 population for the Northwest area of 101,568 is projected by the Hillsborough County City-County Planning Commission (HCCCPC) to reach 204,900 by the year 2020. This growth rate exceeds that projected by HCCCPC for the County during each of these periods. Subsection 6.2.3.3 discusses the population growth for the area studied.

The population of the area in and around the corridor is relatively young with an average age of 27.0 years compared to 30.4 years for the County and 34.7 years for the state according to the 1980 U.S. Census of Population. There are relatively fewer persons over 65 in the area (5.6%) as compared to the proportion of the age group for the County as a whole (11.5%). Also, the area has a greater percentage of Caucasians (85.3%) compared to the countywide proportion of (76.7%).

Many of these homes are in subdivisions that have been built within the past ten years. Several subdivisions are continuing to expand while others are in the approval and planning stages. Subsection 6.2.1.1 has a detailed discussion of existing neighborhoods and Subsection 6.2.1.2 discusses proposed developments.

The land use plan element of the Horizon 2000 Plan, the officially adopted growth management plan for Hillsborough County, indicates the future character of area around the expressway corridor north of Hillsborough Avenue to be low density residential, a trend presently well established. The Horizon 2000 Plan is shown in Figure 6-10.

The portion of the expressway corridor located along Memorial Highway and Eisenhower Boulevard has undergone substantial commercial development during the past five years as discussed in Subsection 6.2.1.2. Tampa International Airport has served as a major economic generator and center for much of the new commercial development occurring in Tampa. More commercial development and light industrial/warehousing activity can be expected to locate on the periphery of the airport to the immediate north and east of the airport in response to economic demand and in accordance with City and County land use plans.

The area in and around the expressway corridor has suffered in recent years from a highway system that has not kept pace with the rapid residential and commercial development occurring. The Year 2000 Principal Street and Highway Plan officially, adopted by Metropolitan Policy Organization (MPO), addresses the long term roadway needs of the area. The proposed Northwest Hillsborough Expressway is an element of this plan. This roadway along with other planned roadway improvements, is intended to meet current and future needs.

Of concern to residents is the potential impact of the expressway on the residential community. Issues raised include potential adverse affects on the value of existing residential homes, increased noise in neighborhoods, disruption of neighborhood cohesiveness, change of character of now semi-rural areas to more urban environments induced by the expressway, and aesthetics.

Community facilities reflect the relatively young family population of the vicinity. There are 19 public and private schools, 9 parks and recreation facilities, and 3 churches in the vicinity of the study area. These are shown in Figure 6-7. Other facilities include two law enforcement facilities and four fire stations which are shown in Figure 6-6.

Through coordination with the Soil Conservation Service, it has been determined that no farmlands, as defined in 7 CFR 658, are located in the project vicinity.

Two parks and recreational facilities are located in the vicinity of the proposed expressway, but not encroached upon by the project. These are discussed in Subsection 6.2.1.7. No other national, state, or local park properties are located in the vicinity, therefore, the proposed project will not use property from such resources and FHWA has determined Section 4(f) does not apply.

5.2 ENVIRONMENTAL SETTING

Results of the air quality assessment for all alternates were determined well within the National Ambient Air Quality Standards of 35 ppm for a one hour exposure and 9 ppm for an eight hour exposure. Section 6.3.1 discusses the conformance of this project to the State Implementation Plan (SIP) in this air quality non-attainment area.

The ambient noise in the area south of Linebaugh Avenue is affected by the operations of Tampa International Airport and, therefore, the proposed expressway will have "no impact" or "minor impact" in this area. North of Linebaugh Avenue, residential areas will be affected by noise from the proposed project to varying degrees ranging from "no impact" to "moderate impact". These impacts and mitigations are discussed in Subsection 6.3.2.

The proposed expressway involves floodplains in both low lying coastal areas and in inland upland areas. These areas are traversed by flow ways and historically contiguous wetlands systems. Much of the area is within the base floodplain and avoidance of floodplain involvement is not possible. Development trends in the area suggest that floodplain involvement has occurred and will occur regardless of the proposed project. Locations of floodplains are identified in Figure 6-14.

Tidally influenced coastal wetlands located along Old Tampa Bay north of Interstate 275 are characterized by black mangrove (*Avicenna germinans*), black needlebrush (*Juncus roemerianus*), and other wetlands vegetation. Wildlife in this vicinity include Clapper Rails, herons and egrets, Wood Storks, and possibly American alligators.

The northwestern portion of Hillsborough County, in the vicinity of the proposed expressway, is dotted with wetlands and small lakes. In addition, the expressway would cross Fish Creek, Sweetwater Creek, and Rocky Creek. Figure 6-15 shows the location of these areas.

Data on existing water quality of the lakes in the region is limited, although these lakes are presently under study by the Southwest Florida Water Management District. The lakes in the area tend to be shallow and those located near the proposed expressway are likely eutrophic.

Data collected by the Hillsborough County Environmental Protection Commission (HCEPC) since 1973 suggests that Fish, Rocky, and Sweetwater Creeks are Class III waters of the State. Rocky Creek and Sweetwater Creek have shown low dissolved oxygen concentrations of less than 4.0 mg/l. HCEPC data suggests this condition may be caused by the introduction of domestic sewage in the upper portions of the drainage basins and runoff from forested wetlands and agricultural areas.

Endangered species listed by the U.S. Fish and Wildlife Service (USFWS) have been observed in the project area including the Wood Stork (Mycteria americana), and Bald Eagle (Haliaeetus leucocephalus). Another listed species, the Red-cockaded Woodpecker (picoides borealis), has a range which includes the study area.

In addition to these, one additional species listed by the USFWS as threatened is known to occur in the project area. This is the Arctic Peregrine Falcon (Falco perigrinus tundrius), listed by the Florida Game and Fresh Water Fish Commission (FGFWFC) as endangered. The Eastern indigo snake, listed as threatened by the USFWS, is suspected to occur within the project area.

Two species found within the vicinity of the proposed project considered threatened by the FGFWFC are the Least Tern (Sterna antillarum) and Florida Sandhill Crane (Grus canadensis pratensis).

A detailed discussion of endangered species can be found in Subsection 6.3.9.

Following background research, archaeological field survey and systematic testing accomplished within the alignments, five prehistoric sites have been disclosed: 8Hi324, 8Hi80, 8Hi2151 through 8Hi2153. These are shown in Figure 6-13. In addition, five non site loci (isolated finds) were identified. An older home was also noted. No other archaeological or potential historical sites or properties were identified nor are any expected to be encountered during subsequent project development. The Federal Highway Administration, after consultation with the SHPO, has determined that no resources listed, or eligible for listing, on the National Register of Historic Places would be impacted.

6.0 ENVIRONMENTAL CONSEQUENCES

6.1 TRAFFIC AND ENGINEERING FACTORS

6.1.1 Expressway Roadway Section

The proposed expressway will consist of the Eisenhower/West Alignment in combination with either the Lake LeClare Alignment or Railroad Alignment and the North or South Termini. Subsection 4.1.4, Reasonable Alignment Alternatives, describes in detail these alignment alternatives.

The proposed expressway will principally be a four lane divided limited access roadway north of Memorial Highway. Between I-275 on the south and Memorial Highway, the expressway varies from 8 lane sections to 6 lanes. A complete description of the proposed typical section is discussed in Section 4.1.1 with typical sections shown in Figures 4-1 through 4-6.

The expressway roadway section, in addition to 12 foot lanes of pavement, has outside shoulders of 12 feet and inside shoulders of 8 and 10 feet for the four and six or more lane sections, respectively. The median width varies from a narrow median (22'+) in the I-275 to Memorial Highway area to 42'+ median north of Hillsborough Avenue. The 42'+ median proposed in the four lane section area has sufficient width to accommodate an additional lane in each direction or accommodate light rail transit, both considered for the future.

6.1.2 Length of Alignments

As shown in Table 6-1, the length of the Eisenhower/West Alignment is 8.62 miles from its beginning at I-275 on the south to a point approximately 3,000 feet south of Gunn Highway where the expressway follows either one of two routes. The easterly route is the Lake LeClare Alignment Alternative which is 8.18 miles long to its terminus at Dale Mabry Highway using the North Termini. The westerly route is the Railroad Alignment Alternative which follows an abandoned Railroad right-of-way and is a little longer, being 8.85 miles to the Dale Mabry Highway terminus using the North Termini. The South Termini Alignment at Dale Mabry Highway with either the Lake LeClare Alignment or Railroad Alignment alternative would be .17 miles shorter.

The length of the alignments from I-275 on the south to Dale Mabry Highway on the north is shown in Table 6-1. The shortest alignment is comprised of the Eisenhower/West Alignment combined with the Lake LeClare Alignment using the South Termini alternative at Dale Mabry Highway, 16.63 miles and the longest alignment is the Eisenhower/West Alignment combined with the Railroad Alignment and North Termini, 17.47 miles.

TABLE 6-1

LENGTH OF ALIGNMENTS
I-275 TO DALE MABRY HIGHWAY

<u>Alignment Combinations</u>	<u>Segment Miles</u>	<u>Total Miles</u>
Eisenhower/West	8.62	
Lake LeClare/North Termini	8.18	
		16.80
Eisenhower/West	8.62	
Railroad/North Termini	8.85	
		17.47
Eisenhower/West	8.62	
Lake LeClare/South Termini	8.01	
		16.63
Eisenhower/West	8.62	
Railroad/South Termini	8.68	
		17.30

6.1.3 Traffic Service and Number of Lanes

Estimates of traffic service have been provided by URS, Coverdale Colpitts and Barr Dunlop & Associates, Inc., traffic and revenue consultants for this project, for use in this evaluation. All estimates are based on existing traffic conditions and patterns and were projected on the premise of providing a high-type free flowing expressway with increased safety and convenience.

The accepted method of designating a facility's ability to serve the public need in a safe and efficient manner is by determining the "Level of Service" (L.O.S.). The Level of Service is a letter designation from A to F as described below.

L.O.S. A. - free flow, low volumes, unrestricted maneuverability due to other vehicles.

L.O.S. B. - stable flow, reasonable freedom of maneuverability.

L.O.S. C - lower zone of stable flow, speed and maneuverability affected by the higher volumes.

L.O.S. D - approaches unstable flow, operating speeds lowered and maneuverability restricted (Design Level of Service for urban expressways).

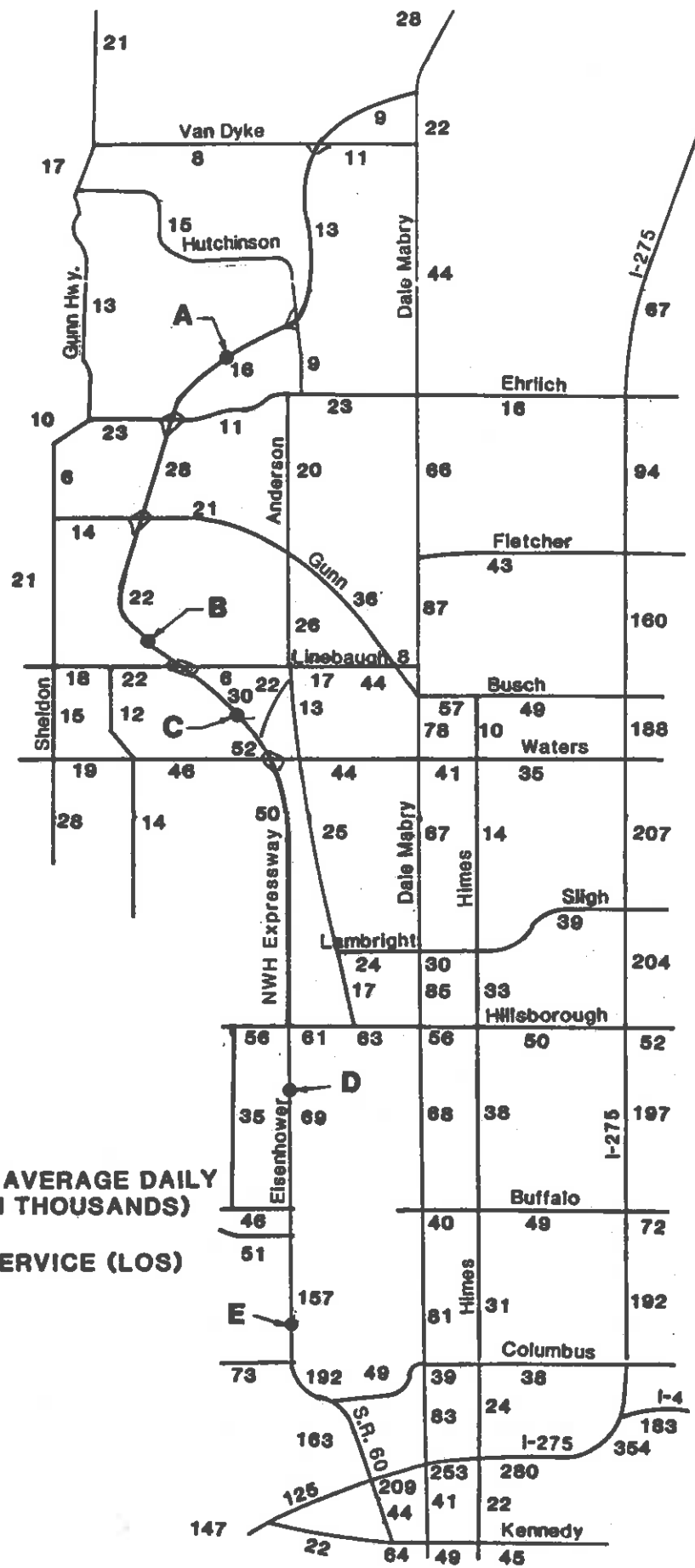
L.O.S. E - unstable flow, operating speeds at 30 m.p.h. or less, approaches capacity of the facility.

L.O.S. F - forced flow, speeds are greatly reduced and stoppages occur, volumes are below capacity.

A free flowing urban, controlled access facility with two-lanes in each direction could be expected to accommodate approximately 33,000 ADT (average daily traffic) at L.O.S. B and approximately 66,000 ADT at capacity (L.O.S. E).

The projected year 2010 traffic volumes derived from the traffic service analysis are shown in Figures 6-1 and 6-2 for the Lake LeClare and Railroad alignment alternatives, respectively. These numbers represent the average daily traffic (ADT) in both directions using existing streets and the proposed expressway.

The section of the expressway between I-275 and the Courtney Campbell Causeway (including the Airport Interchange) are of major concern because of the existing traffic volumes and the importance of this segment as the southern terminus for the proposed Northwest Expressway. For the proposed expressway all segments will operate at L.O.S. D or better with service at or approaching L.O.S. A for the majority of the day.

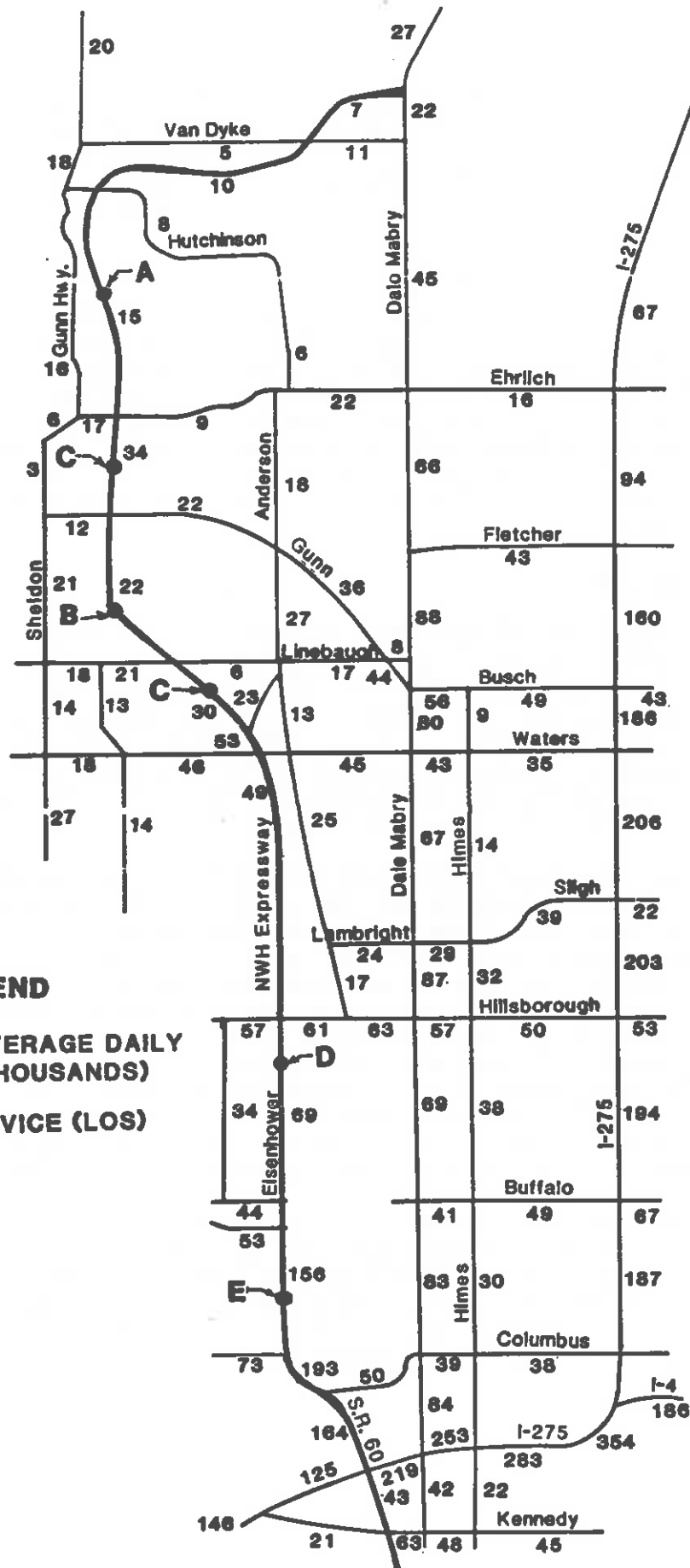


LEGEND

47 - YEAR 2010 AVERAGE DAILY TRAFFIC (IN THOUSANDS)
 B - LEVEL OF SERVICE (LOS)

TRAFFIC DEMAND YEAR 2010 AND LEVELS OF SERVICE LAKE LECLARE ALIGNMENT

FIGURE 6-1



LEGEND

48-YEAR 2010 AVERAGE DAILY TRAFFIC (IN THOUSANDS)

B-LEVEL OF SERVICE (LOS)

TRAFFIC DEMAND YEAR 2010 AND LEVELS OF SERVICE RAILROAD ALIGNMENT

FIGURE 6-2

As the expressway proceeds north of Hillsborough Avenue, the level-of-service goes from D just south of Waters Avenue to B north of Linebaugh Avenue to A at Van Dyke Road. This increase in level-of-service (due to decrease in projected ADT) is expected as the expressway traverses the more undeveloped areas of northern Hillsborough County.

Each of the project alternatives would serve larger volumes than the "No-Build" alternative. As previously discussed in Subsection 4.2.1 and shown in Figure 3-2, many of the roadways in the northwest area have traffic volumes exceeding existing capacity. Without the proposed expressway and major improvements to the County road network, deficiencies in capacity on most of the existing roadways will continue to magnify. By the year 2010, many of the roadways in the northwest area will operate at Levels of Service E (unstable flow) and F (forced flow), presenting severe congestion.

6.1.4 Stage Construction

A project of the magnitude discussed in this report requires large expenditures for right-of-way and construction. Though the traffic generated by the expressway will warrant its full implementation this amount of use may not be realized on all segments for several years after completion of construction. Therefore, staged construction of the expressway may be considered to save on the initial investment yet service the transportation demands of the present and future.

Stage construction would consist of the purchase of all right-of-way required for the project. This is done to reserve that land which would be utilized for future expansion. The full width expressway would be built to a point where traffic projections dictate the need for that type of facility in the year of completion. In the case of the proposed Northwest Expressway, that segment would be from I-275 to the Linebaugh Avenue interchange. From this point north only two lanes of the mainline expressway would be built initially. However, all overpasses and ramps would be fully developed to maintain free flow and to control access. Also certain drainage appurtenances and embankments may be placed to expedite future construction.

Stage construction is a concept which will need to be addressed fully at the time the Expressway Authority begins to identify and quantify the means of financing the facility. The Authority could realize an initial investment savings of approximately 30 percent on construction costs, yet still provide an adequate level-of-service on all segments of the Expressway.

6.1.5 Estimated Project Costs

One of the primary criteria of evaluating alignments is cost comparison. For this project, the estimated capital cost of providing the roadway, hereinafter referred to as project cost, must be evaluated.

Estimates of project costs were made for each of the previously described alignment alternatives using the proposed typical sections shown in Figures 4-1 thru 4-6. Project cost is the summation of the various expenditures anticipated in administering, planning, engineering, acquiring of right-of-way, construction and related incidental items associated with the development of an expressway project. These costs are broken down for each Alignment in Table 6-2.

The estimate of construction cost is based upon quantities taken from preliminary plans. Calculations were made for earthwork, pavement and bridge quantities. Additionally, the linear footage of retaining wall and concrete median barrier were estimated. Current unit prices for these items of work from similar type projects were tabulated. The costs of incidental items were estimated based upon percentages of the major items.

The estimates for right-of-way and relocation costs were prepared by the Florida Department of Transportation. These estimates were made based upon the square footage of taking and using land values supplied by local realtors. The estimates have been adjusted to provide for condemnation proceedings and other contingencies.

Table 6-2 has been developed separating the costs into three segments. First, is the Eisenhower/West Alignment from I-275 on the south to Hillsborough Avenue. Second, is the extension of Eisenhower/West from Hillsborough Avenue to a point approximately 3,000 feet south of Gunn Highway. Third, is the two northern alternatives, the Lake LeClare Alignment to the east and the Railroad Alignment to the west with either the North Termini or South Termini. These northern alternatives begin 3,000 feet south of Gunn Highway and end at Dale Mabry Highway. To arrive at a project cost for the entire length, the two Eisenhower/West Alignment costs are added to either one of the Railroad or Lake LeClare Alignment Alternatives, see Table 6-3 for alignment combinations.

The cost of Eisenhower/West Alignment, south of Hillsborough Avenue, is \$73,620,000. The primary costs are due to construction of the proposed six-lane and eight-lane sections, the extensive frontage road system and major reconstruction of all existing interchanges (I-275, Tampa Airport, Spruce Street, Courtney Campbell Causeway, Independence Parkway, Memorial Highway, and Hillsborough Avenue). The cost of right-of-way is comparatively

TABLE 6-2

NORTHWEST HILLSBOROUGH EXPRESSWAY
PROJECT COST
(\$1000's)

ALTERNATIVE ALIGNMENTS	FROM	TO	1984 CONST COSTS (x1000)	ENGINEER SUR & TEST (15%)	ADMIN. LEGAL, AUD & FINANCE	CONTIN-GENCIES (15%)	FDOT R/W ESTIMATE (x1000)	FDOT RELOC. ESTIMATE (x1000)	1985 PROJECT COSTS (x1000)	1988 COSTS 8% PER YR (x1000)
EISENHOWER	I-275	HILLSBOROUGH	29,000.00	4,350.00	200.00	5,050.00	19,666.00	180.00	58,446.00	\$73,624.43
EISENHOWER	HILLSBOROUGH	GUNN HWY	32,064.00	4,809.60	100.00	5,531.04	27,939.00	1,072.00	71,515.64	\$90,088.25
LAKE LECLARE W/NOR. TERMINI	GUNN HWY	DALE MABRY	35,572.00	5,335.80	100.00	6,136.17	22,241.00	936.00	70,320.97	\$88,583.33
RAILROAD W/NOR. TERMINI	GUNN HWY	DALE MABRY	36,690.00	5,503.50	100.00	6,329.03	17,197.00	931.00	66,750.53	\$84,085.64
LAKE LECLARE W/SOU. TERMINI	GUNN HWY	DALE MABRY	35,138.00	5,270.70	100.00	6,061.31	22,141.00	936.00	69,647.01	\$87,734.33
RAILROAD W/SOU. TERMINI	GUNN HWY	DALE MABRY	36,256.00	5,438.40	100.00	6,254.16	17,097.00	931.00	66,076.56	\$83,236.64

TABLE 6-3

PROJECT COSTS
ALIGNMENT COMBINATIONS

ALIGNMENT COMBINATION	COSTS
Eisenhower/West - Lake LeClare/North Termini	\$252,300,000
Eisenhower/West - Railroad/North Termini	\$247,800,000
Eisenhower/West - Lake LeClare/South Termini	\$251,400,000
Eisenhower/West - Railroad/South Termini	\$246,900,000

low due to the utilization of an existing corridor (Eisenhower Boulevard) and the proposed use of existing Tampa International Airport right-of-way on the east side of the project. The right-of-way required along the west side of the airport varies from 50 feet to 120 feet wide.

The northern segment of the Eisenhower/West Alignment, which is estimated to cost \$90,090,000, consist of a four lane section. A major portion of the proposed right-of-way cost is accounted for in the acquisition of 32 homes in the Southern Comfort neighborhood just north of Hillsborough Avenue. Also in the same vicinity are several industrial warehouses and other commercial buildings which will need to be acquired.

The Railroad Alignment with North Termini project costs are estimated at \$84,090,000, or \$4,490,000 less than the Lake LeClare Alignment cost of \$88,580,000. The main differences between the two costs are the Railroad Alignment is \$5,050,000 less for right-of-way and relocation and \$1,480,000 more for construction, engineering and contingency. The Railroad Alignment is longer, therefore more construction and engineering costs are involved; however, with the more extensive use of the abandoned railroad property and the present development occuring within the Lake LeClare Alignment, the right-of-way costs are less. The same differences in project costs also are estimated using the South Termini Alignment alternative.

The alignment combination project costs as shown in Table 6-3 vary from \$246,900,000 for the Eisenhower/West-Railroad/South Termini to \$252,300,000 for the Eisenhower/West-Lake LeClare/North Termini.

6.1.6 Special Construction and Maintenance Problems

All of the Alternatives will have impacts on the traffic service both during and after construction. During construction, access problems to businesses and residences can be anticipated as well as slow moving traffic in the areas of construction. However, since each corridor is planned to be in a new right-of-way except for the I-275 to Hillsborough Avenue segment, few businesses or residents will experience long term or extensive detouring. After construction, access problems to existing facilities should be minimal since the principal roads will have interchanges and the other key roadways will be overpassed or rerouted.

The Eisenhower/West Alignment south of Hillsborough Avenue has perhaps the greatest potential problem with maintaining traffic on S.R. 60 and Eisenhower Boulevard during construction. Special consideration will have to be given to this area to maintain access to Tampa International Airport, the businesses along Eisenhower Boulevard and the high volume flows on Eisenhower Boulevard to Courtney Campbell Causeway, Independence Parkway, Memorial Highway, and Hillsborough Avenue. The most feasible

approach would be to build the proposed frontage road system, particularly on the west side, transfer the traffic to the frontage roads, then construct the expressway mainline and ramp improvements.

Once north of Hillsborough Avenue, construction will principally be within new right-of-way and should therefore have few localized problems. All maintenance of traffic and construction scheduling will follow normal procedures per FDOT standard construction specifications. This means present access to homes and businesses shall remain open except for short periods of time. Also there will be increased noise and dust levels associated with the construction which will be monitored. Currently, there are measures used to minimize these impacts.

Once construction is complete there will be only minor routine maintenance which is common for projects of this magnitude. The maintenance operations include landscape upkeep and periodic mowing, normal roadway and bridge repairs, and asphaltic overlay of the existing pavement. Building and toll collection equipment maintenance will be required to ensure smooth operations at both the mainline toll plazas and ramp toll booths for that portion of the project (Hillsborough Avenue northward) which is anticipated to be toll financed. It is anticipated that the expressway south of Hillsborough Avenue will be constructed with federal funds, therefore, routine maintenance on roadways and bridges is required.

6.1.7 Summary of Traffic and Engineering Factors

A summary of the comparative evaluation of traffic and engineering factors is shown in Table 6-4. The table has been divided into two segments for comparative purposes, I-275 to 3,000 feet South of Gunn Highway and 3,000 feet south of Gunn Highway to Dale Mabry Highway. The latter section includes both the comparison of the North and South Termini alternatives.

6.2 COMMUNITY IMPACT FACTORS

6.2.1 Social and Economic Impacts

6.2.1.1 Neighborhoods and Communities

The proposed project would pass through or adjacent to a number of neighborhoods for each of the alternative alignments. Figure 6-3 shows the generalized location of neighborhoods in the vicinity of the proposed expressway. The impacts on the neighborhoods affected by each alternative is described below:

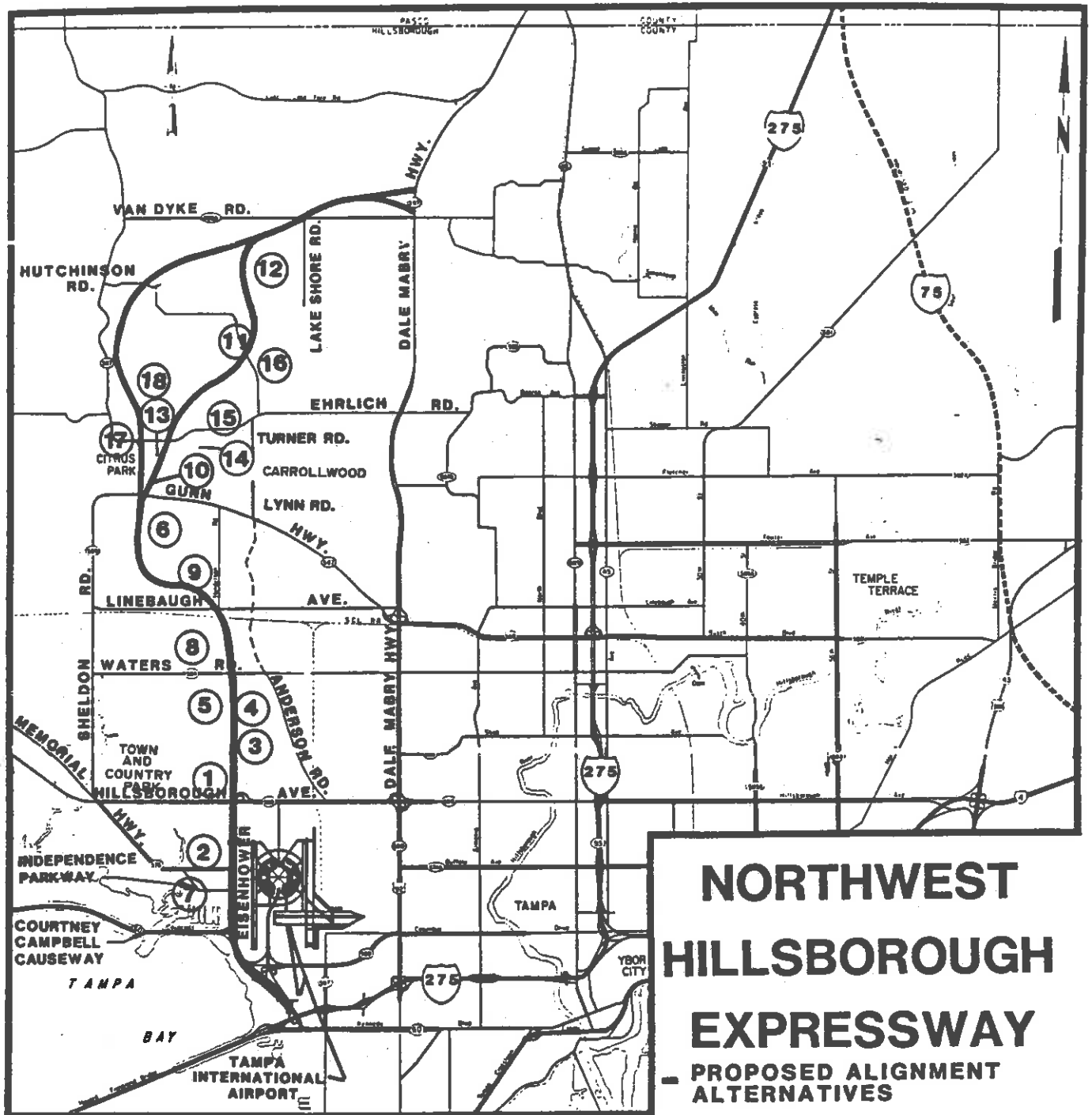
6.2.1.1.1 Eisenhower/West Alignment (I-275 to South of Gunn Highway)

The most severely affected neighborhood is the Southern Comfort Homes residential subdivision located just north of Hillsborough Avenue. The Expressway and frontage road would take thirty-two

TABLE 6 - 4

SUMMARY OF TRAFFIC AND ENGINEERING FACTORS

Factors/Alternative	I-275 to 3,000 Feet South of Gunn Hwy. Eisenhower/West	3,000 Feet South of Gunn Hwy. to Dale Mabry Hwy. Lake LeClare Railroad	North	South	North	South
Design Characteristics	2,4 and 6 laned roadways highly congested, unrestricted access and interchanges and intersections with major restrictions	4, 6 & 8 laned expressway, limited access with interchanges and frontage roads and interchange improvements	2 and 4 laned rural roadways highly congested, unrestricted access and interchanges with major restrictions	4 laned expressway, interchanges and improvements	limited access with some intersection	
Length (Miles)	Similar to expressway routing length	8.62	Similar to expressway routing length	8.10	8.01	8.85 8.68
Traffic Service	Unstable and forced flow on major existing roadways	Improve Traffic flow on major roadway I-275 to Hillsborough Avenue and competing roadways	Unstable and forced flow on major existing roadways	Improve traffic flow on major existing roadways, higher traffic volumes	major existing roadways, lower traffic volumes	
Costs (000)	Undetermined amount of costs would be incurred in future	\$ 61,064 48,857 9,460 <u>44,332</u> \$163,713	Undetermined amount of costs would be incurred in future	\$35,572 23,177 5,436 <u>24,398</u> \$88,583	\$35,138 23,077 5,371 <u>24,148</u> \$87,734	\$36,690 18,128 5,604 <u>23,664</u> \$83,237
Special Construction and Maintenance Problems	Higher maintenance required on existing roadways	Major consideration for maintenance of traffic during construction on Eisenhower Boulevard, no other special construction or maintenance problems	Higher maintenance required on existing roadways	Localized minor maintenance problems during construction on cross streets, no other special construction or maintenance problems		



**NORTHWEST
HILLSBOROUGH
EXPRESSWAY
- PROPOSED ALIGNMENT
ALTERNATIVES**

LEGEND

- | | | | |
|--|--|----------------------------------|---------------------------------|
| 1. Southern Comfort Homes | 6. Green Grass Acres Sub-division, Second Addition | 11. Half Moon Lake Estates | 17. Citrus Park |
| 2. Benjamin's Farm Sub-division (Unit No. 8) | 7. Dana Shores | 12. Lake Helen Area | 18. Peterson Road/Copeland Road |
| 3. Barry's Subdivision | 8. Deerfield | 13. Woodbriar West | |
| 4. Sitka/Ann Bullard Road Neighborhoods | 9. Henderson Road (Units 4 and 5) | 14. Carrollwood Lakes | |
| 5. Twelve Oaks | 10. Manhattan Park | 15. Sugarwood | |
| | | 16. Country Place West (Unit II) | |

EXISTING NEIGHBORHOOD LOCATION MAP

FIGURE 6-3

homes in the southeastern fringe of this subdivision, although leaving the remainder of the development (over 200 homes) as a cohesive viable neighborhood with no changes in future land use anticipated. The Expressway would not adversely alter accessibility to community facilities for the remaining residents. Upon completion of the project, the neighborhood could be expected to continue to function as it does at the present time.

Benjamin Farm's Subdivision, Unit No. 8, located in the vicinity of Jarvis Street and Eleanor Drive at Eisenhower Boulevard, would be impacted. This older mixed use development has evolved into a predominantly commercial area of small businesses with a declining residential presence. The Expressway removes one home and five small businesses on the eastern fringe without causing a change in the overall character of this area.

Eight homes, including three mobile homes, located on the western fringe of Barry's Subdivision would be taken by the Expressway. These are located in the vicinity of Turnmor Drive (4), Flora Avenue (3), and on Barry Lane (1) near the Channel "C" drainage canal. The remainder of the subdivision to the east would not be impacted adversely as to cohesiveness or accessibility to existing or proposed community facilities.

Two pockets of homes located in the semi-rural area of Sitka Road and Ann Ballard Road would be severely impacted. Approximately eleven of the eighteen homes located in these clusters would be taken for right-of-way. The Expressway would isolate one home from remaining neighboring homes in the Ann Ballard Road area and do the same for three to five existing homes along Sitka Road.

Along the abandoned railroad in the vicinity of Gardner Road, seven homes would be taken from the Green Grass Acres Subdivision Second Addition. The Expressway will not adversely affect cohesiveness of this area as the railroad right-of-way which predates the subdivision already divides the first and second additions. Gardner Road, the sole improved road connecting these subdivisions, would remain open.

Other neighborhoods located in close proximity to the Expressway, but not affected by takings of properties or by reduction of neighborhood cohesion, include Dana Shores, Deerfield, Twelve Oaks, and Henderson Road (Units 4 and 5). Also, in close proximity are two new developments discussed in the following Subsection 6.2.1.2, "Existing and Proposed Developments".

In summary, six residential neighborhoods would be encroached upon by the proposed project. Two small residential areas, located on Sitka Road and Ann Ballard Road, would be split by the project thereby affecting twenty remaining homes in these neighborhoods. Accessibility to community facilities for these semi-rural neighborhoods would remain as at present. Other neighborhoods

encroached upon, or located near, the Expressway would not be adversely affected as to their cohesiveness or accessibility to community facilities and services.

6.2.1.1.2 Lake LeClare Alignment (South of Gunn Highway to Dale Mabry Highway Including North Termini and South Termini Alternatives)

Neighborhoods encroached upon by the proposed project on the Lake LeClare Alignment include Manhattan Park, Half Moon Lake Estates, and the Storm Road area.

Most severely impacted is the Manhattan Park area which would have thirty-one residences taken. Twenty-three of these are located on the eastern fringe of the Manhattan Park subdivision north of Gunn Highway. The remainder of the subdivision, over 50 residences, would remain an undivided cohesive neighborhood. Other homes taken in this area would be located just south of Gunn Highway, which is semi-rural in nature rather than a formally platted subdivision. Ten of these homes would be separated from the remainder of the Manhattan Park area by the Expressway, but access would remain via Gunn Highway as it is today. The Manhattan Park area would be expected to remain a viable residential community enhanced by improved access via the interchange at Gunn Highway.

The Half Moon Lake Estates area would be impacted by the taking of five homes east of Hutchinson Road leaving the lakeside remainder of this semi-rural subdivision as a cohesive neighborhood. Access of this area to the larger communities of Northwest Hillsborough County would be enhanced by the Hutchinson Road interchange nearby.

In the vicinity of Storm Road west of Tobacco Road three homes would be taken in this large lot, semi-rural area. The Expressway will separate fifteen homes located along Tobacco Road from over forty homes surrounding Lake Helen and Lake Zelma; although, Storm Road, presently the sole roadway linking these areas, will continue to provide access. Lake LeClare Road will be bridged and will therefore provide access between the two separated areas. This separation is not expected to diminish the viability of this community.

The Expressway would be located close to the subdivisions of Woodbriar West, Carrollwood Meadows (Unit XI), Sugarwood Grove and Country Place (Unit II), but would not cause takings of properties.

No neighborhoods or communities would be affected by the North Termini and South Termini alternatives.

In summary, the Lake LeClare Alignment splits and severely impacts the Manhattan Park and Half Moon Lake Estates subdivisions and the semi-rural residential area in the vicinity of Storm Road.

6.2.1.1.3 Railroad Alignment (South of Gunn Highway to Dale Mabry Highway Including North Termini and south Termini Alternatives)

The proposed Railroad Alignment encroaches on two residential areas: Citrus Park and the Peterson Road/Copeland Road vicinity.

Citrus Park is a broadly defined unincorporated area comprised not only of a formally platted subdivision of that name, but much of the surrounding area commonly known as Citrus Park. The Expressway would split the Subdivision approximately in half in terms of the number of residential units affected. Eighteen homes in the subdivision would be taken, leaving over 60 homes on either side of the project. Access between these two halves would be reduced from four minor local streets to Ehrlich Road, an arterial highway. Ehrlich Road would also entail the construction of a proposed interchange which diminishes the accessibility between the two areas. In effect, two neighborhoods would be created.

Citrus Park, viewed from a broader geographic and social perspective, is a community rather than a purely residential neighborhood. Because it predates most other development in this part of the County, through the years it has evolved beyond the neighborhood subdivision to a community which includes a community/recreation center, an elementary school, a church, and a number of small businesses.

The Expressway would not take or encroach upon the Citrus Park community serving facilities. The community would remain a cohesive viable area, complete with facilities, to the west of the Expressway. The residents east of the roadway would still have access to the community facilities, as discussed above, with access restricted to Ehrlich Road.

In the general semi-rural area of Peterson Road and Copeland Road twelve homes would be taken. The Expressway splits this area but would not be expected to substantially alter these areas. Access along both roadways would continue to link these homes and small farms.

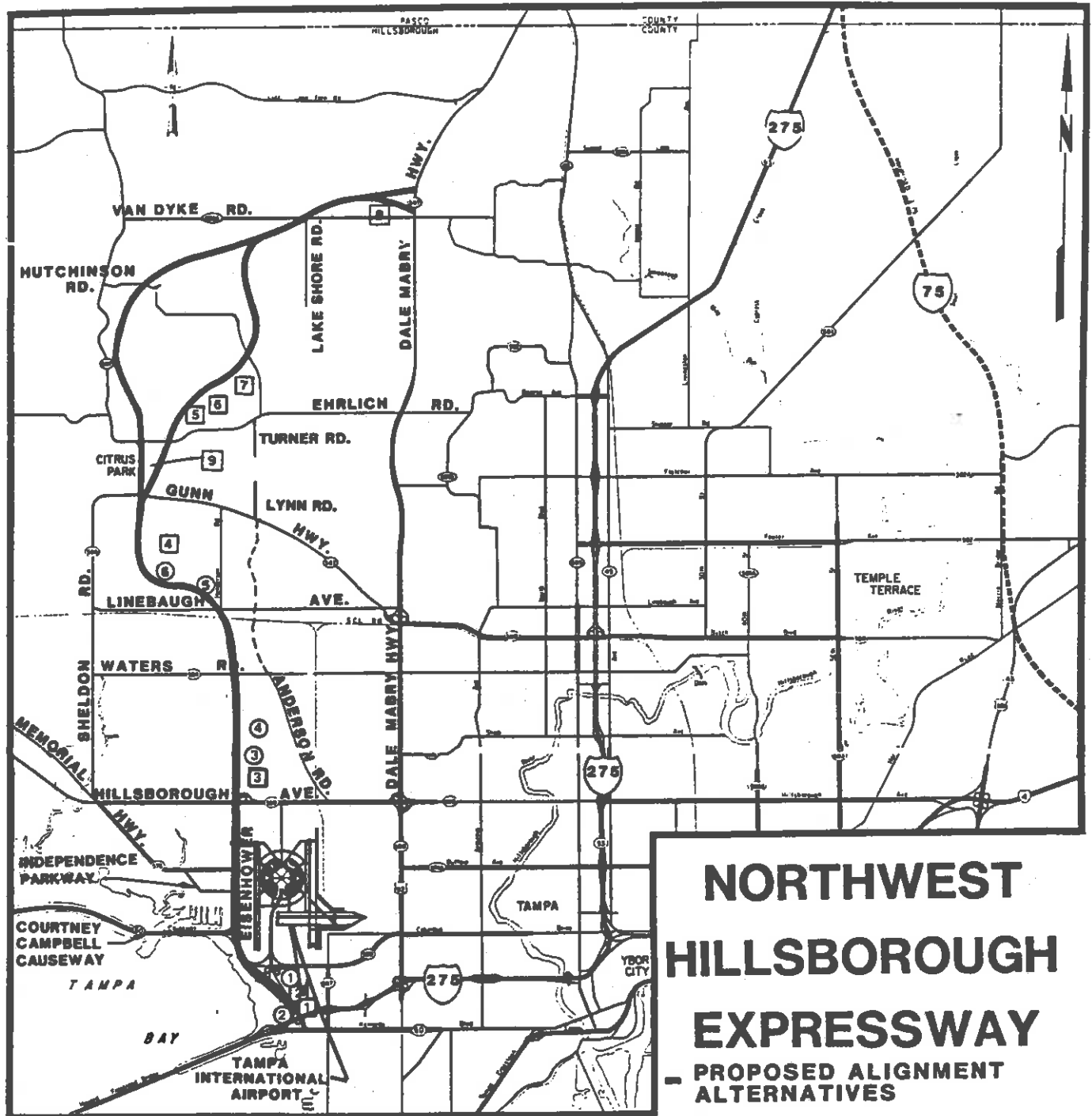
In summary, the Railroad Alignment splits Citrus Park and the Peterson Road/Copeland Road area with severe impact on the Citrus Park subdivision.

6.2.1.2 Existing and Proposed Developments

6.2.1.2.1 Eisenhower/West Alignment (I-275 to South of Gunn Highway)

This portion of the proposed project, south of Gunn Highway, affects numerous existing and proposed new developments in addition to those discussed in "Neighborhoods and Communities," Subsection 6.2.1.1.

The developments discussed in this section are noted on the map entitled, "Existing and Proposed Developments," Figure 6-4.



LEGEND

○ **EXISTING**

□ **NEW / PROPOSED DEVELOPMENTS**

- | | |
|--|---|
| 1. Color Corporation of America and the Colony Office Building | 5. Airstrip |
| 2. Corporate Oaks Office Complex | 6. Hillsborough County, Northwest Landfill Site |
| 3. Businesses on Johns Road | |
| 4. Stuttenburg Paving Co. | |

- | | |
|------------------------------------|-------------------------------|
| 1. Centrepoint Office Building | 6. Eastbrook Subdivision |
| 2. Cypress Commons Office Building | 7. Mandarin Lakes Subdivision |
| 3. Thompson Center | 8. Calusa Trace |
| 4. Rocky Creek Subdivision | 9. Citrus Run |
| 5. Turtle Creek Subdivision | |

Along Eisenhower Boulevard, between Interstate 275 and Columbus Drive, the Expressway will require the relocation of a frontage road serving new commercial buildings east of Eisenhower Boulevard. None of the buildings or their parking areas will be taken by the proposed expressway. Alternative access to these properties will be provided through improvements to the existing street system. The Corporate Oaks office complex at Cypress Street on the west side of Eisenhower Boulevard will be impacted by the taking of some parking spaces and landscaped areas.

In addition, the proposed expressway would encroach upon the western edge of Tampa International Airport property owned by the Hillsborough County Aviation Authority. The frontage along Eisenhower Boulevard would be taken to a depth of approximately 80 feet increasing to 120 feet at the proposed interchange at Memorial Highway. This would result in the relocation of a perimeter roadway located on airport property and a fire station.

North of Hillsborough Avenue the Expressway impacts the new 6308 and 6206 Buildings of Thompson Center, a multi-building warehouse/office complex fronting Benjamin Road, by taking circulation and parking areas on the west side of the buildings. Also, a planned 20,000 square foot building would be separated from this complex by the Expressway. In the vicinity of Johns Road two small businesses would be taken, a paving company would be partially taken, and at Waters Avenue two small businesses would be dislocated.

North of Linebaugh the Expressway would pass through a more rural area. Among scattered homes and portions of farms that would be taken is a private airstrip north of Linebaugh Avenue. A portion of the Hillsborough County Northwest Landfill detention pond situated east of the railroad right-of-way would be traversed. Approximately 100 feet of the western edge of the proposed Rocky Creek subdivision would be taken; however, no construction activity has yet occurred on this property.

In summary, the most severe impact occurs between Interstate 275 and Waters Avenue where a parking lot for a new commercial office building will be partially taken; the building will not be displaced. The character, functioning and vitality of the immediate surrounding areas should in no way be diminished by the development of the project. It should be noted that the identified commercial takings, as well as the airport property taking, are necessary for development of this project.

6.2.1.2.2 Lake LeClare Alignment (South of Gunn Highway to Dale Mabry Highway Including North Termini and South Termini Alternatives)

The Lake LeClare Alignment would encroach upon five new and proposed developments.

Along the Lake LeClare Alignment in the vicinity of Bellamy Road north of Ehrlich Road, the subdivisions of Turtle Creek, Eastbrook, and Mandarin Lakes would be encroached upon by the Expressway.

In the planned Turtle Creek Subdivision, 2 homes of this 135 unit single family development would be taken. These homes would be located on the Southeastern fringe adjacent to Bellamy Road. The remainder of the subdivision would not be encroached upon by the Expressway.

The Eastbrook Subdivision, now under construction, would be split by the roadway with 21 homes taken of the planned 97 homes. Approximately 250 feet of frontage road constructed would provide adequate circulation for the portion of the subdivision north of the proposed roadway. In addition, 4 homes, when built, would be taken on the northeast fringe of the subdivision.

In the planned 144 unit Mandarin Lakes Subdivision 36 homes, when built, would be taken by the Expressway.

In the vicinity of Hatton Road the proposed subdivision of Westwind Lakes could be severely impacted. At the time of preparation of this report a subdivision plat has not been filed with Hillsborough County. Along the eastern side of the subdivision a number of homes would likely be taken.

In addition, the proposed 596 acre mixed use development of Calusa Trace at Van Dyke Road and Dale Mabry Highway would be impacted by both the Lake LeClare and the Railroad alternatives, although the preliminary concept plans available at the time of this report would indicate that the project probably could be designed to accommodate the Expressway for either the North Termini or South Termini alternatives.

6.2.1.2.3 Railroad Alignment (South of Gunn Highway to Dale Mabry Highway, Including North Termini and South Termini Alternatives)

The Railroad Alignment would not encroach upon any approved new or proposed subdivisions with the exception of Calusa Trace, discussed above in Subsection 6.2.1.2.3.

6.2.1.3 Travel Patterns and Accessibility

The northwest section of Hillsborough County serves primarily as a bedroom community to the more industrial/business based areas to the south and east. This is readily evident upon inspection of existing land use and projections by the Hillsborough County City-County Planning Commission.

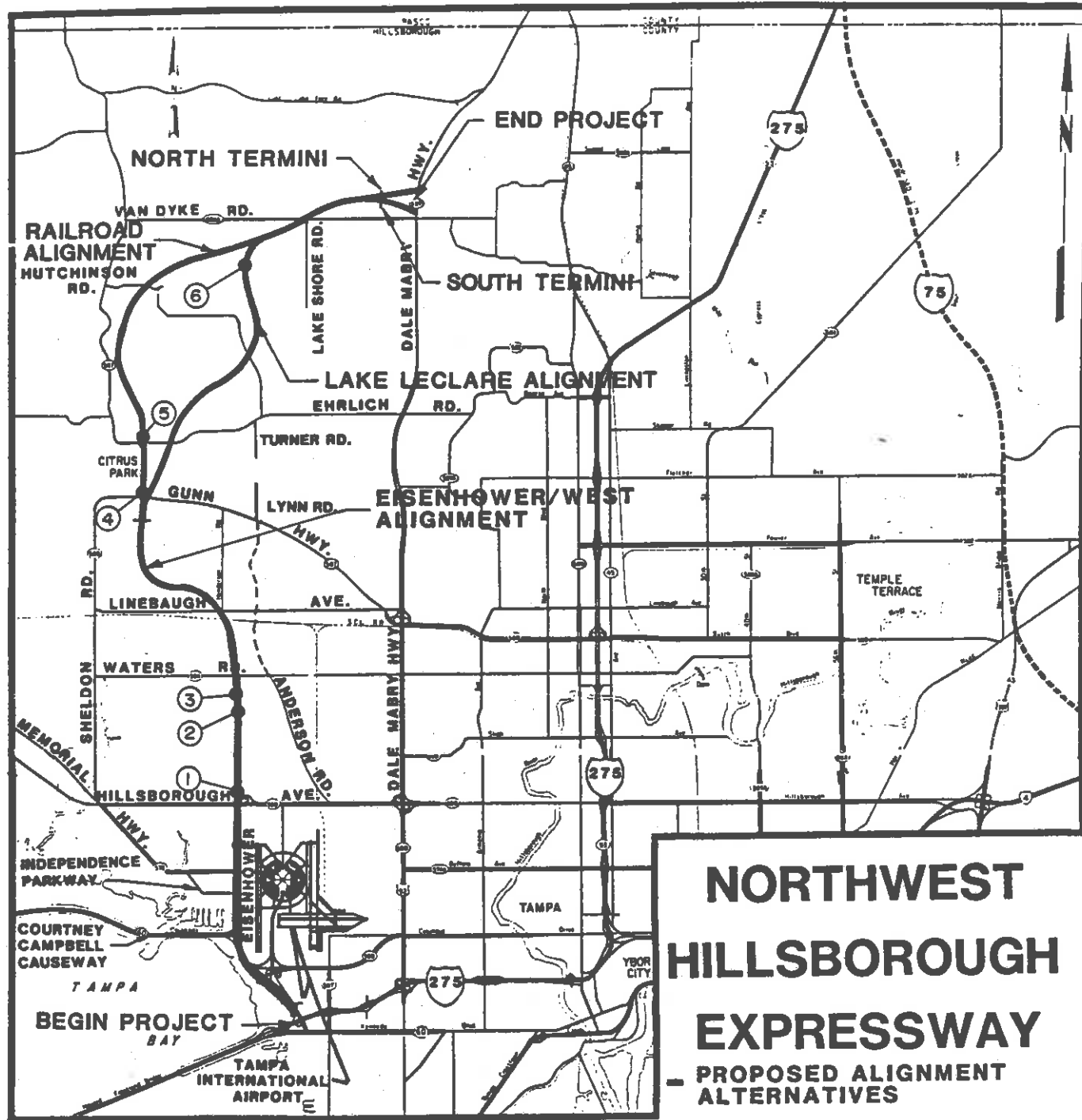
This type of intense residential development tends to create heavy peak hour traffic volumes both in the morning and afternoon. The major east-west arterials including Hillsborough Avenue, Waters Avenue, Linebaugh Avenue, Gunn Highway, and Ehrlich Road are stressed over capacity during these times. In addition, the major north-south routes, Dale Mabry Highway and to a lesser extent Sheldon Road, are loaded beyond capacity with commuters trying to go to and from work in the downtown and Westshore areas. These existing travel patterns lead to long delays and unsafe operation. Even with the improvements underway, see Subsection 4.2.3, the major intersections in the area will still cause severe congestion.

The project would provide an alternate route to those work generation points like the Central Business District downtown and the Westshore office and commercial center, thereby taking traffic off Dale Mabry Highway and Sheldon Road in the north-south direction. In addition, the traffic on the major east-west roads would be redirected as people travel towards the project. Usage of the Expressway would encourage shorter trips on these roads and probably result in a more even directional distribution (percent of cars travelling in one direction). As a side effect, the intersections of these roads with Dale Mabry will become safer as a result of less congestion at these points.

The proposed project is planned to be in a new right-of-way corridor north of Hillsborough Avenue; therefore, existing road closures will be kept to a minimum. The following are a list of roads to be closed and measures which will be taken to mitigate these closures. These roads are shown in Figure 6-5, "Existing Road Closures".

6.2.1.3.1 Eisenhower/West Alignment

- 1) Southern Comfort Boulevard/Frontage Road (north side of Hillsborough Avenue)
This road provides access between the Southern Comfort neighborhood on the west and Benjamin Road on the east. This movement may still be made by using Hillsborough Avenue. Also, Johns Road connects Benjamin Road and the Southern Comfort development about 2/3 of a mile north of this point.
- 2) Ann Ballard Road (north of Barry Road)
This is a residential road servicing those homes fronting on it. Access is readily available on Barry Road.



LEGEND

- ① SOUTHERN COMFORT BLVD./FRONTAGE ROAD
- ② ANN BALLARD ROAD
- ③ SITKA ROAD
- ④ EDMERERE ROAD
- ⑤ ALLMARK AND ALVENA STREETS
- ⑥ STORM ROAD

EXISTING ROAD CLOSURES

FIGURE 6-5

3) Sitka Road

This is a local deadend road providing access to several residents. An alternate route will be constructed on the west side of the Expressway from Sitka Road south to Ann Ballard Road.

6.2.1.3.2 Lake LeClare Alignment

1) Storm Road (east of Tobacco Road)

This is a lightly travelled residential road servicing those homes fronting on it. Access to these homes will be along the existing Storm Road. From the east, Storm Road will continue to be accessed from Lake Shore Road. From the west, access will be from Tobacco Road.

6.2.1.3.3 Railroad Alignment

1) Edgemere Road (north of Gunn Highway - Sheldon Road intersection)

This is a local road providing access from North-South Gunn Highway into the Manhattan Park Subdivision. Access will be restricted to the existing entrance off Pulitzer Road at Gunn Highway.

2) Allmark Street and Alvena Street (north of Ehrlich Road)

These two local residential neighborhood roads are used principally by residents fronting on the road in Citrus Park Subdivision and for access between the east and west areas of the subdivision. An alternative route of access between the east and west sides would be via the arterial roadway of Ehrlich Road/Gunn Highway. The interchange at Ehrlich Road would somewhat impede travel between the two areas.

That portion of the proposed expressway to be constructed within the existing corridor (I-275 to Hillsborough Avenue) will have free access frontage roads to service those homes and businesses adjacent to it. Though some local trips may be longer in distance, this should be offset by the ease of movement created by the greater capacity offered by the project in conjunction with the frontage road system.

6.2.1.4 Public Utilities

The complete range of utility services, including water, electric, sanitary, gas, telephone and telecommunication cables, are encountered throughout each alignment alternative. The local service lines, either overhead or underground, are found principally within existing roadway rights-of-way and generally will easily be relocated nearby. Plans of the proposed alignment alternatives were sent to the utility owners with facilities in the area. Existing and proposed major utilities were identified by the owners with potential conflicts noted. Major transmission lines which will be considered in final design of the proposed expressway were found as discussed below:

In the Eisenhower Boulevard area there are major water lines and buried electric lines which serve the Tampa International Airport. Within the abandoned railroad right-of-way a new West Coast Regional Water Supply Authority water line has recently been installed which will remain approximately 30 feet west of the edge of pavement for either the Lake LeClare or Railroad alignments roadway. The Lake LeClare Alignment alternative parallels this water line approximately 0.8 mile and the Railroad Alignment alternative parallels the water line approximately 2.5 miles. None of the wells will be encroached upon by the expressway.

Crossings under high voltage transmission tower lines will entail relocation of several towers in both the Lake LeClare and Railroad alignments. The number of towers to be relocated depends on the alignment selected and final design of the Expressway.

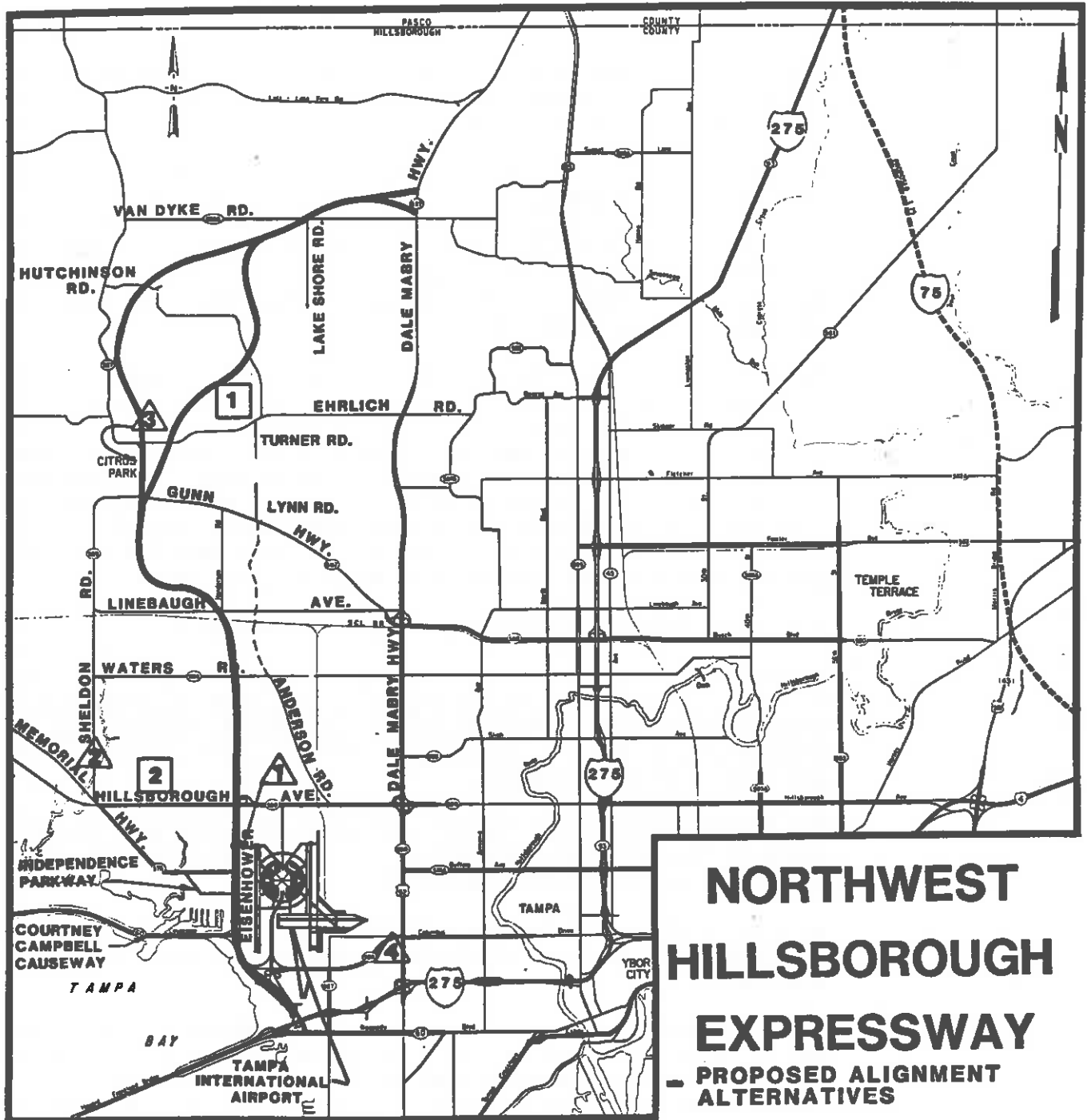
Costs for relocation of utility facilities have been considered in the total project cost estimates.

6.2.1.5 Police, Fire, and Emergency Facilities

A number of police and fire stations are located in the general vicinity of the proposed project. These are shown in Figure 6-6, "Emergency Services Facilities".

The Hillsborough County Sheriff's Department operates a sub-station at 7738 West Hillsborough Avenue. In 1985, the Department will open a sub-station at 15100 Hutchinson Road, just north of Ehrlich Road. Neither facility will be adversely impacted by the project. By using the Expressway, Law enforcement agencies will be benefited by greatly reduced response times to emergency situations. City of Tampa Police Department facilities would not be affected by the Expressway.

One fire station would be relocated because of the project. The Expressway would take the County's West Hillsborough Station located at 4601 Eisenhower Boulevard. This fire station would be replaced without reduction in the level of fire protection service provided. The operations of four other County fire stations would not be adversely affected by the Expressway, nor would the



**NORTHWEST
HILLSBOROUGH
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- PROPOSED ALIGNMENT
ALTERNATIVES**

LEGEND



LAW ENFORCEMENT FACILITIES

1. Town and Country Sub-station (County Sheriff)
2. Hutchinson Road Sub-station (County Sheriff)



FIRE STATIONS

1. West Hillsborough (Cty)
2. Memorial Highway (Cty)
3. Citrus Park (County)
4. Manhattan and Boy Scout Blvd. (City of Tampa)

operations of the nearest City of Tampa fire station to the project. The Expressway would reduce response time in many fire or emergency rescue situations.

At the present time there are no hospitals or emergency treatment centers in the vicinity of the proposed project. The Expressway would serve as a high speed non-stop facility linking the northwest area to hospitals in the City of Tampa. In addition, any traffic drawn to the Expressway away from other roadways in the northwest area, would enhance traffic flow for emergency vehicles on these other roadways.

Much of the highly urbanized coastal areas of Hillsborough and Pinellas Counties are in potential hurricane flood zones delineated in the National Flood Insurance Program, Federal Emergency Management Agency. The proposed Expressway would provide an alternative emergency evacuation route for hurricane induced flooding in these areas. The proposed Expressway, designed to meet 100 year flood conditions, would provide a viable high capacity egress route for the region, when many local streets and roadways near the Coastal area would be under water.

6.2.1.6 Religious, Health, Education and Cemetery Facilities

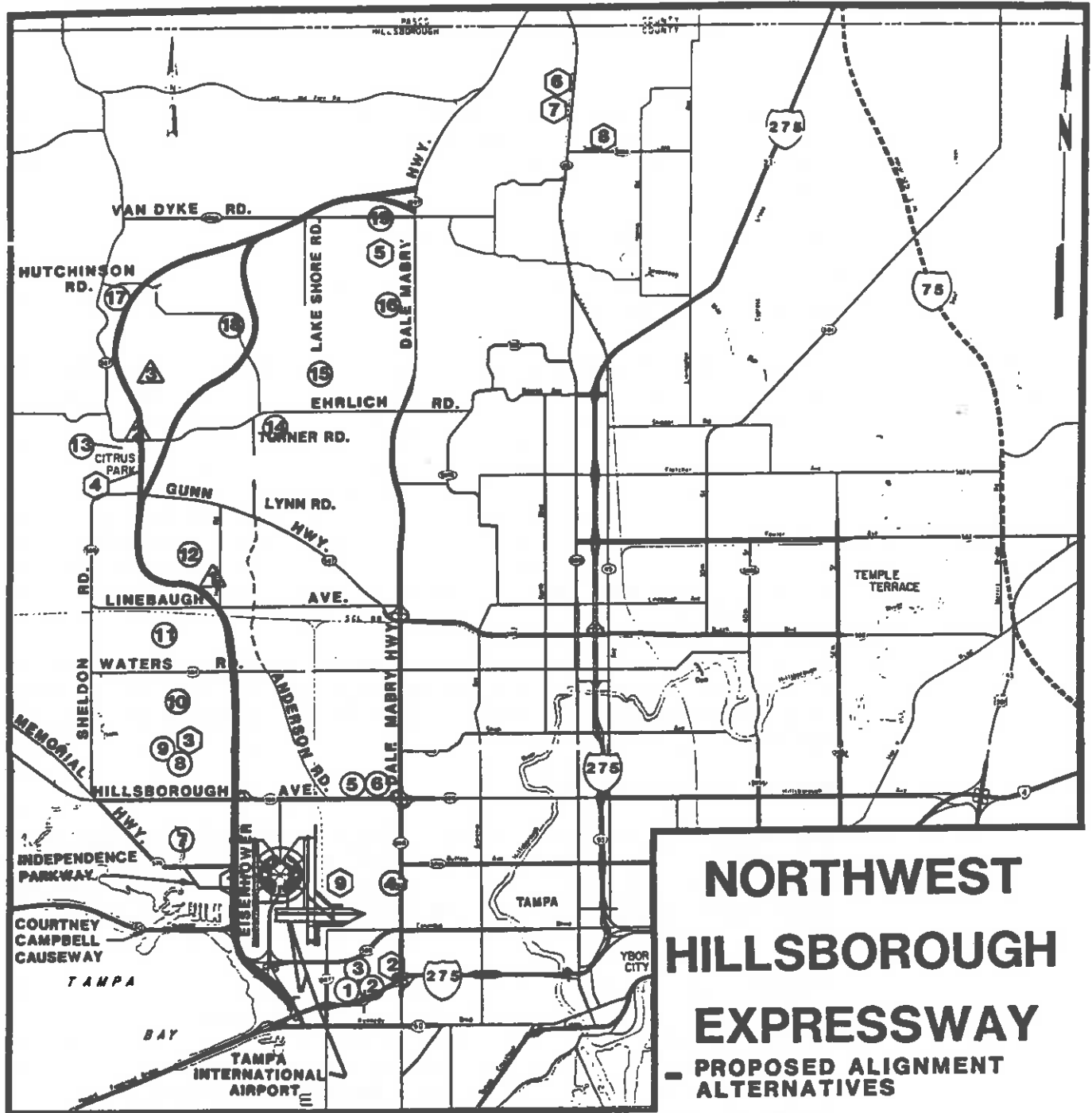
On the Eisenhower/West Alignment, the proposed expressway would not take or adversely impact any religious, health, education or cemetery facilities. Facilities of this nature located near the alignments are shown in Figure 6-7, "Schools, Institutions, Parks and Recreation Facilities".

The Keystone Missionary Baptist Church on Peterson Road would be taken or the structure would have to be relocated because of the Expressway on the Railroad Alignment.

No other such facilities would be taken on the Railroad alignment and none would be taken or adversely impacted on the Lake LeClare Alignment.

An elementary school under construction on Hutchinson Road would not be encroached upon by the Lake LeClare Alignment. Access to the school from the area east of the Expressway would continue via Hutchinson Road with pedestrian facilities provided at the Expressway crossing of this roadway. Similar pedestrian facilities would be provided at Ehrlich Road for access to Citrus Park Elementary School from residences east of the Expressway.

A United Methodist Church is under construction at the southeast corner of the intersection of Lake Shore Road and Van Dyke Road. A portion of the property would be acquired using the proposed interchange design.



NORTHWEST HILLSBOROUGH EXPRESSWAY - PROPOSED ALIGNMENT ALTERNATIVES

LEGEND

○ SCHOOLS

- | | | |
|----------------------------|---|------------------------------------|
| 1. Jefferson High | 8. Town & Country Elem. | 14. Jr. High - AA |
| 2. Island Park Elementary | 9. Webb Jr. High | 15. Claywell Elementary |
| 3. LeVoy Exceptional | 10. Morgan Woods Elem. | 16. Gaither High School |
| 4. Hillsborough Comm. Col. | 11. Bollow Elementary | 17. Elementary/Jr. High (Proposed) |
| 5. Pearce Jr. High | 12. Developmental Center Academy (Hearing disabilities - Private) | 18. Elementary under const. |
| 6. Alexander Elementary | 13. Citrus Park Elementary | 19. Elementary (Proposed) |
| 7. Dickenson Elementary | | |

◡ PARKS AND RECREATION

1. Skyway
2. Forest Hqs. Comm. Ctr.
3. Jim Shinsberg Park
4. Citrus Park & Comm. Ctr.
5. Lake Park
6. Lake Ashita Complex
7. Lake Memorial
8. Bys
9. Cordelia S. Hunt Rec. Ctr.

△ CHURCHES

1. Presbyterian Church of Northwest Tampa
2. First Baptist Church of Citrus Park
3. Keystone M.B. Church

**SCHOOLS, INSTITUTIONS,
PARKS AND RECREATION FACILITIES**

FIGURE 6-7

The Expressway would abut property acquired by the Hillsborough County School Board for the possible future construction of the junior high and elementary school on Mobley Road east of Gunn Highway.

6.2.1.7 Parks and Recreational Facilities

The proposed project would not cause usage of any park or recreational facility properties.

Two park and recreational facilities are located in the immediate vicinity of the proposed alternative alignments, as shown in Figure 6-7, "Schools, Institutions, Parks and Recreational Facilities". Skyway Park, located at Eisenhower Boulevard and Dana Shores Drive, would abut the Expressway frontage road right-of-way, as it presently abuts the Eisenhower Boulevard right-of-way. The Railroad Alignment Alternative would be separated from Citrus Park by Gunn Highway which presently abuts the park. Neither park would be adversely affected by the proposed roadway as to user safety, accessibility, or functionality.

No other national, state or local park properties are located in the vicinity, therefore the proposed project will not use property from such resources and FHWA has determined Section 4(f) does not apply.

6.2.1.8 Highway and Traffic Safety

Generally, the use of a limited access expressway is much safer than the arterial roadways being replaced. The expressway will be designed and constructed in accordance with the safety criteria established for expressways. Improvements at interchanges will be made on the cross streets to provide good traffic control.

Bridges will be constructed over all cross roads and railroad tracks within the project limits except for those streets to be closed as listed in Subsection 6.2.1.3 "Travel Patterns and Accessibility". Major design changes are proposed for interchange ramps and mainline within the Memorial Highway/Eisenhower Boulevard section of the project between I-275 and Hillsborough Avenue. These improvements will greatly enhance the capacity of this segment of the expressway and will alleviate some of the present traffic conflict areas (weaving on mainline and intersection design).

6.2.1.9 Overall Public Safety

The Expressway will improve the speed with which emergency services can be provided to the area. This facility will provide an alternative to existing traffic routes that now have high accident rates, thereby improving overall traffic safety.

In addition, since much of the Bay Crest Park vicinity and other urbanized coastal areas of Tampa, Hillsborough County, and Pinellas Counties are in coastal flood hazard zones, the Expressway will provide an alternative emergency escape route during periods of heavy flooding resulting from a hurricane when many of the local roads and streets would be flooded.

6.2.1.10 Economic Impacts

The construction of the Expressway will have an immediate and direct impact on economic activity and employment. At the peak of construction activity and depending on construction schedules, as many as 200-250 construction workers would likely be employed at the project location. In addition, employment would be generated in local transport companies, suppliers, and technical service firms engaged in the project. No significant variation between Alternative Alignments is foreseen in the levels of employment created. The "No Build" Alternative would not create additional employment.

The Expressway would remove commercial and residential properties from the City and County toll rolls, thereby reducing local ad valorem tax revenues. The Eisenhower West alignment would reduce annual property tax revenue by an estimated \$331,000; the Lake LeClare alignment would cause a \$114,000 reduction; and the Railroad alignment would reduce such taxes by \$88,000. At most, these reductions in taxes represent an insignificant amount of the total property tax billed for 1984 for Hillsborough County.

Off-setting this reduction in tax paying properties is the expectation that the Expressway will generally increase overall property values in the vicinity of each of these alignments because of improved accessibility. In addition, the projected continuation of residential and commercial growth of the northwest area will also tend to drive property values higher, with or without the Expressway.

Continued development in the northwest area of the County without improved traffic circulation can be expected to dampen the commercial/industrial potential for development in the vicinity of Tampa International Airport along the Eisenhower/West Alignment. As existing thoroughfares, including Eisenhower Boulevard, continue to receive more traffic, new or expanding businesses will seek other more accessible locations, possibly outside the City and County. The "No-Build" Alternative will also restrict economic growth and employment in this area.

There is no significant difference in economic impact foreseen between the Lake LeClare and the Railroad alignments or the North and South Termini alignments.

6.2.1.11 Generalized Social Groups

Social groups that have been identified in public meetings and through the community involvement program as having concerns about adversely being impacted by the Expressway primarily include Hispanics, Blacks, and elderly citizens.

The U.S. Census of Population and Housing, 1980, discloses that in the Census Tracts through which the alignments pass, there are relatively fewer Blacks and persons over 65 as a percentage of total population of this area than these groups comprise as a portion of the total countywide population. A slightly higher proportion of Hispanics reside in this area than make up the total countywide population. Figure 6-8, "Distribution of Social Groups in Study Area" reflects the percentage of Blacks, Hispanics, and persons over 65 in the study area as compared to Countywide. Table 6-5 shows the Population by Social Groups for the Study Area and County.

There is no indication by visual inspection or available census data that the elderly, Blacks, and Hispanics would be impacted to any greater extent than any other social groups.

6.2.2 Right-of-Way Relocation Impacts

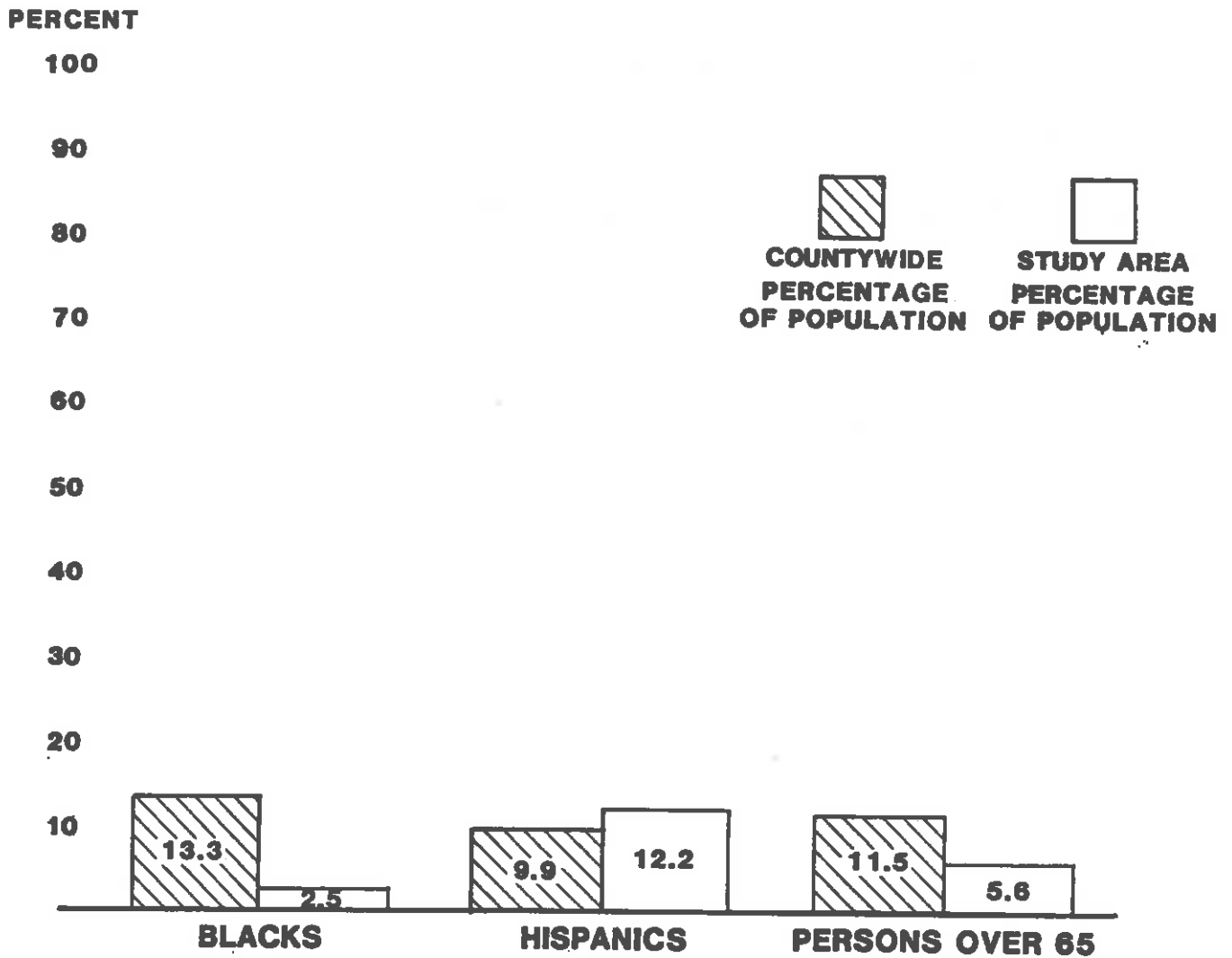
The District Right-of-Way Administrator has compiled a report entitled "Conceptual Stage Relocation Plan" for the purpose of determining the number of individuals, families, businesses and non-profit organizations to be relocated for this project. Included in the report is a determination of the probable availability of decent, safe, and sanitary replacement housing. The findings of this report are summarized below. The Conceptual Stage Relocation Plan, prepared by the Florida Department of Transportation, Project 10000-1531, dated April 19, 1985, has been prepared under separate cover to supplement this document.

Right-of-way that would be required, in addition to use of existing right-of-way for each alternative, is as follows: Eisenhower/West - 189 acres; Lake LeClare - 214 acres; Railroad - 198 acres; North Termini - 46 acres; and South Termini - 41 acres.

6.2.2.1 Relocation Overview

This project has been developed consistent with Title VI of the Civil Rights Act of 1964. The Hillsborough County City-County Planning Commission has established that through the Growth Management Plan and through analysis of zoning, sufficient land suitable for relocations of displaced businesses will be available

**PERCENTAGE OF BLACKS, HISPANICS, AND PERSONS OVER 65
IN THE STUDY AREA
NORTHWEST HILLSBOROUGH EXPRESSWAY
HILLSBOROUGH COUNTY**



Source: U.S. Census of Population and Housing, 1980 Census Tracts: 114.01, 115.02, 116.03, and 116.05

TABLE 6-5

POPULATION BY SOCIAL GROUPS
NORTHWEST HILLSBOROUGH EXPRESSWAY

	Total Population	Blacks & Hispanics	Percent of Population	Over 65 Yrs.	Percent of Population
Study Area	34,287	5,057	14.7	1,931	5.6
County	646,960	150,663	23.3	74,313	11.5

Source: U.S. Census of Population and Housing, 1980.
Census Tracts 114.01, 115, 116.02, 116.03, 116.05

within the metropolitan area. Adequate resources exist in the City of Tampa Department of Housing Inspections and Community Services and the Hillsborough County Office of Community and Economic Development to assist in relocation of displaced businesses. The Hillsborough County fire station relocation would possibly be eligible for federal participation through the functional replacement of public buildings provision. Relocation of this facility is being coordinated with Hillsborough County.

6.2.2.1.1 Eisenhower/West Alignment

The latest U.S. Census indicates that within the immediate study area, there are approximately 6,815 persons of which 4% are Black and 5% are other minorities. Sixty-three families will be impacted by this proposal, approximately three families are of a minority race. There are approximately 1,452 home owners and 712 occupied rental units with 3.42 persons per household. The median age in this project is 26.8 while 22% are school age and 3% are 62 years of age or older. The sixty-three residential displacements will have a moderate impact on this study area mainly because approximately thirty-two (32) of the owner-occupied dwellings will be acquired from one subdivision in the Town and Country area. The seventeen (17) business displacements listed below will have little or no impact on the community.

Business Displacements

Southland Bait Shop	Real Estate Office
Fone System	Scruple Lounge
Auto Service	Texaco
Davis Brake	Travel By Design
Massaro Plumbing	Wood Yard
Art Paving	Pinos/Foreign (car repair)
Tampa Fire Station	4 Real Estate Rentals

In addition to the foregoing named displacements, certain commercial properties will be partially impacted by the taking of some parking and/or landscaping. The Corporate Oaks office complex located on the westside of Eisenhower Boulevard at Cypress Steet will have some parking and landscaping taken by the project. The Thompson Center a warehouse/office complex fronting Benjamin Road north of Hillsborough Avenue, will have parking spaces taken on the west side of the 6206 and 6308 buildings. These projects, while incurring some impact will not be displaced.

The takings and partial takings of the noted commercial properties are essential to the development of the project.

Of the sixty-three (63) residential displacements, fifty-seven or 91% are owner occupants and 9% are residential tenants. No persons are handicapped, disabled or receiving any social or specialized services. The average age of the structures is 25.5 years, the average median income is \$19,016.00 a year.

Of the seventeen businesses to be displaced, four or 17% of the businesses in the study area deal with the rental of real property. The displaced businesses serve the study area and it is anticipated that all would relocate within the same area.

6.2.2.1.2 Lake LeClare Alignment

There are approximately 859 residents in this area, 48 (6%) will be displaced, of the non-residential units, 8 will be displaced. Five (5) are rental of real estate.

Within the immediate study area there are approximately 9,473 persons of which 965 are minorities or 10%. Forty-eight families will be impacted by this proposal. Seven percent of the population is 62 years of age or more, while the median age is 30.3 years; 18% of the population are school age children. The number of persons per occupied household is 3.29 and the vacancy rate is 19%. Minorities comprised 10% of the total population within the area and 2% are Black. Seventy-eight percent of all residences inventoried are owner occupied. The median income for the area is \$27,248.00 a year. The displacement of forty-eight (48) residential units, eight (8) businesses will have a little impact on the residential community. The businesses in this study area listed below are rental of real estate and small businesses located within the homes.

Business Displacements

Plant Nursery
Welding
Bay Car Repair
5 Real Estate Rentals

There are forty-eight (48) residential displacements which amounts to 16% of all residential units in the study area, 13% were owner-occupants and 3% were tenants.

Approximately 7% of the people inventoried in the area are 62 years of age or older. There are no handicapped or disabled persons nor any persons receiving specialized social/medical services or assistance. The average age of the structures is 15 years. The condition of the structures ranges from good to above average.

The eight (8) businesses in the alignment represent less than 2% of the businesses inventoried. Five deal with the rental of real property. These businesses displaced are located at the residential homesite. All of the businesses displaced will be able to relocate within the immediate area.

6.2.2.1.3 Railroad Alignment

According to the latest U.S. Census, the immediate study area has approximately 10,352 persons of which 1,851 (18%) are minorities and 4% are Blacks. Fifty-eight families will be impacted by this proposal of which approximately eight (8) Black families are involved. Seven percent of the population are school age children. The number of persons per occupied household is 2.76 and the vacancy rate is 5%. Eighty-five percent of all residences within the studied area are occupied. The displacement of fifty-eight (58) residential units, seven (7) businesses listed below, and one (1) non-profit organization will have a moderate impact on the immediate community.

Business Displacements

Plant Nursery	Hogan Corner Store
Plant Nursery	Citrus Park Accounting
Citrus Park Realty	2 Real Estate Rentals
First Missionary Baptist Church	

No persons were viewed as being handicapped, disabled or receiving any social or specialized service. The average age of the structures is 14.2 years and the median income in the area is \$23,908.00 a year.

Of the eight businesses to be displaced in the study area, 1 or 12% are non-profit. Two (2) of the eight (25%) deal with the rental of real property. The displaced businesses serve the neighborhood study area and it is anticipated that all would relocate within this area. Very little impact is anticipated with the business displacements, however, the residential displacements will experience some degree of impact due to the number of residential displacements.

6.2.2.1.4 North Termini

There will be no residential or business displacements in this alignment.

6.2.2.1.5 South Termini

There will be no residential or business displacements in this alignment.

6.2.2.2 Resource Overview

Because of the abundance of resources for both owners and tenants a partial list was prepared of what is available at this time (enough to show that resource availability is more than ample).

Many other new subdivisions are being developed in Northwest Hillsborough County and other areas of the Tampa Bay area. As a result, all residential displacees will be able to relocate in the Northwest area.

The displaced businesses were also researched to establish their replacement site needs. No unusual circumstances are observed which would prevent the relocation of any of these businesses. The taking of the commercial properties identified is essential to the development of the project.

There are vacant commercial sites to which many businesses can relocate to, which are in the project area. Many existing commercial buildings for both purchase and rent are available which can be used for a variety of uses. Also, an abundant supply of income property exists, especially for multi-family. It is believed that all displaced businesses and non-profit organizations should be able to relocate within Northwest Hillsborough area, if they so desire.

6.2.2.3 Community Impact

In assessing the impact that this transportation project will have on the local community, certain observations should be highlighted. First, construction of this major proposal will involve moderate disruption of neighborhood ties. Secondly, no major shopping centers, hospitals, schools, or other related establishments will be displaced, further minimizing disruption of the community.

The maximum number of displacements that could occur in either alternate would be a combination of the Eisenhower/West, Railroad and North or South Termini Alignments, this would result in 146 displacements. Competition for resources will not be at such a high level because of the resource availability and the rapid construction in Northwest Hillsborough area. The movement of households and businesses away from the project area and into new locations will occur which will be moderately felt because of the number of displacements generated by the project.

Displacements of commercial establishments will have a lessor impact on the community in any of the alignments selected. The maximum number of business displacements (36) which could occur would be with a combination of Eisenhower/West, Lake LeClare and North or South Termini Alignments. Because of the small impact this major facility will have on the business community, it is felt that all of the businesses can relocate within the project area. There are many vacant buildings for lease and sale to accommodate the displacements. Approximately four (11%) are minority-owned and operated businesses within the project area.

It was noted earlier that approximately eight (8) families are classified as minorities and will be displaced by the Railroad Alignment. Twenty percent (or 114) of the children within the immediate project area are classified as school age. The major characteristic of the immediate project area is young adults to senior citizens. About one-sixth (1/6) of our displacees are elderly, but none receive specialized social/medical services or assistance at this time, however, they may require said services in the future. Senior citizen and related organizations are active throughout the Hillsborough County area and the displacees would remain accessible to these facilities after relocation is complete.

Impact on the Commercial area along Eisenhower Boulevard south of Hillsborough Avenue will be minimal. A frontage road serving commercial properties east of Eisenhower Boulevard between Interstate 275 and Columbus Drive will be relocated, without diminished accessibility to these properties. The Corporate Oaks office complex on the westside of Eisenhower Boulevard at Cypress Street will be affected by the taking of some parking spaces and some landscaping. No displacements will occur and the character and vitality of this area will not be adversely affected.

North of Hillsborough Avenue, the taking of parking spaces at the Thompson Center facing Benjamin Road and the displacement of several small businesses as identified in Section 6.2.1.2.1 will not change the character of the immediate vicinity nor adversely affect the vitality of the surrounding commercial area.

The Northwest Expressway will have positive economic significance on the community. Commercial and industrial development will be greatly enhanced by the development of this much needed facility. Traffic will flow with greater ease and safety, accessibility will be increased, and travel time will be reduced. Completion of the Expressway project will encourage existing businesses to stay in the area and should attract new ones with subsequent employment opportunities. Thus, the many benefits to be derived from the improvement would tend to help offset the inconvenience caused by the displacement homes, businesses, and other land owners.

6.2.2.4 Federal Aid - Acquisition and Relocation Assistance Program

In order to minimize the unavoidable affects of right-of-way acquisition and displacement of people, the Florida Department of Transportation will carry out a Right-of-Way Acquisition and Relocation Assistance Program in accordance with Florida Statutes, Chapter 339.09 (5). The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646) establishes guidelines by which these programs are administered.

The Department of Transportation provides advance notification of impending right-of-way acquisition. Before acquiring right-of-way, all properties are appraised on the basis of comparable sales and land use values in the area. Owners of property to be acquired will be offered and paid fair market value for their property rights.

At least one relocation agent is assigned to each highway project to carry out the relocation assistance and payments program. A relocation agent will contact each person to be relocated to determine individual needs and desires, and to provide information, answer questions, and give help in finding replacement property. Relocation services and payments are provided without regard to race, color, religion, sex, or national origin.

Financial assistance is available to the eligible owner-occupant to (a) make up the difference, if any, between the amount paid for the acquired dwelling and the cost of an available dwelling on the private market, (b) provide reimbursement of expenses such as legal fees and other closing costs incurred in buying a replacement dwelling or in selling the acquired property to the Department of Transportation; and (c) make payment for an increased interest cost resulting from having to get another mortgage at a higher interest rate. Replacement housing payments, increased interest payments, and closing costs are limited to \$15,000 combined total.

A displaced tenant may be eligible to receive a payment, not to exceed \$4,000 to rent a replacement dwelling or room, or to use as a down payment, (including closing costs) on the purchase of a replacement dwelling.

An individual, family, business, farm operation, or non-profit organization is entitled to payment for actual, reasonable moving expenses for a distance of not more than 50 miles, in most cases, provided that he meets the eligibility requirements for an initial or subsequent occupant and the property is subsequently acquired by the Department.

No persons lawfully occupying real property will be required to move without at least 90-days written notice of the intended vacation date, and no occupant of a residential property will be required to move until decent, safe and sanitary replacement

housing is "made available". "Made available" means that the affected person has either by himself obtained and had the right of possession of replacement housing, or that the Department of Transportation has offered the relocatee decent, safe and sanitary housing which is within his financial means and available for immediate occupancy.

Coming Your Way is a brochure which describes in detail the Right of Way Acquisition Program. The Relocation Assistance and Payments Program is outlined in the Your Relocation brochure. These booklets are distributed at all public hearings and are made available upon request to any interested persons.

6.2.2.5 Hazardous Waste

The State of Florida has field reviewed the proposed right-of-way and has identified potential hazardous waste locations for the various proposed alternatives. Results of this field survey will be utilized in the selection of a preferred alternative. When a specific alternative is selected for implementation, a site assessment will be performed to the degree necessary to determine levels of contamination and, if necessary, evaluate options to cleanup with associated costs. Resolution of problems regarding contamination will be coordinated with appropriate regulatory agencies and prior to right-of-way acquisition appropriate action will be taken, where applicable.

6.2.3 Land Use Impacts

6.2.3.1 Existing Land Use

Northwest Hillsborough County has undergone substantial residential development during the past decade and this trend is continuing. Records compiled by the Hillsborough County City-County Planning Commission show that this area has been the most active area of the County for new subdivision activity in the past several years.¹ This rapid residential growth has caused the infilling with subdivisions of many of the open space lands suitable for alternative Expressway alignments.

The vicinity of the Tampa International Airport has undergone rapid development of new commercial office buildings within the past five years and this trend is continuing, particularly along the Eisenhower/West Alignment.

Existing land uses were analyzed for this report by use of recent aerial photography and field surveys. The generalized existing land use is shown in Figure 6-9.

In establishing the Expressway alignment alternatives, effort was made to avoid conflict with existing residential development commensurate with seeking to provide improved traffic service in the Northwest area of the County. Conflicts with residential development were minimized to the greatest extent possible within the Corridor by seeking alternatives which utilized open space wherever possible.

The Eisenhower/West Alignment is compatible with surrounding commercial land uses and avoids a number of residential subdivisions discussed in Section 6.2.1 of this report.

Both the Railroad Alignment and the Lake LeClare Alignment pass through areas characterized by subdivisions, semi-rural residential, and rural areas. The Railroad Alignment passes through more rural area than the Lake LeClare Alignment. With the completion of new subdivisions now under construction, identified in Subsection 6.2.1.2, the Lake LeClare Alignment will have the greatest conflict with residential land uses.

¹ Subdivision Report: 1983, Hillsborough County City-County Planning Commission.

6.2.3.2 Proposed Land Use

Both the City and the County have adopted Land Use Elements of their Horizon 2000 Growth Management Plans. The portions of these plans in the Northwest area are shown in Figure 6-10, Proposed Land Use - Hillsborough County and in Figure 6-11, Proposed Land Use - City of Tampa.

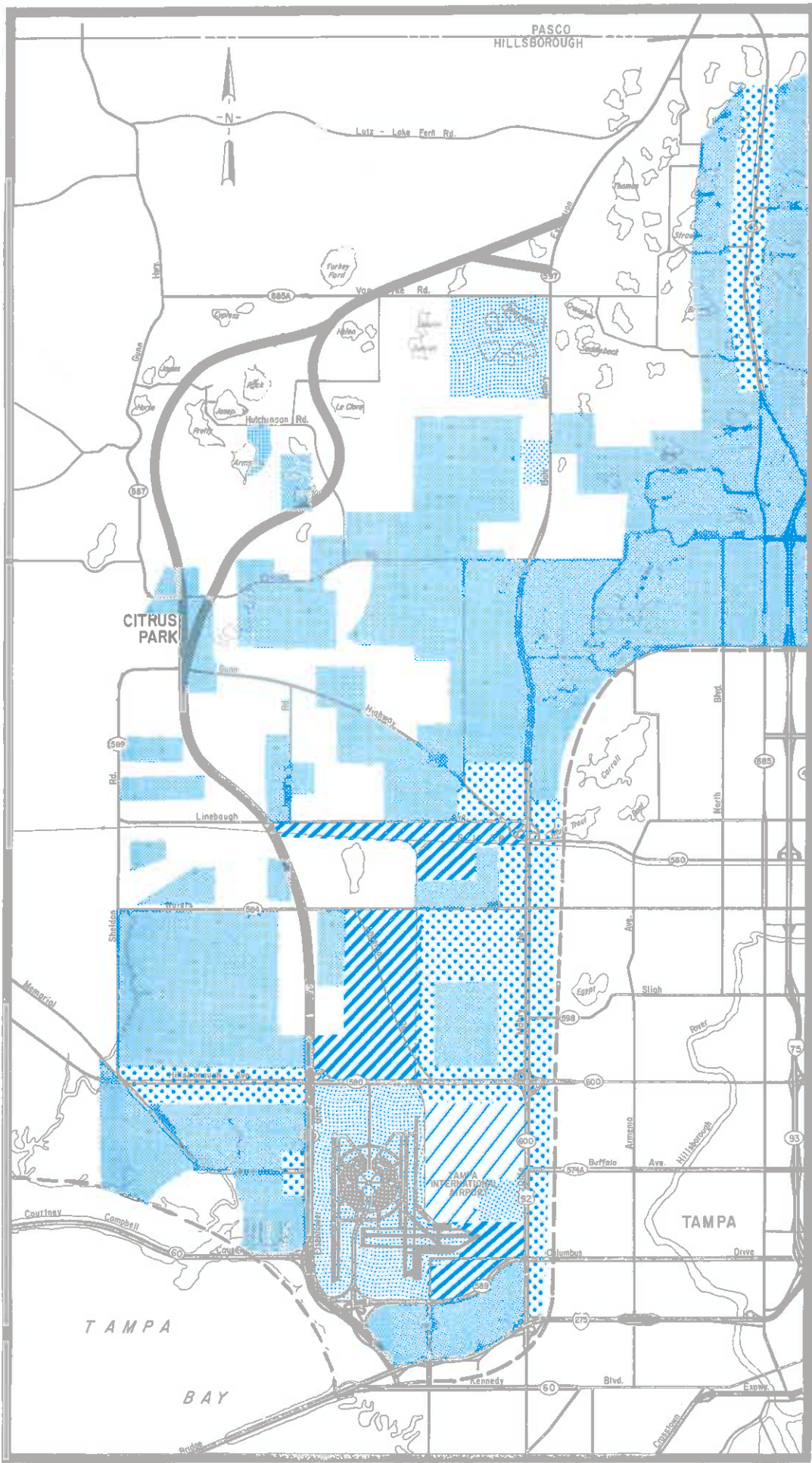
The future general land use of the area is not expected to be altered with the building of the Expressway. The Expressway could have the effect of accelerating the suburban residential trend already present in the area. This proposed roadway will make the Northwest area more accessible for residential development in relation to such major employment centers as the Tampa International Airport and West Shore areas and downtown Tampa. Improved accessibility provided by the Expressway is but one factor shaping future development. Other important factors include continued growth of the economy and population in Florida and Hillsborough County, residential financing, and environmental and land use regulations.

The Lake LeClare Alignment could be considered more compatible with the Land Use Element of the County Plan than the Railroad Alignment since it is located more within designated urbanized areas, thereby less likely to accelerate urban sprawl. The Eisenhower/West Alignment passing through commercial and light industrial areas is compatible with the Land Use Plans of the City and County. The "No-Build" Alternative, does not adequately address the continued deterioration of traffic service to the Northwest area.

6.2.3.3 Population and Growth Characteristics

Hillsborough County has continued to grow in population at a rapid and sustained rate over the past few decades, increase in population by 132% from 490,300 in 1970 to 647,000 in 1980. (U.S. Census of Population and Housing, 1980). The population has been projected to increase by as much as another 239% by the year 2020, reaching a total of 1,544,000.¹

¹ Source: Population Projections by Jurisdiction, Planning Area and Census Tract, Hillsborough County City-County Planning Commission, December, 1984, 1984 BEBR high range, page 6.

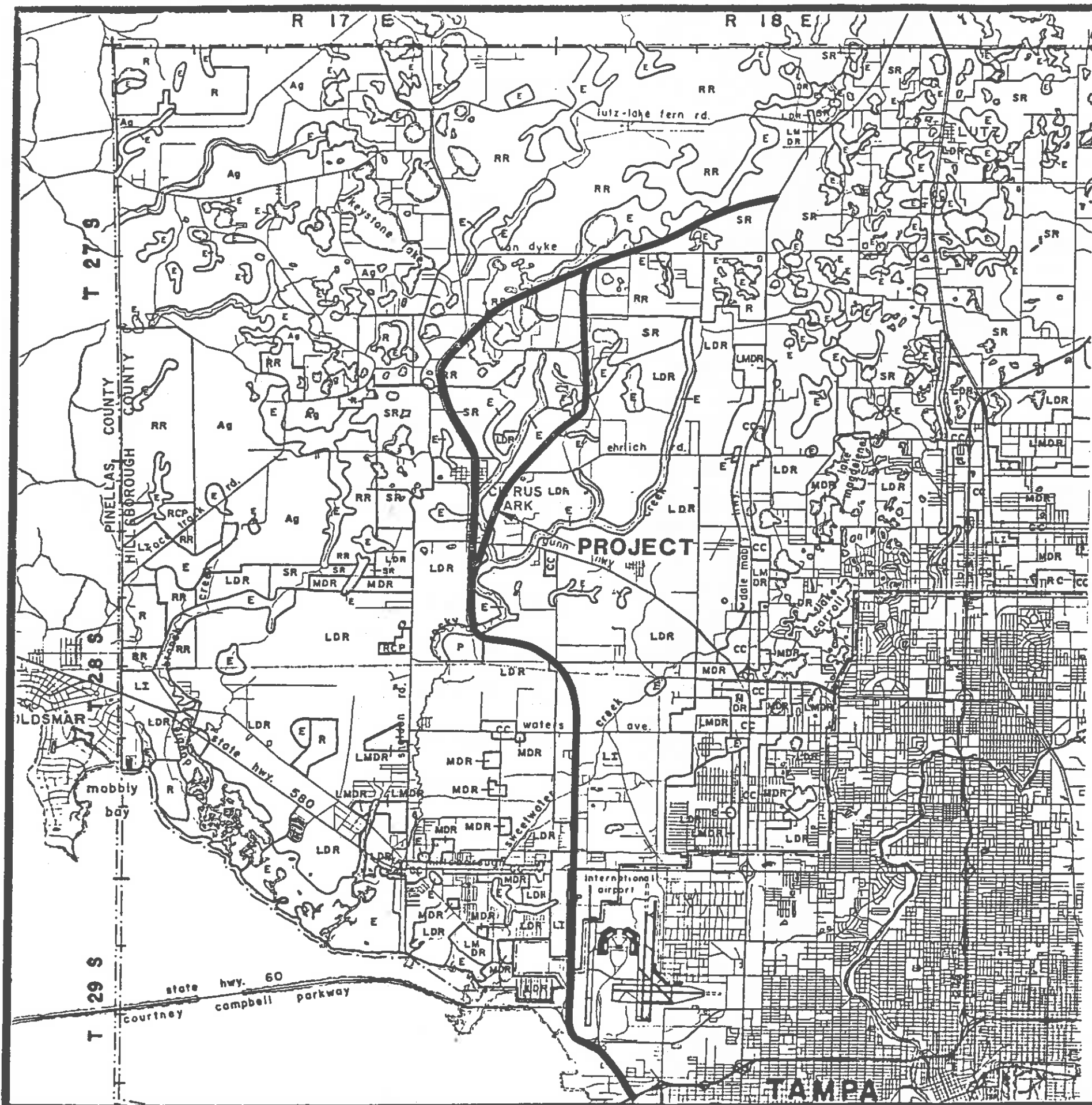


- LEGEND**
-  RESIDENTIAL
 -  INDUSTRIAL
 -  COMMERCIAL
 -  INDUSTRIAL / RESIDENTIAL
 -  PUBLIC / INSTITUTIONAL
 -  RURAL / LOW DENSITY RESIDENTIAL
 -  EDGE OF STUDY AREA
 -  PROPOSED PROJECT ALTERNATIVES

GENERALIZED EXISTING LAND USE

FIGURE 6-9

HILLSBOROUGH COUNTY, FLORIDA LAND USE PLAN MAP



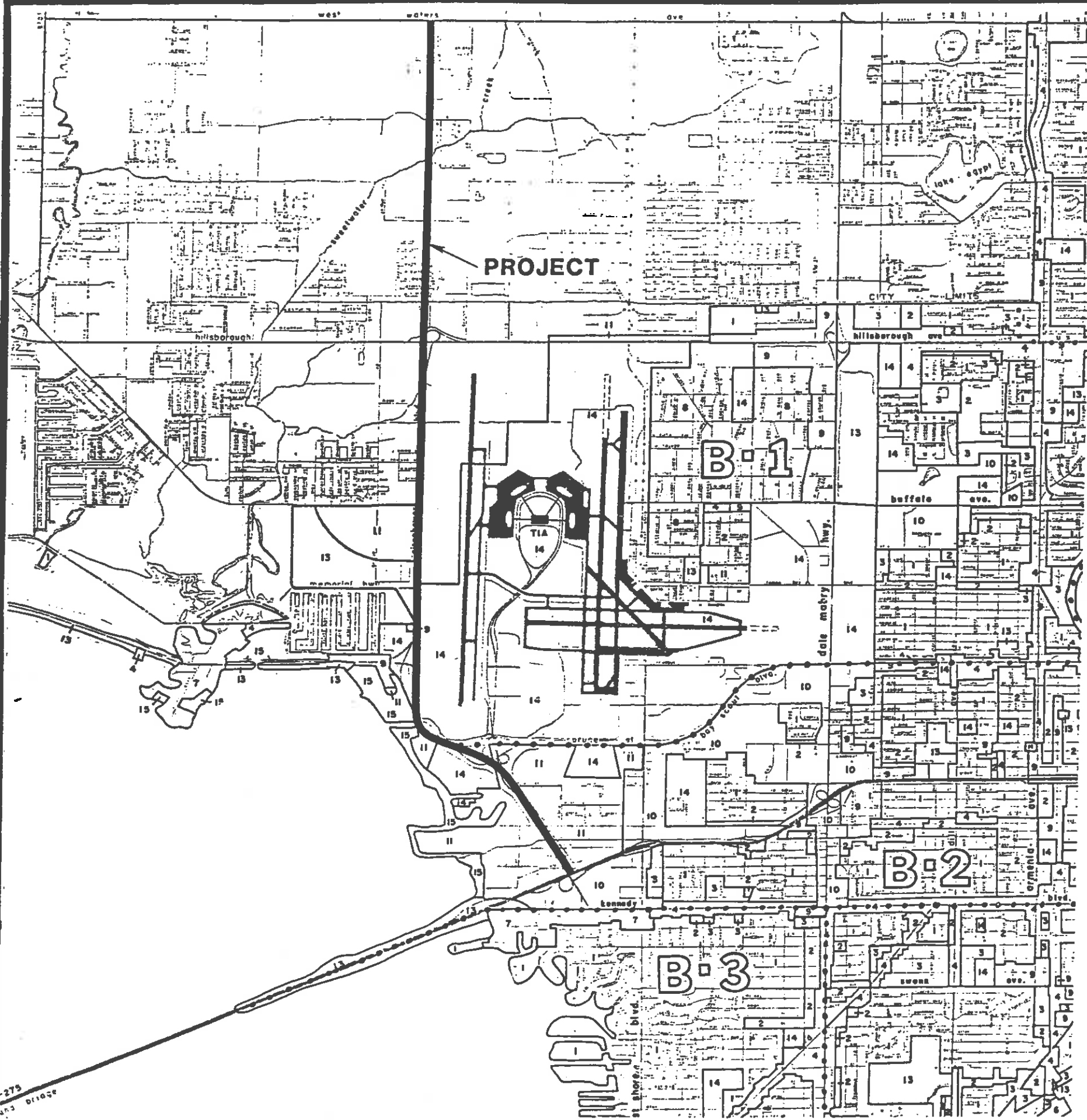
- Ag AGRICULTURAL (0.2*)
- RR RURAL RESIDENTIAL (1*)
- SR SUBURBAN RESIDENTIAL (2*)
- LDR LOW DENSITY RESIDENTIAL (6*)
- LMDR LOW-MEDIUM DENSITY RESIDENTIAL (12*)
- MDR MEDIUM DENSITY RESIDENTIAL (20*)
- CC COMMUNITY COMMERCIAL
- RC REGIONAL COMMERCIAL
- RCP RESEARCH / CORPORATE PARK
- LI LIGHT INDUSTRIAL
- HI HEAVY INDUSTRIAL
- R RECREATION / OPEN SPACE
- P PUBLIC / SEMI-PUBLIC
- E ENVIRONMENTALLY SENSITIVE AREAS
(SUBJECT TO ONSITE INSPECTION)
- * PROPOSED POWER PLANT SITE
- * DWELLING UNITS PER GROSS ACRE
- PROPOSED PROJECT ALTERNATIVES

Source: Hillsborough County
City-County Planning
Commission

PROPOSED LAND USE - HILLSBOROUGH COUNTY

FIGURE 6-10

TAMPA, FLORIDA LAND USE PLAN MAP



- 1 LOW DENSITY RESIDENTIAL (*9 DU/GA)('10 DU/GA)
- 2 LOW-MEDIUM DENSITY RESIDENTIAL (*16 DU/GA)('20 DU/GA)
- 3 MEDIUM DENSITY RESIDENTIAL (*24 DU/GA)('29 DU/GA)
- 4 MEDIUM RESIDENTIAL-OFFICE - RETAIL (*24 DU/GA)('29 DU/GA)
- 5 MEDIUM-HIGH DENSITY RESIDENTIAL (*35 DU/GA)('40 DU/GA)
- 6 HIGH DENSITY RESIDENTIAL (*75 DU/GA)('83 DU/GA)
- 7 HIGH RESIDENTIAL - OFFICE - RETAIL (*75 DU/GA)('83 DU/GA)
- 8 MIXED USE (*24 DU/GA)('29 DU/GA)
- 9 COMMUNITY COMMERCIAL (*24 DU/GA)('29 DU/GA)
- 10 REGIONAL COMMERCIAL (*75 DU/GA)('83 DU/GA)
- 11 LIGHT INDUSTRIAL
- 12 HEAVY INDUSTRIAL
- 13 RECREATION / OPEN SPACE
- 14 PUBLIC / SEMI-PUBLIC
- 15 PRESERVATION
- PROPOSED PROJECT ALTERNATIVES

(*9 DU/GA) = 9 Dwelling Units Per Gross Acre ; base density
 ('10 DU/GA) = 10 Dwelling Units Per Gross Acre with site plan incentive

Source: Hillsborough County
 City-County Planning
 Commission, June 16, 1982

In recent years, much of the County's growth has occurred in Northwest Hillsborough County area. During the period 1979 to 1983, 45% of the entire County's 32,524 approved single family residence building permits were located in the Carrollwood/Lake Keystone and Town and Country areas where the Expressway alternatives are located.² These areas are shown in Figure 6-12, "Hillsborough County Census Tract Map".

Projections prepared by the Hillsborough County City-County Planning Commission indicate that between 1980 and 2020 the population of Carrollwood/Lake Keystone and Town and Country areas combined will increase by another 246% resulting in another 178,000 residents.³ This exceeds the percentage increase projected by the Commission for the County as a whole, variously estimated at between 181% and 239% for the same period.

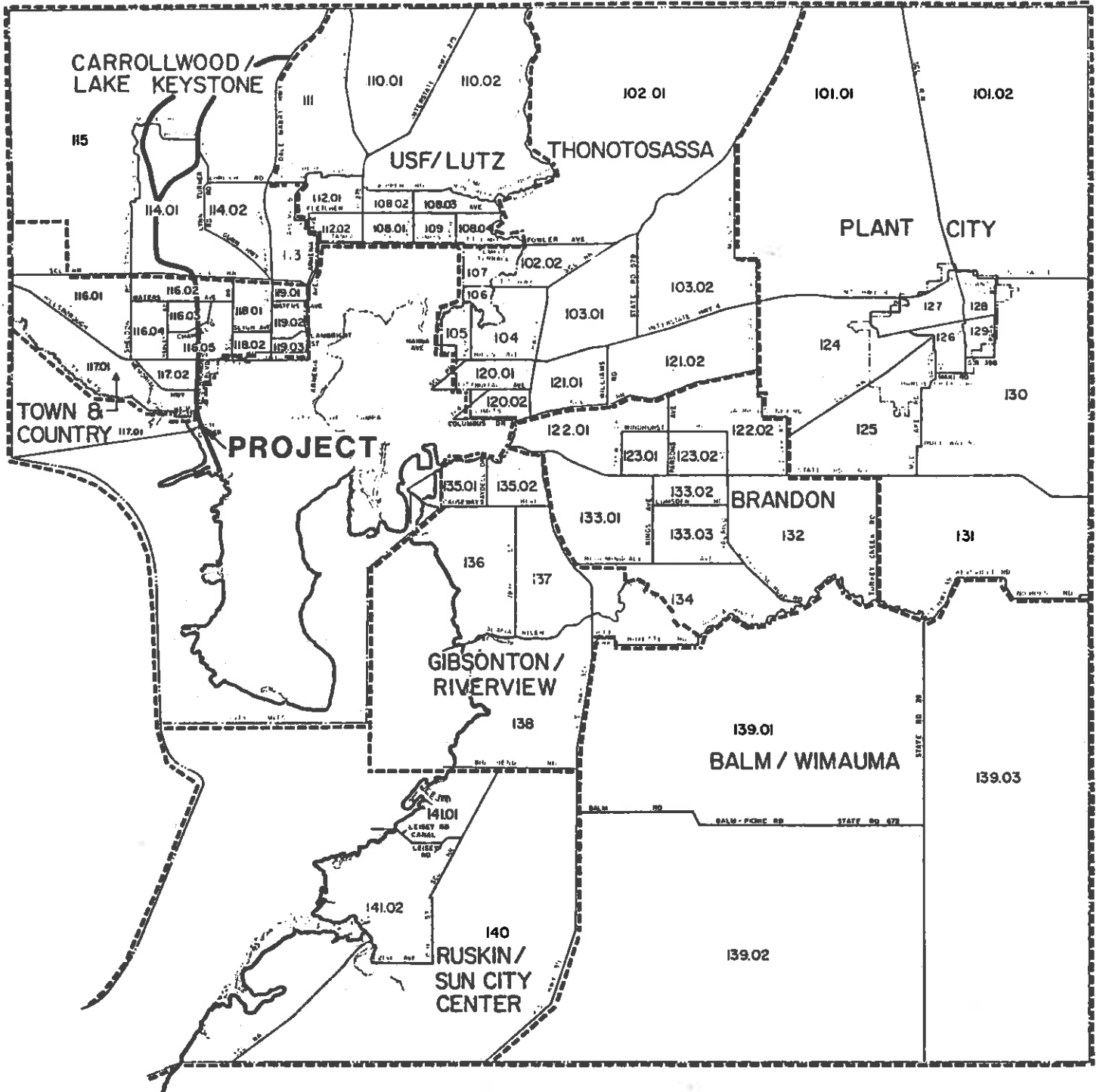
Census data discloses that the average median family income for the Census Tracts comprising the Carrollwood/Lake Keystone and Town and Country areas is \$21,357 as compared with \$14,938 average for the entire County.

The 1980 Census also reflects that the average median age of the population is 27 years for the Census Tracts comprising the Carrollwood/Lake Keystone and Town and Country areas as compared with 30.4 years Countywide and 34.7 years for the State. Since 1980, this average for the Study Area is likely declining as younger families are moving into the new single family residential subdivisions. Further evidence of a larger influx of working age adults is reflected in the fact that new elementary, junior high, and high schools, discussed in Subsection 6.2.1.6 "Religious, Health, Education, and Cemetery Facilities", are planned or are now under construction in the area.

The tremendous growth in population of working age adults residing in single family homes is a further indication that the Expressway will favorably impact the area as a whole by providing an alternative travel route to the congested existing thoroughfares for commuting and personal trips.

² Source: Subdivision Report: December 1983, Hillsborough County City-County Planning Commission, April 1984.

³ Population Projections, op. cit.



**1980 CENSUS TRACTS
HILLSBOROUGH COUNTY**

LEGEND

- CENSUS TRACT LINE
- 104 CENSUS TRACT NUMBER
- PROPOSED PROJECT ALTERNATIVES

6.2.3.4 Joint Development

The future development of open spaces in areas along the alignments provide opportunities for possible joint development or multiple uses in conjunction with the Expressway. As planning for these properties occurs, the Expressway can be taken into consideration to maximize the compatibility of the roadway with proposed land uses. Each of the alternative alignments can be developed to accommodate a future transit system for bus lanes or for provision of right-of-way for a fixed guideway system.

The alignments offer comparable opportunities for joint development considerations.

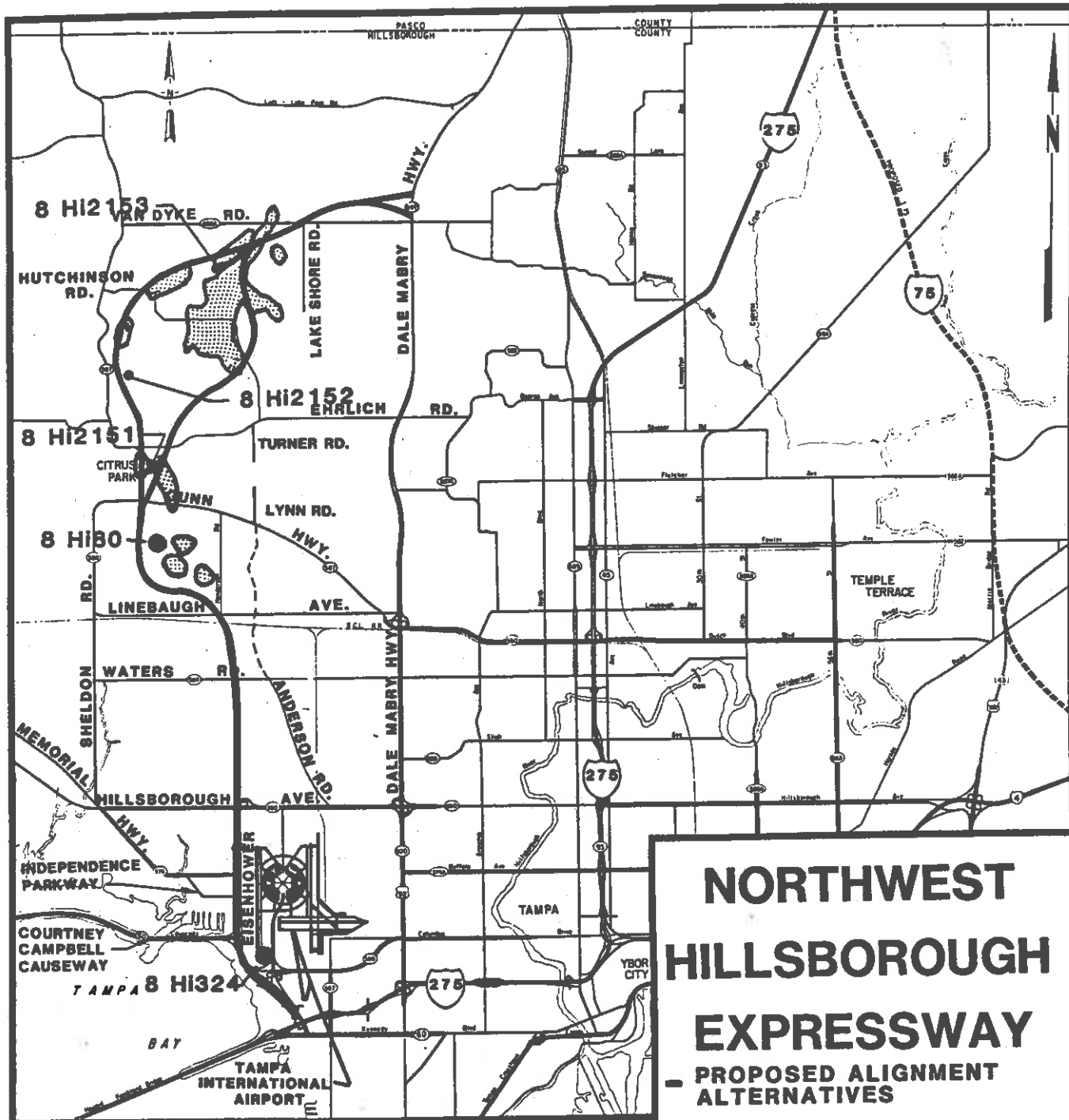
6.2.4 Historic and Archaeological Preservation

The State Historic Preservation Officer (SHPO) has advised by letters dated August 17, 1984 and April 10, 1985 (See Appendix D), that known archaeological sites lie near the Eisenhower/West Alignment. Site 8Hi324, a lithic scatter, lies within the alignment and 8Hi80, a sand mound, lies near this alignment. These sites are shown in Figure 6-13. The SHPO records indicate that these sites have previously been destroyed by construction activities and are deemed to lack sufficient integrity to warrant preservation or mitigation through archaeological excavation.

The letter of August 17, 1984, further identified certain areas in the vicinity of the alternative alignments that are likely to contain archaeological sites. These areas are shown in Figure 6-13, as potential archaeological sites. The letter further advised that the remainder of the study area is deemed unlikely to contain significant, unrecorded archaeological sites.

Following background research, archaeological field survey entailing both ground and surface reconnaissance and systematic testing with shovel was accomplished. Three prehistoric sites; five non site loci, or isolated finds and an older home were discovered. The three sites entered into the Florida Master Site File as 8Hi2151 through 8Hi2153, included two lithic scatters and one artifact scatter. None are adjudged to be significant. These sites are shown in Figure 6-13.

No other archaeological or potential historical sites or properties were identified nor are any expected to be encountered during subsequent project development. The Federal Highway Administration after consultation with the SHPO, letter dated December 18, 1985 (See Appendix F), has determined that no resources listed, or eligible for listing, on the National Register of Historic Places would be impacted.



POTENTIAL ARCHAEOLOGICAL SITES

FIGURE 6-13

Files of the Historic Tampa/Hillsborough County Preservation Board, see Appendix D. W. Carl Shiver, Historic Preservationist letters dated August 22, 1984 and April 15, 1985, disclose no structures of recorded historic or architectural significance in or impacted by the proposed alignments.

6.2.5 Considerations Relating to Pedestrians and Bicyclists

The safety of pedestrians and bicyclists affected by the proposed Expressway is and will continue to be a major concern throughout the project development. Implementation of up-to-date measures now commonly used by the Florida DOT and other governmental and design agencies will ensure protection of both the pedestrian and the bicyclist.

The Hillsborough County Comprehensive Bicycle Plan, a policies plan now in preparation by the Hillsborough County City-County Planning Commission, identifies the following Corridors for potential future unspecified bicycle projects: Hillsborough Avenue, Waters Avenue, Linebaugh Avenue, Ehrlich Road, Van Dyke Road, Sheldon Road. The proposed project will be designed to be compatible with bicycle paths on local roadways.

6.2.6 Visual Impacts

The Expressway will visually encroach on the rural and suburban settings of much of the area through which the alternative alignments pass. Mitigating this to some extent is that the Expressway will be at or near grade throughout much of its course.

On the approaches to bridges over roadways and railroads and at interchanges, the Expressway will be elevated or on sodded embankments.

Where the Expressway is adjacent to residential development, aesthetic considerations of the roadway design would include landscaping, lighting, and screening to minimize possible adverse visual affects.

The least adverse visual impact would occur along the Eisenhower/West alignment while the Railroad and Lake LeClare alignments would provide the greatest contrast with the surrounding areas.

The alignments pass through areas, while not uniquely scenic, are for the most part attractive. The motorist's view from the road overlooking lakes, cypress bayheads and the semi-rural landscape on the Lake LeClare and Railroad alignments would be pleasing.

6.2.7 Summary of Community Impact Factors

A summary of the comparative evaluation of community impact factors is shown in Table 6-6.

TABLE 6 - 6
SUMMARY OF COMMUNITY IMPACT FACTORS

Factors/Alternatives	I-275 to 3,000 Feet South of Gunn Hwy. Eisenhofer/West	3,000 Feet South of Gunn Hwy. to Dale Mabry Highway Railroad
Neighborhoods and Communities	No neighborhoods impacted	No neighborhoods impacted
Existing and Proposed Developments	No proposed developments would be impacted	No developments impacted
Travel Patterns and Accessibility	Deterioration of accessibility to area, increased congestion on Eisenhofer Blvd. and arterial roadways	Deterioration of accessibility to adjacent areas, increased congestion on arterial roadways
Public Utilities	No immediate relocations required	No immediate relocations required
Police, Fire, & Emergency Facilities	Reduction in response time as existing roadways become more congested	Gradual reduction in response time due to traffic congestion
Religious, Health, Educational & Cemetary Facilities	No facilities impacted	No facilities impacted
Parks, and Recreational Facilities	No impact	No facilities impacted
Highway & Traffic Safety	Worsening traffic conditions could adversely affect safety	Worsening traffic conditions could adversely affect safety
Overall Public Safety	Accidents expected to increase, poor emergency evacuation from coastal areas, delivery of emergency services hindered	Accidents expected to increase, delivery of emergency services hindered
	Better highway safety, improve evacuation from coastal areas and in delivery of emergency services	Improved highway safety and in response times of emergency services
	Improved traffic flow should improve safety	Improved traffic flow should improve highway safety
	No impact	No facilities impacted
	Improved access to one elementary school modified	Pedestrian access to one elementary school modified
	1 church would be dislocated	1 church would be dislocated
	1 proposed development impacted	1 proposed development impacted
	2 neighborhoods split	2 neighborhoods split
	3 neighborhoods split	3 neighborhoods split
	5 major new commercial buildings severely impacted and 12 businesses taken or severely impacted	5 new and proposed developments encroached upon
	6 neighborhoods impacted, 2 neighborhoods split	6 neighborhoods impacted
	Major relocation or protection of water line and underground electric line	Protection of water line and relocation of one or two high voltage transmission towers
	Major relocation or protection of water line and underground electric line	Major relocation or protection of water line and relocation of one or two high voltage transmission towers
	Relocation of one fire station, improved response time for emergency services and coastal evacuation	Improved response time to emergencies, no facilities impacted

TABLE 6 - 6 (Continued)

SUMMARY OF COMMUNITY IMPACT FACTORS

Factors/Alternatives	I-275 to 3,000 Feet South of Gunn Hwy. Eisenhower/West No Build	3,000 Feet South of Gunn Hwy. to Dale Mabry Highway Lake LeClare No Build	3,000 Feet South of Gunn Hwy. to Dale Mabry Highway Lake LeClare Railroad
Economic Impacts	Gradual inaccessibility of area will tend to dampen future commercial development	No impact	Increased employment during construction
General Social Groups	No impact	No impact	No significant impacts on minorities of the elderly anticipated
Additional Right-of-Way	None	None	214 acres North Termini - 45 acres South Termini - 41 acres
Displacements - Homes	No displacements	No displacements	48 residences 58 residences
Displacements - Commercial	No displacements	No displacements	8 businesses 7 businesses
Compatibility with Use and Consistency with Land Use Plans	Compatible with adopted plans	Compatible with adopted plans	Closer to urban development, more compatible with established urban pattern as exists and as in adopted long range Land Use Plan
Historic and Archeologic Preservation	No conflicts	No conflicts	No resources listed or eligible for listing on the National Register of Historic Places would be impacted.
Pedestrian & Bicyclist Considerations	Lack of pedestrian and bicyclist facilities in area	Lack of pedestrian and bicyclist facilities in area	Provision for pedestrian and bicycle facilities will be coordinated with Hillsborough County.
Visual Impacts	No impact key locations	No impact motorist views	Landscaping at key locations, pleasant

6.3 ENVIRONMENTAL IMPACT FACTORS

6.3.1 Air Quality

In accordance with 23 CFR 770, the project was evaluated for air quality impacts. Vehicular carbon monoxide (CO) emission factors were derived by means of EPA's Mobile 3 computer program. The Caline 3 computer program was used to project CO concentrations at specified receptors. This program was developed by the California Department of Transportation in cooperation with the Federal Highway Administration (FHWA). Caline 3 input data included site-related traffic, roadway and meteorological parameters plus the emission factors derived from Mobile 3.

Caline 3 traffic input parameters included vehicular volumes and speeds derived from a level of service "E" capacity analysis using the "Highway Capacity Manual" 1965. Demand volumes and appropriate speeds were used in those cases where traffic demand was less than the capacity of the roadway.

Meteorological parameters included a temperature of 52 degrees F and a wind speed of 1 mps and the worst wind angle. A Pasquill-Gifford stability class of 4(d) was used for peak hour projections. To account for meteorological variability over an eight-hour period, the Caline 3 model multiplies the eight-hour results by a persistence factor of 0.6 (Guidelines for Air Quality Maintenance Planning Analysis, Volume 9: Evaluating Indirect Sources, USEPA (EPA-450/475-001), Jan. 1975, p. 32).

Four possible worst case intersections were modeled. These four intersections are: the I-275 interchange (a completely free-flow interchange), the Independence Drive and Memorial Highway interchanges (tight-diamond interchanges), and the project terminus at Dale Mabry Highway.

The only existing activity adjoining the Memorial Highway interchange which would serve as a valid receptor site is a self-service gas station in the northwest quadrant.

The background CO concentration of 2.0 ppm was derived from Hillsborough County Environmental Protection Commission CO monitoring results.

The worst case intersection was also modeled for the no-build condition. All modeling results are shown in the Table 6-7.

TABLE 6-7
 CARBON MONOXIDE RESULTS IN PARTS PER MILLION (PPM)

<u>Receptor*</u>	<u>One Hour</u>		<u>Eight Hour</u>	
	<u>1989</u>	<u>2010</u>	<u>1989</u>	<u>2010</u>
	NO BUILD ALTERNATE			
B	6.0	5.9	3.8	3.8
	EISENHOWER/WEST - LAKE LECLARE ALTERNATE			
B	5.6	6.5	3.6	4.0
	EISENHOWER/WEST - RAILROAD ALTERNATE			
B	5.6	6.3	3.6	3.9

* Description of Air Receptor Sites

Receptor B: A self-service gas station in the northwest quadrant of the Memorial Highway interchange, 62 feet north of Memorial Highway and 90 feet west of Eisenhower Boulevard.

Results for all alternatives and both years are well within the National Ambient Air Quality Standards for 35 ppm for a one hour exposure and 9 ppm for an eight hour exposure. Within the existing alignment section CO concentrations will be slightly higher for the build condition than for the no build condition. This is due to the increased traffic capacity of the proposed facility, which will slightly outweigh the beneficial air quality effect of smoother traffic flow. Of course, the portion on new alignment will receive a greater impact relative to the no build condition since no build levels would be essentially nothing but background CO. However, the total CO concentration for the build condition will be considerably less in the new alignment section than along the existing alignment.

Slight increases in the pollutant level of particulates may occur during construction. This effect will be minimized by adherence to the FDOT's Standard Specifications for Road and Bridge Construction and through adherence to open burning regulations prescribed by the Florida Department of Environmental Regulation.

This project is an area where the State Implementation Plan (SIP) does not contain any transportation control measures, therefore the conformity procedures of 23 CFR 770 do not apply. Based on this air quality analysis it is concluded that this project is consistent with the SIP.

6.3.2 Noise

A separate report for this project entitled Noise Analysis and Study Report, dated August 1985, was prepared by the Florida Department of Transportation and is available from the District 1 Office, FDOT, Bartow, Florida. The following discussion includes summaries from the Noise Analysis and Study Report and, therefore, the Figure and Table numbers referred to therein and included herewith correspond to the content of the original report.

6.3.2.1 Analysis of Traffic Noise Impacts

Individual sites for acoustical and analysis were selected to determine spot impacts as well as representative conditions of adjoining land use activities. When more than one potentially sensitive site existed in an area, the site which appeared to be impacted most significantly was chosen for analysis as representative for that location. Thirty-two sites were selected to represent all of the noise sensitive areas along the project. Table 1 gives a description of these selected locations. These locations are depicted on a map in Figure 6. The receptors represent a total of 113 houses, 18 mobile homes, 1 business, 1 park, and 1 school.

SEMI-BOOTHWAYS

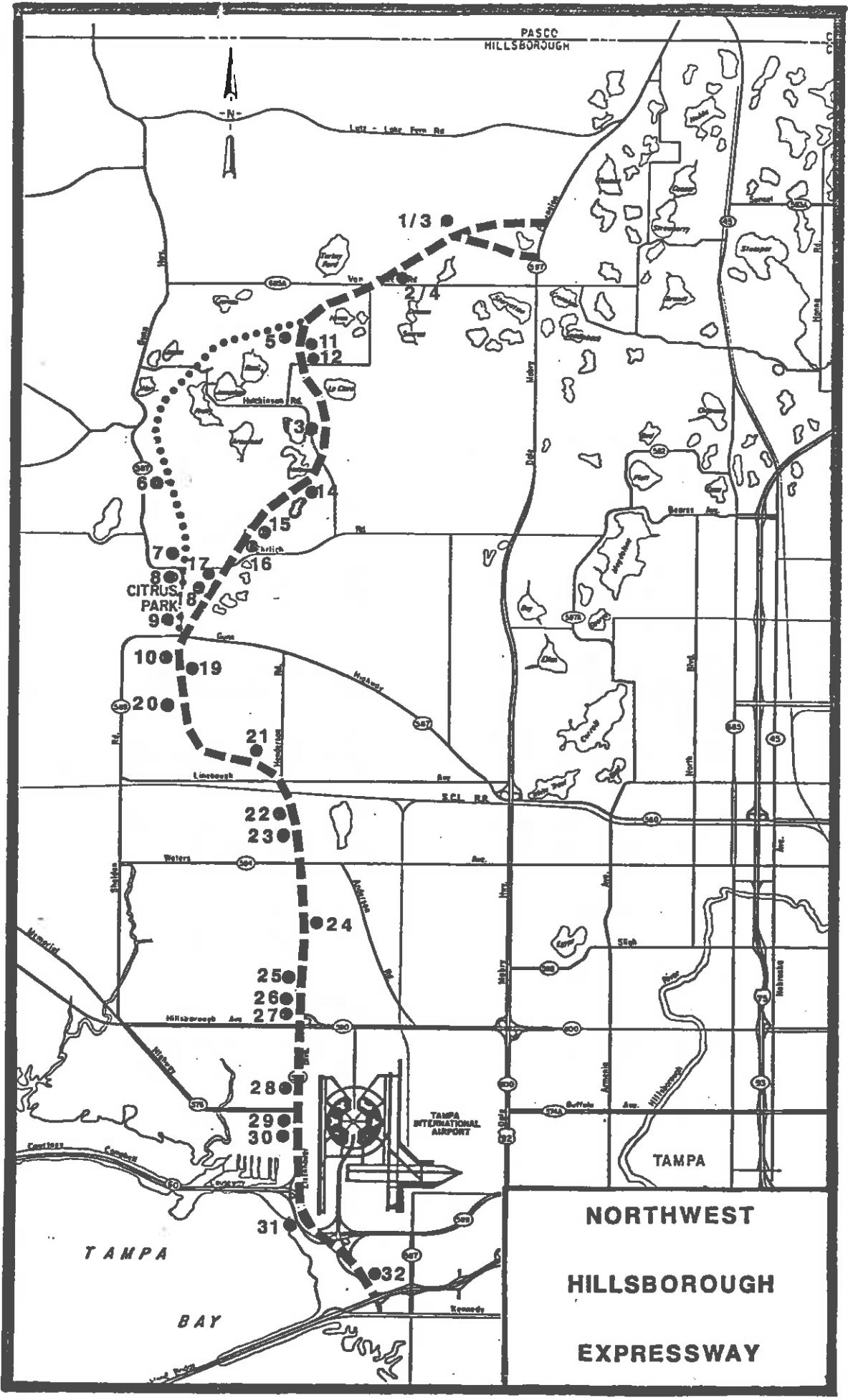


FIGURE 6

TABLE 1

NOISE RECEPTOR DESCRIPTIONS

1	Isolated Residence	2935' N of Van Dyke Rd. 740' E of Darby Lane
2	Isolated Residence	125' N of Van Dyke Rd. 450' W of Darby Lane
3	Isolated Residence	2935' N of Van Dyke Rd. 740' E of Darby Lane
4	Isolated Residence	125' N of Van Dyke Rd. 450' W of Darby Lane
5	Isolated Residence	2025' N of LeClare Rd. 60' W of Tobacco Rd.
6	Mobile Home--representative of 3 mobile homes and 5 residences	340' N of Peterson Rd. 853' E of Gunn Hwy.
7	Neighborhood Residence-- representative of 6 residences	40' N of Allmark St. 20' W of Banberry Ave.
8	Citrus Park Elementary School	1100' S of Ehrlich Rd. 25' W of Gunn Hwy.
9	Mobile Home--representative of 3 mobile homes and 2 residences	1100' N of Sheldon Rd. 227' W of Gunn Hwy.
10	Mobile Home--representative of 2 mobile homes	1222' S of Sheldon Rd. 180' W of abandoned RR
11	Isolated Residence	265' S of Storm Rd. 1172' E of Tobacco Rd.
12	Isolated Residence	55' N of LeClare Rd. 950' E of Tobacco Rd.
13	Isolated Residence	2720' N of Rawls Rd. 260' E of Hutchinson Rd.
14	Isolated Residence	100' N of Rawls Rd. 1620' E of Willow Dale Rd.

NOISE RECEPTOR DESCRIPTIONS (cont'd.)

15	Neighborhood Residence-- representative of 4 residences	1315' N of Ehrlich Rd. 690' E of Bellamy Rd.
16	Isolated Residence-- representative of 2 residences	910' N of Ehrlich Rd. 450' W of Bellamy Rd.
17	Neighborhood Residence-- representative of 9 residences	280' S of Ehrlich Rd. 280' E of Briarthorn Dr.
18	Isolated Residence	1825' S of Ehrlich Rd. 35' E of Briarthorn Dr.
19	Isolated Residence-- representative of 3 residences and 2 mobile homes	1830' S of Gunn Hwy. 230' E of abandoned RR
20	Mobile Home--representative of 4 mobile homes	65' N of Gardner Rd. 635' W of Timber Ridge Rd.
21	Isolated Residence-- representative of 8 residences	1320' N of Linebaugh Ave. 1830' W of Henderson Rd.
22	Neighborhood Residence-- representative of 20 residences	260' N of Martinshire Dr. 10' E of N. Ascot Ct.
23	Neighborhood Residence-- representative of 18 residences	1830' N of Waters Ave. 8' W of Twelve Oaks Blvd.
24	Mobile Home-- representative of 3 mobile homes	254' N of Flora Ave. 105' E of Turnmore Dr.
25	Neighborhood Residence-- representative of 7 residences	40' S of Hanna St. 40' E of Southern Comfort Blvd.
26	Neighborhood Residence-- representative of 5 residences	60' N of W. Larmon St. 105' W of Southern Comfort Blvd.
27	Neighborhood Residence-- representative of 15 residences	485' N. of Hillsborough Ave. 40' W of Southern Comfort Blvd.

NOISE RECEPTOR DESCRIPTIONS (cont'd.)

- | | | |
|----|--|--|
| 28 | Mobile Home--representative
of 1 mobile home and 1 business | 70' N of Eleanor Dr.
80' W of Eisenhower Blvd. |
| 29 | Representative Receptor--
25' from R-0-W | 730' N of Independence Pkwy.
105' W of Eisenhower Blvd. |
| 30 | Skyway Park | East end of N tennis court |
| 31 | Representative Receptor--
25' from R-0-W | 400' S of Fish Creek Crossing
25' W of R-Q-W |
| 32 | Representative Receptor--
25' from R-0-W | 616' N of Cypress St.
25' E of R-0-W |

6.3.2.1.1 Prediction Methods

Future noise levels at the selected modeling sites were calculated using the Federally approved STAMPLOT computer noise prediction model. This model was applied to 1989 (initial year of operation) and 2010 (design year) traffic volumes for all four alternates; Railroad Alignment - North Terminus, Railroad Alignment - South Terminus, Lake LeClare - North Terminus, and Lake LeClare - South Terminus. An analysis of the "NO-BUILD" alternate is also presented.

All noise levels in this report are expressed in dBA, which is the decible (dB) level measured on the A scale. The A scale most closely approximates the frequency response of the human ear. These noise levels are presented as Leq, which is the equivalent steady - state sound level which in a stated period of time would contain the same acoustic energy as the time-varying sound level during the same period.

Field measurements were taken in accordance with FHWA guidelines contained in Report No. DP-45-1R, "Sound Procedures for Measuring Highway Noise: Final Report", to validate the model. Measurements taken excluded airport noise contributions. Existing traffic noise levels were sampled using a General Radio Noise Meter Type 1565-B. Calibration checks were performed before and after each sampling period to assure meter accuracy by using a General Radio Sound-level Calibrator Type 1562-A. The model was found to be consistent with collected field test results with projections within one (1) dBA of actual measurements. Therefore, the STAMPLOT model was determined to be valid for future projections of highway traffic noise levels along this project.

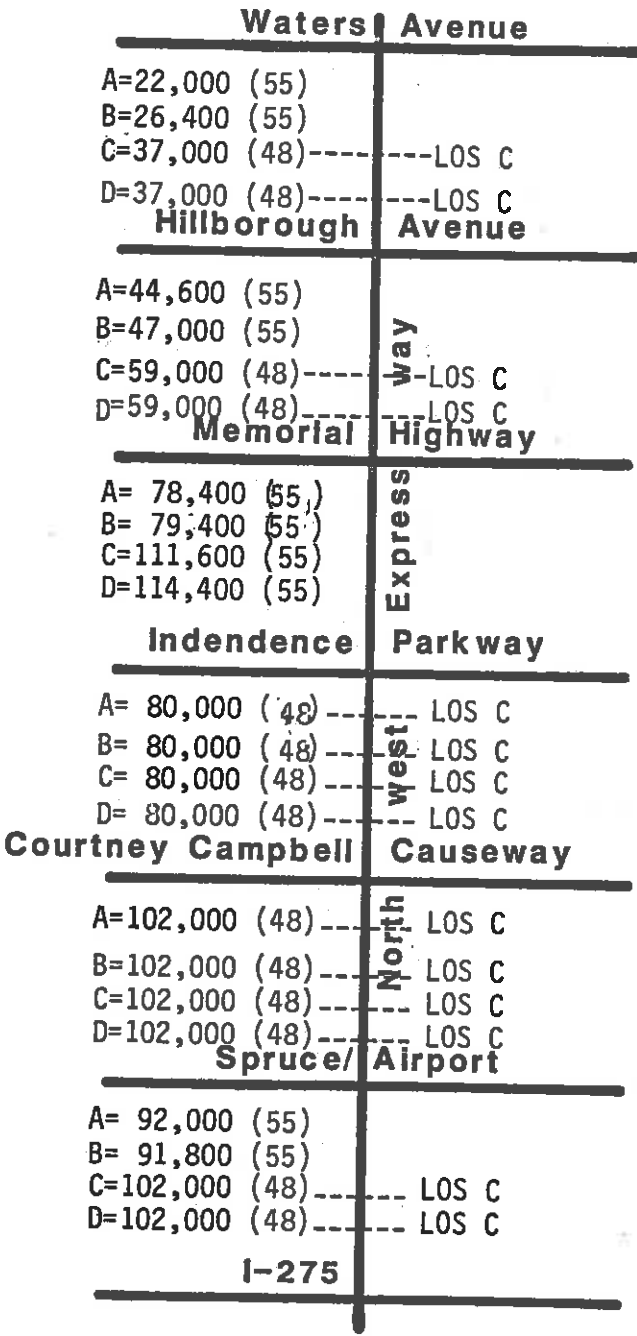
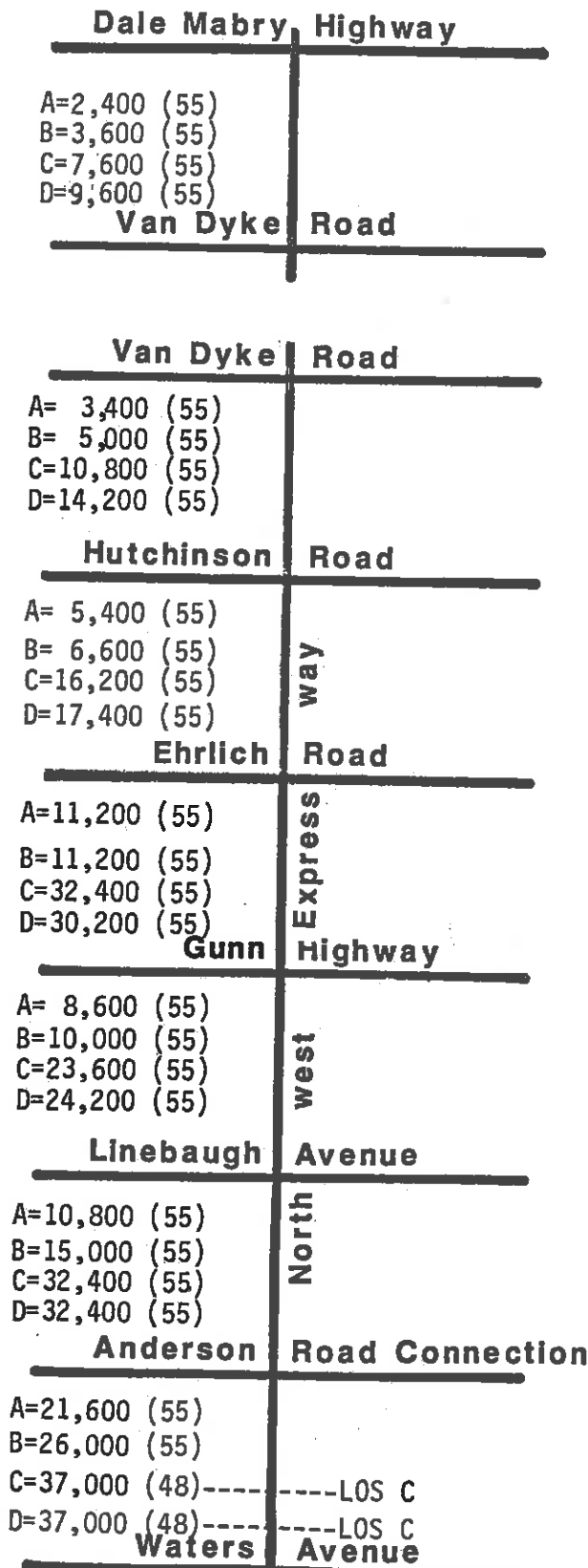
Computer input data for the STAMPLOT noise model included traffic volumes and speeds representing Level of Service "C" or demand traffic, whichever was lower. Level of Service "C" is generally acknowledged as being the noisiest, worst case, traffic condition.

Predicted traffic volumes, traffic, mix, and vehicle speeds presented in Figure 9 were utilized in the models. Roadway links were established from intersection to intersection in order to reflect differing traffic parameters.

The Federal Aid Highway Program Manual (FHPM) 7-7-3, "Procedures for Abatement of Highway Traffic Noise", establishes FHWA's guidelines for the use of abatement consistent with appropriate land uses. These guidelines are presented in Table 2, Noise Abatement Criteria. When noise abatement criteria are predicted to be approached or exceeded, FHPM 7-7-3 requires consideration of noise abatement measures which might reduce or eliminate the projected noise impacts. The abatement criterion of 67 dBA (Leq)

A.D.T. TRAFFIC PROJECTIONS

NORTH AND SOUTH TERMINUS



Legend

- A= 1989 Railroad Alignment
- B= 1989 Lake LeClare Alignment
- C= 2010 Railroad Alignment
- D=2010 Lake LeClare Alignment

Numbers in () are speeds in M.P.H.
LOS C= Level of Service "C"

- K= 10%
- D= 50%
- T= 6% (3% Medium Trucks)
(3% Heavy Trucks)

NOISE ABATEMENT CRITERIA

Activity Category	L _{eq}	Description of Activity Category
A	57 dBA (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 dBA (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 dBA (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	---	Undeveloped lands.
E	52 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

SOURCE: Department of Transportation, Federal Highway Administration Highway Noise Control Standards and Procedures FHPM 7-7-3.

for Activity Category B is applicable to all the noise receptors modeled for this proposed project, with the exception of Receptor #28 which, as a representative of 1 commercial use, has abatement criterion of 72, dBA.

Ambient noise levels for the proposed project north of Linebaugh Avenue were based on 1985 field measured noise levels taken at selected sites along the project corridor to assess the impacts at corresponding receptor locations. The data from 6 representative ambient measuring stations were used to formulate the ambient levels presented in Table 3a. These existing noise levels were measured as representative of "general" ambient noise levels in order to assess the relative magnitude of noise increases imposed by the proposed project. These ambient levels were used only as an "indicator" of impacts on this section of new alignment. In order to be conservative, impact ratings for predicted noise levels were based on the lowest ambient level per receptor location.

The noise abatement south of Linebaugh Avenue is dominated by noise levels created by aircraft operations. Airport noise contours generated from a report by the Hillsborough County Airport Authority (HCAA) entitled Tampa International Airport Noise Study, November 1983, are presented in Figure 11. The study concluded that because the background noise levels in the study area were generally low, aircraft noise within the Ldn 65 contour was the most dominant environmental noise factor. Therefore, noise levels were interpolated from the contours in Figure 11 based on receptor locations and used as ambient conditions, as shown in Table 3b, to assess noise impacts. Because of these relatively high ambient noise levels, Table 3b shown an adjusted Leq value for each receptor affected by airport induced noise in order to better assess the additional impacts imposed by highway related activities. Adjusted Leqs were formulated by decibel addition. Ldn values are used as the noise descriptor for the airport noise contours. Ldn is a logarithmic average of sound levels in dBA based upon a 24-hour Equivalent Sound Level (Leq) and is weighted to account for increased noise sensitivity between 10:00 p.m. and 7:00 a.m., with a 10 dBA penalty applied to noise events during the nighttime period. By application of reduced traffic volumes during these same hours to the logarithmic effect that traffic volumes have upon noise levels, it is possible to use the Leq values projected by the STAMPLOT model as the equivalent Ldn levels provided in the Airport Noise Study and to compare the values directly.

1981 AIRPORT NOISE CONTOURS

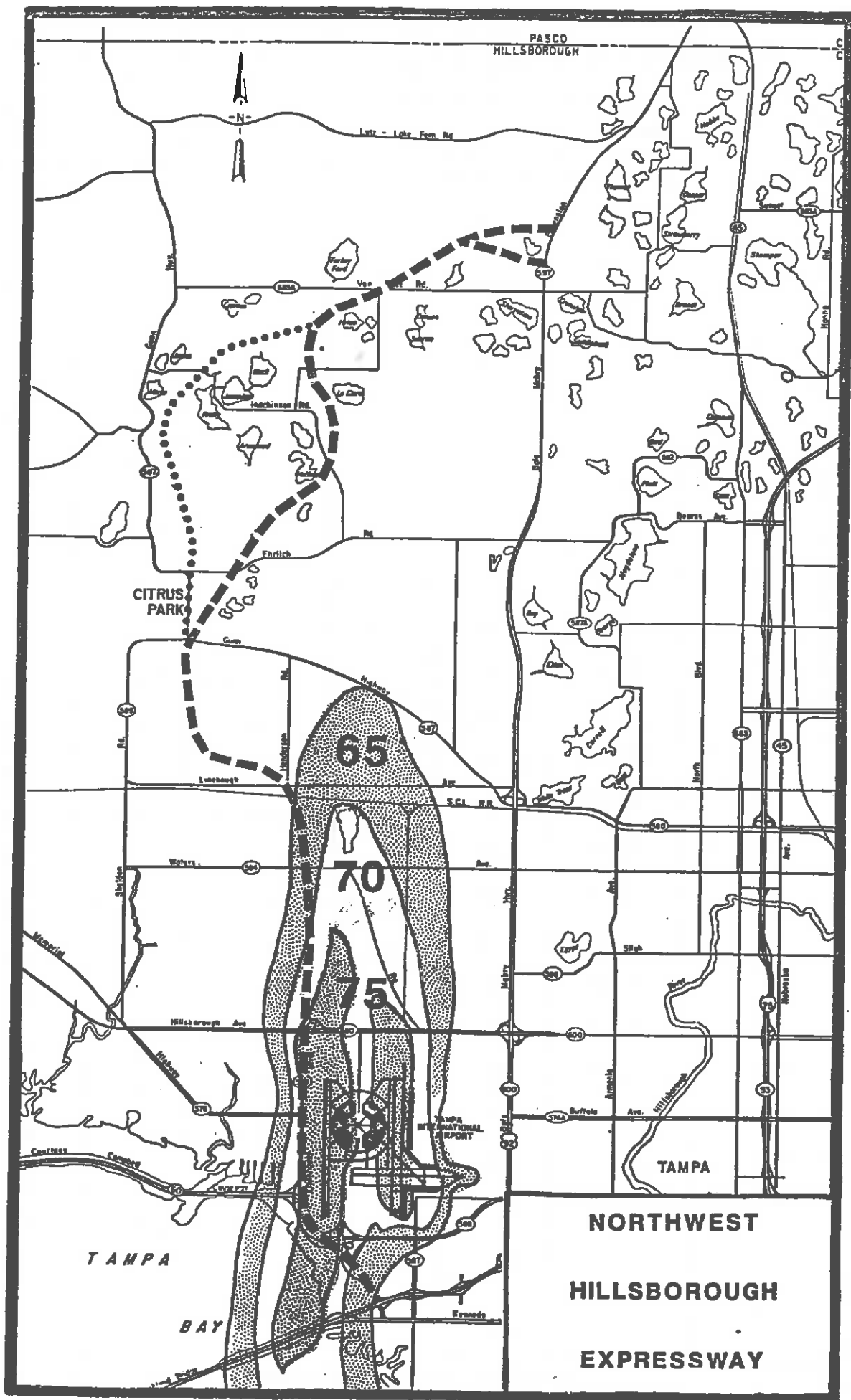


FIGURE 11

Predicted Leq (dBA) Noise Levels

Receptors	Distance from Near Lane (Ft.)	1985 Measured Noise Level	FHWA Criterion	1989 Noise Levels		2010 Noise Levels	
				Railroad	Lake LeClare	Railroad	Lake LeClare
1	760	47-50	67	46	48	51	52
2	193	47-50	67	54	55	59	60
3	610	47-50	67	47	49	52	53
4	187	47-50	67	54	56	59	60
5	50	51-53	67	59	-	64	-
6	65	51-53	67	62	-	67	-
7	120	51-53	67	60	-	65	-
8	230	51-53	67	60	-	64	-
9	180	51-53	67	61	-	66	-
10	232	51-53	67	60	-	64	-
11	130	53-55	67	-	63	-	68
12	95	53-55	67	-	61	-	66
13	69	53-55	67	-	61	-	65
14	125	53-55	67	-	62	-	65
15	385	53-55	67	-	55	-	59
16	195	53-55	67	-	53	-	58
17	180	53-55	67	-	61	-	65
18	110	53-55	67	-	65	-	69
19	155	55-57	67	61	62	66	66
20	100	55-57	67	64	65	68	69
21	215	60-65	67	59	65	64	68
22	655	60-65	67	51	52	56	56
23	842	60-65	67	52	52	53	53

Table 3b

Predicted Leq (dBA) Noise Levels											
Receptors	Distance From Near Lane (Ft.)	FHWA Criterion	1985 Noise Level with Airport Contributions	1989 Noise Levels				2010 Noise Levels			
				Railroad	Railroad * Adjusted	Lake LeClare	Lake LeClare * Adjusted	Railroad	Railroad * Adjusted	Lake LeClare	Lake LeClare * Adjusted
24	222	67	72	64	73	65	73	65	73	65	73
25	102	67	72	75	77	76	78	75	77	76	78
26	120	67	73	67	74	68	74	67	74	68	74
27	144	67	73	66	74	67	74	67	74	67	74
28	154	67,72	73	73	76	73	76	73	76	73	76
29	190	72	69	75	76	75	76	76	77	76	77
30	150	67	69	72	74	72	74	72	74	72	74
31	135	72	75	74	78	74	78	74	78	74	78
32	125	72	69	76	77	76	77	75	76	75	76

* Adjusted due to Airport Noise Contribution

6.3.2.1.2 Results of Noise Analysis

Computer output data is presented in Table 3a and 3b. Receptors 5-10 refer exclusively to the railroad alignment while receptors 11-18 refer exclusively to the Lake LeClare alignment. All other receptors are common to both alignments but with varying impacts based on the applied traffic parameters of either the Railroad Alignment or Lake LeClare Alignment.

In regard to planned, designed, and programmed developments, both alignments pass a proposed site for a senior high school at Van Dyke and Tobacco Roads. No noise impacts or criteria exceedances are expected to occur at this location based on the noise contours. Criteria exceedance of 67 dBA Leq will occur within a 62 foot distance from the center of near lane for the Railroad Alignment and within 76 feet for the Lake LeClare Alignment. Both these distances will be within the proposed right-of-way of either alignment.

1. Present vs. "NO-BUILD" Alternative

The "NO-BUILD" alternative includes the existing Eisenhower Boulevard with no modifications. Eisenhower Boulevard is a 4 and 6-lane predominantly rural design divided highway. Under a "NO-BUILD" condition, noise levels will increase 4 dBA by the year 2007 on this roadway due to normal traffic growth. This prediction is based on a preliminary noise assessment presented in the Northwest Hillsborough Expressway Phase 1 - Corridor Report, January 1982. Based on the measured existing noise level presented in the report, 70 dBA, this increase of 4 dBA will have a minor noise impact.

2. North Terminus vs. South Terminus

Noise level differences between the north terminus alignment, receptors 1 and 2, and south terminus alignment, receptors 3 and 4, for both the Railroad and Lake LeClare Alignments, 1989 and 2010 predictions, only reflect a variance of 0-1 dBA. No criterion exceedances will be encountered on either alignment or justifying one favorable alignment over the other based solely on noise impacts. Noise levels are 1-2 dBA higher overall for the Lake LeClare Alignment due to differing traffic parameters. Based on ambient noise levels, receptors 1-4 are predicted to experience a minor impact on either alignment in 1989 and 2010 due to increased traffic growth.

3. Railroad Alignment

Exclusive Railroad Alignment receptors 5-10 are predicted to experience minor impact in both 1989 and 2010, with the exception of receptors 6 and 9 in 2010. Receptor 6 will reach criterion level of 67 dBA in 2010 and account for a substantial impact. This receptor is a mobile home representative of 3 mobile homes and 5 residences. Receptor 9, a mobile home representative of 3 mobile homes and 2 residences, will approach criterion within 1 dBA in 2010 and also account for a substantial impact. However, by 2010 the rapid urbanization presently occurring within this area of Tampa urban limits will increase existing ambient noise levels and lessen the relative severity of future traffic noise impacts. All other receptors are below criterion level.

4. Lake LeClare Alignment

Exclusive Lake LeClare alignment receptors 11-18 are predicted to experience minor impact in 1989. The only criterion approachment will occur at receptor 18, which will be within 2 dBA of criterion. In 2010, receptor 12-17 will receive minor impact. Receptor 13 and 14, isolated residences, and 17, a neighborhood residence representative of a residence will approach criterion within 2 dBA. Receptor 12, an isolated residence, will approach within 1 dBA. Receptor 15 and 16 will not approach criterion level. Receptor 11 will exceed criterion by 1 dBA and receptor 18 will exceed by 2 dBA in 2010. Both receptors are isolated residences. Noise impacts will be substantial at both locations due to increased traffic volumes. However, as stated earlier, the present urbanization trend will mask the severity of impacts by 2010.

5. Railroad/Lake LeClare Common Alignment

South of Gunn Highway all receptors, 19-32, are located on common alignment with only traffic parameters differentiating noise impacts.

Predicted noise levels for receptor 19 will be considered a minor impact on both alignments in 1989 and 2010. Receptor 19 will approach criterion by 1 dBA on both alignments in 2010. Receptor 20 will approach criterion by 2 dBA in 1989 on the Lake LeClare Alignment and will exceed criterion in 2010 by 1 dBA on the R.R. Alignment and by 2 dBA on the LeClare Alignment. This is considered a substantial impact.

Receptor 21 is predicted to encounter no-impact and will not approach or exceed criterion on the Railroad Alignment in both years. On the Lake LeClare Alignment, receptor 21 will approach criterion by 2 dBA in 1989 and exceed criterion by 1 dBA in 2010. This will be a minor impact in both years based on ambient levels.

Receptors 22 and 23 will encounter no impact and no criterion exceedences on either alignment for 1989 and 2010.

Receptors 24-32 reflect an adjusted Leq value for predicted noise levels due to the addition of significant airport noise contributions. All these receptors currently have an ambient noise level in excess of FHWA criterion. With these adjusted values, all receptors exceed criterion by 6-11 dBA on both alignments in 1989 and 2010. However, these impacts are not considered substantial based on higher ambient levels of 69-73 dBA from airport operations.

All adjusted Leq noise levels are identical for both alignments with the exception of receptor 25 which is 1 dBA higher on the Lake LeClare Alignment.

Receptor 24, which is representative of 3 mobile homes, will experience a minor impact in 1989 and 2010. Receptors 26, 27, and 30 will encounter a minor impact in both years. Receptors 26 and 27 represent 20 neighborhood residents. Receptor 30 is Skyway Park. Although receptors 25, 28, 29, 31, and 32 are predicted to receive greater noise impacts than receptors 24, 26, 27, and 30, the roadway related impact is still considered minor due to the substantial noise contribution from aircraft operations. Receptors 25 and 28 represent 7 neighborhood residences, 1 mobile home, and 1 business. Due to lack of development along the corresponding roadway links, receptors 29, 31, and 32 are "representative receptors" set at 25 feet from proposed right-of-way.

6.3.2.2 Analysis of Alternative Noise Abatement Measures

In accordance with FHPM 7-7-3, alternative noise abatement measures for reducing or eliminating noise impacts were evaluated. Abatement measures considered included traffic management, change in alignment, land use and zoning, roadside plantings, and structural barriers.

A. Traffic Management

The elimination or restriction of heavy truck traffic would reduce the overall Leq noise levels. However, the restriction of truck traffic on the Expressway would be an impractical alternative as this facility is a proposed major north-south connector serving as a bypass route for I-275 around the City of Tampa.

Lowering the operating speeds would achieve a reduction of noise levels. In order to attain a significant effect, such low travel speeds would be needed that the speed would be unacceptable to roadway users and impractical to enforce. However, as the area develops more urban character, posted speeds may be less than presently assumed for this facility.

B. Change in Alignment

To achieve a 3-4 dBA reduction, the distance between the source and receiver must be doubled. Consequently, slight shifts in alignment generally would result in only negligible reductions in noise levels.

Shifting the alignment of the proposed Expressway, if not precluded by other conditions, would generally shift the noise impact from one location to another due to the encroachment of existing land uses on both the east and west sides of the right-of-way.

C. Land Use and Zoning

The proposed action is located in an area that is rapidly suburbanizing. Therefore, to be effective, land use and zoning controls based on the results of this study would have to be initiated in the near future. Land use control measures could include the establishment of noise buffer areas and zoning to restrict land use development to that which is compatible with the Expressway. Land use and zoning controls would have to be initiated by the local planning agencies. To aid this process, FDOT will send a copy of the final noise study report to the local planning agencies.

In urban areas, many residences and commercial establishments are in close proximity to the Expressway Alignment and may have only limited possibilities for land use and zoning controls.

D. Vegetative Barriers

To achieve a substantial reduction in noise levels through use of vegetative barriers requires dense foliage at least 100 feet thick. While sufficient space exists in rural areas for such plantings, relocation of residences and businesses would be required in urban areas. Vegetative barriers would not be much more efficient than a new construction setback line in reducing future noise levels and would not provide abatement in urban areas due to lack of space.

E. Structural Barriers

A substantial reduction in noise levels can be achieved through uses of structural barriers. To be effective, a barrier must be as continuous as possible. Breaks in the barrier for driveways, crossroads and other points of access severely limit noise attenuation. Because the proposed Expressway will be limited access, structural barriers could be effectively utilized along selected roadway sections.

In accordance with FHPM 7-7-3, the Florida Department of Transportation is committed to the construction of feasible noise abatement measures where the potential for severe noise impacts exist and approachment or exceedences of criterion occurs, contingent upon the following conditions:

Detailed noise analyses performed prior to final approval;

Cost-effectiveness analyses;

Community impact regarding desires, types, heights, and locations;

Preferences regarding compatibility with adjacent land uses, particularly as addressed by officials having jurisdiction over such land uses; and

Safety and engineering aspects as related to the roadway user and the adjacent property owner.

It is likely that noise barriers will be constructed if found to be feasible based on the contingencies listed above.

Receptor sites located south of Linebaugh Avenue, with a potential for substantial noise impacts and noise levels in exceedences of FHWA criterion were not considered for noise abatement due to dominant noise contributions. The only sites with substantial roadway related noise impacts are sites 6, 9, 11, 18, and 20.

Based on the noise analysis performed to date, there appear to be no practicable solutions available using structural barriers to mitigate the noise impacts along receptor areas 11 and 18 on the Lake LeClare Alignment. Because these receptors represent isolated residences, noise barriers would not be cost-effective. Therefore, it is likely that noise barriers will be constructed only at sites 6, 9, and 20. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made before the construction advertisement is approved.

6.3.2.3 Construction Noise

Noise generated by construction of the proposed action may affect some land uses during the construction period. In addition to the noise control measures contained in FDOT's Standard Specifications for Road and Bridge Construction, it is recommended that the construction noise be attenuated to the extent practical by incorporating the following measures into the special provisions of the construction contract:

1. The contractor will limit construction activities requiring the use of heavy or noisy equipment to the time period between the hours of 7:00 a.m. to 6:00 p.m., unless written permission is obtained from the engineer.

2. The contractor shall not work on Sundays or legal holidays unless written permission is obtained from the engineer.

3. In the event the above restrictions are not adequate to keep construction noise to an acceptable level (as determined by the engineer), he may direct the use of other controls and abatement measures.

6.3.2.4 Cooperation with Local Officials

The agency responsible for taking measures that are prudent and feasible to assure that the location and design of highways are compatible with existing and planned land uses for this project is the Florida Department of Transportation. The Department will promote compatibility between land development and the operation of the proposed facility. To accomplish this goal, the Department will cooperate with the Metropolitan Planning Organization and with local officials by furnishing:

(1) appropriate generalized future noise levels (for various distances from the highway improvement) for both developed and undeveloped lands or properties in the immediate vicinity of the project,

(2) information that may be useful to local communities to protect future land development from becoming incompatible with anticipated highway noise levels and,

(3) the FHWA policy regarding land use development or changes which are initiated after issuance of FHPM 7-7-3.

Continued coordination with local agencies and officials has been accomplished during the development of this study and a copy of the noise study will be provided to the Hillsborough County Planning Commission to assist them in developing compatible future land use criteria.

6.3.3 Wild and Scenic Rivers

There are no designated wild or scenic rivers in the area impacted by the proposed project.

6.3.4 Farmlands

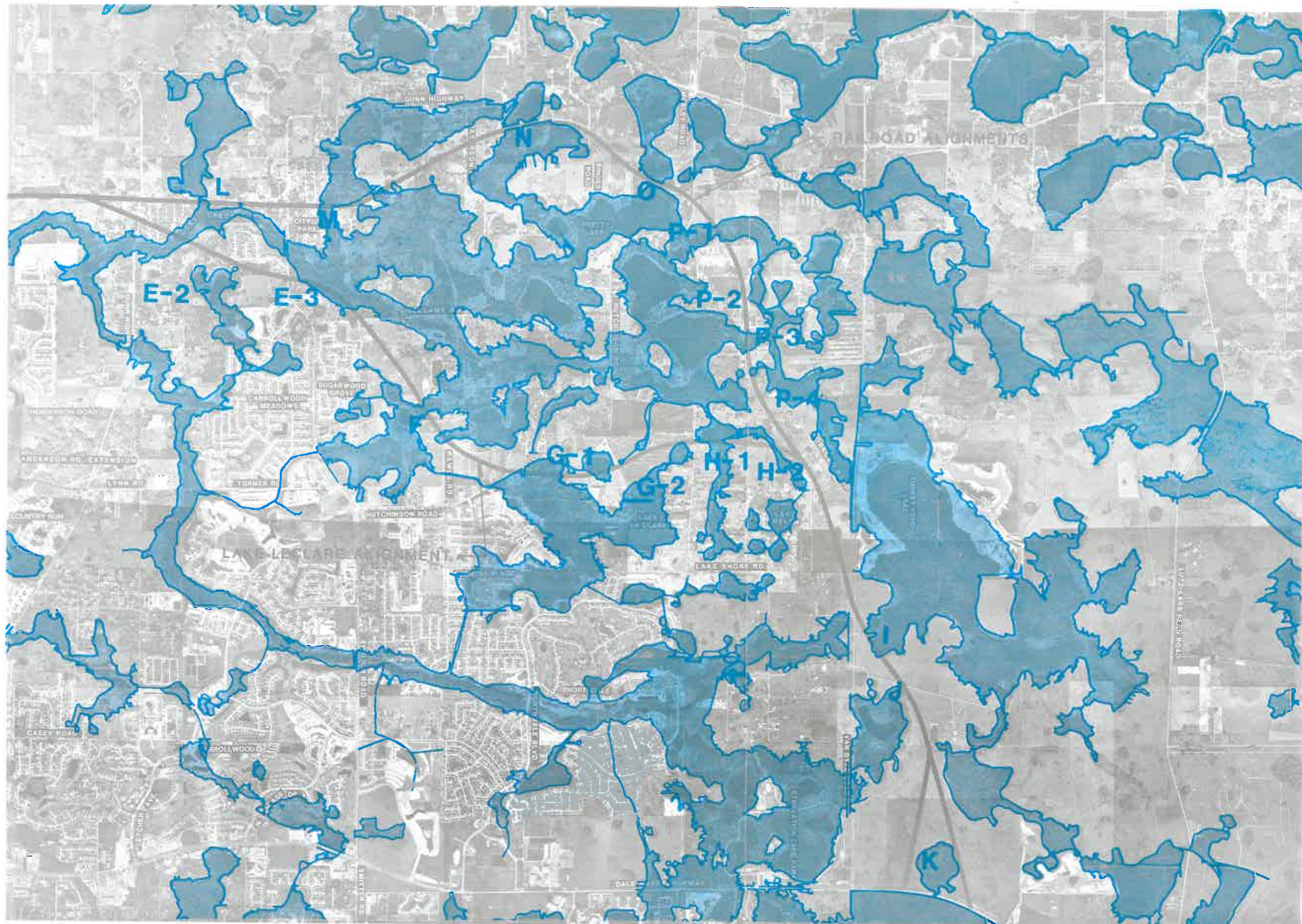
Through coordination with the Soil Conservation Service, it has been determined that no farmlands as defined by 7 CFR 658 are located in the project vicinity.

6.3.5. Floodplain Impacts




A floodplain impact analysis was performed for the proposed project to meet the requirements of Executive Order 11988, "Floodplain Management". The proposed project is covered by Flood Insurance Rate Map (FIRM) Community No. 120112; Panels 0180, 0185, 0190, 0195, 0327, 0329, 0331, and 0333. The proposed expressway alignment lies within the coastal base floodplain at its southern terminus and crosses or abuts numerous riverine and lake base flood areas throughout the remainder of the proposed project (Fig. 6-14). There is only one crossing, Rocky Creek in Section 14, Township 28S, Range 17E, for which base flood elevations have been determined. Only two lakes, Horse Lake and Pretty Lake, in Section 26, Township 27S, Range 17E, have base flood elevations established. All other base flood limits have been determined by approximate methods. In order to make more meaningful comparisons, floodplain involvement will be discussed by each alternative. The discussions identify major existing storm drainage structures in the vicinity of the proposed alignments which can be used as guidelines for associated expressway drainage structures. Minor culverts and drainage canals have not been addressed at this level of detail because as part of normal roadway design, these can be considered as incidental to the project and will be carried through (or along) the roadway embankment without materially impacting the local drainage situation. Table 6-8 summarizes the approximate acreage of fill in each of the floodplain areas and lists any wetlands involved in each of the floodplain areas.

Assessments of floodplain involvement and impacts in a rapidly developing area such as northwest Hillsborough County are difficult to make on the basis of one particular facility only, however. It is on this premise that the evaluations have been prepared. Site specific evaluations will be carried out during the design stage to insure that cost-effective facilities will be provided to minimize the impacts of the expressway on existing water courses and ponding areas.

Additionally, stormwater management criteria and other permit requirements of regulatory agencies will be followed during the design of the Northwest Expressway.



LEGEND

-  ALIGNMENT ALTERNATIVES
-  100 YEAR FLOOD BOUNDARIES
-  FLOODPLAIN INVOLVMENT LOCATION




FIGURE 6-14

Table 6-8. Floodplain involvements, including acreage of fill and wetland sites involved.

FLOODPLAIN AREA	ACREAGE OF FILL	CROSSING	WETLAND SITES INVOLVED
A	38.70	transverse	1, 2, 3, 4, 5, 6A, 6B, 7
B	0.17	transverse	12
C	0.17	transverse	13
D	3.10	transverse	18, 19
E1	2.75	transverse	37A
E2	1.72	transverse	37B
E3	6.39	longitudinal	40, 41, 42
F	2.58	transverse	44A, 44B, 45
G1	5.85	transverse	46, 47, 48, 49
G2	1.38	transverse	NA
H1	6.88	transverse	52
H2	0.34	transverse	53
I	4.13	transverse	56A, 56B
J	0.34	transverse	NA
K	1.70	transverse	58, 59
L	1.12	transverse	60
M	6.76	transverse	62, 63
N	3.44	transverse	64
O	3.78	transverse	66
P1	2.58	transverse	68
P2	1.03	longitudinal	69
P3	1.38	transverse	70
P4	0.17	transverse	71

6.3.5.1. Eisenhower/West Alignment (I-275 to 3,000' South of Gunn Highway)

The Eisenhower/West Alignment lies continuously within the base floodplain from its beginning at I-275 on the south to a point approximately 1/4 mile south of Memorial Highway (total 2.1 miles; Area A; Fig 6-14). This area is the coastal zone where the storm surge of a large hurricane might be expected to have impact. Elevation of the base floodplain in this area is 10' NGVD.

This area is presently developed with primarily commercial and industrial establishments, and the proposed alignment follows existing right-of-way. The proposed expressway will require minor modifications to the existing storm drainage systems, although the bridge over Fish Creek (southwest corner of Tampa International Airport) will require widening to accommodate additional lanes of traffic. The impacts to the coastal zone floodplain will be negligible in this section. Risks to existing structures in the coastal zone will not be increased as a result of the project; rather, the project itself may require protection from anticipated wave action during record flood events.

Although largely developed along the expressway alignment, several estuarine wetlands (see Table 6-8) occur within the floodplain in the vicinity of this involvement. Section 6.3.7.1 describes these attributes and mitigation for the anticipated losses.

Proceeding north the Eisenhower/West Alignment crosses two drainage canals which lie within the base floodplain (Fig. 6-14; Areas B and C). The southern canal (Area B) serves the northern portion of Tampa International Airport. The bridge on Eisenhower Boulevard immediately west of the alignment over this canal is approximately 80' in length. Existing storm drainage facilities associated with Eisenhower Boulevard will be incorporated in the expressway collection and treatment/detention facilities. The canal denoted as Area C is crossed immediately north of Hillsborough Avenue. Existing structures in the immediate vicinity include a small bridge (<30' long) on Southern Comfort Boulevard (100±' west) and a 60±' bridge on Benjamin Road (1,050±' east). These canals lie within a developed area and have a narrow floodplain with a paucity of floodplain attributes such as vegetation, wildlife, or water quality benefits. No substantial loss of these attributes is anticipated at either of these involvements. Risks associated with either crossing must be considered negligible because flood levels are confined to existing channels and these crossings will be culverted or bridged.

The next floodplain involvement of the Eisenhower/West Alignment is with the Sweetwater Creek (Channel G) floodplain just north of Sligh Avenue and west of Benjamin Road (Fig. 6-14; Area D). The Sweetwater Creek floodplain is approximately 250' wide at the point of crossing. The Benjamin Road Bridge (Hillsborough County Bridge No. 104212) is situated 1,200±' east of the expressway

crossing and is 91' long. A channel control structure is approximately 350' west of the crossing. The Preliminary Design Report for the Sweetwater Creek Basin indicates that the base flood elevation is approximately elevation 16±' NGVD and it is generally confined to the existing channel in the immediate vicinity of the expressway crossing. The area within the floodplain is presently developed as low density residential. However, light industrial and commercial development are encroaching on the area from the east and a residential development occurs to the west of the proposed alignment. In all likelihood this area of floodplain will be developed in the near future with or without the expressway. Because Hillsborough County is in compliance with the National Flood Insurance Program, the project will not support incompatible development of the floodplain. Although some valuable floodplain vegetation occurs in this vicinity, the proposed alignment crosses an area which is presently grassed, probably in association with channelization of Sweetwater Creek. The only wooded areas within the proposed alignment at the Sweetwater Creek are associated with the residences. The proposed expressway will cross the creek on structure. In doing so, the project will avoid the risk of adverse backwater effects and the loss of vegetational attributes will be negligible.

North of Sweetwater Creek there are no major drainage crossings for approximately 3.1 miles until the crossing of Rocky Creek. A small drainage canal is crossed approximately 1,100' south of the Seaboard Coast Line Railroad (existing railroad bridge is less than 30' in length).

The final floodplain involvement of the Eisenhower/West Alignment occurs where it crosses Rocky Creek north of Linebaugh Avenue just west of Wilsky Blvd. (Fig. 6-14; Area E1). The alignment is immediately east of the abandoned railroad embankment and crosses the 400±' wide base floodplain at right angles. The existing railroad bridge is approximately 125' long and the FIRM indicates that base flood passes through the existing bridge opening. The grade of the existing bridge is approximately elevation 25' NGVD and the base flood elevation is 19' NGVD. The Rocky Creek floodplain is presently vegetated with a diverse forest community dominated by green ash (Fraxinus pennsylvanica). The creek bed itself contains several species of aquatics including Potamogeton sp., Myriophyllum, and some Vallisneria americana. The vegetational community is best characterized as upland/-transitional with the exception of the deeply incised channel. Because the expressway alignment is adjacent to the railroad embankment and the roadway will be bridged over Rocky Creek, impacts to these floodplain attributes should be minimal.

Although the Eisenhower/West Alignment has a considerable length of linear involvement, the present condition of these floodplain areas and design considerations suggest that adverse floodplain impacts should be minimal and the expressway poses no risk.

6.3.5.2. Lake LeClare Alignment (3,000' South of Gunn Highway to Van Dyke Road)

The Lake LeClare Alignment bears slightly east of north as it separates from the Railroad Alignment. As with the Railroad Alignment, most floodplain involvements of the Lake LeClare Alignment may also be wetland impacts. Additional discussion of effects on many floodplain attributes can be found in Section 6.3.7.

As the Lake LeClare Alignment begins north from the vicinity of Gardner Rd., it bends east to cross the Rocky Creek floodplain (Fig. 6-14; Area E2). The base flood is approximately 600' wide at the point of crossing, east of Mt. Vernon Rd. The creek bed is somewhat incised and provides some flow even during the dry season. Existing crossings of Rocky Creek include three 12' CMPs on Gunn Highway (1,200±' downstream, Hillsborough County Bridge No. 104254) and an 80' bridge on Ehrlich Road (3,000±' upstream, Hillsborough County Bridge No. 104206). Gunn Highway is the upper limit of detailed studies on Rocky Creek.

The floodplain community is dominated by black gum (Nyssa sylvatica var. biflora) with laurel oak and bald cypress common. Presently, Hillsborough County is planning for the replacement of the Ehrlich Road bridge over Rocky Creek and the Gunn Highway culverts carry a low rating which would indicate that improvements are imminent for this crossing also. The expressway crossing will be designed in concert with these improvements, reducing the risk of floodwater effects. Impacts to the natural floodplain community will be minimized by limited clearing and crossing the creek on structure. This will allow for preservation of much of the floodplain forest within the proposed right-of-way.

As the Lake LeClare Alignment proceeds north it again encounters the Rocky Creek floodplain (Fig. 6-14; Area E3). Here the proposed alignment runs parallel to the creek approximately 250' to the east near the edge of the base floodplain. The alignment is involved with the base floodplain for approximately 1/4 mile. The estimated base flooding limits in this area are defined by the elevation 40' NGVD contour.

Much of the area of floodplain involvement at this site is presently agricultural land. Cypress (Taxodium distichum) with bays and laurel oak (Magnolia virginiana, Persea palustris, Quercus laurifolia) comprise the remainder of the existing environment. The greatest impact on the floodplain is the potential for loss of floodwater storage capacity and adverse backwater effects. In order to prevent these adverse impacts and associated risks, culverts and detention areas will be provided which will allow the creek to expand into much of the existing floodplain as necessary during high water periods. Otherwise, to avoid the parallel encroachment, the alignment would have to be shifted easterly thus complicating the geometrics of

the proposed Ehrlich Road interchange and requiring additional right-of-way takings. The floodplain vegetation suggests that inundation is an infrequent occurrence throughout much of this involvement area. However, it is likely that sheet flow of runoff to the west may occur in this area. A review of the topography east of the proposed alignment indicates that sheet flow can be expected; however, it will be impacted by existing roadways and a portion of the flow may be expected to flow in a southeasterly direction away from the project.

The natural floodplain community encountered in this involvement is described in section 6.3.7.2 (see wetlands 40, 41, 42). The proposed expressway would impact this natural community; however, procedures outlined in section 6.3.7.2 for the above wetlands should mitigate for the natural community impacts of this involvement.

The next floodplain involvement of the Lake LeClare Alignment is on the northwest corner of Lake Holly (Fig. 6-14; Area F). The area to the west of Lake Holly is presently undergoing development. Impacts of this development are presently unknown. The proposed Lake LeClare Alignment will cross this base floodplain area through the east side of a cypress head which is connected to Lake Holly by canal.

The floodplain vegetation community in this involvement is diverse, due to the variety of hydroregimes surrounding the cypress head and canal transition. In order to minimize impacts to the vegetation providing wildlife habitat and water quality benefits for Lake Holly, the roadway side slopes will be steepened to reduce the area of impact. Adequate culverts will be used to maintain the connection of the cypress dome to Lake Holly, retaining those water quality benefits. Precaution will be taken in roadway design to prevent degradation of the water quality in Lake Holly due to road runoff. During construction, turbidity will be controlled with best management practices to prevent short-term construction impacts and sedimentation. These steps should not only minimize the loss of floodplain vegetation and wildlife, but also prevent any potential floodwater risks.

The next floodplain involvement occurs as the proposed Lake LeClare Alignment heads northeast and crosses Rawls Road (Fig. 6-14; Area F). The existing floodplain consists of residential lawn with a farm pond/borrow pit at the point of floodplain involvement. The base floodplain here is highly altered and the proposed expressway should not result in a loss of natural floodplain attributes. The existing environment offers only floodwater storage capacity which will also be provided with the proposed expressway.

The Lake LeClare Alignment again involves base floodplain as it crosses Hutchinson Rd. just north of Country Lake Rd. (Fig. 6-14; Areas G1 and G2). The existing environment in this area of floodplain is residential housing, open space and retention pond

associated with the Country Lakes subdivision. As the proposed alignment proceeds north it traverses an area of former cypress swamp, presently dominated by wax myrtle (Myrica cerifera), due to ditching in the past. Many of the wax myrtles are 30' tall, indicating that the disturbance is not recent. Another subdivision is presently under development just to the north of the disturbed area on the south of Wilcox Rd.

The proposed alignment will require relocation of the existing north-south drainage canal along the east toe of the expressway embankment. Existing west-to-east drainage will be carried through the embankment in a culvert or series of culverts. Impacts attributable to the expressway will be insignificant when compared to the present disturbed state of the area and ongoing development. Proper roadway design will restore some of the lost attributes through revegetation and providing stormwater retention in this vicinity. These same features will prevent any increased risk from the proposed expressway and may even reduce the possibility of flooding by improving the disturbed drainage in the vicinity.

The proposed Lake LeClare Alignment continues north across Hatton Rd. turning slightly to the west. This bend allows the alignment to pass west of the base floodplain associated with Lake LeClare. The alignment becomes involved with base floodplain again north of LeClare Rd. (Fig. 6-14; Area H1). The vegetational community is dominated by cypress (Taxodium ascendens) with black gum commonly occurring. The approximate base flooding limits are defined by the elevation 50' NGVD contour. Small culverts under Tobacco Road and Storm Road will provide indication of equivalent-sized culverts for the expressway at this crossing and the northerly crossing described below to prevent any risk due to the proposed expressway.

Roadway side slopes will be steepened to 2:1 to minimize the loss of wetland vegetation and wildlife habitat provided by the cypress swamp. Mitigation for impacts to this natural floodplain community are outlined in section 6.3.7.2. As this floodplain/wetland area runs from Lake Shore Rd. on the east to Tobacco Rd. on the west, few options are available for avoiding floodplain impact in this vicinity.

North of Storm Rd. as the Lake LeClare Alignment turns north-northeast it crosses a narrow band of base floodplain (Fig. 6-14; Area H2). This involvement should result in no adverse impact on floodplain attributes. Most of the vegetation has been cleared and formerly healthy cypress areas have been filled. The existing environment has little if any value as a floodplain and the involvement here poses no risk.

6.3.5.3. Railroad Alignment (3,000' South of Gunn Highway to Van Dyke Road)

Base floodplain involvement of the Railroad Alignment is closely associated with wetland impacts (see Section 6.3.7 and Table 6-7.) In general, these floodplain involvements occur in low lying basins with little to no flow during the normal wet season. Flow rates would be higher during a base flood event, and the design of the expressway drainage system will be carried out accordingly.

The most substantial loss of floodplain attributes for the Railroad Alignment and the Lake LeClare Alignment will be the loss of associated wetlands vegetation which provides water quality benefits and wildlife habitat as well as floodwater storage capacity. As the loss of attributes associated with wetlands vegetation are referred to in the section on Wetlands Impact, discussion here will be limited to those associated with floodwater storage capacity and backwater effects.

Beginning at the south end, the first floodplain involvement of the Railroad Alignment is adjacent to Gunn Hwy., adjacent to a 12' box culvert approximately 1,800' north of Sheldon Road (Fig. 6-14; Area L). Presently, wetlands #60 and #61 drain west to east under Gunn Hwy. to empty into Rocky Creek. At the time of this study (Mar-Apr 85), the creek beds draining into Rocky Creek were dry, but they undoubtedly allow drainage of the wetland area west of Gunn Hwy. during periods of high water. If this proposed alignment is chosen for construction, culverts will be used to maintain these flow ways and prevent isolation of the wetlands west of Gunn Hwy., and avoid the risk of backwater effects. Impacts to the natural floodplain vegetation and communities will be mitigated as outlined in section 6.3.7.3.

Proceeding north the Railroad Alignment becomes involved with base floodplain again as it bends west following the old railroad right-of-way to the west of Banberry Avenue (Fig. 6-14; Area M). Floodplain involvement occurs for approximately 2,000' from Alvena Avenue to north of Antilla Street. Little wetland vegetation occurs in this area of floodplain, but topography suggests that during extreme high water conditions flow from west to east is likely to occur on the south end of this floodplain area. Two 36" culverts approximately 1,000' east of the alignment carry this system under Delvalle Road to Rocky Creek.

The lack of wetland vegetation in much of this area suggests that little floodwater storage capacity would be lost as a result of this alignment. Currently the proposed alignment is occupied in part by the old railroad right-of-way, suggesting that few if any floodplain attributes would be lost in this area and the proposed expressway poses no increased risk.

The next involvement of the Railroad Alignment with base floodplain occurs from approximately 1,300' south of Binder Rd. and continues to Binder Rd. From there the proposed alignment

proceeds northeast along the west edge of the base floodplain for another 1,500' before returning to high ground (Fig. 6-14; Area N). Filling for the proposed expressway will be necessary in the first 1,300', but the next 1,500' impinge on vacant right-of-way to the east of the proposed roadbed.

This area of floodplain involvement is associated with a large cypress swamp (see Table 6-7 for wetlands) just east of the existing railroad right-of-way. The existing right-of-way severs what appears to have been a historical connection between wetland #65 and #64. By providing culverts in several locations throughout this area the proposed expressway will maintain the existing flow patterns and prevent any risk of flooding due to the proposed expressway. The loss of natural floodplain vegetation due to this involvement is discussed in section 6.3.7.3 (see wetland #64).

Proceeding northeast the Railroad Alignment again involves base floodplain approximately 1,800' south of Mobley Rd. just west of the north end of Pretty Lake (Fig. 6-14; Area O, base flood elevation 48' NGVD). The only natural floodplain community is an isolated cypress swamp. As the involvement with the floodplain is only on the eastern edge, and as the floodplain is isolated from other base floodplain, the proposed expressway should cause minimal loss of floodwater storage. Much of the loss in floodwater storage will be replaced by retention areas for highway runoff and/or wetlands mitigation sites in the adjacent expressway right-of-way, reducing the risk of floodwater effects and loss of wetlands vegetation.

The next area where the Railroad Alignment involves base floodplain is 800' north of the terminus of Hutchinson Rd. (Fig. 6-14; Areas P1 and P2). Approximately 50% of this floodplain involvement is presently citrus grove with the remainder consisting of a ditch connecting two lakes and an associated cypress swamp/bay swamp. Estimated base flood elevations in this vicinity are at elevation 50+['] NGVD. To minimize loss of floodwater storage and backwater effects, adequate culverts and retention as necessary will be used to maintain the connection between lakes and mitigate loss of floodwater storage. Slight horizontal shifting of the proposed alignment may be possible to minimize the longitudinal encroachment at Area P2. This shift to the south would result in more complicated geometrics and would require relocation of the local road serving the residences on the north side of Rock Lake. The shift would also result in additional wetlands and floodplain impacts to the east and west of P2 (areas P1 and P3). The floodplain encroachment at P2 is not expected to have substantial risk of adverse backwater effects or result in a substantial loss of floodwater storage. Although some loss of natural floodplain vegetation is expected, mitigation described in section 6.3.7.3 will prevent a long term loss of these attributes.

The next floodplain involvement for the Railroad Alignment occurs north of Rock Lake where Rocky Creek flows south into Rock Lake (Fig. 6-14; Area P3). The expressway crossing of this area will be in part on structure and embankment slopes will be steepened to minimize impacts to the floodplain. The structure will be designed to carry the flow presently contained in the incised channel leading south to Rock Lake. Culverts adjacent to the structure will be provided to prevent the risk of backwater during storm events and maintain normal hydroperiod of the wetland to the north. The remainder of this floodplain involvement area consists of disturbed land adjacent to orange grove. This area is not normally flooded but would provide floodwater storage during extreme storm events. In order to replace lost storage capacity and prevent backwater in this area a wetlands mitigation/retention area will be located in this vicinity. The loss of floodplain vegetation will be mitigated by restoration of the disturbed marsh area adjacent to the proposed expressway.

Continuing north and east to the junction with the Lake LeClare Alignment, the Railroad right-of-way has two additional floodplain involvements (Fig. 6-14; Area P4). Neither is greater than 100' in length and both involve the edge of cypress swamps. Although some loss of flood storage capacity may occur, neither of these involvements should be significant or present any risk. The first involvement abuts the south side of a cypress swamp which drains north, and the other abuts an isolated cypress head, both of which are at elevation 50±' NGVD. Description of the mitigation for the minor impact to the natural floodplain community due to this involvement is included in section 6.3.7.3.

6.3.5.4. Lake LeClare or Railroad Alignment (Van Dyke Rd. to 4,000' West of Dale Mabry Highway)

The only base floodplain involvement of the Lake LeClare or Railroad Alignment between Van Dyke Rd. and Dale Mabry Highway occurs approximately 600' north of Van Dyke Rd. where the approximate base flood elevation is 55' NGVD. The proposed alignment heading east-northeast abuts the large contiguous swamp forest associated with Turkey Ford Lake (Fig. 6-14; Area I).

This floodplain involvement will result in some loss of floodwater storage capacity and will also result in a loss of wildlife habitat. However, considering the size of the Turkey Ford system the impact will not be too severe.

These impacts will be mitigated by the creation of wetlands and/or retention area as necessary which will provide for floodwater storage and provide wildlife habitat. Steepening of roadway side slopes to 2:1 will reduce the area impacted, and roadway drainage will be designed to prevent adverse water quality impacts on the remaining system. These design features will prevent risk of

flooding and prevent long term loss of the natural community. No further involvement of base floodplain is expected for the Lake LeClare or Railroad Alignments.

6.3.5.5. South Termini Alignment (4,000' West of Dale Mabry Highway to Dale Mabry Highway)

The South Termini Alignment has two minor floodplain involvements prior to its end at Dale Mabry Highway (Fig. 6-14; Areas J and K). Design of the proposed expressway drainage system will accomodate stormwater quantities and prevent the risk of backwater from these floodplain encounters. Ongoing development in the area may preclude minor alignment shifts which would avoid these areas. The minor loss of natural vegetation is addressed in section 6.3.7.3.

6.3.5.6. North Termini Alignment (4,000' West of Dale Mabry Highway to Dale Mabry Highway.

The proposed North Termini Alignment has no floodplain involvement.

6.3.5.7. Summary of Floodplain Impacts

The area of the proposed project involves both low lying coastal areas and inland upland areas traversed by flow ways and historically contiguous wetlands systems. Much of this area is within base floodplains. Within the area of the proposed project, Northwest Hillsborough County, avoidance of floodplain involvement is not possible.

Floodplain involvements of the various alignments are similar with the exception of the longitudinal involvement of the Lake LeClare Alignment adjacent to Rocky Creek just north of Ehrlich Rd. (E3). Design features for this involvement are presented in sections 6.3.5.2 and 6.3.7.2.

Considering the local topography and hydrology of the area, avoidance of floodplain involvement is impossible with a project of this size. No alignment could avoid floodplain involvement. Current development trends in the area suggest that much floodplain involvement will occur in the project area, with or without the expressway. The impact of the proposed expressway on

flood risk and natural floodplain vegetation is likely to be less than that expected with uncoordinated development of the area.

The proposed project will encroach upon floodplains at 23 locations as shown in Table 6-8. The drainage engineer for the project used contour maps obtained from the Southwest Florida Water Management District and the Flood Insurance Rate Map to determine the amount of floodplain encroachment by calculating the amount of fill anticipated within the roadbed for each location. The proposed project will result in 69.32 acres of encroachment for the Eisenhower/West to Railroad to North Termini Alignment which is the alternative with the least area, and 76.2 acres of encroachment for the Eisenhower/West to Lake LeClare to South Termini which is the alternative with the greatest area (see Figure 6-14). Two longitudinal encroachments were identified: Area E3 adjacent to Rocky Creek north of Ehrlich Rd. on the Lake LeClare Alignment, and Area P2 northwest of Rock Lake on the Railroad Alignment. Design features discussed in Section 6.3.5.2 will prevent adverse backwater effects and a loss of floodwater storage at E3. The involvement at P2 is minimal and should not result in significant adverse backwater effects.

The only involvement of the proposed expressway with a regulated floodway is at Sweetwater Creek on the Eisenhower West Alignment (Area D). The expressway will cross this floodplain on structure, avoiding the risk of adverse backwater effects and preventing the loss of floodwater storage.

The remaining 20 involvements of the proposed expressway alignments with base floodplain are transverse. Area A is the coastal zone floodplain where a hurricane storm surge might be expected. The proposed expressway should not increase the risk to structures in this area. Areas B and C are both canal crossings, with which no significant risks are associated. Two transverse floodplain involvements occur at Rocky Creek (E1 and E2). Both areas will be crossed on structure, preventing any significant flood risk. The remaining areas of floodplain involvement are associated with wetlands areas. Areas H2, J and P4 will require less than $\frac{1}{2}$ acre of fill and are considered very minor with no significant associated risks. The remaining wetlands involvements (Areas F, G1, G2, H1, I, K, L, M, N, O, P1 and P3), although greater in area, should not result in significant adverse effects or increased flood risks, given the design considerations discussed in Sections 6.3.5.2, 6.3.5.3, 6.3.5.4 and 6.3.5.5.

None of the areas involved, including the longitudinal encroachment described above, will have any backwater flooding. The proposed project will be developed and be consistent with the standards specified in Federal Aid Highway Program Manual, Volume 6, Chapter 7, Section 3, Subsection 2. Best management practices will be used in design of the drainage facilities for the proposed project. Therefore, there should be no significant risk in any floodplain area along the proposed project due to increased backwater flooding. Mitigation designed for the loss of natural

floodplain communities described in sections 6.3.5 and 6.3.7 should prevent the loss of significant natural communities in the vicinity of the project. As Hillsborough County is in compliance with the National Flood Insurance Program, the proposed expressway will not promote incompatible floodplain development.

6.3.6 Coastal Zone Impacts

The Florida Coastal Zone Management Plan (FCZMP), National Oceanic and Atmospheric Administration and Florida Department of Environmental Regulation, 1981) is based upon the coordinated application of 27 existing statutes as required by the Coastal Management Act of 1978 (Ch. 380 F.S. Part II). The boundary of the program is the entire state, thus the entire proposed project falls under the requirement for consistency with the FCZMP. The act further requires compliance with existing dredge and fill rules as they relate to proper application for and approval of filling or excavation in state jurisdictional wetlands, per Ch. 17.4 F.S.

The State Clearinghouse has coordinated review of the Early Notification Package for the proposed project. Correspondence from the Office of the Governor (18 October 1984; see appendix) has provided comments pursuant to the Coastal Zone Management Act and has indicated conceptual compliance. A complete Federal Coastal Zone Management Act consistency review will be conducted during review of the Environmental Impact Statement.

6.3.7. Wetlands Impacts

The alignments for the proposed Northwest Hillsborough Expressway were investigated for wetlands impacts in compliance with Executive Order 11990 "Protection of Wetlands". A total of 73 sites were investigated. Table 6-9 lists the sites by number, providing classification, health and acreage. Locations of these sites are shown in Figure 6-15 and Figure 6-16. Figure 6-16 shows the wetlands site locations superimposed on the floodplain areas.

The wetlands to be traversed by the project include estuarine, palustrine, riverine, and lacustrine systems. Many of these wetlands have been altered by mans' activities; however, others were found in a natural state. The majority of wetlands have one or more of the qualities attributed to wetlands such as water quality benefits, erosion control, floodwater storage capacity, and wildlife habitats.

Field investigations of wetlands were conducted during March and April 1985. The time period was one of drought with water restrictions in force throughout the study area. Although wetlands were still easily identifiable by vegetative characteristics, exact water regimes were difficult to estimate. All available clues such as species composition and dominance, lichen lines, and water marks were used to determine water regime. The dry conditions during the study were represented in the vegetational community by the presence of upland annuals in the fringes of many wetlands.

6.3.7.1. Eisenhower/West Alignment (I-275 to 3,000' South of Gunn Highway)

Wetland involvement of the Eisenhower/West Alignment includes 3 types of systems: estuarine, palustrine, and riverine. Within each of these systems wetland type is further divided on the basis subsystem, class, subclass, water regime and water chemistry. Due to the large number of involvements, the discussion in this and other sections will center around major types with characters peculiar to individual wetlands pointed out.

There are seven estuarine systems on the Eisenhower/West Alignment which will be impacted by the proposed expressway (Fig. 6-15). Wetlands #2 and #3 are located on the west and east side respectively at the existing Eisenhower Boulevard crossing at Fish Creek. Both wetlands #2 and #3 are subsystem subtidal/intertidal. Wetland #2 is class Forested while #3 is scrub/shrub due to the smaller size of the dominant black mangrove (*Avicennia germinans*) vegetation. Vegetational communities at #2 and #3 are broad-leaved evergreen that receive irregular tidal inundation.

Table 6-9. Wetlands within the proposed alignments.

SITE	USFWS CLASSIFICATION	FDOT CLASSIFICATION	HEALTH	ACREAGE	ALIGNMENT IMPACTING
1	PEM1C	640	poor	0.10	Eisenhower
2	E1F03P/E2SS3P	612	fair	0.30	"
3	E12SS3P	612	poor	0.07	"
4	E2EM1P/E2SS3P	612-6421	fair	3.24	"
5	E2EM1P3/E2SS3P	642	fair	1.25	"
6A	E2EM1P	742-642	poor	2.32	"
6B	PEMIB	6412	poor	0.11	"
7	E2EMIP3	6412	poor	0.85	"
8	PEM1C	640	fair	0.39	"
9	PEM1C	640	poor	0.86	"
10	PEM1C	640	poor	0.57	"
11	PEM1C	640	fair	0.57	"
12	PEM1C	640	fair	0.14	"
13	PEM1C/R2AB		fair	0.09	"
14	PEM1C/R2AB		poor	0.35	"
15	PEM1C		poor	0.10	"
16	PEM1C	6412	poor	0.22	"
17	PEM1C	6412	fair	1.52	"
18	PEM1A	640	poor	0.13	"
19	R2AB5/PEM1C		fair	0.53	"
20	PFO2C	630	good	4.18	"
21	PFO2C	621	good	2.28	"
22	PFO2C	630	good	3.75	"
23	PFO2C/PEM1C	621	good	2.09	"
24	PFO2C	621	good	2.70	"
25	PFO2A/PEM1C	621-643	good	0.43	"
26	PFO2C	621	good	0.14	"
27	PFO2C	621	good	0.86	"
28	PFO2C/PEM1C	621	fair	0.89	"
29	PFO2C/PEM1C	621	good	0.09	"
30	PFO3C	630	fair	0.22	"
31	PFO1C	439	fair	0.63	"
32	PFO2C	621	good	2.34	"
33	PFO2C/2F	621	good	3.97	"
34	PFO2C	621	fair	0.30	"
35	PFO2C	621	fair	0.56	"
36A	PFO2C	621	fair	2.26	"
36B	POWC	724	poor	2.17	"
37A	R2UB2	615	fair	0.63	"
37B	R2UB2	615	fair	0.53	Lake LeClare
38	PFO2C	621	poor	0.72	"
39	PUB4C	742	poor	0.18	"
40	PFO2C	621	fair	0.31	"
41	PFO3C	611	fair	1.48	"
42	PFO2C	621	fair	0.59	"
43		n/a	n/a	0.16	"
44A	PFO2C	621	good	0.26	"

Table 6-9 continued.

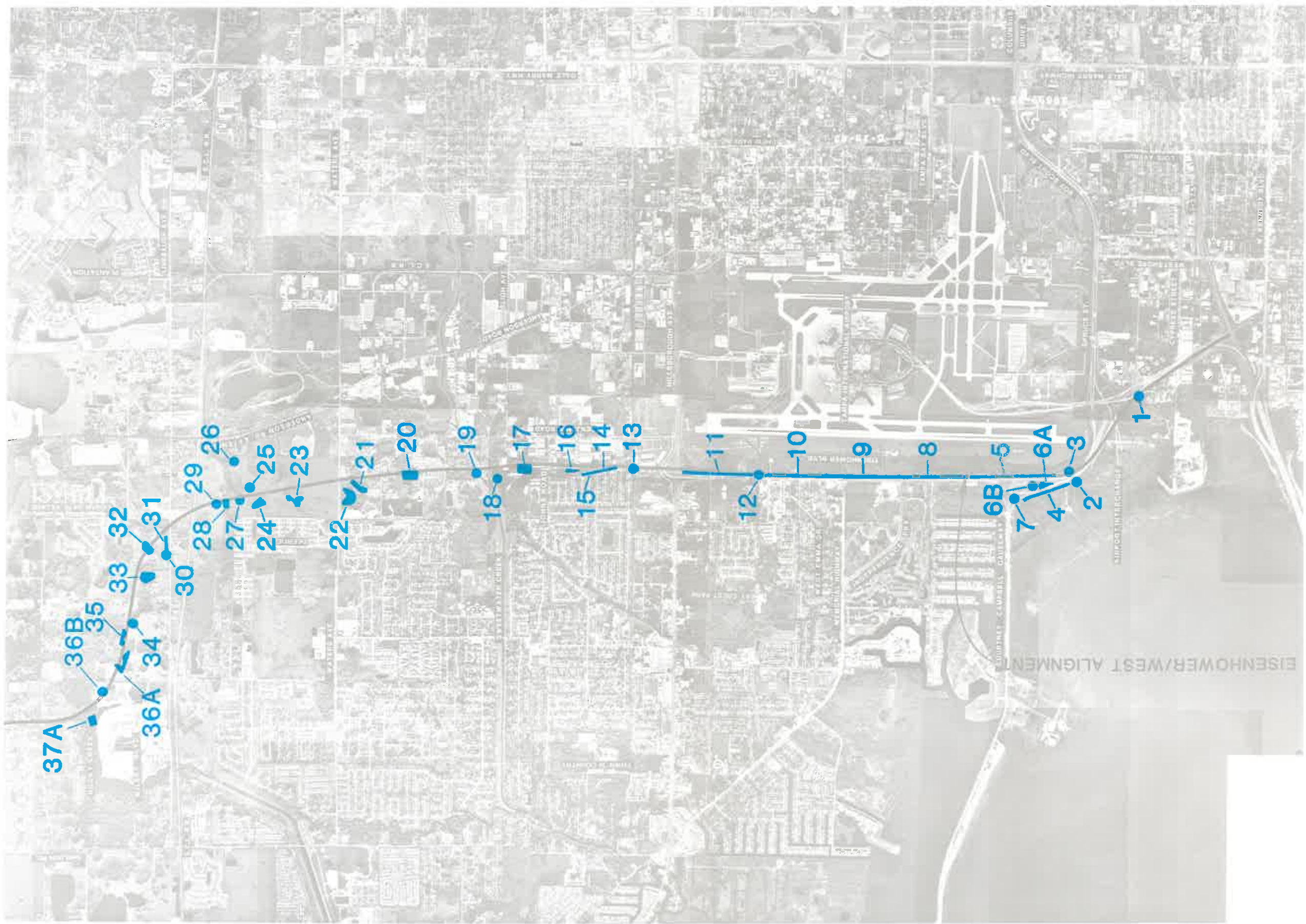
SITE	USFWS CLASSIFICATION	FDOT CLASSIFICATION	HEALTH	ACREAGE	ALIGNMENT IMPACTING
44B	L1AB4/L2AB4		good	0.39	Lake LeClare
45	PUB4H	742	poor	0.71	"
46	PUB4H	742	poor	0.48	"
47		439	n/a	0.16	"
48	PFO2C	621	fair	3.17	"
49	PFO2C	621	good	1.16	"
50	PAB5H	742	poor	0.28	"
51	PAB5H	6444	poor	0.14	"
52	PFO2C	621	good	3.01	"
53	PFO2C	621	poor	0.16	"
54	PFO2C	621	good	0.90	"
55		n/a	n/a	0.62	"
56A	PEM1C	641	fair	0.27	Lake LeClare/ Railroad/So. Termini
56B	PFO2C	621	good	3.19	"
57	PUB4C	742	poor	0.65	Lake LeClare/ Railroad
58	PFO2C	621	fair	0.21	"
59	PFO2C	621	fair	0.70	"
60A	PFO1B	630	fair	2.89	Railroad
60B				0.92	"
61	PFO2C	630	fair	2.45	"
62	PFO4B	411	n/a	1.32	"
63	PFO2C/PFO1B	621	good	0.79	"
64	PFO2C/PFO3B	630	good	2.75	"
65	PFO2C	621	good	0.23	"
66	PFO2C	621	good	1.38	"
67	PFO3C	621	fair	0.23	"
68	PFO2C/PEMIC	630	good	1.92	"
69	PFO2C/PEMIC	621	fair	0.41	"
70	PSS3C/PEMIC		good	1.75	"
71	PFO2CB	621	fair	0.53	"
72	PFO2C	621	poor	0.79	So. Termini
73		n/a	n/a	0.28	"

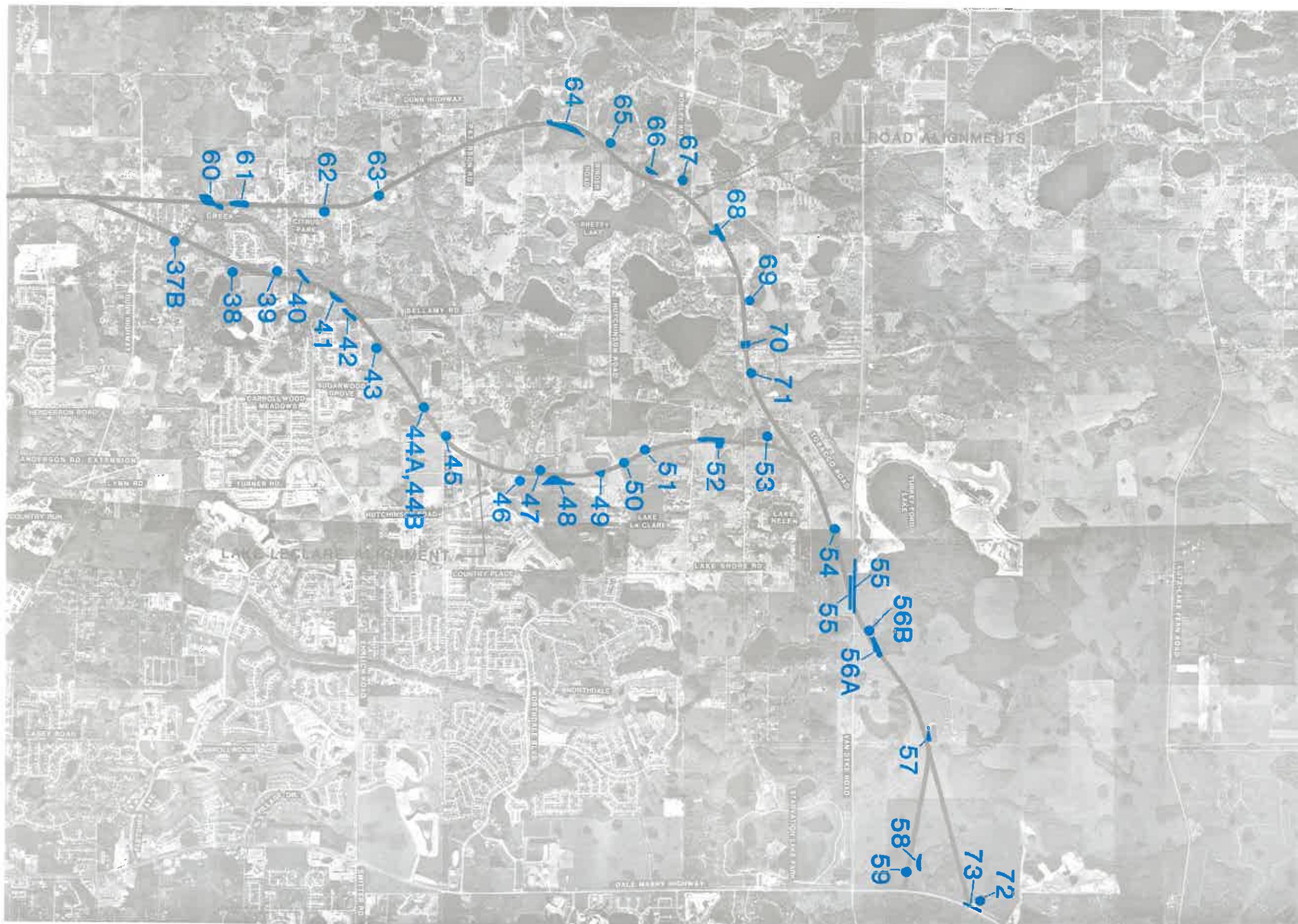
The proposed Eisenhower/West Alignment will result in a loss of 0.37 acres of wetland at sites #2 and #3 combined. The existing mangrove fringe at these two sites includes marsh elder (Iva frutescens), saltbush (Baccharis halimifolia), with chaff flower (Alternanthera maritima) and seaside paspalum (Paspalum distichum) common in the understory. Although mangrove areas are typically high in productivity, sites #2 and #3 have been heavily impacted by the foot traffic of local fishermen. Moving east or west from wetlands #2 and #3, the remaining wetlands are healthier (i.e., larger, denser mangroves). Wetlands contiguous to #2 and #3 extend approximately 600' to the bay and wetland #5 is contiguous to the Fish Creek system approximately 150' to the east of wetlands #2 and #3. To mitigate the impact of the proposed expressway on wetlands #2 and #3 it is recommended that access to the remaining adjacent system be restricted. This would allow the adjacent remaining system to become more productive, in the absence of heavy pedestrian use, and provide the benefits presently contributed by wetlands #2 and #3.

Wetlands #4, #5, #6A and #7 (Fig. 6-15) are also estuarine, intertidal with emergent persistent vegetation, and with irregular tidal flooding by brackish water. In addition to emergent persistent vegetation, wetlands #4 and #5 also contain numerous black mangroves (Avicennia germinans) and marsh elder (Iva frutescens), giving them a scrub/shrub character. Wetland #6 is a retention pond, the shores of which are vegetated with Fimbristylis castanea, Eleocharis sp. (spike rush), Spartina alterniflora (smooth cordgrass), Solidago sempervirens (goldenrod), A. germinans, and Rhizophora mangle (red mangrove). The mangroves and smooth cordgrass are experimental plantings by the Fla. Dept. of Transportation. Spartina alterniflora is the dominant vegetation in wetland #4, having been planted as mitigation associated with the Bayport development. Wetland #7 differs from #4, #5 and #6A in that road maintenance personnel mow the vegetation periodically to keep the ditch unobstructed.

Impact to wetland #4 might result in a loss of 3.24 acres of valuable feeding habitat for shore birds and wading birds. The proposed Eisenhower/West Alignment would potentially impact 4.42 acres of wetlands in #5, #6A and #7. Impacts to #5, #6A and #7 will be mitigated by recreation of these systems as part of the revised drainage plans. Parts of #5, #6A and #7 may be unaltered by the proposed alignment and not require mitigation. Although wetland #4 lies within the proposed right-of-way, the proposed road alignment lies just east of this wetland area and should have minimal impact on the actual wetland area. Care during construction should eliminate the loss and need for mitigation of wetlands at site #4.

Wetlands #1, #6B, #8, #9, #10, #11, #12, #13, #14, #15 and #16 are palustrine, emergent marshes with persistent vegetation and water regimes from temporary to seasonal (Fig. 6-15). Common species in these wetlands include Typha domingensis (southern cattail), Hydrocotyl umbellata (marsh pennywort), Ludwigia spp. Cyperus





LEGEND

— ALIGNMENT ALTERNATIVES

54 WETLAND SITE LOCATIONS



FIGURE 6-15



LEGEND




-  ALIGNMENT ALTERNATIVES
-  100 YEAR FLOOD BOUNDARIES
- 54**  WETLAND SITE LOCATIONS

FIGURE 6-16

spp., (sedges), Juncus effusus (soft rush), Sagittaria lancifolia (arrowhead), and Panicum repens (torpedo grass) as the most common grass. All of these systems are drainage ditches or swales which receive some highway runoff.

These vegetated drainage ditches provide for stormwater retention, wildlife habitat for birds (mostly Red-winged Blackbirds), and some water quality benefits. However, periodic removal of vegetation from wetlands #1, #6B, #8, #9, #10, #11, #12, #13, #14 and #15 reduces the value of these sites. Design of the drainage system for the proposed expressway should provide for complete replacement of the 3.41 acres lost due to impact on wetlands #1, #6B, #8, #9, #10, #11, #12, #13, #14, #15 and #16. The new drainage system should provide the same environment for wetlands as provided by the present system, thereby resulting in no net loss of wetlands value due to impacts on wetlands #1, #6B, #8, #9, #10, #11, #12, #13, #14, #15 and #16.

Wetlands #17 and #18 are also palustrine, emergent marsh with persistent vegetation that are either temporarily or seasonally flooded (Fig. 6-15). Wetland #17 was formerly a shallow borrow pit presently dominated by Typha domingensis (southern cattail) and Ludwigia peruviana with Myrica cerifera (wax myrtle) and Acer rubrum (red maple) also common. Other tree species include Salix caroliniana (Carolina willow) and Quercus laurifolia (laurel oak), with Salvinia rotundifolia (water fern) and Azola caroliniana (mosquito fern) common on the water surface. Wetland #18 is an irrigation pond with less diversity than wetland #17. Dominant vegetation is Hydrocotyl umbellata (marsh pennywort), Proserpinaca pectinata (mermaid weed) and Lippia nodiflora (creeping Charlie). Lack of diverse vegetation structure at site #18 reduces its value as wildlife habitat, while the diverse vegetation structure at site #17 provides a variety of wildlife habitats. The occurrence of this productive marsh area (wetland #17) in a developed area provides a refuge for some species of wildlife. Few habitats of this type are available in the area. Both systems have been altered by man; however, the 1.52 acres of site #17 to be impacted (37% of total system) are comparable to many natural systems and the loss will be mitigated by creation of emergent marsh. Alignment of this mitigation area within the proposed right-of-way contiguous to the remaining unimpacted portion of the system would provide mitigation for the wetland loss. The loss of 0.13 acre at site #18 (approximately 30% of the total) will not result in a significant loss of wetlands values and no mitigation is expected for this site.

Another wetland type commonly encountered on the proposed Eisenhower/West Alignment is forested, needle-leaved deciduous, with seasonal to semi-permanent water. Wetlands #20, #21, #22, #24, #26, #27, #29, #32, #33, #34, #35 and #36A are all classified as such and total 23.34 acres (Fig. 6-15). In addition to the above-mentioned wetlands, #23 and #29 are classified the same, but also include emergent marsh species such as Lachnanthes caroliniana (redroot, #29) and Typha domingensis (southern

cattail). These cypress swamps are generally in good condition in spite of their location in a developing area.

These wetlands (#20, #21, #22, #23, #24, #26, #27, #29, #32, #33, #34, #35 and #36A) are typically dominated by Taxodium distichum (bald cypress), with Myrica cerifera (wax myrtle), Persea palustris (swamp bay) and Ilex spp. common. Ferns are common groundcover at these sites with Osmunda regalis (royal fern), O. cinnamomea (cinnamon fern), Woodwardia virginica (chain fern) and Blechnum serrulatum (swamp fern) commonly encountered. Several of these sites contain Nyssa sylvatica var. biflora (black gum) and little evidence suggests invasion by exotics.

In general, healthy cypress swamp wetlands similar to sites #20, #21, #22, #23, #24, #26, #27, #29, #32, #33, #34, #35, and #36A provide many benefits to the local environment. The diversity of the systems listed above provide a variety of habitats for avifauna, herpetofauna, and small mammals. These sites mentioned above are isolated systems and would not be expected to meet the habitat requirement of larger mammals such as deer. Total area of the impact at the 13 sites is 25.52 acres.

Impacts to some of these wetland sites -- #24, #32, #33 -- will result in a reduction of wildlife habitat and floodwater storage capacity in the vicinity of the project. Impacts to these wetland sites will result in a substantial loss of the existing system for wetlands #24, #32 and #33. Little valuable wetland would remain at these sites. The proposed expressway would take greater than 75% of the total system at each of these sites, leaving only small isolated areas with few wetland attributes. Therefore, wetlands impact at these sites should be mitigated by recreation of wetlands in this area. Consideration will be given to using a single site to mitigate impacts at these three sites (#24, #32, #33). A large recreated site would have more benefits than three small sites, particularly with respect to habitat value.

The loss of wetlands at sites #20, #21, #22, #23 and #36A are each less than 50% of the total system. At sites #20 and #36A, the proposed expressway would bisect the wetlands system. The remaining systems at these sites should remain viable. In order to mitigate for the wetlands losses at sites #20 and #36A, enhancement or addition to the remaining systems is recommended. Sites #21 and #22 are both part of the same system. This system (excluding sites #21 and #22) should remain viable with the proposed project. As with sites #20 and #36A, enhancement and/or additional plantings adjacent to the remaining system would provide appropriate mitigation.

The impact on sites #26, #27, #29, #34 and #35 will result in less than 25% loss of the total systems. The systems remaining at each of these sites should remain viable. As the impacts to these

systems are small in area, enhancement or additional planting contiguous with the remaining systems will provide mitigation.

The proposed Eisenhower/West Alignment will impact 4 additional forested wetlands. Sites #25 and #28 (Fig. 6-15) are characterized by a common occurrence of Taxodium distichum (bald cypress), but transitional species such as Myrica cerifera (wax myrtle) and Quercus laurifolia (laurel oak) are more common than in the sites discussed previously. This indicates that the water regime is closer to temporary than seasonal. The vegetation at site #31 also indicates a shorter period of inundation than at the seasonally flooded wetlands. Quercus laurifolia (laurel oak) and Myrica cerifera (wax myrtle) codominate in the canopy and understory with Osmunda spp. (ferns) common as groundcover. Site #30 is similar with the addition of Taxodium distichum (bald cypress) and Pinus elliotii (slash pine) as occasional members of the overstory.

The condition of sites #25 and #28 is good, with high species richness. Sites #30 and #31 are less diverse; however, they are both still functional systems. Primary loss of wetland value due to impacts on sites #25, #28, #30 and #31 would be loss of wildlife habitat, particularly as bird nesting sites. Revegetation or restoration of man-altered systems in the vicinity will provide mitigation for the 2.17 acres of impact at sites #25, #28, #30 and #31.

The only additional palustrine system to be impacted by the proposed Eisenhower/West Alignment is the open water, permanently flooded site #36B. This site is at present an unvegetated retention pond with little wetland value other than floodwater storage. The 2.17 acre impact at this site should not result in reduction of the wetland resources of the vicinity; however, design considerations will be necessary to prevent loss of the water storage capacity of this site.

Three sites within the proposed Eisenhower/West Alignment are riverine systems. Sites #13 and #19 are classified as lower perennial aquatic bed, but also contain emergent marsh species such as Typha domingensis (southern cattail) and Pontederia cordata (pickerelweed). These two sites are part of Sweetwater Creek which is channelized. Vegetation is concentrated on the creek banks; however, aquatic bed species such as Alternanthera philoxeroides (alligator weed), Ludwigia repens (red ludwigia), Myriophyllum braziliensis (parrot feather), Ceratophyllum demersum (coontail) and green algae are common at both sites.

The canal banks of these channelized portions of Sweetwater Creek (sites #13 and #19) are periodically mowed to remove vegetation, reducing the value of these sites as wildlife habitat. The aquatic vegetation undoubtedly provides cover for fishes, but the impact of 0.62 acres at these two sites is not expected to significantly affect local fish populations. The proposed alignment will cross sites #13 and #19 on structure, which may

allow the aquatic vegetation to persist. The impact at these two sites should be minimal and no mitigation is expected.

The final site to be impacted by the proposed Eisenhower/West Alignment is site #37A (at Rocky Creek; Fig. 6-15). Site #37A is riverine, lower perennial, unconsolidated bottom of sand. Some Vallisneria neotropicalis (tape grass) and Potamogeton sp. (pondweed) occur on the creek bed. The creek floodplain is dominated by Fraxinus pennsylvanica (red ash) with Quercus laurifolia (laurel oak) also contributing to the overstory. Approximately 0.63 acres of this creek floodplain area may be impacted by the proposed Eisenhower/West Alignment. Crossing site #37A on structure should minimize the impact at this site. Loss of wetlands value due to the impact at site #37A will be primarily due to loss of wildlife habitat in the adjacent transitional floodplain forest. Crossing the creek on structure should minimize the impact to site #37A and prevent the need for mitigation.

6.3.7.2. Lake LeClare Alignment (3,000' South of Gunn Highway to Van Dyke Road)

The proposed Lake LeClare Alignment involves a variety of wetlands types including riverine, lacustrine and palustrine systems. The most common type of wetland system within this alignment is the palustrine, forested, needle-leaved deciduous with seasonal inundation or cypress swamp.

Wetland site #37B at Rocky Creek is the only riverine system which would be impacted by the proposed Lake LeClare Alignment (Fig. 6-15). This system is lower perennial, unconsolidated bed of sand. The site consists of the creek bed and associated transitional floodplain forest. Ceratopteris sp. (water horn fern) and Hygrophila polysperma occur on the creek bed; Lemna valdiviana (duckweed) and Salvinia rotundifolia (water fern) are occasional on the water surface. The floodplain forest is dominated by Nyssa sylvatica var. biflora (black gum) with Taxodium distichum (bald cypress) and Quercus laurifolia (laurel oak) common in the overstory. Several species contribute to groundcover with no real dominant, including Osmunda cinnamomea (cinnamon fern) and Blechnum serrulatum (swamp fern).

This site provides a variety of wildlife habitats due to the high vegetational diversity and association with the creek. Panfish in the creek, small mammals, birds and herpetofauna on the floodplain can all be expected to utilize this site. Filtration of runoff as it passes through the floodplain forest undoubtedly provides water quality benefits.

In order to preserve the beneficial attributes of site #37B the proposed Lake LeClare Alignment will cross the creek on

structure. Clearing of the floodplain will be limited to the area necessary for construction of the structured crossing, thereby minimizing the adverse impacts on this 0.53 acre site. Design consideration will control highway runoff to prevent water quality impacts.

Sites #38, #40, #42, #44A, #48, #49, #52 and #54 are all palustrine, forested with needle-leaved deciduous vegetation that is seasonally inundated (Fig. 6-15). Sites #40 and #42 are associated and contiguous with the Rocky Creek floodplain and sites #38, #44A and #49 are associated with drainage into small lakes which are common in this area. Sites #48 and #52 are portions of larger cypress swamp wetlands while site #54 is isolated in the middle of a pasture. Site #38 is the only one of these in poor condition, probably due to its bisection by a power easement and fire damage.

The overstory at each of these sites (#38, #40, #42, #44A, #48, #49, #52, #54) is dominated by Taxodium distichum or T. ascendens (cypress) with Persea palustris (swamp bay), Magnolia virginiana (sweet bay), Nyssa sylvatica var. biflora (black gum) and Quercus laurifolia (laurel oak) common to many of the sites. Understory species commonly include Myrica cerifera (wax myrtle), Cephalanthus occidentalis (buttonbush) and Ilex cassine (dahoon holly). Osmunda cinnamomea (cinnamon fern), O. regalis (royal fern), Blechnum serrulatum (swamp fern) and Panicum spp. (grass) are common groundcover. The epiphytes Tillandsia recurvata (ball moss) and T. usneoides (Spanish moss) are also common throughout.

Each of these cypress swamp wetlands provides habitat for wildlife including Wood Ducks and other avifauna, small mammals, and herpetofauna. Although sites #48 and #52 are part of large contiguous tracts, the advance of development in the area makes it unlikely that any large mammals are present. Sightings of Florida Sandhill Cranes in the vicinity of wetlands sites #52 and #54 suggest that swamp margins in this area may be used as nesting sites by these birds.

The impact at wetlands #48 and #52 will affect small portions (5% and 15% respectively) of the entire systems, which should remain viable following construction. The impact at site #52 will bisect the existing system. Culverts will be used to maintain the hydric connection and maintain viability of the two remaining parts. The impact at site #48 will be on the edge of the remaining system. Loss of wetlands vegetation at sites #48 and #52 may be mitigated by enhancing (through drainage changes) the remaining fair quality wetland adjacent to site #48 and/or by creating additional wetland (though excavation to wetland elevation, and planting if necessary after one year) adjacent to the system associated with site #52.

Those sites contiguous with lakes or Rocky Creek (#38, #40, #42, #44A and #49) provide water quality benefits by treating runoff prior to its entering the receiving body. All of these systems also provide storage of stormwater. The proposed Lake LeClare

Alignment, if chosen, would impact 10.12 acres of cypress swamp. In order to mitigate the loss of wetlands benefits due to the impact of the Lake LeClare Alignment on sites #38, #40, #42, #44A and #49, several steps will be taken. Precaution in design and construction will be taken to prevent degradation of water quality in the associated receiving water bodies. These precautions will include, but not be limited to, proper design of retention areas and the use of turbidity constraints during filling and excavating.

The loss of wetlands vegetation at sites #38, #40 and #42 will be mitigated by creation of wetlands. The wetlands systems associated with these sites should remain viable with the proposed expressway. Sites #38 and #40 are both associated with Rocky Creek, while the impacts at site #42 will leave 1.2 acres of isolated cypress head. It is recommended that the mitigation for loss of vegetation at these sites be combined and located in the vicinity of Rocky Creek.

The impacts of the proposed Lake LeClare Alignment on wetland sites #44A and #49 result in a small loss (less than 10%) of the existing systems, which will remain viable if the precautions mentioned above (two paragraphs) are followed. At site #44A culverts will be used to prevent isolation of the remaining wetland from its outfall into Lake Holly. Mitigation for vegetation/habitat losses will be provided adjacent to the remaining systems.

Two additional palustrine forested wetlands systems will be impacted by the Lake LeClare Alignment. Site #41 is broad-leaved evergreen, seasonally flooded, and site #53 is needle-leaved deciduous, only temporarily flooded. Site #53 was formerly a healthy cypress swamp; however, filling (most likely by the adjacent home owner) has eliminated the understory completely. The 0.16 acre loss of wetland at site #53 will not affect the wetland resources of the area and no mitigation is planned.

Wetland site #41 is dominated by Persea palustris (swamp bay), with Taxodium distichum (bald cypress) and Quercus laurifolia (laurel oak) also contributing to the overstory. Osmunda cinnamomea (cinnamon fern) and Serenoa repens (saw palmetto) are the dominant groundcover, with Myrica cerifera (wax myrtle) and Baccharis halimifolia (saltbush) common in the understory.

The health of the wetland system at site #41 is good, and this site provides valuable wildlife habitat and water quality benefits; 1.48 acres may be impacted at site #41. Although this site is only a small part of the Rocky Creek floodplain forest, mitigation should include those elements mentioned above in connection with sites #38, #40 and #42.

Five additional palustrine systems are likely to be impacted by the Lake LeClare Alignment. Sites #39, #45 and #46 have unconsolidated bottoms of organic material. Vegetation at these sites is limited to a littoral fringe and the water regime is seasonal to permanently flooded. These wetland sites might best be characterized as cattle ponds or unvegetated borrow pits. All three are isolated and the 1.37 acres impacted should have no effect on the wetlands resources of the area. No mitigation is recommended.

The other two palustrine sites, #50 and #51, are aquatic bed with floating vegetation, Salvinia rotundifolia (water fern) and Lemna sp. (duckweed). Both sites are situated in an orange grove and periodically used as burn ditches by grove workers. Both are highly disturbed isolated systems with little beneficial value as wetlands. The loss of sites #50 and #51 should have little impact on the wetland resources of the area. Both are part of the same 5.0 acre system which can be restored to provide mitigation for impacts to these sites.

Site #44B is the only lacustrine system within the study area. It is both limnetic and littoral with floating leaved vegetation. Although the area of site #44B within the Lake LeClare Alignment is only 0.39 acre, much more of the limnetic system might be impacted by the proposed alignment. Site #44B connects vegetatively to site #44A with a hydric connection during periods of high water. This site provides both water quality benefits and increases the diversity of wildlife habitats associated with Lake Holly. In order to minimize impacts to sites #44A and #44B and Lake Holly, culverts will be used to maintain the connection between these systems. Proper design of roadway drainage and retention areas will be necessary to prevent adverse water quality effects on site #44B and the rest of Lake Holly. Wetlands created as part of the proposed expressway drainage system should replace much of the lost habitat (0.65 acre). During construction, best management practices for the control of turbidity will be used to reduce the possibility of adversely affecting the remainder of Lake Holly.

Three additional sites were considered within the proposed Lake LeClare Alignment for potential wetland impacts. Site #43, formerly a willow pond, is no longer present due to site preparation for the Mandarin Lakes Estates subdivision. Sites #47 and #55 were found to be dominated by upland vegetation and should not be considered as wetlands.

6.3.7.3. Railroad Alignment (3,000' South of Gunn Highway to Van Dyke Road)

The majority of wetlands sites within the proposed Railroad Alignment are palustrine forested with needle-leaved deciduous vegetation and seasonally flooded (sites #61, #63, #64, #65, #66,

#68, #69 and #71). These sites are typically dominated by Taxodium distichum (bald cypress) with one or more additional overstory species such as Persea palustris (swamp bay) or Nyssa sylvatica var. biflora (black gum). Understory species at these sites commonly include Myrica cerifera (wax myrtle), Cephalanthus occidentalis (buttonbush), Ilex cassine (dahoon holly) and Lyonia lucida (fetterbush). Ground cover is frequently dominated by ferns, particularly Osmunda regalis (royal fern), O. cinnamomea (cinnamon fern) and Blechnum serrulatum (swamp fern).

Emergent marsh vegetation is found in association with sites #68 and #69, most commonly Pontederia cordata (pickerelweed), Lachnanthes caroliniana (redroot), and some Nymphaea odorata (pond lily). All these sites (#61, #63, #64, #65, #66, #68, #69 and #71) are in fair to good health and contribute significantly to wildlife habitats and improved water quality due to vegetative filtration. They also provide for stormwater retention and are part of the base floodplain (see Section 6.3.5).

A total of 13.64 acres will be impacted by the proposed Railroad Alignment at these sites (#61, #63, #64, #65, #66, #68, #69, #71). At sites #65 and #69, the proposed expressway would abut the edge of the existing wetlands community but should not affect a large portion of the wetlands at these sites. At sites #61, #63, #64, #66, and #69 the proposed Railroad Alignment would have a greater impact at each site, but only the impact at site #63 is greater than 10% of the remaining system.

It is recommended that mitigation for loss of vegetation at sites #68, #69 and #71 be combined. The mitigation should include the creation of cypress and/or bay head areas which will be contiguous with to Rocky Creek system. Mitigation for wetlands losses at sites #61, #64, #65 and #66 should also consist of wetlands creation, this to be located adjacent to the remaining systems near the site of impact. Exact locations and configuration will be determined through coordination with regulatory agencies. It is suggested that mitigation for losses at site #63 be combined with one or more of the above areas.

Three additional palustrine forested wetlands systems occur within the proposed Railroad Alignment. Site #67 is broad-leaved evergreen dominated by Persea palustris (swamp bay). Site #60 is broad-leaved deciduous dominated by Acer rubrum (red maple), and site #62 is needle-leaved evergreen best characterized as upland pine flatwood. Site #62 has saturated soils while sites #60 and #67 are more likely seasonally inundated. Sites #60 and #67 are both in fair health, providing wildlife habitat, floodwater storage and water quality benefits associated with wetlands systems. Loss of wetlands attributes at site #60 and #67 will be mitigated by improving drainage and hydroperiod of the remaining system associated with site #60. This will include culverting to maintain the connection of this system to Rocky Creek.

The final wetland site which will be impacted by the Railroad Alignment is site #70. This site is palustrine scrub/shrub vegetated with broad-leaved evergreens and is temporarily to seasonally flooded. Site #70 is situated at the base of a large, somewhat disturbed, emergent marsh which provides drainage into the north end of Rock Lake. The primary benefit of this site may be to provide filtration of surface runoff prior to its emptying into Rock Lake, although some wildlife habitat is also provided, especially for wading birds.

In order to reduce the adverse impacts of the proposed Railroad Alignment to site #70, the expressway will cross this area on structure as necessary (see section 6.3.5.3) to prevent blockage of the flow into Rock Lake and reduce the wetland area impacted. Drainage considerations will prevent the degradation of water quality. The area of impact at site #70 will be less than the 1.75 acres included within the right-of-way. Mitigation for impacts at this site will include restoration of disturbed areas within the adjacent wetland.

6.3.7.4. Lake LeClare or Railroad Alignment (Van Dyke Road to 4,000' West of Dale Mabry Highway)

Between Van Dyke Road to 4,000' west of Dale Mabry Highway, the proposed Lake LeClare and Railroad Alignments are the same. In this area the alignments will impact three wetlands, all of which are palustrine systems.

One of these sites (#56B) is palustrine, forested with needle-leaved deciduous vegetation that is seasonally inundated. Site #56B is part of the large contiguous swamp forest which connects to Turkey Ford Lake. Site #56B is in good health.

Wetland site #56B is dominated by Taxodium ascendens (pond cypress). Persea palustris (swamp bay) contributes to the overstory, and Cephalanthus occidentalis (buttonbush) and Myrica cerifera (wax myrtle) comprise the understory at all three sites. Groundcover at site #56B is dominated by Blechnum serrulatum (swamp fern) with Osmunda regalis (royal fern) and Panicum sp. (grass) also common.

Due to its diverse vegetation and association with the large Turkey Ford system, site #56B is expected to provide habitat to a wide variety of wildlife. Deer and turkey have been observed in the vicinity, and more common birds and mammals are expected to use the area as well. The 3.19 acres to be impacted by the proposed alignments at site #56B are a small portion of the total Turkey Ford system, but do represent a valuable wetland resource.

In order to reduce the area of impact at site #56B, roadway side slopes will be steepened to 2:1. Even with this reduction in

impact, a loss of wildlife habitat will occur. Revegetation will help to provide wildlife habitats, and will also contribute to floodwater storage and water quality improvements. Design consideration will control highway runoff to prevent degradation of the remaining natural Turkey Ford system.

Two additional wetland sites occur on the Railroad/Lake LeClare Alignment in this area. Site #56A is a palustrine, emergent marsh with persistent vegetation and seasonal inundation. Only a berm separates this system from the Turkey Ford swamp. Typha latifolia (cattail) is the dominant vegetation with Nuphar luteum (spatterdock), Eleocharis sp. (spike rush), Juncus scirpoides (rush) all common. A small area dominated by Taxodium ascendens (pond cypress) abuts the pond on the south. This emergent marsh system provides certain habitats not available in the adjacent swamp forest system. Although originally man-made, this system (#56A) contributes to the wetlands resources of the area.

The proposed alignments will impact 0.27 acre at site #56A. Connecting the unimpacted portion of this system to the Turkey Ford swamp system would provide mitigation by allowing greater regulatory protection of the remaining system. It might also be expected to provide additional water quality benefits and wildlife habitat by vegetation of this connection.

The final wetland involvement of these proposed alignments is site #57. This palustrine system with unconsolidated bottom of organics is seasonally flooded. Best characterized as a sparsely vegetated farm pond, this site contributes little to the wetland resources of the area. Present plans by the property owner are to expand site #57 into a borrow pit. The loss of 0.65 acre at site #57 is not considered significant and no mitigation is recommended.

6.3.7.5. North Termini Alignment (4,000' West of Dale Mabry Highway to Dale Mabry Highway)

The proposed North Termini Alignment is expected to impact four sites which were investigated as wetlands. Site #73 was determined not to be wetland as it is presently dominated by Paspalum notatum (Bahia grass). Two of the sites to be impacted by this alignment are #56A and 56B, which are also impacted by the Railroad/Lake LeClare Alignment and are discussed in Section 6.3.7.4.

The only wetland site unique to the proposed North Termini Alignment is site #72. Like sites #58 and #59 on the South Termini Alignment, site #72 has recently burned. The vegetative species composition is also similar. In its present condition, the 0.79 acre at site #72 is not expected to contribute significantly to the wetlands resources of the area.

6.3.7.6. South Termini Alignment (4,000' West of Dale Mabry Highway to Dale Mabry Highway)

Two wetland sites, #58 and #59, occur within the proposed South Termini Alignment. Both are isolated cypress heads which have recently been burned. Impact at site #58 would affect 10% of the natural system while impact at site #59 would affect 70% of the system.

Fire has adversely impacted these sites repeatedly in the recent past. As such, much of the understory in these systems is lacking. Lack of vegetative cover, except for overstory, makes sites #58 and #59 relatively poor habitat compared to other nearby wetland systems. The impacts of the proposed expressway on these two sites is not expected to be significant. Enhancement (understory planting) of the remaining systems is recommended as mitigation for wetlands losses at these sites.

6.3.7.7. Summary of Wetlands Impacts

The proposed Northwest Hillsborough Expressway contains much wetlands involvement. Considering the general location of the alignments, wetlands involvement is unavoidable. Preliminary studies allowed alignment choices which avoided many of the most valuable wetlands within the study corridor, but could not avoid involvement completely. The "no build" alternative is the only one that avoids wetland involvement.

Total wetlands involvement of the entire project will be approximately 65 acres. Table 6-9 summarizes the acreage of involvement for each of the complete alignment combinations. Of the 65 acres of wetland involvement, about 10% are part of existing highway drainage. Mitigation for these wetlands impacts will be easily provided by the drainage system for the proposed expressway. The drainage system for the proposed expressway will include much more wetlands area than the existing highway drainage being impacted, and portions of this excess will be used to mitigate wetland losses in natural systems impacted by the proposed expressway.

A comparison of the various alignment possibilities suggests that no significant difference in wetland involvement exists. Although the Lake LeClare Alignment has less acreage involvement than the Railroad Alignment, the Lake LeClare involvement in the vicinity of Lake Holly (sites #44A and #44B) is likely to be more significant than the acreage would indicate. All other involvements of these alignments are likely to have similar impacts.

Another consideration in determining the wetlands impacts of various alignments is the potential for additional impacts

TABLE 6-10
SUMMARY OF WETLANDS INVOLVEMENTS

ALIGNMENT	ACRES OF INVOLVEMENT
Eisenhower/West to Lake LeClare to North Termini	64.79
Eisenhower/West to Lake LeClare to South Termini	64.63
Eisenhower/West to Railroad to North Termini	66.63
Eisenhower/West to Railroad to South Termini	66.79
No Build	0

associated with development along the expressway corridor. Rapid development in the vicinity of the Eisenhower/West and Lake LeClare Alignments is presently occurring. Current development trends suggest that even without the expressway, development will occur along each of the alignments in the near future. The present permitting practices of state and local agencies are preventing most significant wetlands impacts due to development. Permitting requirements typically call for 2:1 or 1:1 creation of wetland for fill of wetland.

Mitigation for wetlands impacts will take many forms including wetlands areas created as part of the proposed expressway drainage and/or stormwater facilities, enhancement of currently stressed systems in the vicinity of the project (includes drainage/flooding improvement), and wetlands creation from upland. It is suggested that creation of wetlands include excavation, placement of organic soils, and planting of native wetland species. Other measures which will minimize impacts include crossing select wetlands on structure, steepening roadway side slopes, and making minor alignment shifts where possible to avoid wetland involvement.

The text outlines appropriate mitigation for the anticipated impacts at each of the wetland sites. It is expected that the proposed project will result in a net loss of forested wetlands. Wetlands creation outlined in the above sections should minimize this loss. The construction of the proposed expressway drainage/-stormwater system will no doubt lead to a net gain in emergent marsh systems.

During final design the recommendations discussed here will be refined in conjunction with state and local regulatory agencies to include those elements required to obtain the necessary dredge and fill permits. Detailed survey information including elevations, ordinary high water and normal pool of wetlands adjacent to proposed mitigation areas will be necessary to finalize mitigation plans.

6.3.8. Water Quality Impacts

The northwestern portion of Hillsborough County in the vicinity of the proposed expressway is dotted with wetlands and small lakes. Without proper controls in design and construction, runoff from the proposed facility might be expected to influence water quality of adjacent waters. In addition to the wetlands and lakes in the area, the proposed expressway will cross Fish Creek, Sweetwater Creek, and Rocky Creek.

Few data on existing water quality of the lakes in the region are available. The Southwest Florida Water Management District (SWFWMD) is presently conducting a study which should provide water quality data on Rocky and Brushy Creeks and the lakes in the associated drainage basins.

The Hillsborough County Environmental Protection Commission (HCEPC) has collected water quality data on Fish, Rocky, and Sweetwater Creeks since 1973. Their sampling stations are at Eisenhower Blvd., Hillsborough Ave., and Memorial Blvd. respectively. Their data suggest that although all three creeks are designated Class III waters of the state, periodic violations of the Class III water quality standards occur at both Rocky and Sweetwater Creek. Typically, the dissolved oxygen concentrations at the HCEPC sampling stations are less than 4.0 mg/l at both Rocky and Sweetwater Creek.

In attempting to explain the low dissolved oxygen levels at Rocky and Sweetwater Creek, the HCEPC data suggest that the introduction of domestic sewage in the upper portions of these creek drainage basins contributes to the low dissolved oxygen levels. Additionally, runoff from forested wetlands and agricultural areas are often high in organics, contributing further to reduced oxygen levels.

Another recent study of Sweetwater Creek by SWFWMD suggests that at Anderson Rd., Waters Ave. and Linebaugh Ave. the creek has acceptable dissolved oxygen levels. In conjunction with HCEPC data, this suggests that the Hillsborough Northwest Sewage Treatment Plant may contribute significantly to biological oxygen demand (BOD) in Sweetwater Creek.

Although few water quality data are available for lakes, observation allows some prediction of water quality characteristics in the vicinity of the proposed expressway. The lakes in the vicinity of the project vary from clear water lakes similar to Rock Lake near the north end of the Railroad Alignment to lakes heavily influenced by tannin-containing swamp runoff such as Pretty Lake. In general, as with most shallow Florida lakes, the lakes in the vicinity of the proposed expressway are most likely eutrophic. Those receiving runoff from agricultural or heavily developed areas might be highly eutrophic. Observation of algal blooms at Lake Barbara and Lake Holly suggest that this

might be the case. Both of these lakes are small and bordered by a horse farm and chicken farm respectively.

Given the existing water quality conditions in the vicinity of the proposed Northwest Hillsborough Expressway, precautions will be taken to ensure that no additional adverse effects on water quality due to the proposed project occur.

During construction, Best Management Practices will be used to prevent erosion and avoid adverse water quality effects. This will include, but not be limited to, the use of turbidity barriers. Particular precaution will be taken during construction at all creek crossings and in the vicinity of Lake Holly, Lake LeClare, and Lake Helen if the Lake LeClare Alignment is chosen; or in the vicinity of Pretty Lake and Rock Lake if the Railroad Alignment is chosen.

Another potential source of adverse water quality effects is the closed Hillsborough County Landfill at Linebaugh Avenue and Wilsky Boulevard. The Eisenhower West alignment passes through the northwest corner of the landfill property. Discussion with Bill Holsonback of the Hillsborough County Solid Waste Department indicates that the landfill contains household waste, but no known toxic materials. In addition, all solid waste has been sealed with a Florida bentonite clay layer to prevent leaching from the disposal area of the landfill which is located several hundred feet west of the proposed alignment. Given the contents, location and design of this Hillsborough County landfill, no adverse water quality impacts would be expected from this potential source due to construction of the proposed expressway.

Because of the "state of the art" in highway stormwater research, it is not possible at this time to determine the significance of highway stormwater runoff on the wetlands and lakes within the proposed project area. However, the appropriate Best Management Practices will be used during the construction phase for erosion control and water quality consideration. Conceptual approval has been requested from the Southwest Water Management District and the Florida Dept. of Environmental Regulation but has not yet been received. Any requirements of the Southwest Water Management District or the Dept. of Environmental Regulation necessary to satisfy the FAC 17-25 above and beyond best management practices will be state-funded.

6.3.9. Threatened or Endangered Species

Field investigations were conducted within the vicinity of the proposed project to determine if any species listed by the U.S. Fish and Wildlife Service (USFWS) or the Florida Game and Fresh Water Fish Commission (FGFWFC) as endangered or threatened might be impacted by the proposed project.

Two endangered and 3 threatened (USFWS) species were observed within the project area, and one more endangered species might occur within the study area. In addition to these six species considered for protection by USFWS, FGFWFC lists two more species found within the proposed project area as threatened.

6.3.9.1. Endangered Species - USFWS

Within the study area for the proposed project two species listed by the USFWS as endangered are known to occur. These are the Wood Stork (Mycteria americana) and the Bald Eagle (Haliaeetus leucocephalus). A third species, also listed by USFWS as endangered, whose range includes the study area, is the Red-cockaded Woodpecker (Picoides borealis).

The Wood Stork, which is also listed by the FGFWFC as endangered, was seen using a variety of wetland habitats within the project vicinity. It is likely that the Wood Stork forages in many of the wetland habitats within the study area. Sightings have been recorded in the vicinity of Fish Creek near the south end of the project (Wetlands #4), in the ditch adjacent to Tampa International Airport (Wetlands #5, 8), and in several of the cypress domes and swamp forests near the northern end of the proposed project (Wetlands #44, 48, 49, 56).

Wood Stork use of wetlands is most likely for foraging, although some roosting undoubtedly occurs between feeding episodes. Estuarine wetlands on the south end of the project are used year round as tidal fluctuations create water depth conditions conducive to successful foraging by Wood Storks, particularly in tidal swales and ditches. In the palustrine wetlands, from Hillsborough Ave. north, Wood Stork use is more likely seasonal as the water depth in the cypress swamps, marshes and hardwood swamp forests are influenced by seasonal rainfall and drought. Wood Storks would be most apt to use these freshwater wetlands for foraging as periods of drought concentrate the food resources during the winter and spring.

No Wood Stork nesting sites were found within the vicinity of the project. Confirmation that no known Wood Stork nesting sites occur in northwestern Hillsborough County was obtained from the Wildlife Research Laboratory of FGFWFC (J. Rodgers, pers.

comm.). The proposed project will not adversely affect critical habitat or populations of Wood Storks.

The Bald Eagle, listed by USFWS as endangered and by FGFWFC as threatened, has also been observed within the study area. Sightings of adult Bald Eagles overhead have been made in the vicinity of Van Dyke Rd. at the north end of the proposed project, and a single juvenile was observed in a cow pasture between Ehrlich Rd. and Rawls Rd. just west of Hutchinson Rd.

No known nests of Bald Eagles occur within the study area and it is likely that the birds travel into the study corridor to forage occasionally. The nearest known Bald Eagle nest is located approximately $4\frac{1}{2}$ miles west of the proposed project near the county line, west of Double Branch Creek (Don Wood, FGFWFC, pers. comm.). Most likely feeding areas include the many small lakes found in the vicinity of the study corridor. As there are no known nest sites within the area and the proposed project should not affect lake fish and wildlife, no adverse effects on Bald Eagle populations or habitat are expected.

The only additional species listed by USFWS as endangered (threatened, FDFWFC) that might be found within the study area is the Red-cockaded Woodpecker. Typically, the Red-cockaded Woodpecker requires mature long leaf pine (Pinus palustris) forest for nesting and feeding habitat. As the study area for the proposed project lacks this habitat, it is unlikely that the Red-cockaded Woodpecker occurs within the limits of the proposed project. As such, the project will not impact the habitat or populations of the Red-cockaded Woodpecker.

6.3.9.2. Threatened Species - USFWS

One species listed by USFWS as threatened is known to occur in the project area. This is the Arctic Peregrine Falcon (Falco peregrinus tundrius, listed by FGFWFC as endangered). In addition to this species, the Eastern indigo snake (Drymarchon carais couperi, listed by USFWS and FGFWFC as threatened) may also be present within the project area.

The Arctic Peregrine Falcon is a winter resident in the Tampa Bay area. Although most reported sightings are made in coastal areas, one Arctic Peregrine Falcon was observed in March 1985 approximately one-half mile north of Ehrlich Rd. and one-half mile west of Hutchinson Rd. It is likely that the individual seen was a migrant beginning the flight north to nesting grounds in the Arctic. The sighting made during the course of this study is considered uncommon, and it is not expected that the proposed project would have any influence on the population status of the Arctic Peregrine Falcon.

Although the Eastern indigo snake was not seen during the course of this study, it is suspected to occur within the project area. Although sometimes found in association with gopher tortoise (Gopherus polyphemus) burrows in xeric habitats, the Eastern indigo snake would most likely inhabit moist woods within the study area.

In order to prevent adverse impacts to the indigo snake during construction, contractors' personnel will be advised of the potential presence of the indigo snake. Construction personnel will also be advised of its threatened status and the need to avoid actions that would jeopardize indigo snakes. Procedures for the handling of any indigo snakes encountered during construction will be included in the design specifications. Although the proposed project would result in some loss of habitat (see section 6.3.6, Wetlands) for the Eastern indigo snake, it is not expected to have a significant impact on the regional population of this snake.

6.3.9.3. Threatened Species - FGFWFC

Two species found within the vicinity of the proposed project are not considered in the list of Endangered or Threatened species provided by the USFWS, but are considered by FGFWFC as threatened. These are the Least Tern (Sterna antillarum) and Florida Sandhill Crane (Grus canadensis pratensis).

The Least Tern is apt to be found foraging for small bait fish in lakes and estuarine waters. As such it is expected within the vicinity of the proposed project. However, it is generally acknowledged that human exploitation early in the century and a lack of suitable nesting sites, free from disturbance, are responsible for the threatened status of the Least Tern. As the proposed project does not contain appropriate nesting habitat (open flat beach of coarse sand and shell), it should have no impact on Least Terns.

The Florida Sandhill Crane is found in open low lying areas, such as wet prairies and open land associated with marshy lake margins. During this study, four adult Florida Sandhill Cranes were seen in a pasture south of Van Dyke Rd. between Tobacco and Lake Shore Rds. Cranes were also heard from a cypress swamp (Wetland #52) adjacent to pasture. Additional observations of cranes have been made during the past year in the pasture north of Van Dyke Rd. between Turkey Ford Lake and N. Dale Mabry Highway.

Typically the Florida Sandhill Crane avoids densely populated or heavily utilized areas. The area around Van Dyke Rd., particularly in the vicinity of Turkey Ford Lake, is presently undergoing development. This encroaching development is likely to cause displacement of the Florida Sandhill Cranes observed in this

study. Additional proposed development of adjacent pasture lands in the vicinity will continue to reduce the available habitat of the Florida Sandhill Crane in the area. The impact, if any, of the proposed project on the anticipated displacement of the Florida Sandhill Cranes would be a slight decrease in the time necessary for displacement. If the proposed developments are completed before expressway construction the proposed project should have no effect on Florida Sandhill Cranes.

6.3.9.4. Summary of Impacts on Endangered and/or Threatened Species

Although several species listed by the USFWS and/or FGFWFC as endangered and/or threatened are known or expected to occur within the area of the proposed project, the expressway will not result in the loss of critical habitat or affect the local populations of these species.

6.3.10. Stream Modification and Wildlife

The present alignment of Eisenhower Blvd. is paralleled to the east by a drainage canal which delivers runoff from Tampa International Airport into a canal draining to the west under Eisenhower Blvd. and to Fish Creek to the south (Wetlands #5, 8, 9, 10, 11). The proposed project will result in the displacement of this drainage system to the east by approximately 200 feet.

The vegetation within Wetlands #8, 9, 10 and 11 has recently been removed by the Florida Dept. of Transportation to prevent flow restriction. This is a common practice with canal drainage systems to ensure proper drainage. As such the value of these wetlands to wildlife is temporary at best. These wetlands do provide for storage of stormwater, and between excavations the wetland vegetation provides for some improvement in water quality before the drainage enters Old Tampa Bay.

The southernmost section of this drainage canal system (Wetland #5) differs from other sections in that it is not periodically cleared of vegetation. This section is tidally influenced and has abundant growth of Avicennia germinans (black mangrove), Juncus roemerianus (black needlerush), Typha domingensis (southern cattail), Limonium caroliniana (sea lavender), Fimbristylis castanea (rush), Iva frutescens (marsh elder), and Baccharis halimifolia. The wetlands vegetation in this portion of the drainage canal provides water quality benefits and habitat for wildlife. Wildlife using this portion of the ditch include Clapper Rails, herons and egrets, Wood Storks, and possibly American alligators. This shallow vegetated portion of the ditch may also be used as a nursery area by estuarine fishes.

In order to prevent adverse impacts to water quality or reduction of wildlife habitat, the relocated drainage canal will be revegetated in its tidal reaches. The relocated drainage canal will be of the same proportions as the present canal, thereby replicating the water quality and habitat values of the present system.

Although the proposed expressway will cross several other creeks (Fish Creek, Sweetwater Creek and Rocky Creek), no stream modification or wildlife impacts are anticipated. Any impacts expected from these bridge crossings are discussed in Section 6.3.7, Wetland Impacts.

6.3.11 Construction Impacts

Construction activities for the proposed expressway will have air, noise, water quality, traffic flow and visual impacts for those residents and travelers within the immediate vicinity of the project. The air quality impact will be temporary and will primarily be in the form of emissions from diesel powered construction equipment and dust from embankment and haul road areas. Noise and vibrations will be from the heavy equipment movement and construction activities such as pile driving and vibratory compaction of embankments. Noise control measures should include those contained in FDOT's Standard Specifications for Road and Bridge Construction and those recommended in Subsection 6.3.2.3.

Water quality impacts will be controlled through best management practices for erosion and sedimentation control techniques as specified in the FDOT Standard Specifications for Road and Bridge Construction.

Maintenance of traffic and sequence of construction will be controlled so as to minimize traffic delays throughout the project. Access to all businesses and residences will be maintained to the extent practical through controlled construction scheduling. In the Eisenhower Boulevard area from I-275 to Hillsborough Avenue, the present traffic congestion may become worse during stages of construction where narrow lanes may be necessary. Traffic delays will be controlled to the extent possible where many construction operations are in progress at the same time. The contractor will be required to maintain two lanes of traffic in each direction on Eisenhower Boulevard at all times and to comply with the best management practices of the FDOT. Also, present interchange movements will be maintained through use of detour ramps. No other locations will require temporary roads or bridges.

For the resident living along the expressway right-of-way some of the materials stored may be displeasing visually.

Construction of the roadway and bridges requires excavation of unsuitable material (muck), placement of embankments and use of materials such as limerock, asphaltic concrete and portland cement concrete. Demucking is anticipated at most of the wetland sites and would be controlled by Section 120 of the FDOT Standard Specifications. Disposal would be on site in detention areas or off site. The removal of structures and debris will be in accordance with local and state regulation agencies permitting this operation. The Contractor is responsible for his methods of controlling pollution on haul roads, in borrow pits, other materials pits and areas used for disposal of waste materials from the project. Temporary erosion control features as specified in the standard specifications will consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings and berms.

6.3.12 Energy

Energy consumption for the proposed expressway was estimated using the Florida Department of Transportation's FENERGY computer program. The amount of energy consumed by the travelling public and used for construction and maintenance was computed for relevant segments of roadways on the existing arterial network both with and without the proposed expressway. A comparison of the energy needed for each situation shows that the expressway alternative will save approximately 426 Billion BTU's or 9 barrels of oil per day in the ensuing years to the year 2010.

6.3.13 Summary of Environmental Impact Factors

A summary of the comparative evaluation of environmental impact factors is shown in Table 6-11.

TABLE 6 - 11

SUMMARY OF ENVIRONMENTAL IMPACT FACTORS

Factors/Alternative	I-275 to 3,000 Feet South of Gunn Hwy. Eisenhower/West	3,000 Feet South of Gunn Hwy. to Dale Mabry Hwy. Lake LeClare Railroad
Air Quality	No Impact	No Impact
Noise	No significant impact	Significant impact at 2 of the 18 representative receptors
Wild and Scenic Rivers	None	None
Farmlands	None	No significant impact
Floodplains	No Impact	Approx. 29 acres impact. One longitudinal involvement. Little different than anticipated development impacts.
Coastal Zone	No significant additional impact to existing conditions	No impact
Wetlands	Approx. 44 acres impacted of wetlands in fair to good health. Mitigation is proposed.	Approx. 20 acres impacted of wetlands in fair to good health. Mitigation is proposed.
Water Quality	Some impact, but no more severe than from current development trends	Some impact, but no more severe than from current development trends
Threatened and Endangered Species	No substantial impact to threatened or endangered species or other critical habitats.	No substantial impact to threatened or endangered species or other critical habitats.
Stream Modification and Wildlife	Displacement of 200 feet of canal from Tampa Int'l. Airport to Fish Creek with some impact.	No stream modifications or wildlife impacts anticipated
Construction	Temporary air, noise, water quality, traffic flow, and visual impacts. Extensive impact on maintenance of traffic along Eisenhower Boulevard	Temporary air, noise, water quality, traffic flow, and visual impacts

7.0 LIST OF PREPARERS

7.1 STATE

FLORIDA DEPARTMENT OF TRANSPORTATION

Mr. C. L. Irwin - Environmental Administrator
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Mr. W. D. Browning - Archeologist
M.S. degree in Anthropology; 13 years experience in archeological review. Archeological site survey and document review.

Mr. James G. Kennedy - Deputy District Engineer (Tampa Bay Area)
M.S. degree in Civil Engineering; 26 years experience in highway engineering. Overall supervision of document preparation; document review.

Mr. Richard L. Combs - District Environmental Coordinator
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Mr. Raymond L. Nottingham - Environmental Specialist
B.A. degree in Biological Science; 3 years experience in environmental monitoring, 8 years experience in project development. Preparation of environmental portion of document.

7.2 CONSULTANTS

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Mr. Dale E. Patten - Chief Transportation Engineer
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B.S. degree in Civil Engineering; 10 years experience in traffic and transportation engineering. Corridor analysis document preparation.

Mr. George R. Huffman - Urban Planner
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MANGROVE SYSTEMS, INC.

Mr. George J. Churchill - Senior Scientist
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Mr. Roy Robert Lewis III - Principal Ecologist
M.A. Zoology; 25 years experience in environmental ecology and assessment. Document preparation.

7.3 FEDERAL HIGHWAY ADMINISTRATION

Mr. Dennis Luhrs - District Engineer
B.S. Degree in Civil Engineering; 11 years experience in highway engineering. Supervisory Highway Engineer responsible for the administration of the Federal-Aid Highway program for the Bartow District.

Mr. Greg Scheiss - Area Engineer
B.S. degree in Civil Engineering; 11 years experience in highway engineering. Highway engineer responsible for the administration of the Federal-Aid Highway program for five (5) counties in the Bartow District.

Mr. George E. Rice - Environmental coordinator
B.S. degree in Civil Engineering; 16 years experience in highway engineering. Highway engineer responsible for the coordination of environmental studies for Federal-Aid Highway projects throughout the State of Florida.

8.0 COMMENTS AND COORDINATION

8.1 PUBLIC PARTICIPATION PROGRAM

8.1.1 Corridor Study Phase

A public participation program consistent with the requirements of Florida's Action Plan is being conducted as part of the development of the Northwest Hillsborough Expressway. This program was initiated on April 6, 1981 with a meeting for governmental officials with mass media notification and coverage. An Expressway Study Group comprised of thirty-one members of the community, was formed to serve as a sounding board for the consultant team's findings and proposals. Meetings of the Study Group were held on June 1, and August 4, 1981.

A major aspect of the public participation program has been a series of public Informational Workshops. During the Corridor Study phase, workshops were held within the following six major subareas of the overall study area: Bay Crest (June 30, 1981), Tampa International Airport Area (July 1, 1981), Northdale/Keystone (July 2, 1981), Town and Country (July 8, 1981), Carrollwood (July 9, 1981), and Northlake/ Lutz (July 10, 1981). These workshops were held to inform the public and officials of the Project through exhibits and briefings and to listen to concerns and suggestions. The workshops were advertised by publication of notices in the Tampa Tribune and by notification to and coverage by the mass media.

As an additional effort to inform the public of the expressway study, a newsletter was published on a half page of the Northside and Northwest editions of the Tampa Tribune on June 25, 1981. The newsletter, Issue No. 1, provided a map of the study area, explained the purpose, scope, and schedule of the study, and identified the Expressway Study Group and consultants. Circulation was estimated by the newspaper to be approximately 80,000. On August 12, 1983, Issue No. 2 of the newsletter was published in the Tampa Tribune which identified the corridors under study and again explained the purpose, scope and schedule of the study. An invitation was extended to the public to attend the public hearing on the corridors, August 15, 1983.

Eight presentations were made to civic associations at their request. In addition, the consultant answered inquiries from the public by letter, telephone, and in person at their Tampa office. Upon request, individuals and representatives of organizations were placed on a mailing list for subsequent notification of public meetings and for distribution of the newsletter.

8.1.2 Preliminary Engineering and Draft EIS Preparation Phase

The public participation program has been developed to be a continuing effort throughout all phases of the study through public informational meetings, Study Group meetings, periodic publication of the newsletter, meetings with interested organizations and groups, and formal public hearings.

On July 22, 1984, Alignment Alternatives were publicly presented in the Tampa Tribune. This was followed by Issue No. 3 of the newsletter which identified the alternative alignments under consideration, invited the public to attend public workshops, and reiterated the overall study scope and schedule.

Public informational workshops were held on August 1, 1984, at Curtis Hixon Hall and on August 2, 1984 in the North Dale Mabry area. These workshops were held to inform the public of the alignment alternatives being considered through exhibits and briefings and to listen to concerns and suggestions. The workshops were advertised by publication of notices in the Tampa Tribune and by notification to and coverage by the mass media.

Presentations were made to a number of civic groups subsequent to these workshops to present information and to receive comments.

8.2 CORRIDOR PUBLIC HEARING

A Corridor Public Hearing in compliance with State Statute 334.211 was conducted for the Northwest Hillsborough Expressway by the Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation at the Curtis Hixon Hall, 600 Ashley Street, Tampa, Florida at 7:00 p.m. on August 15, 1983. The purpose of the public hearing was to advise the public of the corridors under consideration for the location of the expressway and to solicit their comments prior to the selection of the preferable corridor for further study.

8.2.1 Conduct of the Public Hearing

The Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation advertised the Corridor Public Hearing on five separate occasions in the Tampa Tribune. The dates of advertisement were as follows:

- July 16 and August 1, 1983 - Legal Advertisement
- July 29 and August 7, 1983 - Quarter page Advertisement
- August 12, 1983 - Notice in "Expressway Newsletter", Issue 2

In addition, letters of notification of the hearing were mailed to property owners living within 300 feet of the representative alignment centerline prepared for each corridor and to governmental elected and appointed officials. In total, 9,120 letters were mailed during the week of July 18 thru 22, 1983.

As stated in the notices, copies of the Phase I - Corridor Report and aerial mapping depicting corridor locations were placed at the following locations for public inspection:

- (1) Lutz Branch Library
- (2) North Tampa Branch Library
- (3) Westgate Branch Library
- (4) Citrus Park/Keystone Library
- (5) Special Collections Department, USF Library
- (6) Information Desk, Hillsborough County Courthouse
- (7) HNTB Tampa Office

Florida Department of Transportation representatives and consultants were present at the hearing site at 2:00 p.m. to answer questions and discuss the project. At 7:00 p.m., the formal hearing presentation began. The hearing was divided into three parts: (1) engineering presentation, (2) intermission, and (3) public testimony. It was estimated that over 2,500 people attended the hearing and approximately 500 people came during the earlier question and answer period.

8.2.2 Public Hearing Testimony and Written Statements

The principal portion of the public hearing was the public testimony. During this part of the hearing, forty-six individuals addressed the record with one of these individuals speaking twice. Additionally, nineteen written statements and seven petitions were received. Of the nineteen written statements, eleven were presented orally at the hearing. Six petitions were opposed to Corridors C and D and the eastern portion of Corridor B and contained 493 individual signatures plus signatures from representatives of eight homeowners associations. The other petition contained 151 signatures opposing all alternatives for the expressway.

To summarize the positions of the speakers, twenty-three individuals spoke opposing all corridors and a new expressway in general. Their principal concerns were community disruption and residential relocation, the idea of another toll road which would possibly have deficit funding, and the need to improve local roads. There was another group of seven speakers who opposed all proposed expressway corridors for the same general reasons previously stated. This group however suggested that a beltway or expressway be considered further to the west and north possibly into Pinellas and Pasco Counties.

Thirteen individuals spoke opposing Corridors C and D and the eastern portion of Corridor B. These individuals typically acknowledged that some level of new transportation improvement is needed. They were opposed to these corridors as being the most disruptive to their communities and as having a high number of relocations.

Three other individuals spoke with one favoring the expressway. Another spoke opposing Corridors A and B and desiring that the expressway be further west of Corridor B. The other individual was against placing the expressway through lower income housing.

Eight written statements were received at the hearing that were not orally presented. These included two statements totally against the project, four statements opposing Corridors C and D and the eastern portion of B, and two letters from governmental agencies responding to the Phase I - Corridor Report.

8.2.3 Summary of Written Correspondence Received Following the Public Hearing

For a ten day period following the Corridor Public Hearing, written correspondence was received which became a part of the official transcript of the hearing. A total of 896 letters and 2,059 signatures on petitions were received in addition to the written statements presented at the Public Hearing. The following categories of comments have been briefly summarized to describe the positions of the writers and the major issues raised regarding the expressway.

(1) Opposed to the Expressway Regardless of the Location

Opposition to any expressway was stated in 282 letters and represented by 1,470 signatures on petitions. Major reasons given for opposition included concern for adverse impacts on communities, neighborhoods, and, to a lesser extent, on the natural environment. A second reason given was a belief that the expressway would not sufficiently relieve local traffic on the existing roadways since it would not be located to meet local travel demand for trips downtown and other major destinations. The expressway was perceived as a road to serve travelers to the airport and others who are bypassing Tampa.

There was a general belief expressed that a toll expressway would not pay for itself. The experience to date on the Tampa South Crosstown Expressway was cited as evidence. A new tollway was considered by some to be another expressway that would require heavy subsidies at the expense of local roadway improvements. These writers expressed the opinion that the overriding need is for improvement to existing roads, particularly Dale Mabry Highway. Several writers suggested double decking this road. In addition to improving existing roads and adding new local roads, major improvement to mass transit as a solution was mentioned by several writers.

Among those opposed to the expressway were some writers who were of the opinion that the Tampa-Hillsborough County Expressway Authority, because of its limited jurisdiction, is not in a position to effectively and comprehensively address transportation needs. Some expressed the viewpoint that consideration should be given to abolishing the Authority.

(2) Favor Expressway Further North and West or a Beltline

A second category of letters, 231 in all, expressed opposition to the corridors as presented and to the expressway as conceived. This category was comprised of two basic groups. The first group, while opposed to Corridors A, B, C, and D, offered that a roadway located west of Sheldon Road and aligned in such a way as to miss urban development, should be considered. A second group favored a beltway that encircles the Tampa area, including portions of Pasco County and possibly Pinellas County. Examples cited were interstate highway (freeway) circumferential loops around various major U.S. cities that were federally subsidized. The writers believe this would better meet future needs and avoid urban impacts.

Both groups were comprised of writers who were against the development of more toll roads because of the present deficit problems on the Tampa South Crosstown Expressway. Included in this category were writers of the opinion that the Tampa-Hillsborough County Expressway Authority should be replaced by an Authority with broader geographic authority. These writers also stated that local roads need improving on a priority basis to serve local traveling needs.

(3) Opposed To Corridors C and D and the Eastern Portion of Corridor B

A total of 333 letters and 492 signatures on petitions were received from people opposed to Corridors C, D, and the eastern portion of B. These persons were primarily concerned about the impact of the expressway on various neighborhoods, particularly the ones in which they reside. Many of these correspondents were dubious of another toll road paying for itself and were opposed to the requirement for heavy subsidies at the expense of improvements to the existing local roadway network. While a number of neighborhoods were named, Carrollwood Village, Carver City, and Forrest Heights were most frequently mentioned.

(4) Opposed to Corridors A and B

A total of 22 letters and 69 signatures on petitions were received from people opposed to Corridors A and B. These letters expressed concern for disruption to the community of Lutz from the expressway dividing the area and altering the general rural way of life. Other concerns were impacts on the natural environment including impacts on the quality of lakes and the natural setting of flora and fauna. Those persons against Corridor B expressed that an expressway could have adverse impacts on neighborhoods and residential developments.

Many of the writers expressed concern that the expressway would not significantly help in meeting local traffic needs and that improvements to local roads are needed. Again, concern was expressed that the expressway would utilize funds that could be used for local road improvements.

(5) Favor Corridor A

One letter was received which stated preference for Corridor A as the best corridor to meet future needs with least disruption to the existing population.

(6) Favor Corridors A and B

Nineteen letters and 28 signatures on petitions were received which stated a preference for Corridors A and B because of the least impact on the existing population in the area. As in previous categories of comments, concerns were expressed as to whether or not the facility would relieve traffic on major roads, would be capable of paying for itself, and would serve the local populations rather than merely providing a bypass for unwanted, non-local, through traffic.

(7) Favor the Expressway

Eight letters were received which favored the expressway without preference for a specific corridor. They expressed the opinion that the project is overdue and needs to be built to relieve present traffic congestion and meet future demands.

8.2.4 Responses to Major Issues and Concerns of the Public

In reviewing the public hearing testimony and written correspondence which is part of the public hearing record, a number of major issues and concerns were brought forth by the public. The purpose of this section is to provide a compilation of these issues and concerns and to respond to each of them.

- (1) ISSUE/CONCERN: The expressway will not relieve local traffic congestion since it does not go towards downtown or does not serve to alleviate traffic going to major generators such as Tampa Stadium, Tampa Bay Center, MacDill Air Force Base, and commercial areas along Dale Mabry Highway. The east-west traffic on major roads would also not be relieved.

RESPONSE: The proposed expressway will provide an alternative route for many trips thereby reducing the number of vehicles that would use existing roadways. The expressway is intended to provide a route for both through traffic and local commuters who travel to Downtown Tampa and other points south such as West Shore and West Kennedy Boulevard. The expressway, while it may be longer in travel distance, will be used by some commuters because it will save travel time and attendant costs. This should cause a noticeable reduction in traffic for many of the major roadways in the northwest quadrant during peak periods. The reduced congestion should also provide improved local accessibility to local commercial areas.

East-west roadways would also benefit from improved traffic flow due to less directional peaking. Traffic on roadways such as Waters Avenue, Linebaugh Avenue, Gunn Highway, and Ehrlich Avenue should realize more of a directional split between Dale Mabry Highway and the expressway during peak periods, which will improve capacity. Additionally, east-west roadways east of Dale Mabry Highway accessing I-275 should realize some reduction due to the expressway.

- (2) ISSUE/CONCERN: The expressway will not pay for itself and would probably require a large subsidy from Hillsborough County local gas revenues. Therefore, it would take money away from improvements needed now for major local roads in Northwest Hillsborough County.

RESPONSE: Financing of the expressway will be investigated as part of the Phase II study. As the project is developed, the sources of funding will be identified. The expressway may be wholly or partially funded by toll revenue bonds. Construction of a toll expressway may in fact eliminate the need for certain other local road improvements. It is expected that some of these improvements can be postponed, if not eliminated, because the expressway will otherwise meet the needs that prompted such improvements.

It should be noted that even if a toll road runs a deficit in its first decade of operation, it still encumbers less tax dollars than a totally government financed project. As surplus funds become available, any tax dollars used for initial support are repaid by tolls. Government funded projects are never repaid.

- (3) ISSUE/CONCERN: The traffic problem can be basically solved by improving Dale Mabry Highway. Double decking is perceived as one solution.

RESPONSE: The traffic problem in Northwest Hillsborough County cannot be solved by adding or improving a single facility. Population forecasts by the Hillsborough County City-County Planning Commission and a recent study completed by Hillsborough County have indicated that providing substantial improvements to Dale Mabry Highway and other local roads will still require additional major new facilities to accommodate traffic demands for the year 2000 and beyond. In addition, improvements to local arterial roads are needed.

Double decking of Dale Mabry Highway, while appealing from the standpoint of not requiring substantial amounts of new right-of-way except at access points, nevertheless has severe problems. The bridge or deck structure and necessary frontage road development would be more expensive to build than a new expressway. Commercial businesses along Dale Mabry Highway would probably suffer severe economic impact during the years required for construction. Additionally, there are no programmed funds for improving Dale Mabry Highway to the degree required to efficiently and safely handle anticipated traffic volumes. For a project such as doubledecking, staging or phasing construction over a period of time is not practical. Therefore, sufficient funding would be required to construct the project to its ultimate level of improvements.

Finally, continued new development west of Dale Mabry Highway will require a major north-south road in that vicinity to meet future traffic demands and to relieve congested major highways as well as local arterial roads.

(4) ISSUE/CONCERN: Mass transit has not been adequately considered. Perhaps a monorail would be a good alternative.

RESPONSE: The Tampa Urban Area Transportation Study has examined the long range transportation needs for the area and their plans reflect an expanded role for transit in the area as funding is available. The Hillsborough Area Regional Transit Authority (HART) has been providing an expanded express bus fleet to the Northwest Hillsborough area. Even with major improvements to the existing transit system, the vast majority of trips will still be made by automobile and relief of the road system by the addition of new and improved roads will be required to meet future needs.

A monorail or other rail system for Hillsborough County was comprehensively studied within the past several years as part of the Tampa Bay Area Rapid Transit District Study. The study concluded that a rail system was not financially feasible in that funds required for capital investment and for operating the system were too great to be justifiable.

- (5) ISSUE/CONCERN: The corridors presented create major impacts on existing neighborhoods.

RESPONSE: The corridors include a substantial amount of residential and commercial development, both existing and newer developments, that were not present when the Phase I study was initiated in 1981. The phase II study will examine the selected corridor in detail to attempt to locate alternative roadway alignments in such a way as to minimize the impact on existing neighborhoods.

- (6) ISSUE/CONCERN: The data on land use, as evidenced by the aerial maps on display at the Hearing, are out of date. Therefore, the number of displacements and the right-of-way costs for the project are significantly understated.

RESPONSE: The aerial maps displayed at the Public Hearing were compiled in 1980, but were the only maps of their size available for display purposes at the Hearing. More current aerial maps (May, 1981 and December, 1982) were used for data collection and analysis in the Phase I study and its update. In addition, extensive field investigations were made, county subdivision records were checked, and new development plans were reviewed during the course of the study and its update. It should be noted that proposed developments continued to be approved subsequent to the identification of corridors, making updating a continuous process.

Costs for right-of-way were not based on aerial photographs, rather they were based on review of affected properties as listed on the County's tax rolls and through field investigation. The county's assessed value was not used, but only the information on ownerships was used.

- (7) ISSUE/CONCERN: The roadway as proposed is too late. It is a reaction instead of a planning effort. Too much development has occurred that would have to be disrupted. If an expressway must be built, move it west of Sheldon Road and Citrus Park and north along the Pasco County line or further north. If necessary, create a new multi-County Authority to do this.

RESPONSE: The roadway is not too late to meet future traffic demands. The facility is not considered a solution in itself to the Northwest Hillsborough County traffic problems, rather it is considered as part of the system-wide solution to a complex problem.

It has been suggested that by moving the expressway west of Sheldon Road and Citrus Park and north to the County line, the controversy over impacts on neighborhoods and communities could be lessened. This solution has two basic problems. First, the roadway would be further removed from present parallel arterial roadways thereby providing little relief to those highways or roads. Second, because the roadway as conceived would rely on toll revenue to pay for its construction, a roadway that far west would not generate as much traffic or revenue in the early years of operation.

The concept of a beltway that would encircle Tampa further west and north into Pinellas and Pasco Counties has also been suggested. A beltway might aid in providing a portion of an adequate long term system for the three counties, but would not provide the traffic relief needed in the near term in the Northwest Hillsborough County area. (Also see RESPONSE 14.)

- (8) ISSUE/CONCERN: An interstate beltway (non-toll) is suggested. It would be located in Pasco County in the north and possibly as far west as Pinellas County outside existing urban areas.

RESPONSE: A beltway similar to those around Atlanta, Dallas, and Washington, D.C. has been suggested as another alternative. The referenced beltways were built with 90 percent federal funds as part of the Interstate Highway System. Interstate funding is not available for the Northwest Hillsborough Expressway as this program is being phased out. In fact, the lack of new interstate funds and road users' taxes in general have led to a rebirth of bond financed, toll road projects as a viable alternative means for providing new major roadway projects.

A regional beltline could be considered for the long term future as a supplement to the proposed highway system, not as a substitute for the Northwest Hillsborough Expressway. A multi-County Authority could be considered should the need for such a road be established in the future.

- (9) ISSUE/CONCERN: Too much damage will be done to the natural environment and the community of Lutz will be divided if Corridors A and/or B are selected.

RESPONSE: The Phase II study specifically examines the impacts on the natural environment and on the communities and neighborhoods. One of the objectives of the Phase II study is to identify specific roadway alignments so that a detailed analysis can be made of potential impacts to supplement the generalized preliminary estimates made in Phase I for broad corridors.

During the Phase II study, special emphasis is placed on studying the traffic volume that the section of roadway between Dale Mabry Highway and I-275 would serve and the resultant benefits to the downtown interstate system. These will be compared to the roadway cost and its environmental and community impacts.

- (10) ISSUE/CONCERN: The public does not want another "South Crosstown Expressway" which has a current multi-million dollar drain on Hillsborough County gas revenues. The Crosstown Expressway is an example of a toll road that simply costs too much to ride and is not used.

RESPONSE: The South Crosstown Expressway is currently requiring heavy subsidies from the Hillsborough County gasoline tax revenues. The current deficit situation is expected to change to surplus, although not as rapidly as projections had indicated. As anticipated in the traffic projection, more traffic will be drawn to the Crosstown when the connection to Interstate 75 Bypass is opened and when the Brandon/Bloomington areas develop as were anticipated prior to the recent economic slowdown.

It has been historically true that toll roads are slow in generating revenue in the early years, but often exceed projections after this initial period. This should be true for the Tampa South Crosstown Expressway. Even without the connection to the Interstate 75 Bypass or substantial growth in eastern Hillsborough County, current revenues have increased 25 percent over the last year.

In years ahead, the expressway will not only provide needed traffic relief from the east to downtown, but is expected to create a surplus of funds that will be used to repay the County for any gas tax revenues used. Given continuing inflationary pressures, the roadway was built at a good price and at a good time.

- (11) ISSUE/CONCERN: Why not take the \$200 to \$250 million proposed for this expressway and use it to improve existing roads in the County such as Dale Mabry Highway, Gunn Highway, Sheldon Road, and others?

RESPONSE: The funds to be used on the construction of the Northwest Hillsborough Expressway are to come principally from the sale of revenue bonds that are to be repaid from tolls. These funds are not available for local road improvements since there is no practical way to collect tolls on local roads to repay the bonds.

- (12) ISSUE/CONCERN: A report and resolution dated June 21, 1982 by the Hillsborough County City-County Planning Commission stated that the project was not financially feasible at that time and recommended investigations of alternative transportation facilities to serve the travel demands of Northwest Hillsborough County.

RESPONSE: Investigations of alternative means of solving transportation problems is a continuing process of the Tampa Urban Area Transportation Study, the Metropolitan Planning Organization, and the Florida Department of Transportation (FDOT). Since there is the possibility that the proposed expressway is feasible because of changes in interest rates, continued growth in the area, and worsening traffic conditions, it was decided by the Tampa Hillsborough County Expressway Authority and the Florida Department of Transportation to conduct the Phase II study. This study will enable them to make a determination based on detailed study rather than on preliminary Phase I results. In the meantime, the FDOT and Hillsborough County have been pursuing other projects to alleviate the worsening traffic conditions in the Northwest area. These include major improvements to Interstate 275, Dale Mabry Highway, and improvements to local area roads.

(13) ISSUE/CONCERN: It was suggested that during the corridor selection process, the Community Impact Factor should be the most important factor. This would place the greatest emphasis on the disruption to the homes and businesses that may be taken.

RESPONSE: In the Phase I - Corridor Report, the Community Impact Factor was discussed addressing such issues as residential and business displacements, impacts to public and semi-public facilities, impacts to neighborhood cohesion, and the capability of serving growth patterns. Each of these factors are important and significantly affect the project. The report also addressed Traffic Service and Engineering Factors, and Environmental Impact Factors. The factors under Traffic Service and Engineering Factors typically addressed the traffic volume served, project costs, and financing capability of the project. The Environmental Impact Factors addressed such issues as air quality, water quality, wetlands, and noise impacts.

Based upon the technical and public input information accumulated during the study process, it was found that the Traffic Service and Engineering Factors and the Community Impact Factors should be of equal concern. This is because there is at least one factor in each category that could seriously affect the project feasibility. While the Environmental Impact Factors are important, the study indicated that for each corridor the environmental impact could be mitigated and no single environmental factor would inhibit the development of an alignment within the corridors. Therefore, the Environmental Impact Factors were not rated as high as the Community Impact Factors and the Traffic Service and Engineering Factors.

(14) ISSUE/CONCERN: The Tampa-Hillsborough County Expressway Authority, because of its limited jurisdiction, is not in a position to effectively and comprehensively address transportation needs of Hillsborough County.

RESPONSE: The transportation planning process is a comprehensive process involving federal, state, and local governments. Locally in Hillsborough County, the planning process is the Tampa Urban Area Transportation Study (TUATS) under the technical supervision of the Hillsborough County City-County Planning Commission. The local approving authority of the transportation plans for the County is the Metropolitan Planning Organization (MPO).

The Northwest Hillsborough Expressway was placed in the initial TUATS adopted in 1971. This project has been reviewed during each subsequent update of the TUATS and still remains in the plan as a potential project for Northwest Hillsborough County. These studies have shown that in addition to the expressway, the widening of many local roadways to include Dale Mabry Highway, I-275, Waters Avenue, Gunn Highway, and others will be needed to accommodate year 2000 and beyond traffic volumes. The study also recommends a significantly improved express bus transit service for the region to offset additional roadway improvements.

The Tampa-Hillsborough County Expressway Authority was "created for the purposes and shall have power to construct, reconstruct, improve, extend, repair, maintain, and operate the expressway system" (Florida Statute 348.53). By law, the Expressway Authority is not directly involved in the transportation planning process. The Authority has the duly constituted responsibility for those major expressway projects that are included in the TUATS plan and approved by the MPO but that are not fundable through road user taxes.

(15) ISSUE/CONCERN: To the west of Corridor B is an abandoned railroad grade which runs north/south paralleling the western edge of the corridor. In view of the residential growth to the east, why can the corridor not be expanded to incorporate this potential alignment?

RESPONSE: The corridors presented in the Phase I - Corridor Report, Update and the Corridor Public Hearing are not final and may be revised based upon public input. The public hearing is conducted at this early stage of the project to receive such input and to adjust the study process as necessary.

During the one and one-half year period between the initial Phase I report and commencement of its update, considerable residential development had occurred in northeast Hillsborough County and within Corridor B. This growth has caused areas which were vacant and desirable for an expressway alignment to be filled with new housing and become less desirable. Therefore, the development of a potential alignment along the abandoned railroad right-of-way is a viable consideration and Corridor B has been widened to the west to incorporate the area including the railroad. The corridor has been widened approximately 1,000 to 1,500 feet from the vicinity of Linebaugh Avenue to south of Hutchinson Road.

8.3 EARLY NOTIFICATION PACKAGE

As part of the effort during Phase II to ensure that the various governmental agencies having review and permit authority were informed of the Northwest Hillsborough Expressway Project, an early notification was sent to the State A-95 Coordinator of the State Planning and Development Clearinghouse. A list of those agencies to whom letters were sent are shown in Table 9-1. The early notification letters of comment received from the various agencies are noted in Table 9-1 with an asterisk. The letters are included in Appendix D.

The Florida Department of Environmental Regulation stated that the environmental impacts from the proposed project could not be determined at the time of their reply since the early notification package contains only general information about the project. Based on the magnitude of the project, the agency recommended that an Environmental Impact Statement be prepared to assess the impact of the project on aquatic resources, air quality, noise, storm-water management, and dredge and fill activities. They recommended that any roadway improvements minimize impacts to wetlands, streams, lakes, and flood prone areas. They also recommended that fill in floodplains and flood prone areas be avoided.

The Florida Department of State, Division of Archives, History, and Records Management indicated that there are three recorded archaeological sites within the study area. The Division deemed that these sites lack sufficient integrity to warrant preservation or mitigation through archaeological excavation. The Division indicated that historic structures and other archaeological sites are likely to occur within portions of the study area. The Division recommended that plans and location maps for the final selected expressway right-of-way and its alternatives be submitted to the Division of Archives, History, and Records Management for review. They further recommended that if project activities will impact areas deemed likely to contain potentially significant archaeological and/or historic sites and properties, then a systematic, professional archaeological and/or historical survey should be conducted prior to any land clearing or ground disturbing activities.

The Florida Game and Fresh Water Fish Commission recommended a thorough inventory and documentation of the natural habitats and wildlife species occurring within the project corridor with particular attention to species listed by the Commission as endangered, threatened, or of special concern. The Commission further recommended that during alignment selection, wetlands and uplands which support endangered or threatened species be avoided. Bridging, right-of-way width reduction, and culverting should be implemented as necessary to minimize adverse impacts on wetland vegetation and hydrology. If unavoidable adverse impacts are anticipated, the Commission recommended that appropriate mitigatory measures be presented in the environmental assessment.

TABLE 8-1

ADVANCE NOTIFICATION LETTERS

MAILING LIST AND RESPONSES RECEIVED

(Asterisk (*) Denotes Response Received - See Appendix D)

Executive Office of the Governor*
Federal Highway Administration
Environmental Protection Agency
U.S. Fish & Wildlife Service
National Marine Fisheries Service
Area Supervisor - National Marine Fisheries
Department of the Army
National Park Service
State Conservationist
Assistant Director of Operations - H.U.D.
Department of Transportation - Federal Aviation Administration
Department of the Interior - Fish & Wildlife Service
Marine Fisheries Commission
Commander (oan) - Seventh Coast Guard District
Florida Department of Environmental Regulation*
Department of State, Division of Archives, History and Records Management*
Department of State, Historic Tampa/Hillsborough County Preservation Board*
Florida Game and Fresh Water Fish Commission*
Tampa Bay Regional Planning Council*
City of Tampa*
Hillsborough County Environmental Protection Commission*
Hillsborough County City-County Planning Commission*
Tampa Bay Regional Planning Council*
Lutz Civic Association*
Southwest Florida Water Management District*

The Tampa Bay Regional Planning Council offered extensive comments on the Northwest Hillsborough Expressway Project. The Council indicated that the consistency of the proposed project with Council policy and with Florida's Coastal Zone Management Program could not be determined until the Location and Design Study and further biological assessments are submitted for review. The Council stated that while another facility is needed to reduce congestion on the overburdened road network in northwest Hillsborough County, the issues raised in their review should be addressed during the Location and Design Study. The Council also stated that the design study and biological assessments should be provided to them for review. These issues are provided in their letter in the Appendix G.

The Southwest Florida Water Management District stated that when specific project alignments for the proposed expressway have been identified, they will be better able to evaluate the project's potential impacts and indicate where permits may be required. The District recommended that an alternative be selected which will minimize construction in wetlands which provide temporary storage of floodwaters. The District recommended consideration of operation and maintenance requirements of water control structures on various water bodies in northwest Hillsborough County and consideration of potential effects of the proposed expressway on District adopted water management levels for numerous lakes in northwest Hillsborough County. The District also stated that the final expressway alignment should be planned so that the facility will not contribute to the degradation of surface water quality of lakes and streams.

The Governor's Natural Resources Policy Unit recommended that an Environmental Impact Statement pursuant to the National Environmental Policy Act and its implementing rules be prepared for the Northwest Hillsborough Expressway Project. A complete economic justification, cost, and financing program should also be submitted.

The City of Tampa expressed concern about the proposed project as related to the general environmental impact of additional highway construction on Tampa Bay and the wetlands of that area.

The Hillsborough County Environmental Protection Commission commented that when more detailed plans are submitted, they will review the project for potential wetland destruction and stormwater pollution.

The Hillsborough County City-County Planning Commission stated that they had no comments at the present time, but would submit comments after reviewing the Environmental Impact Statement and the Traffic and Revenues Study.

The Lutz Civic Association expressed concern that the proposed expressway would have negative impacts on the Community of Lutz and would not serve the transportation needs of their community and Hillsborough County.

The State Clearinghouse commented that a complete federal Coastal Zone Management Act consistency review will be conducted during review of the Environmental Impact Statement should any federal funds be included in the financing package for the expressway.

8.4 SCOPING MEETING

An Environmental Scoping Meeting was held on April 17, 1984 to meet with Federal, State, and local agencies in an open forum to determine the significant environmental issues related to the proposed Northwest Hillsborough Expressway. Representatives of the following agencies and organizations attended the meeting.

- (1) Environmental Protection Agency
- (2) U.S. Army Corps of Engineers
- (3) Florida Department of Transportation
- (4) Florida Department of Environmental Regulation
- (5) Florida Division of Forestry
- (6) Hillsborough County Planning Commission
- (7) Hillsborough County Historian
- (8) Hillsborough County Engineering Department
- (9) Hillsborough County Expressway Authority
- (10) Hillsborough County Aviation Authority
- (11) Tampa Bay Regional Planning Council
- (12) City of Tampa
- (13) Tampa President's Board
- (14) Howard Needles Tammen & Bergendoff (HNTB)
- (15) Mangrove Systems, Inc.
- (16) Biological Resources Associates, Inc.

An overview of the proposed Northwest Hillsborough Expressway Project and a proposed schedule was presented at the Scoping Meeting. The various agencies requested that they be provided a period of four to six weeks to review the Environmental Impact Statement (EIS). Mangrove Systems, Inc. discussed wetlands and rare and endangered species. The Florida Department of Environmental Regulation inquired whether mitigation would be addressed in the EIS and the response was that any required mitigation measures would be presented in the environmental document. Information on coastal zone consistency was requested from the Florida Department of Transportation. It was discussed that there would be extensive floodplain involvement in the northwest area and that this involvement would be addressed in accordance with the floodplain executive order. During the remainder of the meeting, air quality, noise quality, and socioeconomic issues were discussed.

9.0 LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE STATEMENT ARE SENT.

Department Environmental Officer
Office of Management Analysis and Systems
Department of Health and Human Services

Director
Office of Economic Analysis
Federal Railroad Administration

Regional Director
Federal Aviation Administration

U.S. Geological Survey

Field Supervisor
U.S. Department of Interior
Fish and Wildlife Service

Regional Director
Federal Emergency Management Administration

National Marine Fisheries Service
U.S. Department of Commerce

Chief
Ecology and Conservation Division
National Oceanic and Atmospheric Administration

Director
Office of Cultural Resource Preservation
Advisory Council on Historic Preservation

Director
Office of Environmental Compliance
Department of Energy

Area - Supervisor
National Marine Fisheries
Environmental Assessment Branch

Marine Fisheries Commission

Associate General Counsel for
Insurance and Mitigation
Federal Emergency Management Agency

District Engineer (Regulatory Branch)
U.S. Army Engineer

Regional Administrator
Environmental Protection Agency

Director
Environmental Project Review
Department of the Interior

Environmental Officer
Department of Housing & Urban Development

Area Manager
Jacksonville Area Office
U.S. Fish & Wildlife Service

State Conservationist
Department of Agriculture
Soil Conservation Service

Director
Intergovernmental Coordination
State Planning & Development Clearinghouse
Executive Office of the Governor

Federal Aviation Administration
District Office

Commander (oan)
Seventh Coast Guard District

Regional Forester
Southern Region
U.S. Department of Agriculture

Director
Office of Federal Activities

Documents Librarian
The Libraries
Colorado State University

Environmental Affairs Group
Environmental Health Services Division

Department of State
Division of Archives, History and
Records Management

Florida Game & Fresh Water Fish Commission

Florida Department of Environmental Regulation

Florida Division of Forestry

Southwest Florida Water Management District

Tampa Bay Regional Planning Council

Hillsborough County Aviation Authority

Hillsborough County

Board of County Commissioners

City-County Planning Commission

Public Works Division

Parks and Recreation Department

Office of Development Coordination

Zoning Office

Road Department

Utilities Division

Environmental Protection Commission

Hillsborough County School Board

Historic Tampa/Hillsborough County Preservation Board

Tampa-Hillsborough County Expressway Authority

City of Tampa

City Council

Public Works Department

Traffic Engineering

Lutz Branch Library

North Tampa Branch Library

Westgate Branch Library

Citrus Park/Keystone Library

Special Collections Department, USF Library

APPENDICES

APPENDIX A

NORTHWEST HILLSBOROUGH EXPRESSWAY ENGINEERING
& ENVIRONMENTAL FEASIBILITY STUDY,
TECHNICAL MEMORANDUM,
EAST-WEST CORRIDOR EVALUATION,
DATED SEPTEMBER 11, 1984

HOWARD NEEDLES TAMMEN & BERGENDOFF

September 11, 1984

Mr. Theodore C. Taub, Chairman
Tampa-Hillsborough County Expressway
Authority
P.O. Box 1110
Tampa, Florida 33601

Re: Northwest Hillsborough Expressway
Engineering & Environmental Feasibility Study
State Project No. 10000-1531
Budget Item No. 113669
Technical Memorandum

Dear Mr. Taub:

Attached you will find a technical memorandum addressing the viability of an expressway alignment in the Lutz area between Dale Mabry Highway and I-275. We have conducted this evaluation to determine if an expressway facility within the area is warranted.

This evaluation has shown that low volumes projected for the expressway to the year 2010 do not justify an expressway type improvement between Dale Mabry Highway and I-275. This traffic could best be handled by local road improvements with less community and environmental impacts.

Therefore, it is our recommendation to the Tampa-Hillsborough County Expressway Authority and Florida Department of Transportation that all alignment considerations between Dale Mabry Highway and I-275 be eliminated from further consideration in the Northwest Hillsborough Expressway studies.

Engineers Planners

6000 Lake Ellenor Drive, Suite 100, Orlando, Florida 32809, 305 859-8380 Harry D. Bertossa, Associate

Partners James F. Finn PE, Paul L. Heineman PE, Gerard F. Fox PE, Browning Crow PE, Charles T. Hennigan PE, Edgar B. Johnson PE, Daniel J. Watkins PE, Daniel J. Spiga PE, John L. Cotton PE, Francis X. Hall PE, Robert S. Coma PE, Donald A. Dupes PE, William Love AIA, William C. Meredith PE, Robert D. Miller PE, James L. Tuttle, Jr. PE, Hugh E. Schall PE

Associates Daniel J. Appel PE, Robert W. Richards PE, Don R. Ort PE, Frederick H. Sterbenz PE, Robert B. Kollmar PE, Kendall T. Lincoln CPA, Jack P. Shedd PE, Roberts W. Smith PE, Jack C. Thompson PE, Richard D. Beckman PE, John A. Eggen AIA, Harry D. Bertossa PE, Ralph E. Robison PE, Cecil P. Counts PE, Stephen G. Goddard PE, Harvey K. Hammond, Jr. PE, Stanley I. Mast PE, Robert W. Anza PE, Cary C. Goodman AIA, Walter Sharko PE, Gordon H. Stanley, Jr. PE, James O. Russell PE, Roland Wadsworth, Jr. PE, Ross L. Jensen AIA, Frank T. Lamm PE, Alexander F. Slady PE, John W. Wight PE, Thomas K. Dyer PE, Ronald W. Aarons AIA, Jerome Butler PE, Blaise M. Carrere PE, Michael P. Ingardia PE, Bernard L. Prince PE, Stephen P. Quinn PE

Offices Alexandria VA, Atlanta, GA, Baton Rouge, LA, Boston, MA, Cape Coral, FL, Casper, WY, Charleston, SC, Charleston, WV, Chicago, IL, Cleveland, OH, Dallas, TX, Denver, CO, Fairport, NY, Houston, TX, Indianapolis, IN, Kansas City, MO, Lexington, MA, Los Angeles, CA, Miami, FL, Milwaukee, WI, Minneapolis, MN, Newark, DE, New York, NY, Orlando, FL, Overland Park, KS, Philadelphia, PA, Phoenix, AZ, Seattle, WA, Tampa, FL, Tulsa, OK, Penang, Malaysia, Rio de Janeiro, Brazil

Mr. Theodore C. Taub, Chairman
September 11, 1984
Page Two

We plan to present this memorandum and the Draft Engineering Alternatives Report to the Authority at tomorrow's meeting.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF



Harry D. Bertossa, P.E.

HDB/JRF/pf

Copies to:
Expressway Authority Members
Mr. James G. Kennedy, FDOT/Bartow
URS/Coverdale & Colpitts
Barr Dunlop & Associates
File 7857-11-01

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF

TECHNICAL MEMORANDUM

NORTHWEST HILLSBOROUGH EXPRESSWAY
EAST-WEST CORRIDOR EVALUATION
September 11, 1984

I. PURPOSE

The purpose of this memorandum is to consider the viability of alignments within the eastern end of the East-West Corridor. The area under consideration herein is generally in the southern portion of Lutz bounded by Dale Mabry Highway on the west and I-275 on the east.

This evaluation is primarily in response to the traffic assignments for this segment being low. This segment of the East-West Corridor would serve the bypass traffic and offer some improvement for local traffic while causing community disruption and increased environmental impacts. This concern was voiced at the Corridor Public Hearing conducted in August 1983 and again at the public workshops on August 1 and 2, 1984. The recommendation adopted by the Authority in September 1983 after the corridor hearing was:

In recommending Corridor B, it is realized that the east-west section between Dale Mabry Highway and I-275 will principally serve the thru, longer distance trip and the local trip to a lesser degree. During the Phase II study,

special emphasis will be placed on studying the traffic volume the roadway will serve and the potential benefits to the downtown interstate system. These will be compared to the roadway cost and its environmental and community impacts. It may prove that this section of the environmental and community impacts outweigh the traffic services benefits received.

This technical memorandum will consider the principal factors of project cost, traffic service provided by the expressway -- both as a bypass and for local service, and significant environmental and community considerations. As a result of this evaluation, a recommendation is made herein to the Tampa Hillsborough County Expressway Authority and the Florida Department of Transportation on whether this segment should be studied in further detail in the Draft Environmental Impact Statement or dropped from further consideration.

II. DESCRIPTION OF IMPROVEMENT

The type of transportation improvement under consideration is a four-laned limited access expressway which will be financed by revenue bonds. The area isolated for this evaluation is just one part of a total transportation facility intended to provide a bypass route around the northern and western portions of Tampa. The expressway would also provide a new major east-west roadway across the northern

portion of the County.

A. Alignments Studied

Within the area of concern, two basic alignments with two cross-overs have been developed and evaluated. The description and evaluation of the following alignments are presented in detail in the Draft Engineering Alternative Report published July 1984; therefore, the details will not be discussed in this memorandum.

1. Lake Brandt - North
2. Lake Brandt - North with Southern Crossover
3. Lake Brandt - South
4. Lake Brandt - South with Northern Crossover

The length of the alignments from Dale Mabry Highway to I-275 ranges from 5.27 miles to 5.53 miles.

B. Service Provided

The Northwest Hillsborough Expressway is proposed as a limited access roadway; that is, access to the roadway can only be gained via an interchange ramp. The locations of these interchanges are Dale Mabry Highway, Nebraska Avenue, Livingston Avenue and I-275. Each of the interchanges will accommodate all travel directions.

The mainline roadway is ultimately proposed to be four laned divided. This four laning can be either provided initially or

staged. The staged option investigated is to provide a two lane limited access roadway. The two lane roadway would be developed with interchange access, the full width right-of-way and all necessary major drainage for the four laned roadway in the initial construction.

C. Need for Improvement

The Northwest Hillsborough Expressway is needed for several reasons as cited in the Phase I - Corridor Report. These were that the existing roadway network, both arterial and interstate roadways, is rapidly approaching extreme congestion with operating levels of E (unstable flow with stoppages) and F (forced flow) on many roadways during peak hour periods. Continued growth in the northwest portion of the County will magnify this congestion in future years. While the FDOT and Hillsborough County have programmed and/or are studying major improvements to the network, analysis has shown that the Northwest Hillsborough Expressway will be needed to meet the future traffic demands even if the improvements are made.

Another factor showing the need for the Expressway is the increased accident rates in the northwest portion of the County, principally resulting from the increased roadway congestion.

The final factor is the need for a bypass around the northern and western portions of Tampa. This factor is a critical issue in the

evaluation of the need for an expressway segment between Dale Mabry Highway and I-275. Should the project be completed as presently proposed having a limited access expressway from I-275 in the vicinity of Tampa International Airport to I-275 on the north, a full bypass route would be provided to avoid the downtown area. Additionally, the project will provide a needed east-west route in the northern part of the County between Dale Mabry Highway and I-275. Presently, east-west trips must utilize the existing local collector system which is fragmented.

D. No-Build Options

This section addresses the consideration of not building the expressway from Dale Mabry Highway to I-275 in northern Hillsborough County. The proposed expressway would terminate at Dale Mabry Highway, thus minimizing its use as a bypass route.

Access to the expressway from the northeast for bypassing traffic would best be gained by exiting I-75 at CR54 westward to US41 and then southward into Dale Mabry Highway. The FDOT could improve this access by providing a new CR54 interchange into I-75 approximately one-and-a-half miles north of the Pasco County line and upgrading CR54 westward to US41. Such improvements would enhance travel time over using the existing network.

The no-build alternative would not provide a primary east-west

route in the northern part of the County to service local traffic. However, the traffic projections made by the URS/Coverdale & Colpitt's Report indicates that this demand would be quite small for an expressway and could be handled by improvements to the local roadway network.

III. ENGINEERING AND ENVIRONMENTAL CONSIDERATIONS

The principal factors evaluated in the Draft Engineering Alternatives Report and discussed earlier in this memorandum are considered in the evaluation. Those are project costs, relocations and wetland impacts.

A. Project Costs

The project costs presented in this memorandum are the same as those presented in the Draft Engineering Alternatives Report modified to specifically address the section between Dale Mabry Highway and I-275. Project cost is the summation of the various expenditures anticipated in administering, planning, engineering, acquiring of right-of-way, construction, and related incidental items associated with the development of an expressway project.

The estimate presented in Table 1 gives each of the alignment alternatives and shows costs for an initial two lane and an initial four lane roadway. The estimates for the two lane roadway

TABLE 1

NORTHWEST HILLSBOROUGH EXPRESSWAY

PROJECT COSTS

TWO LANE ESTIMATE

ALTERNATIVE ALIGNMENT	FROM	TO	LENGTH (MI.)	1984 CONST. COSTS	ENGR. SURVEYS AND TESTING (15%)	ADMIN. LEGAL AUDIT & FINANCING	CONTIN-GENCIES (15%)	FDOT ROW ESTIMATE	FDOT RELOCATE ESTIMATE	1984 PROJ. COSTS	1987 PROJ. COSTS (8%/YR.)
Lake Brandt-North	Dale Mabry Hwy.	I-275	5.53	16,691,000	2,504,000	100,000	2,894,000	13,400,000	272,000	35,861,000	45,175,000
Lake Brandt-North w/Southern Crossover	Dale Mabry Hwy.	I-275	5.49	16,287,000	2,443,000	100,000	2,825,000	13,840,000	294,800	35,790,000	45,085,000
Lake Brandt-South	Dale Mabry Hwy.	I-275	5.27	18,425,000	2,764,000	100,000	3,193,000	13,540,000	416,900	38,439,000	48,422,000
Lake Brandt-South w/Northern Crossover	Dale Mabry Hwy.	I-275	5.53	19,333,000	2,900,000	100,000	3,350,000	14,640,000	400,400	40,723,000	51,299,000

FOUR LANE ESTIMATE

Lake Brandt-North	Dale Mabry Hwy.	I-275	5.53	25,590,000	3,839,000	100,000	4,430,000	13,400,000	272,000	47,631,000	60,001,000
Lake Brandt-North w/Southern Crossover	Dale Mabry Hwy.	I-275	5.49	24,877,000	3,732,000	100,000	4,306,400	13,840,000	294,800	47,150,000	59,395,000
Lake Brandt-South	Dale Mabry Hwy.	I-275	5.27	27,499,000	4,125,000	100,000	4,759,000	13,540,000	416,900	50,440,000	63,540,000
Lake Brandt-South w/Northern Crossover	Dale Mabry Hwy.	I-275	5.53	29,086,000	4,363,000	100,000	5,032,000	14,640,000	400,400	53,621,000	67,547,000

alignment include the full right-of-way width, complete major drainage and some earthwork for future widening.

B. Business and Residential Relocations

A summary of the numbers of business and residential relocations and costs is presented in Table 2. The section between Dale Mabry Highway and I-275 represents approximately 25% of the total length of project. Within this section are located between 16% and 21% (varies with alignment) of the residential relocations and 11% to 13% of the business relocations. While these percentages appear low, the area is principally rural residential with many homes located in one acre or larger tracts. Some of these homes have been resided in by families over several generation

C. Wetland Impacts

The area between Dale Mabry Highway and I-275, while only 25% of the entire project length, contains the greatest intensity of wetlands. Table 3 lists the acreage of wetlands impacted by each of the alignment alternatives. In comparing these acreages to the total wetlands impacts for a full length alignment, it is estimated that between 41% and 56% (dependent upon alignment) of the natural wetlands impacted are within this section. By evaluating the total wetlands (natural and man-made), it is estimated that between 33% and 46% of the total wetlands impacted are within this area.

TABLE 2

RELOCATION IMPACTS

Alignment Alternatives	Numbers of Relocations			Total	Costs
	Resid.	Business	Non-Profit		
Lake Brandt - North	24	4	0	28	\$272,000
Lake Brandt - North w/Southern Crossover	30	3	0	33	\$294,800
Lake Brandt - South	34	3	0	37	\$416,900
Lake Brandt - South w/Northern Crossover	35	3	0	38	\$400,400

TABLE 3

WETLANDS IMPACTED

Alternative Alignment	Acres Impacted		Percent of Total Alignment	
	Natural	Man-Made	Total	Total
Lake Brandt - North	27.30	3.69	30.99	33%
Lake Brandt - North w/Southern Crossover	36.13	3.39	39.52	39%
Lake Brandt - South	49.98	3.34	53.32	46%
Lake Brandt - South w/Northern Crossover	46.10	2.44	48.54	43%

IV. TRAFFIC CONSIDERATIONS

The Draft Traffic and Revenue Study submitted by the traffic consultants (URS/Coverdale and Colpitts) contained mainline projections for 1988 and 2010. These projections indicated relatively light traffic could be expected between Dale Mabry Highway and I-275 in 1988. The mainline is expected to have 3,850 average daily traffic (ADT) between I-275 and US41 and 5,320 ADT between US41 and Dale Mabry Highway. Some increase can be expected by the year 2010, but still for an expressway facility the volumes are relatively light. The section between I-275 and US41 is expected to increase to 8,130 ADT and the US41 to Dale Mabry Highway section to 12,500 ADT.

In studying the traffic flow in the year 2010, nearly 8,000 ADT can be expected to enter the expressway from I-275. This volume is expected to increase to over 12,000 west of US41. Such indicates that a good percentage of the expressway traffic west of US41 is local. It appears that the split would be approximately 60% bypass and 40% local. While this split indicates that the expressway would provide a service to the local residents, the volume is small (approximately 5,000 ADT) and can be provided by an improved local road network.

The interchange of the expressway with I-275 would require an interchange justification study to be reviewed and approved by the Federal Highway Administrative (FHWA). This study would contain a full analysis of the new interchange with the benefits and costs to the motoring public being the primary issue. It is our opinion that

the low volume through the interchange would not provide for a positive benefit/cost analysis thereby making approval by FHWA doubtful.

Should the expressway not be built, this traffic would use other routes. It is expected that over one-half of the bypass traffic (3,000 to 5,000 ADT) would follow the interstate thru downtown. Considering the major renovations proposed for the Tampa Interstate System, the small volumes would not have any operational effects on the system. The remaining traffic would utilize the existing roadway network having little impact.

In final analysis, the low volumes proposed between Dale Mabry Highway and I-275 do not warrant an expressway type facility even at the year 2010. The bypass volumes are low and could be easily handled by an improved interstate system and use of CR54 and Dale Mabry Highway to the expressway. The local traffic from the Lutz area could still access the expressway by going west on local roadways to Dale Mabry Highway.

V. RECOMMENDATION

We recommend the expressway segment between Dale Mabry Highway and I-275 be dropped from further consideration. The basis for this recommendation is that the low traffic volume projected for each year up to the year 2010 does not warrant an expressway type improvement.

However, we encourage the County and State to consider proposed improvements to east-west arterial routes in northern Hillsborough County, as the traffic studies show a travel desire from US41 to Dale Mabry Highway and westward.

As shown in the memorandum, there are also advantages to be derived of reducing the community and wetland impacts.

J19/26

APPENDIX B

NORTHWEST HILLSBOROUGH EXPRESSWAY,
TECHNICAL MEMORANDUM,
RAILROAD ALIGNMENT EVALUATION,
DATED FEBRUARY 1, 1985

HOWARD NEEDLES TAMMEN & BERGENDOFF

January 31, 1985

Mr. Frank Valenti, Chairman
THCEA
Room 223, County Courthouse
Post Office Box 1110
Tampa, Florida 33601

Re: Northwest Hillsborough Expressway
Technical Memorandum
Railroad Alignment Evaluation
State Project No. 10000-1531
Budget Item No. 113669

Dear Mr. Valenti:

Enclosed is a Technical Memorandum addressing the desirability of including the Railroad Alignment in the study process for the project's Environmental Impact Statement. This evaluation has shown that the principal factors of project costs, traffic service, wetland impacts and community impacts could be considered close enough to include the Railroad Alignment, along with the Lake LeClare Alignment and No Build alternatives.

Our recommendation for adding the Railroad Alignment to the study will be presented at the February 4, 1985, Authority meeting.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Dale E. Patten
Dale E. Patten, P.E.

DEP/mh

Encl.

Copies to: Expressway Authority Members
Ms. Mary J. Hall
Mr. James G. Kennedy, P.E.
URS/Coverdale & Colpitts
Barr Dunlop & Associates
File 7857-11-01 J20/18

Engineers Planners

8000 Lake Ellenor Drive, Suite 100, Orlando, Florida 32809, 305 859-8360 Harry D. Bertossa, Associate

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Associates Daniel J. Appel PE, Robert W. Richards PE, Don R. Orr PE, Frederick H. Stenberg PE, Robert B. Kollmar PE, Kendall T. Lincoln CPA, Jack P. Sheed PE, Roberts W. Smithem PE, Jack C. Thompson PE, Richard D. Beckman PE, John A. Eggen AIA, Harry D. Bertossa PE, Ralph E. Robinson PE, Cecil P. Courts PE, Stephen G. Gossard PE, Harvey K. Hammond Jr. PE, Stanley I. Mast PE, Robert W. Anza PE, Walter Sharko PE, James O. Russek PE, Ross L. Jensen AIA, Frank T. Lamm PE, Alexander F. Sliach PE, John W. Wright PE, Thomas K. Dyer PE, Ronald W. Aarons AIA, H. Jerome Butler PE, Blaise M. Carner PE, Michael P. Ingarda PE, Bernard L. Prince PE, Stephen B. Quinn PE, Saul A. Jaccobs PE, James A. Smith, Ronald F. Turner AIA, C. Frank Harscher III, Ewing H. Miller FAA, Douglas C. Myrre PE
Offices Alexandria VA, Atlanta GA, Austin TX, Baton Rouge LA, Boston MA, Cape Coral FL, Casper WY, Charleston SC, Charleston WV, Chicago IL, Cleveland OH, Dallas TX, Denver CO, Fairfield NJ, Houston TX, Indianapolis IN, Kansas City MO, Lexington KY, Lexington MA, Los Angeles CA, Miami FL, Milwaukee WI, Minneapolis MN, Newark DE, New York NY, Orlando FL, Overland Park KS, Philadelphia PA, Phoenix AZ, Raleigh NC, Seattle WA, Tampa FL, Tulsa OK, Penang, Malaysia, Port of Spain, Trinidad

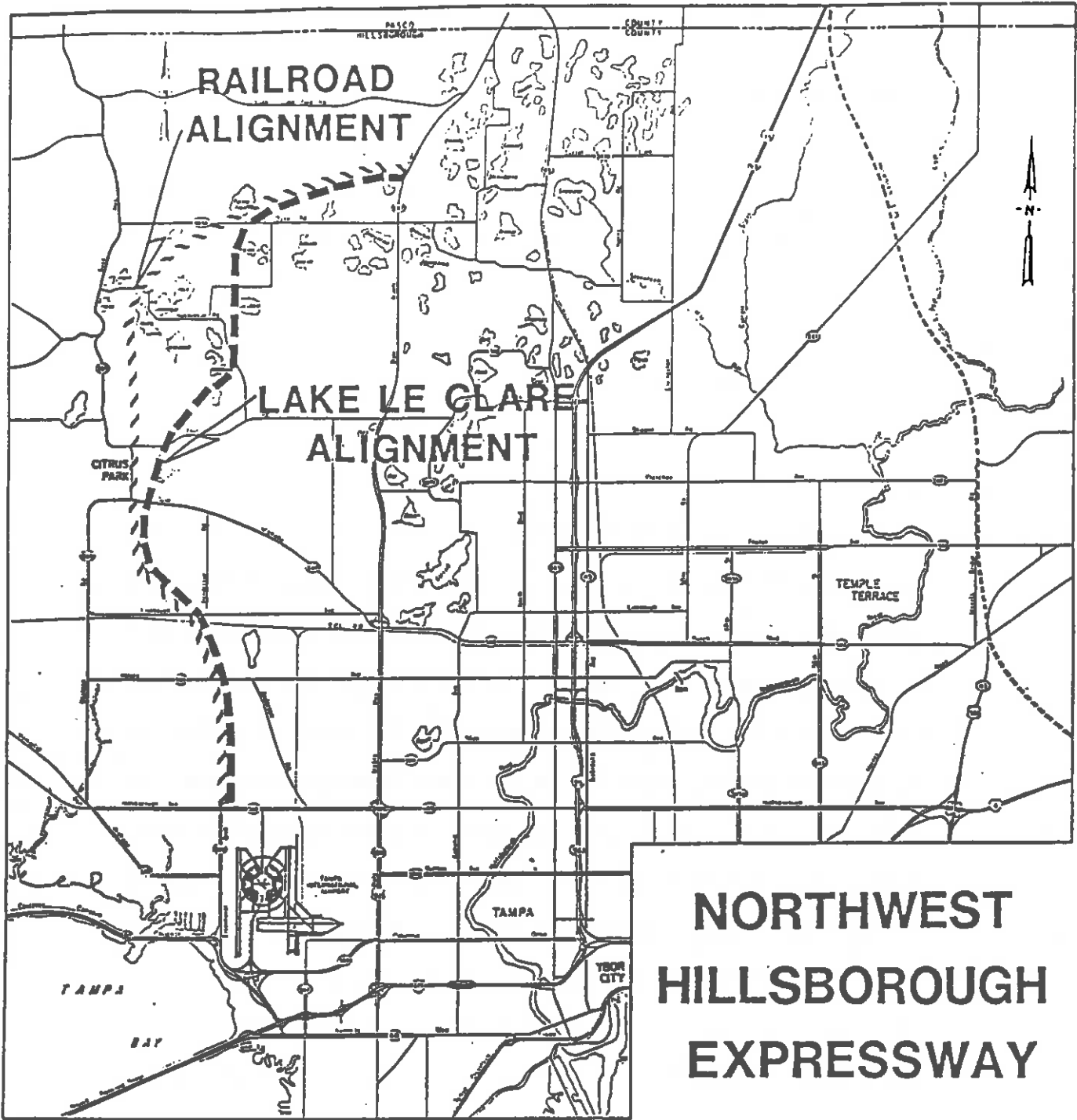
TECHNICAL MEMORANDUM

NORTHWEST HILLSBOROUGH EXPRESSWAY
RAILROAD ALIGNMENT EVALUATION
February 1, 1985

I. PURPOSE

The purpose of this memorandum is to evaluate and compare an alternative roadway alignment from south of Gunn Highway to a termination at Dale Mabry Highway. See Exhibit 1 for location of Project. The alternative alignment under consideration, hereinafter called the Railroad Alignment, generally follows the abandoned railroad right-of-way from a point south of Gunn Highway to Mobley Road which is one mile south of Van Dyke Road. The alignment then curves eastward and is the same as the approved alignment (Lake LeClare Alignment) from Tobacco Road at Van Dyke Road to Dale Mabry Highway. This evaluation was developed in response to the areawide interest shown during, and subsequent to, the August 1 and 2, 1984 public meetings and to the September 12, 1984 Authority meeting. At the September 12 Authority meeting the Eisenhower-West alignment, which is now referred to as the Lake LeClare Alignment (for the segment north from Hillsborough Avenue to Dale Mabry Highway), was approved for detailed study.

The principal factors of project costs and wetland impacts, community impacts and traffic service are discussed herein. Since both the Lake LeClare Alignment and the Railroad Alignment are the same from a point between Linebaugh Avenue and Gunn Highway south to Hillsborough Avenue, the evaluations made in this memorandum address only that segment north to Dale Mabry Highway.



**NORTHWEST
HILLSBOROUGH
EXPRESSWAY**

**EXHIBIT 1
LOCATION MAP**

As a result of this study, a recommendation is included herein to the Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation to include the Railroad Alignment alternative in detail in the Environmental Impact Statement.

II. DESCRIPTION OF ALTERNATIVE ALIGNMENTS

A. General

The alignments are either the Lake LeClare or the Railroad for the transportation improvement project under consideration and comprising a four lane limited access expressway financed in part by revenue bonds. The segment for this evaluation is just one part of a total transportation facility intended to serve the western and northern portions of the Tampa Metropolitan Area. It would form one part of a high speed expressway/loop arterial roadway around the Tampa CBD. The total transportation system consists of: improvements to Memorial Highway and Eisenhower Boulevard from I-275 to Hillsborough Avenue; construction of a new limited access expressway from Hillsborough Avenue to Dale Mabry Highway immediately north of Van Dyke Road (this segment includes that part of the alignment considered herein); improvements to Dale Mabry Highway from the expressway to SR 54; and improvements to SR 54 from Dale Mabry to I-275 (north), including the interchange requirements at I-275.

B. Lake LeClare Alignment

The Lake LeClare alignment begins at the Eisenhower Boulevard/Hillsborough Avenue interchange and proceeds generally north to the railroad south of Linebaugh Avenue. The alignment then curves westward across and interchanging with Linebaugh, then northward to where the expressway occupies the abandoned railroad right-of-way. The alignment follows the railroad right-of-way for a short distance, then curves northeast interchanging with Gunn Highway, Ehrlich Road, and Hutchinson Road. The alignment then proceeds northward, passing Lake LeClare on the west side, then northeast interchanging with Van Dyke Road east at Lakeshore Road. The alignment then proceeds generally eastward to an interchange with Dale Mabry Highway, one-half mile north of Van Dyke Road. Note, all the interchanges mentioned above provide entrance and exit ramps for both directions except for the Hutchinson Road and Van Dyke Road interchanges which provide entrance and exit ramps to and from the south only. This alignment is approximately 13.0 miles in length.

C. Railroad Alignment

The Railroad alignment also begins at the Hillsborough Avenue interchange and is the same as the Lake LeClare alignment until the Lake LeClare alignment veers northeast away from the abandoned railroad right-of-way. The Railroad alignment continues to follow the abandoned railroad right-of-way for approximately 4 miles before it curves to the northeast to again become the same alignment as the Lake LeClare alignment between Tobacco Road and Dale Mabry Highway. There will be a full interchange at Gunn Highway and one at Ehrlich Road and a half interchange serving the South only at Binder Road for that portion of the alignment that is different than the Lake LeClare alignment. The proposed Railroad alignment is approximately 13.8 miles for the entire length from Hillsborough Avenue to Dale Mabry Highway or 0.8 miles longer than the Lake LeClare alignment.

III. ALTERNATIVE ALIGNMENT EVALUATION FACTORS

The Railroad Alignment from 4,000 feet south of Gunn Highway to Dale Mabry Highway is evaluated herein and compared to the Lake LeClare Alignment for the same limits. Their respective lengths are approximately 9.1 miles and 8.3 miles. The proposed expressway will be a four lane limited access roadway with 250 feet wide right-of-way. Bridges over principal local roads will be provided in addition to the bridges for the interchanges listed above. Exhibits 2 and 4 show the comparison between alignments for the factors mentioned earlier and evaluated below.

A. Project Costs

The project costs shown in Exhibit 2 are computed on the same basis as those presented in the Engineering Alternatives Report. They include administration, planning and engineering, construction, contingency and right-of-way acquisition costs. The costs have been escalated to represent the actual expenditures as they are incurred in accordance with the proposed timeframe; see Exhibit 3. The Railroad Alignment project costs are estimated at \$83,500,000, or \$500,000 more than the Lake LeClare Alignment cost of \$83,000,000. The main differences between the two costs are the Railroad Alignment is \$1,400,000 less for right-of-way and \$1,900,000 more for construction, engineering and contingency. The Railroad Alignment is longer, therefore more construction and engineering costs are involved; however, with the more extensive use of the abandoned railroad property the right-of-way costs are less.

EXHIBIT 2

COMPARISON OF ALIGNMENTS
FROM SOUTH OF GUNN HIGHWAY TO DALE MABRY HIGHWAY

	Alternative Alignment	
	Railroad	Lake LeClare
Length (miles)	9.1	8.3
PROJECT COSTS		
Construction	\$46,300,000	\$44,800,000
Engineering	6,900,000	6,700,000
Administrative	200,000	200,000
Contingency	8,000,000	7,800,000
R/W & Relocation	<u>22,100,000</u>	<u>23,500,000</u>
TOTAL	\$83,500,000	\$83,000,000
WETLAND IMPACTS (Acres)		
Natural	16.675	11.595
Man-made	1.584	0.856
COMMUNITY IMPACTS		
Neighborhoods Affected	4	4
Parcels Taken	197	104
Relocations (1984)		
Residential	78	50
Other	13	7

NORTHWEST HILLSBOROUGH EXPRESSWAY
PROJECT SCHEDULE

	1985	1986	1987	1988	1989
STUDIES & FINAL REPORTS					
DESIGN					
RIGHT-OF-WAY (Acquisition)					
CONSTRUCTION					

B. Wetland Impacts

There are some differences in both the natural and man-made wetlands as impacted by the two alignments as shown in Exhibit 2. The amount of wetlands involved within a given project limits is a good indication of the total environmental considerations for that project.

The Railroad Alignment affects 16.675 acres of natural wetlands and 1.584 acres of man-made wetlands for a total of 18.259 acres of wetlands impacted. The Lake LeClare Alignment affects 11.595 acres of natural wetlands and 0.856 acres of man-made wetlands, for a total of 12.451 acres of wetlands. The net difference is, therefore, 5.808 acres or approximately 47% more for the Railroad Alignment.

C. Community Impacts

There are four neighborhoods within close proximity or directly impacted by each of the alignments. The Railroad Alignment affects Citrus Park, Woodbriar West, an area north of Citrus Park, and an area west of Lake Helen. The Lake LeClare Alignment affects Woodbriar West, Carrollwood Meadows, Sugarwood Grove, and the area south and west of Lake Helen and Lake LeClare. The Railroad Alignment would need to acquire approximately twice as many parcels and would require 60% more relocations. Included in the Railroad Alignment relocations is one church. All other relocations for both alternatives are limited to residence and businesses.

D. Traffic Service

Preliminary indications from the traffic consultants are that the projected traffic volumes on the total facility would be greater for the Lake LeClare Alignment than the Railroad Alignment (see Exhibit 4). For example, the Waters to Hillsborough Avenue 1989 mainline traffic would be 25,960 based on the LeClare Alignment and 25,030 for the Railroad Alignment. The traffic projections for the year 2010 are 49,500 and 47,700, respectively.

IV. RECOMMENDATION

We recommend that the Railroad Alignment be included as one alternative in the Environmental Impact Statement.

EXHIBIT 4

TRAFFIC PROJECTIONS

1988-1989 AADT

<u>Location</u>	Lake LeClare	Railroad
Waters Ave. (So. on Mainline)	25,960	25,030
Waters Ave. (No. Ramps)	530	400
Linebaugh (No. Ramps)	40	30
Ehrlich (So. Ramps)	6,280	6,280
Hutchinson (So. Ramps)	3,770	---
Binder (So. Ramps)	---	3,140
Van Dyke (So. Ramps)	1,180	1,180
Dale Mabry (So. Ramps)	2,800	2,500

File 7857-11-00 J20/17

APPENDIX C

NORTHWEST HILLSBOROUGH EXPRESSWAY,
TECHNICAL MEMORANDUM,
BENJAMIN ROAD ALIGNMENT EVALUATION
DATED MAY 21, 1985

HOWARD NEEDLES TAMMEN & BERGENDOFF

June 17, 1985

Mr. Frank Valenti
Chairman, THCEA
501 East Kennedy Boulevard
Suite 602
Tampa, Florida 33602

Re: Northwest Hillsborough Expressway
Technical Memorandum
Benjamin Road Alignment
State Project No. 10000-1531
Budget Item No. 113669


Dear Mr. Valenti:

Enclosed is Technical Memorandum for comparing the Eisenhower/West Alignment with an alignment (herein referred to as the Benjamin Road Alignment) proposed by the public at the workshops held in August, 1984. This is for the Authority's and Department's information and will be included in the Environmental Impact Statement as an Appendix.

The Benjamin Road Alignment is not being considered as a viable alignment since it is not significantly better than, and the costs are greater than, the Eisenhower/West Alignment. As noted in the memorandum, there are a few more relocations with the Benjamin Road Alignment and the wetlands are nearly the same.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF


Dale E. Patten, P.E.

DEP/mh

Encl.

Copies to:

Ms. Mary J. Hall - w/encl.

Mr. James G. Kennedy - w/encl.

File 7857-11-01 J20/27

Engineers Planners

6000 Lake Eleanor Drive, Suite 100, Orlando, Florida 32809, 305 850-8380

Harry D. Bertossa, Associate

Partners James F. Finn PE, Paul L. Heineman PE, Gerard F. Fox PE, Browning Crow PE, Charles T. Herrigan PE, Edgar B. Johnson PE, Daniel J. Watkins PE, Daniel J. Spigai PE, John L. Cotton PE, Francis X. Hall PE, Robert S. Coma PE, Donald A. Dupies PE, William Love AIA, Robert D. Miller PE, James L. Tuttle, Jr. PE, Hugh E. Schall PE, Cary C. Goodman AIA, Gordon H. Stanley, Jr. PE
Associates Daniel J. Appel PE, Robert W. Richards PE, Don R. Ort PE, Frederick M. Sierbenz PE, Robert B. Kolmar PE, Kendall T. Lincoln CPA, Jack P. Shedd PE, Roberts W. Smitham PE, Jack C. Thompson PE, Richard D. Beckman PE, John A. Eggen AIA, Harry D. Bertossa PE, Ralph E. Robison PE, Cecil P. Counts PE, Stephen G. Goddard PE, Harvey K. Hammond, Jr. PE, Stanley I. Mast PE, Robert W. Anzia PE, Walter Sharke PE, James O. Russell PE, Ross L. Jensen AIA, Frank T. Lamm PE, Alexander F. Slady PE, John W. Wight PE, Thomas K. Dyer PE, Ronald W. Aarons AIA, M. Jerome Butler PE, Blaise M. Carnere PE, Michael P. Ingardia PE, Bernard L. Prince PE, Stephen B. Quinn PE, Saul A. Jacobs PE, James A. Smith, Ronald F. Turner AIA, C. Frank Harscher, III, Ewing H. Miller, FAIA, Douglas C. Myhre PE
Offices Alexandria, VA, Atlanta, GA, Austin, TX, Baton Rouge, LA, Boston, MA, Cape Coral, FL, Casper, WY, Charleston, SC, Charleston, WV, Chicago, IL, Cleveland, OH, Dallas, TX, Denver, CO, Fairfield, NJ, Houston, TX, Indianapolis, IN, Kansas City, MO, Lexington, KY, Lexington, MA, Los Angeles, CA, Miami, FL, Milwaukee, WI, Minneapolis, MN, Newark, DE, New York, NY, Orlando, FL, Overland Park, KS, Philadelphia, PA, Phoenix, AZ, Raleigh, NC, Seattle, WA, Tampa, FL, Tulsa, OK, Penang, Malaysia, Rio de Janeiro, Brazil

TECHNICAL MEMORANDUM

NORTHWEST HILLSBOROUGH EXPRESSWAY BENJAMIN ROAD ALIGNMENT EVALUATION May 21, 1985

I. PURPOSE

The purpose of this memorandum is to evaluate and compare roadway alignment alternatives from south of Johns Road bridge on the south to the Seaboard Systems Railroad bridge (immediately south of Linebaugh Avenue) on the north. The two alternatives shown in Exhibit 1 are: (1) a segment of the Eisenhower/West alignment, and (2) the Benjamin Road alignment.

This evaluation of the previously approved Eisenhower/West alignment and the new Benjamin Road alignment was developed to consider an alignment further east. The Benjamin Road alignment was prepared in detail and shown to the public for comment at the March 26, 1985 public meeting. Subsequent to the public meeting, we proceeded with this evaluation of the two alignment alternatives.

The principal factors of project costs, wetland impacts, community impacts, and traffic service are discussed herein.

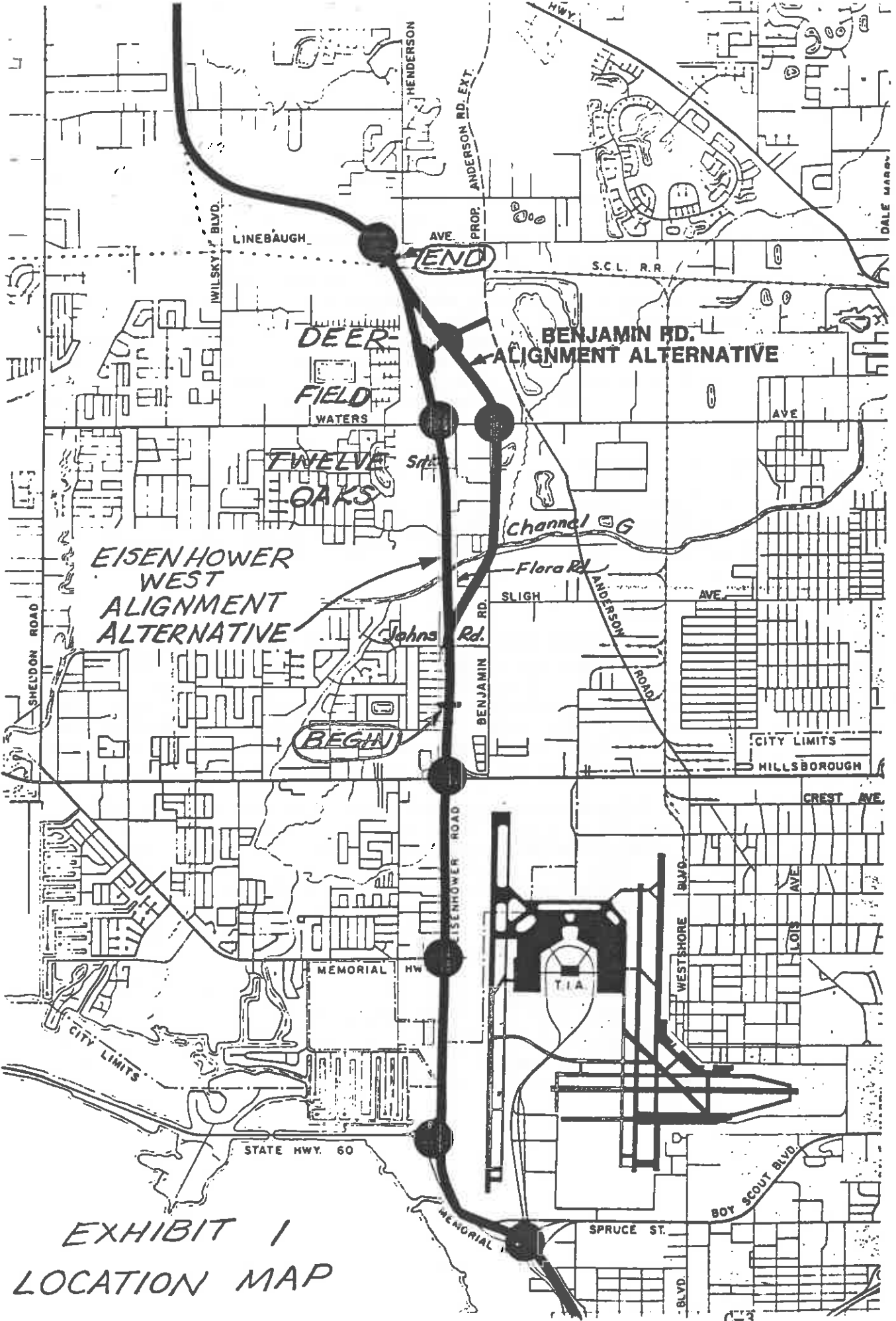
II. DESCRIPTION OF ALTERNATIVE ALIGNMENTS

A. General

The alternatives under consideration in this Technical Memorandum are either the Eisenhower/West or the Benjamin Road alignments. This segment of the expressway is one part of a total transportation facility (four laned limited access expressway) intended to serve the western and northern portions of the Tampa Metropolitan Area.

B. Eisenhower/West Alignment

This segment of the Eisenhower/West alignment begins 1,300 feet south of the Johns Road bridge and proceeds generally north to its end 200 feet north of the railroad bridge which is south of Linebaugh Avenue. The alignment crosses on bridge Channel G of Sweetwater Creek and Barry Road. There is an interchange proposed at Waters Avenue with ramp access for both northbound and southbound traffic. The alignment is approximately 2.46 miles in length.



*EXHIBIT 1
LOCATION MAP*

C. Benjamin Road Alignment

The Benjamin Road alignment also begins south of the Johns Road bridge; however, the alignment curves to the east until the bridge crossing of Channel G and Benjamin Road where the alignment then proceeds northerly to the interchange at Waters Avenue. Between Johns Road and Benjamin Road the expressway also crosses Flora Avenue on bridge so as to provide access to properties otherwise landlocked on the west side of the proposed expressway. From the Waters Avenue interchange the alignment proceeds northwesterly to the north side of the Seaboard Systems Railroad bridge. The Waters Avenue interchange is similar in design to the Eisenhower/West proposed interchange and provides access for northbound and southbound traffic. The alignment is approximately 2.59 miles in length or 0.13 miles longer than the Eisenhower/West alignment.

III. ALTERNATIVE ALIGNMENT EVALUATION FACTORS

As mentioned previously, the principal factors of project costs, wetland impacts, community impacts, and traffic service are evaluated and discussed below. A summary of these factors are presented in Exhibit 2.

A. Project Costs

The project costs shown in Exhibit 2 are computed on the same basis as those presented in prior estimates of all other alternatives. They include construction, planning and engineering, right-of-way acquisition, relocation, and contingency. The costs have been escalated to represent the actual expenditures as they are incurred in accordance with the proposed timeframe; see Exhibit 3.

For the Benjamin Road alignment alternative the costs for each of the items are greater. The construction difference is primarily due to a longer bridge crossing at Channel G where it also crosses Benjamin Road and increased length of project (0.13 miles). Engineering and contingency are directly related to construction costs and are therefore proportionately larger. Right-of-way and relocation costs are greater, as shown in Exhibit 4, primarily for the area located 600 feet north of Barry Road to Waters Avenue. The acquisition differential is a little over \$2,000,000. There are thirteen additional properties to be acquired for the Benjamin Road alignment and nine more relocations; however, the actual relocation costs are estimated to be slightly less (\$11,800). The Benjamin Road alignment at Waters Avenue interchange involves taking of more expensive business property.

EXHIBIT 2

COMPARISON OF ALIGNMENTS
FROM SOUTH OF JOHNS ROAD TO
NORTH OF SEABOARD SYSTEMS RAILROAD

	Alignment Alternatives	
	Eisenhower/West	Benjamin Road
Length (miles)	2.46	2.59
PROJECT COSTS		
Construction	\$14,200,000	\$15,700,000
Engineering	2,100,000	2,400,000
Administrative	--	--
Contingency	2,500,000	2,700,000
R/W & Relocation	12,500,000	14,600,000
Escalation	8,100,000	9,200,000
TOTAL	<u>\$39,400,000</u>	<u>\$44,600,000</u>
WETLAND IMPACTS		
Acres	8.40	8.76
COMMUNITY IMPACTS		
Neighborhoods Affected	3*	3
Parcels Taken	32	39
Relocations (1984)		
Residential	24	22
Other	7	18
Total	<u>31</u>	<u>40</u>
TRAFFIC SERVICE		
Travel distance increase for 40,000 to 46,000 ADT in the year 2010	--	5,200 to 5,980 miles per day

* Note two new multifamily developments would also be affected.

**NORTHWEST HILLSBOROUGH EXPRESSWAY
PROJECT SCHEDULE**

	1985	1986	1987	1988	1989
STUDIES & FINAL REPORTS					
DESIGN					
RIGHT-OF-WAY (Acquisition)					
CONSTRUCTION					

EXHIBIT 4

COMPARISON OF
RIGHT-OF-WAY AND
RELOCATION

So. of Johns Rd. to 600 Ft. No. of Barry Road	No. of Parcels	Eisenhower/West		Relocation Costs	No. of Parcels	Benjamin Road		Relocation Costs
		Acquisition Costs	No. of Relocations			Acquisition Costs	No. of Relocations	
	18	\$ 4,436,000	18	\$132,500	16	\$ 4,404,000	18	\$115,500
600 Ft. No. of Barry Road to Waters Avenue	12	4,497,000	12	144,000	18	6,477,000	18	129,200
Waters Avenue to No. of Railroad	2	3,322,000	1	10,000	5	3,492,000	4	30,000
TOTAL	32	12,255,000	31	286,500	39	14,373,000	40	274,700

B. Wetland Impacts

The amount of wetlands involved within a given project's limits is a good indication of all other environmental considerations for that project. Within the limits of the two alignment alternatives considered herein, the wetland involvement is nearly the same, 8.76 acres for Benjamin Road alignment and 8.40 acres for the Eisenhower/West alignment.

C. Community Impacts

There is one community directly affected by the project and two other communities affected by virtue of their close proximity to the proposed alignment. In addition, there are two new multifamily developments under construction adjacent to the Eisenhower/West alignment which would be impacted.

Eisenhower West Alignment

The Eisenhower West alignment passes along the western side of the Flora Avenue residential area south of Channel G and the Turnmor Drive, Barry Road, Ann Ballard Road, Bridal Path Lane, Sitka Road, and Peterson Road (hereby designated the Benjamin Road residential area) north of Channel G.

Approximately 32 parcels would be acquired with 31 relocations. Four residences on Sitka Road would be isolated West of the expressway from the much larger area to the east of the expressway. A frontage road would have to be constructed to maintain access to the four residents.

The two communities indirectly affected by the expressway are Twelve Oaks and Deerfield subdivisions located south and north of Waters Avenue, respectively. The principal affect would be visual aesthetics, increased noise, and to a lesser extent the close proximity of the proposed interchange to the development entrances off Waters Avenue. The two new developments mentioned above would also have a more direct impact of noise and visual.

Benjamin Road Alignment

The Benjamin Road alignment passes to the east of the Flora Avenue residential area south of Channel G and the Benjamin Road area north of Channel G. This location is considered desirable since the community would remain together except for those properties to be acquired and two residents south of the water tank. Access to the Flora Avenue area would be maintained with a bridge crossing of Flora Avenue or possibly a small bridge over Channel G at Patterson Road. There would be approximately 39 parcels acquired with 40 relocations. A frontage road would have to be constructed on the east side of the expressway south of Waters Avenue to maintain access to the existing water tank.

The same two communities of Twelve Oaks and Deerfield would be indirectly affected by this alignment alternative. For the Twelve Oaks residential area, the visual and noise affects and interchange location would be a little better. For the Deerfield residential area, the visual and noise affects would be improved to a lesser extent with no change in the northern area. The interchange improvement due to moving it approximately 1,350 feet east would be the same benefit for both of these communities.

D. Traffic Service

The traffic service would be slightly better for the Eisenhower/West alignment since the projected year 2010 traffic of 40,000 to 46,000 vehicles per day would travel 0.13 miles less. This amounts to 5,200 miles to 5,980 miles a day, less total travel on the expressway.

IV. RECOMMENDATION

We recommend the Benjamin Road Alignment alternative be dropped from further consideration since the benefits to the overall community are less. The visual and noise impacts to Twelve Oaks and Deerfield, if found to warrant mitigation, could be improved with a barrier on the west side of the expressway.

APPENDIX D

EARLY NOTIFICATION PACKAGE - LETTERS OF COMMENTS

<u>Number</u>	<u>Date</u>	<u>Agency</u>	<u>Page No.</u>
1	October 18, 1984	Office of the Governor	D-1
2	August 22, 1984	Department of Environmental Regulation	D-7
3	August 17, 1984	Florida Department of State - Division of Archives, History and Records Management	D-9
4	April 10, 1985	Florida Department of State - Division of Archives, History and Records Management	D-21
5	August 22, 1984	Florida Department of State - Historic Tampa/Hillsborough County Preservation Board	D-24
6	April 15, 1985	Florida Department of State - Historic Tampa/Hillsborough County Preservation Board	D-25
7	August 28, 1984	Florida Game and Fresh Water Fish Commission	D-29
8	August 27, 1984	Tampa Bay Regional Planning Council	D-45
9	August 10, 1984	City of Tampa	D-49
10	August 7, 1984	Hillsborough County Environmental Protection Commission <u>Memo</u>	D-50
11	August 9, 1984	Hillsborough County City - County Planning Commission <u>Memo</u>	D-51
12	September 5, 1984	Tampa Bay Regional Planning Council <u>Memo</u>	D-52
13	August 24, 1984	Lutz Civic Association	D-54
14	September 15, 1983	Southwest Florida Water Management District	D-55
15	August 9, 1984	State of Florida - Department of Environmental Regulation	D-58

Office of the Governor

THE CAPITOL
TALLAHASSEE 32301



BOB GRAHAM
GOVERNOR

October 18, 1984

Mr. J.C. Kraft, Chief
Bureau of the Environment
Department of Transportation
Burns Building, MS-37
Tallahassee, Florida 32301



RE: State Project #10000-1521, Northwest Hillsborough
Expressway, Hillsborough County

SAI: FL8407260101C

Dear Mr. Kraft:

The State Clearinghouse has coordinated a review of your project notification for the above referenced project. Although the SF424 Form does not indicate federal fund involvement, it is our understanding from reviewing Ms. Giesy's letter of July 18, that federal funds will be sought by DOT for the portion of the project south of Hillsborough Avenue. In view of potential federal financing for that portion, the following comments and attached agency letters, pursuant to Presidential Executive Order #12372, the National Environmental Policy Act and the Coastal Zone Management Act, are provided to the Florida DOT and the Hillsborough County Expressway Authority for action.

During review of this project, we received comments from the Department of Environmental Regulation, Department of State, the Game and Fresh Water Fish Commission, the Southwest Florida Water Management District, Tampa Bay Regional Planning Council and the Governor's Natural Resources Policy Unit. The Departments of Community Affairs, Natural Resources, Commerce, General Services and Health and Rehabilitative Services have no substantive comments at this time. Comments are also included from the Governor's Natural Resources Policy Unit.

The Department of Environmental Regulation states that the environmental impacts from the proposed project cannot be determined due to the limited information in the advanced notification. Based on the magnitude of the project, they recommend that an Environmental Impact Statement pursuant to

Handwritten notes:
10/16
sent to
HNTB

the National Environmental Policy Act be prepared to assess the impact of the project on aquatic resources, air quality, noise, stormwater management and dredge and fill activities. They further recommend that any roadway improvements minimize impacts to wetlands, streams, lakes and flood prone areas. Such impacts can be reduced by bridging, steeper side slopes and eliminating or reducing median width. Finally, they recommend avoidance of filling in floodplains and flood prone areas and states that any federal funding assistance to the proposed study is not inconsistent with their statutory authorities in the Florida Coastal Management Program. However, this determination is not intended to bias future consistency review of the project at subsequent stages of environmental studies, design and funding. Future consistency decisions will be predicated, in part, on an adequate responsiveness to the recommendations in their reviews.

The Department of State indicated that there are three archaeological sites recorded within the study area and that archaeological sites are likely to occur in portions of the study area shaded in green on the maps attached to their letter. They recommend that plans and location maps for the final expressway right-of-way and any alternates be submitted for review by the Division of Archives, History and Records Management. Further, they recommend that if project activities impact areas deemed likely to contain potentially significant archaeological and/or historic sites and properties, that a systematic, professional archaeological and historical survey be conducted prior to any land clearing or ground disturbing activities.

The Game and Fresh Water Fish Commission recommends a thorough inventory and documentation of the natural habitats and wildlife species occurring within the project corridor with particular attention to species listed by the Commission as endangered, threatened, or of special concern. Further, the Commission recommends that during alignment selection, wetlands and uplands which support endangered or threatened species be avoided. Bridging, right-of-way width reduction, and extensive culverting should be implemented as necessary to minimize adverse impacts on wetland vegetation and hydrology. Finally, the Commission recommends that if unavoidable adverse environmental impacts are anticipated, appropriate mitigatory measures should be presented in the environmental assessment.

Tampa Bay Regional Planning Council comments are extensive and include a strong comment from the Lutz Civic Association. The Council indicates that the consistency of the proposed project with Council Policy and the Florida Coastal Management Program cannot be determined until the Location and Design Study and further biological assessments are submitted for review. The Council cites several issues which need to be addressed during review of location and design studies. These issues include:

- *Protection of water bodies (seventeen mile run/ Cypress Creek) and cypress domes within the proposed corridor from encroachment by the highway, and the effects of stormwater runoff.
- *Clarification of funding sources and fiscal impacts on other county and city transportation projects.
- *Urbanization of former agricultural lands, dismemberment of established communities, condemnation and relocation of residences and commercial activities.
- *Effectiveness of the Northwest Hillsborough Expressway (NHE) as a regional transportation facility to improve accessibility, not only for Northwest Hillsborough County but also Pinellas and Pasco Counties.
- *Projected cost of the facility compared to its ability to attract vehicle trips away from overburdened roadways in the County, and the effect of such cost on delaying important capacity improvement projects in the surrounding area (e.g. Dale Mabry, Waters Avenue, Hillsborough Avenue, Himes Avenue, etc.).
- *The effect of redirected trips on collector or arterial facilities connecting with the proposed facility and the potential for deterioration of acceptable levels of service on existing collectors and arterials resulting from the construction of the NHE.

Finally, the Tampa Bay Regional Planning Council recommends that, while another facility is needed to reduce congestion on the overburdened road network in Northwest Hillsborough County, the issues cited above be addressed and any additional comments addressing local concerns be considered during the subsequent studies and biological assessments for the project.

The Southwest Florida Water Management District states that when specific project alignments for the proposed expressway have been identified, they will be better able to evaluate the project's potential impacts and indicate where permits are required. They recommend that selection of an alternative minimize construction in wetlands which provide temporary storage of floodwaters. Permits may be required for the Management and Storage of Stormwater (MSSW) or Works of the District (W.O.D.) for all corridors. In Corridor A, a permit may be required for the Cypress Swamp area near I-75 and in the vicinity of the I-75 bypass. A W.O.D. permit may be required for Corridor B near Sweetwater Creek, Brushy Creek, Rocky Creek, the Cypress Creek Swamp and associated tributaries. For Corridor C, W.O.D. permits may be required for Sweetwater Creek (at two locations), Thirteenmile Creek, Cypress Creek Swamp and their associated tributaries. Further, any and all wells abandoned as a result of the project will require permits from the Wastewater Management District pursuant to Chapter 40D-3, F.A.C. and Chapter 17-21, F.A.C. The Wastewater Management District further indicates that they propose to purchase lands within the Cypress Creek and Trout Creek floodplains through the State's Save Our Rivers program; portions of these lands lie directly in each one of the expressway's study corridors, and they request that such proposed purchases be considered in the final selection and design of the expressway alignment. Also, the District recommends consideration of operation and maintenance access to water control structures on various water bodies in northwest Hillsborough County and consideration of potential negative effects of the proposed expressway on District adopted water management levels for numerous lakes in northwest Hillsborough County. Last, the District states that final expressway alignment should be planned so that the facility will not contribute to the degradation of surface water quality of lakes and streams.

Mr. J.C. Kraft
Page 5

In view of the magnitude and scope of the proposed project, the Governor's Natural Resources Policy Unit recommends that an Environmental Impact Statement, pursuant to the National Environmental Policy Act and its implementing rules, be prepared for this project. The Environmental Impact Statement should include a cost/benefit assessment and should describe in detail potential harmful environmental impacts, proposed mitigatory measures to counter unavoidable environmental damage, and more importantly, should propose construction and alignment alternatives that minimize potential damage to the important aquatic and biological resources in the proposed project alignment. In addition, a complete economic justification, cost and financing program should be submitted. This should address the costs and financing alternatives proposed for the expressway and should describe in detail, the impact of such costs on potential delays for other essential capacity improvements needed in Northwest Hillsborough County. This study should address potential use, analysis of the effects of redirected trips on collectors and arterials, whether the expressway will take travelers where they want to go and should compare projected revenues and financing alternatives to actual experience gained from the operation of the Crosstown Expressway.

A complete federal Coastal Zone Management Act consistency review will be conducted during review of the Environmental Impact Statement submitted for this project should any federal funds be included in the financing package for the expressway. The consistency determination will include an assessment of the degree to which comments of State agencies, the regional planning council and the water management district are satisfied. Should any agency determine that the project is inconsistent with the statutory authorities included in the Florida Coastal Management Program, pursuant to the provisions of 15 CFR 930, Subpart F, the conflict resolution provisions of the Florida Coastal Management Program Federal Consistency Procedures Manual will be implemented.

Mr. J.C. Kraft
Page 6

This project will only be in accord with State plans, policies, procedures and objectives when action is taken on the above requirements and concerns of our reviewing agencies.

We have enclosed all letters of comment for your files. Thank you for providing us the opportunity to review your road construction project.

Sincerely,

John T. Herndon

John T. Herndon, Director
Office of Planning & Budgeting

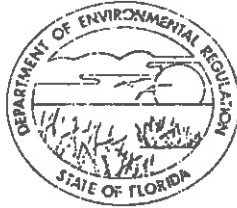
JTH/nd

Enclosures

cc: DER
DOS
GFWFC
SWFMD
TBRPC
Walt Kolb
Wendy Giesy

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

August 22, 1984

Mr. Ron Fahs, Director
Intergovernmental Coordination
State Planning and Development
Clearinghouse
Office of the Governor
421 Carlton Building
Tallahassee, Florida 32301

Dear Ron:

Re: Florida Department of Transportation and the Tampa-
Hillsborough County Expressway Authority Proposed
Construction of a Limited Access Highway for
Northwest Hillsborough County, Florida,
SAI No. FL8407260101C

It is impossible to determine specific environmental impacts of the above referenced project since the early notification package contains only general information about the study corridor. Nevertheless, based on the magnitude of the project and its expected impact on the State's aquatic resources we recommend that an Environmental Impact Statement be prepared under the guidance of the National Environmental Policy Act. Of primary interest to this department will be dredge and fill activities, noise impacts, air quality and stormwater management associated with the roadway improvements. Accordingly, we recommend that any roadway improvements minimize impacts to wetlands, streams, lakes, and flood prone areas. Impacts to these valuable resources can be reduced by bridging, steeper side slopes and eliminating or reducing the median width.

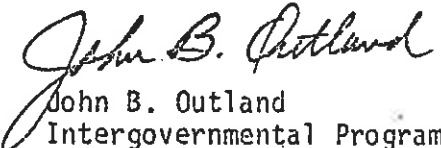
Fill in floodplains and flood prone areas should be avoided since fill reduces natural storage capacity and results in increased flood heights or flooding in areas normally not inundated. Moreover, filling in floodplains or flood prone areas often requires dredging in streams and other natural drainage features to provide for "compensating volume". These activities often result in degraded water quality as stormwater runoff is shunted downstream without receiving adequate treatment.

We encourage ongoing coordination with our Southwest Florida District Office in Tampa since the roadway improvements will require permits from the department pursuant to Chapters 253 and 403, Florida Statutes and under Public Law 92-500.

Mr. Ron Fahs
Page Two
August 22, 1984

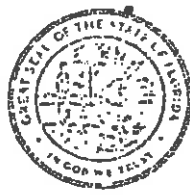
Federal assistance to the proposed study to determine the feasibility of roadway construction is not considered inconsistent with this department's statutory authority in Florida's Coastal Management Program. This consistency decision is not intended to bias future consistency reviews of these projects at subsequent stages of environmental assessment, design and funding. Future consistency decisions will be predicated, in part, on an adequate responsiveness to recommendations offered in this review and subsequent reviews.

Sincerely,


John B. Outland
Intergovernmental Programs
Review Section

JBO/jb

cc: Richard D. Garrity, DER/Tampa



FLORIDA DEPARTMENT OF STATE

George Firestone
Secretary of State

DIVISION OF ARCHIVES,
HISTORY AND RECORDS MANAGEMENT
The Capitol, Tallahassee, Florida 32301-8020
(904) 488-1480

August 17, 1984

In Reply Refer to:

Mr. Frederick P. Gaske
Historic Sites Specialist
(904) 487-2333

Mr. George R. Huffman
Howard, Needles, Tammen & Bergendoff
6000 Lake Ellenor Drive, Suite 100
Orlando, Florida 32809

RE: Your Letter of July 3, 1984
Cultural Resource Assessment Request
State Project No. 10000-1531; Revised Study Area for
Proposed Northwest Hillsborough Expressway, Tampa,
Hillsborough County, Florida

Dear Mr. Huffman:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites or properties listed, or eligible for listing, in the National Register of Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458 and P.L. 96-515, and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

A review of the Florida Master Site File indicates that three archaeological sites, 8Hi70, 8Hi80 and 8Hi324, are recorded within the study area (see enclosures). Sites 8Hi70 and 8Hi80 are defined as sand mounds, and site 8Hi324 is defined as a lithic scatter. None of these sites have been assigned to a particular cultural period, and all three are reported as having been destroyed by construction activities. As a result, sites 8Hi70, 8Hi80 and 8Hi324 are deemed to lack sufficient integrity to warrant preservation or mitigation through archaeological excavation.

Mr. George R. Huffman
August 17, 1984
Page Two

However, the lack of additional recorded archaeological and historic sites in the study area is not considered significant because the area has never been subjected to a systematic, professional survey to locate such sites. Data from environmentally similar areas in Hillsborough County indicate that archaeological sites are likely to occur in the portions of the study area shaded in green on the attached maps. Due to disturbance from construction activities and location, the remainder of the study area is deemed unlikely to contain significant, unrecorded archaeological sites. Additionally, our map files indicate that historic structures may be located throughout the study area.

On the basis of the above information, it is the opinion of this office that, depending upon the location finally selected for the proposed expressway, there is a reasonable probability of project activities impacting archaeological and historic sites and properties potentially eligible for listing in the National Register of Historic Places, or otherwise of national, state or local significance. It is, therefore, the recommendation of this office that plans and location maps for the final selected expressway right-of-way corridor and its alternates be submitted for review by this office.

If project activities will impact areas deemed likely to contain potentially significant archaeological and/or historic sites and properties, it will be our recommendation that, prior to initiating any land clearing or ground disturbing activities, these areas be subjected to a systematic, professional archaeological and/or historical survey. The purpose of this survey will be to locate and assess the significance of cultural resources present. Resultant survey reports should be forwarded to this agency in order to complete the process of reviewing the impact to this project on archaeological and historic resources. If avoidance of significant cultural resources located during the recommended survey is not possible, it will be our recommendation that project impact to them be mitigated through a systematic data recovery program.

For information concerning the types and locations of historic structures which may be encountered during project activities, we suggest that you contact the Historic Tampa/Hillsborough County Preservation Board. Their address and phone number are:

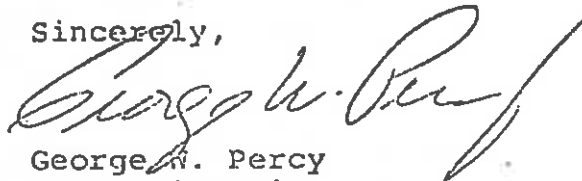
452 West Kennedy Boulevard
Tampa, Florida 33606
(813) 272-3843

Mr. George P. Huffman
August 17, 1984
Page Two

If you have any questions concerning our comments, please do not hesitate to contact us.

Your interest and cooperation in helping to protect Florida's archaeological and historical resources are appreciated.

Sincerely,



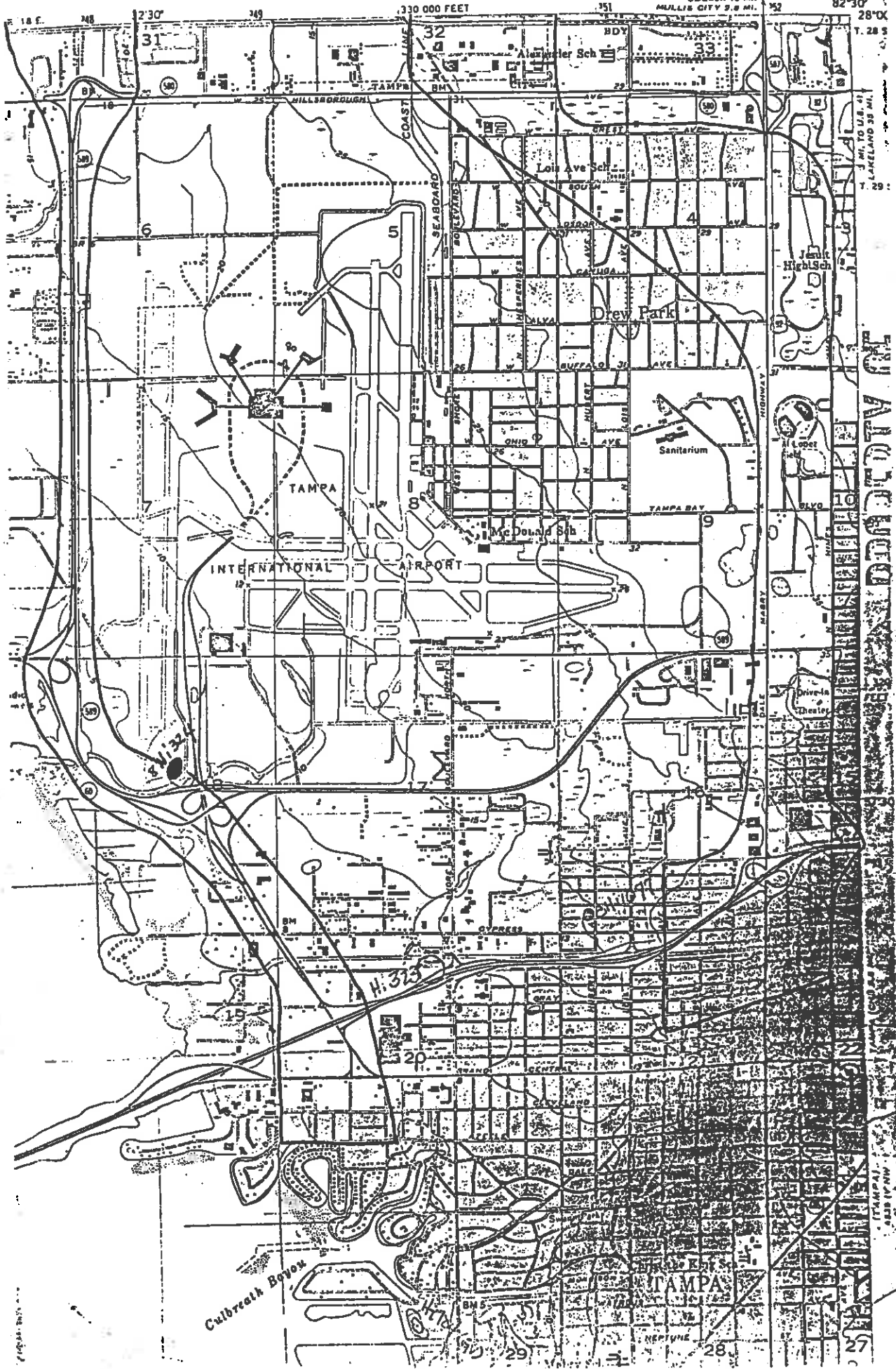
George W. Percy
State Historic
Preservation Officer

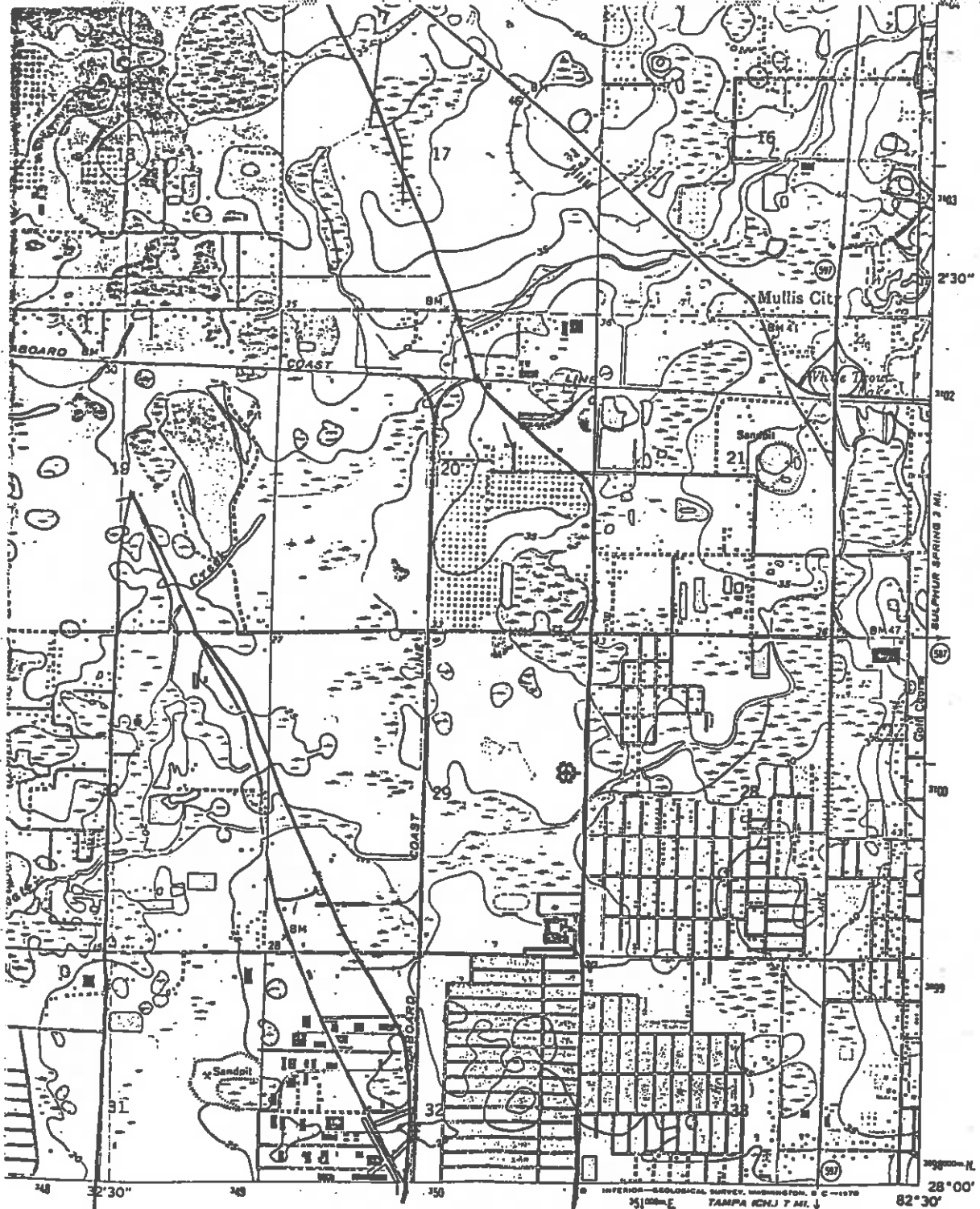
GWP/Gkp

Enclosures

cc: Stephanie Ferrell
J.C. Kraft
C.W. Monts de Oca
J.G. Kennedy

GANDY BRIDGE QUADRANGLE
FLORIDA
7.5 MINUTE SERIES (TOPOGRAPHIC)



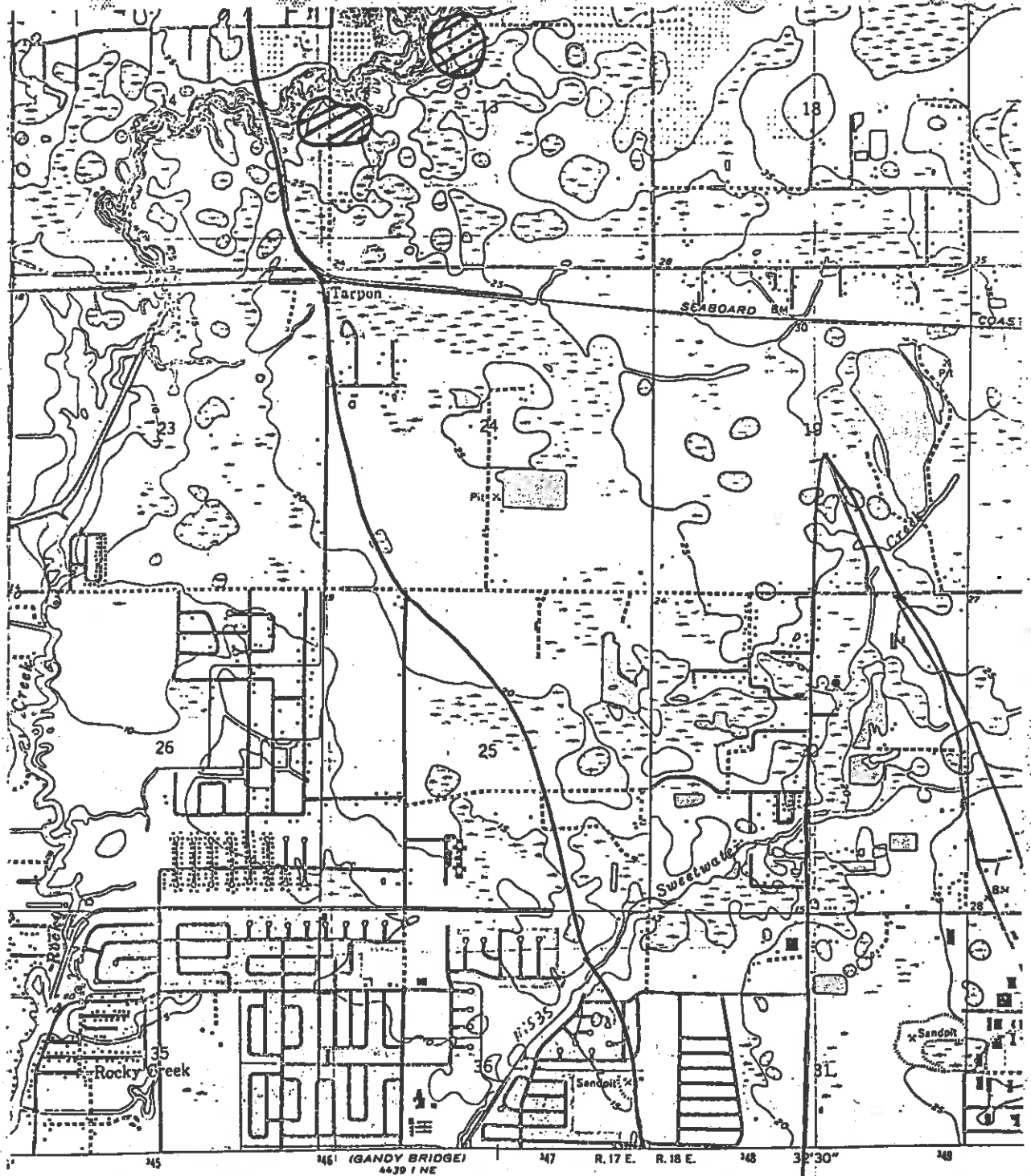


Citrus Park Quadrangle

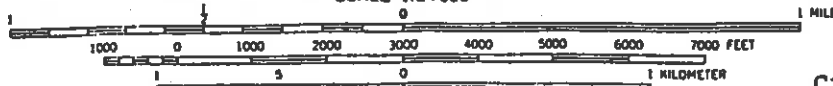
ROAD CLASSIFICATION

- Heavy-duty _____
- Medium-duty _____
- Light-duty _____
- Unimproved dirt _____

STAMPED
4530 1/4



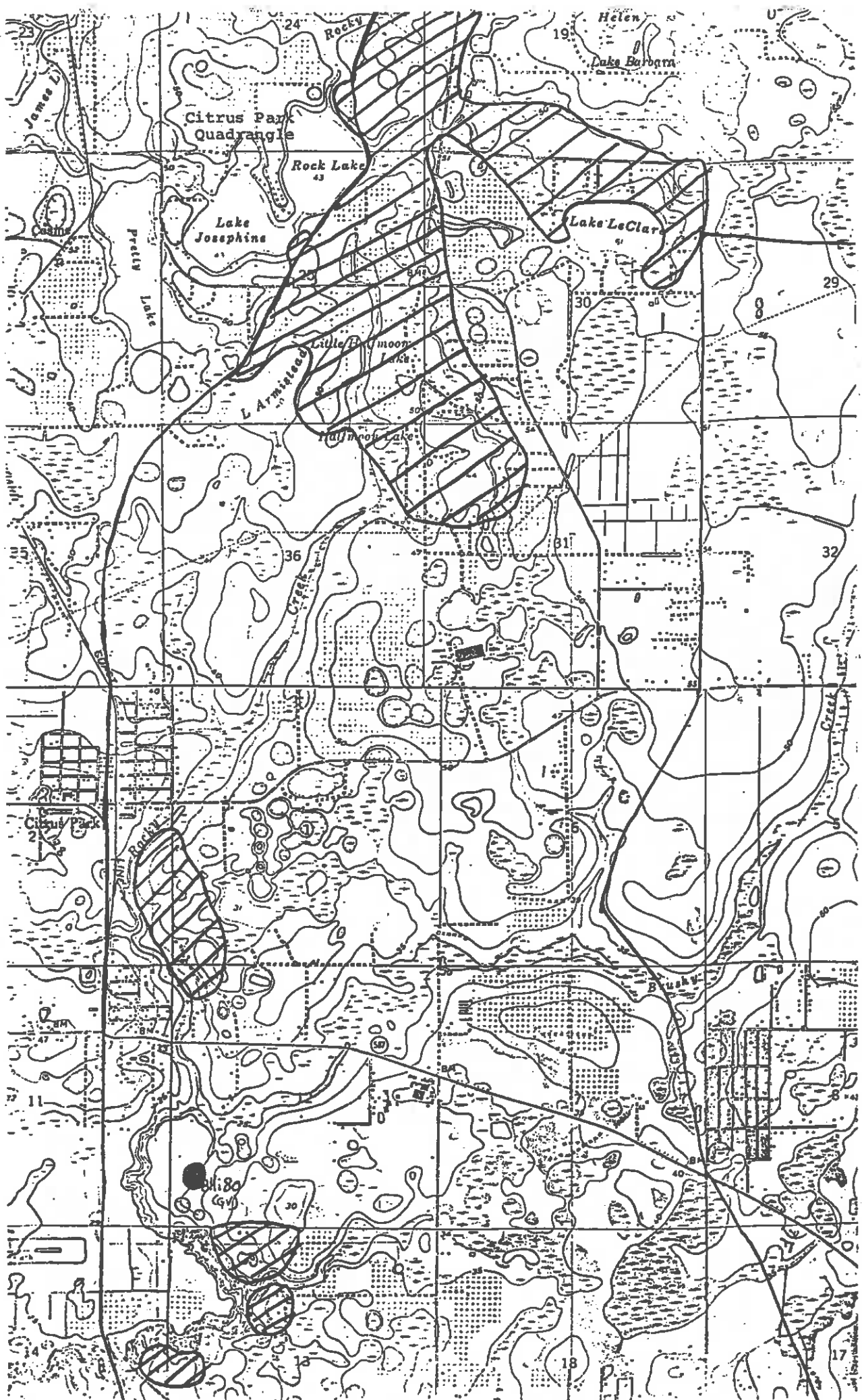
SCALE 1:24000



CONTOUR INTERVAL 5 FEET
DATUM IS MEAN SEA LEVEL

Citrus Park
Quadrangle







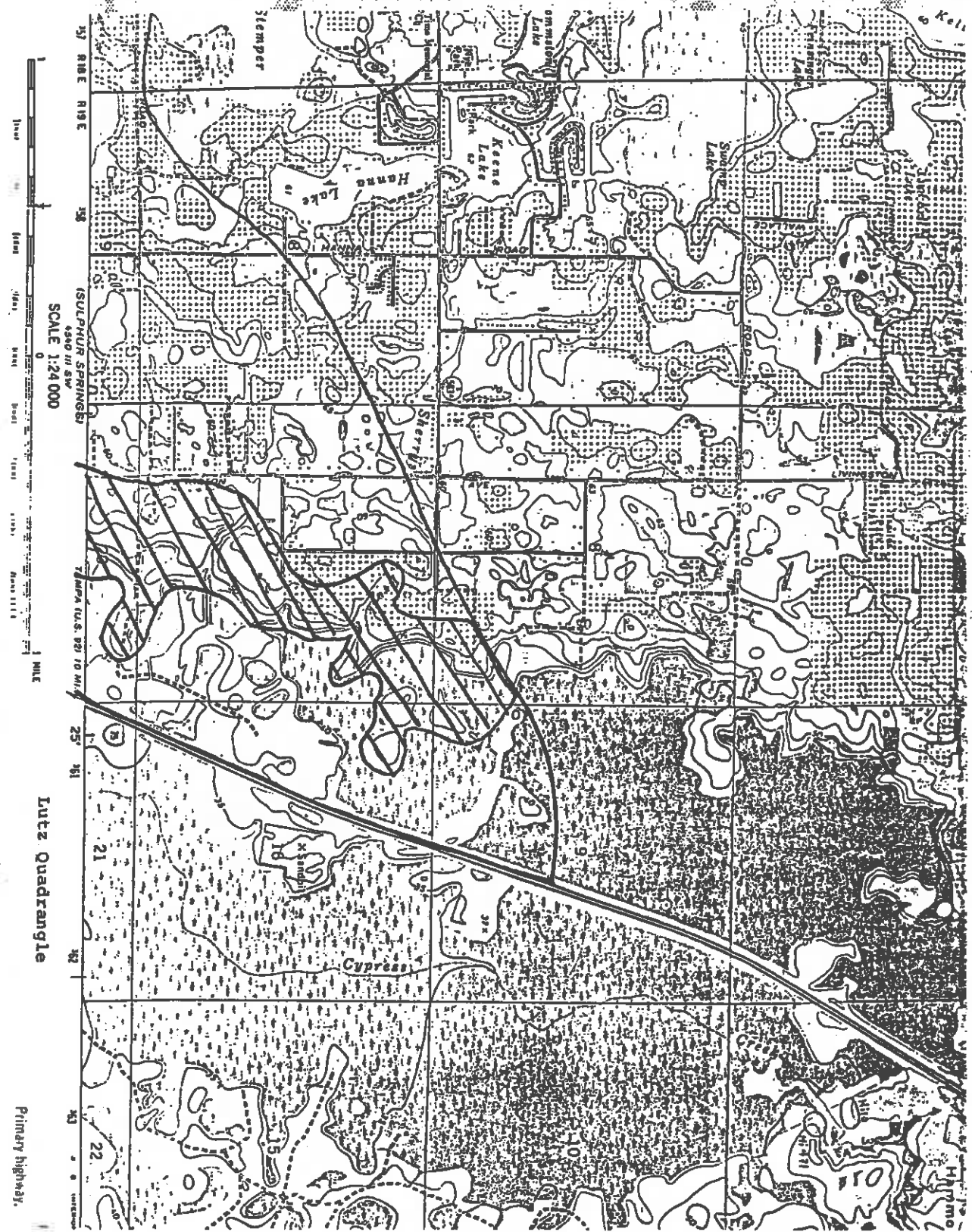
Odessa Quadrangle

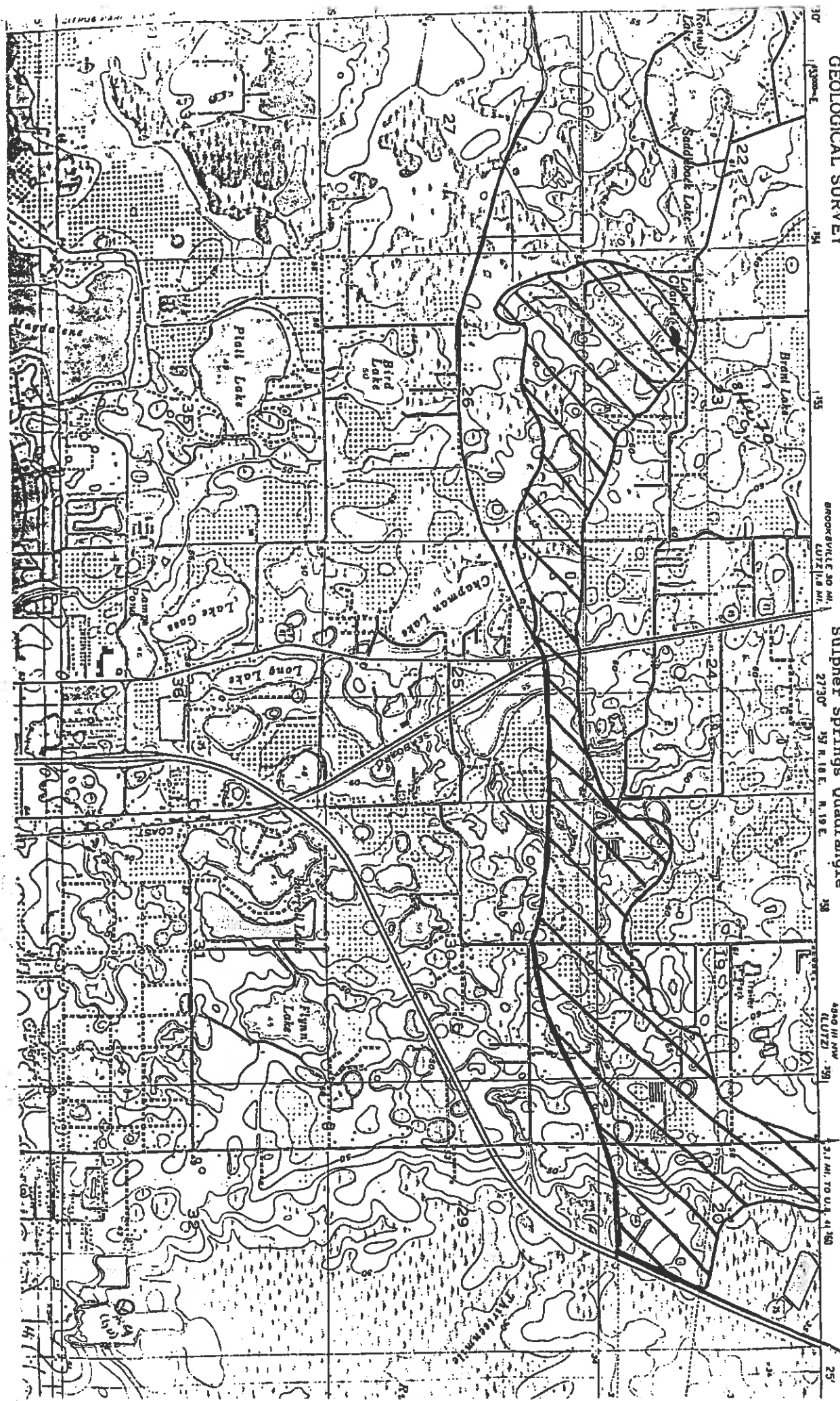
Primary highway

ROAD CLASSIFICATION

Light duty road, hard or

Scale
1:50,000





BROOKVILLE 30 MI.
LUTZ 18 MI.
Sulphur Springs Quadrangle
2730' N 7 R. 16 E. R. 19 E.



FLORIDA DEPARTMENT OF STATE
 George Firestone
 Secretary of State

DIVISION OF ARCHIVES,
 HISTORY AND RECORDS MANAGEMENT
 The Capitol, Tallahassee, Florida 32301-8020
 (904) 488-1480

April 10, 1985

In Reply Refer to:

Mr. Dale E. Patten
 Howard Needles Tammen Bergendoff
 6000 Lake Ellenor Drive, Suite 100
 Orlando, Florida 32809

Mike Wisenbaker
 Historic Sites Specialist
 (904) 487-2333

ACTION	INFO	FILE NO	NOTED	ANSWERS
		1057		
		JLT		
		HDB		
		PH		
		SRH		
		DP		
		YAM		
		RCM		
		DEP		
		JDP		
		SP		
		CJS		
		NBM		
		RIA		

RE: Your Letter of March 14, 1985
 Cultural Resource Assessment Request
 Northwest Hillsborough Expressway,
 Hillsborough County, Florida

RECEIVED
 APR 22 1985
 ORLANDO
 HNT&B

Dear Mr. Patten:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites and properties listed, or eligible for listing in the National Register of Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458 and P.L. 96-515, and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

A review of the Florida Master Site File indicates that no archaeological or historic sites are recorded within the newly-added Railroad Corridor Alignment (our recommendations on the previous corridor alignments remain the same as stated in our letters of August 17, 1984 and July 24, 1981). However, the lack of sites is not considered significant because the area has never been subjected to a systematic, professional survey to locate such sites, especially prehistoric sites which are likely to occur along the portion of the corridor shaded green on the map. Data from environmentally similar areas in Hillsborough County indicate that archaeological sites are likely to occur in the portion of the corridor shaded green, while the remainder of the corridor is deemed unlikely to contain such sites. It is, therefore, the opinion of this office that there is a reasonable probability of project activities impacting archaeological and historical sites and properties potentially eligible for listing in the National Register of Historic Places, or otherwise of national, state or local significance.

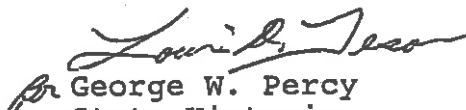
Mr. Dale E. Patten
April 10, 1985
Page Two

Since potentially significant archaeological sites may be present, it is our recommendation that, prior to initiating any land clearing or ground disturbing activities within the area shaded green on the enclosed map, it should be subjected to a systematic, professional archaeological survey. The purpose of this survey will be to locate and assess the significance of cultural resources present. The resultant survey report should be forwarded to this agency in order to complete the process of reviewing the impact of this project on archaeological resources.

If you have any questions concerning our comments, please do not hesitate to contact us.

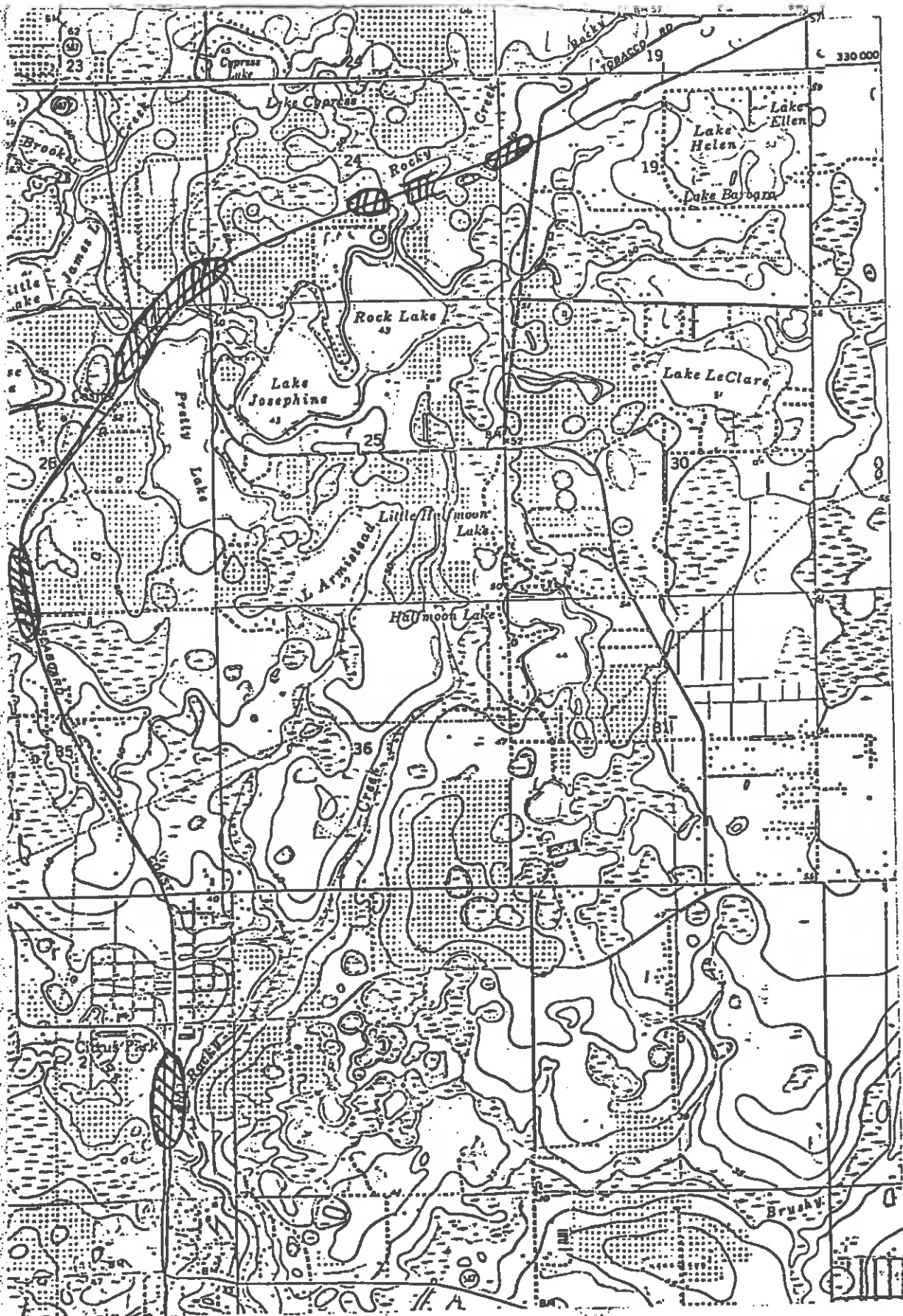
Your interest and cooperation in helping to protect Florida's archaeological and historical resources are appreciated.

Sincerely,


George W. Percy
State Historic
Preservation Officer

GWP/Wkp

cc: J.C. Kraft





FLORIDA DEPARTMENT OF STATE
George Firestone
Secretary of State

HISTORIC TAMPA/HILLSBOROUGH COUNTY PRESERVATION BOARD

August 22, 1984

Mr. George Huffman
Howard Needles Tammen & Bergendoff
6000 Lake Ellenor Drive, Suite 100
Orlando, Florida 32809

Re: Proposed Northwest Hillsborough Expressway, Corridor "B"

Dear Mr. Huffman:

We have examined the alignments for Corridor "B" for the proposed Northwest Hillsborough Expressway and have not located any significant historic structures or neighborhoods that could be adversely affected by the construction of this roadway. This determination was made based on the results of two surveys conducted by our office in 1979: "The Cultural Resources of the Unincorporated Portions of Hillsborough County," and "The Man-made Environment in Tampa and Hillsborough County" (unpublished).

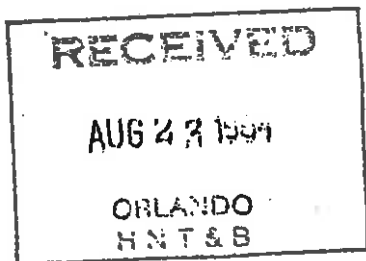
These surveys, however, do not address significant archaeological sites which may or may not be found in the corridor. For more information about this issue, please contact the Division of Archives, History and Records Management in Tallahassee.

If I can be of further assistance to you in this matter, please do not hesitate to call me.

Sincerely,

W. Carl Shiver

W. Carl Shiver
Historic Preservationist



WCS:lm

ACTION	INDEX	FILE NO	NOTED	APPROVED
		1851		
		ALT		
		REP		
		REF	✓	✓
			✓	✓
			✓	✓
			✓	✓
			✓	✓
			✓	✓

FLORIDA-State of the Arts



FLORIDA DEPARTMENT OF STATE

George Firestone
Secretary of State

HISTORIC TAMPA/HILLSBOROUGH COUNTY PRESERVATION BOARD

April 15, 1985

Mr. Dale E. Patten
Howard Needles Tammen and
Bergendoff
6000 Lake Ellenor Drive
Suite 100
Orlando, Florida 32809

Re: Hillsborough County Northwest Expressway,
Historic Sites in Proposed Route

Dear Mr. Patten:

In response to our telephone conversation on April 15, 1985, I have examined the proposed route of the Northwest Expressway shown in the map provided by your office and found no known National Register eligible historic sites to be impacted. In fact, not even any locally significant sites were found in this corridor by surveys undertaken by the Preservation Board. The nearest sites in the northern part of the corridor are located in Citrus Park and Lutz and do not appear to be affected by the planned road construction. These sites are listed below:

1. Citrus Park School
2. Mobley House (Citrus Park)
3. 108 1st Avenue N. W. (Lutz)
4. Free House (Lutz)
5. Old Lutz Elementary School

I also received some inquiries by a Mrs. Claudia Clemmons in the Citrus Park area about the "Citrus Park Negro Elementary School" reputedly erected in 1918. Included with this letter is one from Mrs. Clemmons describing the site. I visited the site, and in my opinion the building did not appear to meet the criteria (visually) for the National Register. I referred the matter, however, to the Florida Division of Archives. The school

FLORIDA-State of the Arts

ACTION	INFO	FILE NO	NOTED	ANSWERED
		185		
		ILT		
		HDB		
		SPH	✓	
		SPH		✓
		DPH		
		DPH		
		SPH	✓	
		DEP		✓
		JOP		
		DP		
		CJS		
		CJA		

RECEIVED
APR 17 1985
ORLANDO
HNT & B

Mr. Dale E. Patten
April 15, 1985
Page 2

is located near the intersection of Gunn Highway
and Racetrack Road.

Although it is not impossible that an undiscovered
significant architectural or historical site could
be found in the area, it appears unlikely. I hope
this letter satisfies your needs. If not, please
do not hesitate to call me.

Sincerely,



W. Carl Shiver
Historic Preservationist

WCS:lm

HISTORY OF CITRUS PARK COLORED NEGRO ELEMENTARY SCHOOL

In 1918 the Citrus Park Colored/Negro Elementary School had its beginning in Mt. Pleasant A.M.E. Church. It was located in a cemetery facing Tony Lewis's Property on Gunn Highway.

The late Mrs. Barbara A. Allen, a pioneer citizen of Citrus Park-Cosme-Keystone area donated one acre of land for a school. She also served as one of its "FIRST" teachers.

The builders were Tony Lewis, David Allen, Sr. and others from the community. The school had one door, four windows and was painted red. Later years, extra footage were added to accomodate the growing community.

On the 20th of December 1923, Rev. Charlie Walker moved his family to Citrus Park. There was no school for Black Children in this Northwest Community. They were prohibited from attending nearby Citrus Park School.

Rev. Walker went down to the School Board and told them what he wanted. School officials kept him waiting that day and told him to come back the next day. That was Monday, the same thing happened Tuesday and Wednesday. Thursday the Superintendent of Black Schools called him into his office. The Superintendent said she kept him waiting to see if he really wanted a school.

Thirteen children were enrolled in school with Miss Leona Allen serving as teacher. She remained for two terms, before returning to school to further her education.

The thirteen children were: LeGrand, Clyde, and David Allen, Jr., Rosa, Thomas and George Lewis, Amanda Lewis, Alphonso, Mable and Beatrice Lewis, James, Muriel and Inez Walker.

The school closed for a year because of no teacher appointment and few students. Rev. C.W. Walker and Mrs. Barbara Allen traveled in his truck throughout the County to St. Petersburg and Lakeland in search of a teacher. They finally found Miss Eugenia Verde Ballard to serve as its next teacher and enough students to keep it open.

Page Two

History of Citrus Park Colored/
Negro Elementary School

Other teachers were: Mrs. Eunice Roundtree, Mrs. Edith Footman, Miss Ruby Clarke, Miss Vernease Hadley, Mrs. Corene Prince-Hardy and Mrs. Eliza Davis.

Mrs. Jadie B. James, Mrs. Mable Walker and Mr. Raleigh Allen, Sr. served as substitute teachers.

During Mrs. Davis' tenure, Hillsborough County School Board closed the school in the late 40's and the students were transferred to various schools in Tampa.

NO MORE ROTE LEARNING OF THE ABC'S BABY RAY, DICK AND JANE. SINGING OF TABLES, PLAYIN' BALL, LUNCH BASKETS, PUMPIN' WATER AND GETTIN' THOSE PALMETTO SWITCHES.

Good memories of "The Schoolhouse" will linger in our hearts because we all loved and cherished it so much.

written in 1983

FLORIDA GAME AND FRESH WATER FISH COMMISSION

C. TOM RAINEY D.V.M.
Chairman, Miami

THOMAS L. HIRES SR.
Vice-Chairman, Lake Wales

WILLIAM G. BOSTICK JR.
Winter Haven

J.H. BAROCO
Pensacola

MRS. GILBERT W. HUMPHREY
Micanook

ROBERT M. BRANTLY, Executive Director
F.G. BANKS, Assistant Executive Director



August 28, 1984



Mr. Ron Fahs, Director of
Intergovernmental Coordination
State Planning and Development
Clearinghouse
Office of Planning and Budgeting
Executive Office of the Governor
The Capitol
Tallahassee, Florida 32301

Re: SAI FL 8407260101C
Department of Transportation
Hillsborough County

Dear Mr. Fahs:

The Office of Environmental Services of the Florida Game and Fresh Water Fish Commission has reviewed the referenced request for comments pursuant to Intergovernmental Coordination and Federal Consistency Project Review, dated August 2, 1984, and offers the following comments.

The Florida Department of Transportation proposal to construct a new 20-22 mile limited access highway in northern Hillsborough County could have significant adverse impacts upon the fish and wildlife resources and native habitats of the project corridor. Although much of the corridor has been converted to agricultural or residential uses, the tract contains significant areas of pine flatwoods, cypress and hardwood swamps, marshes, and lakes.

We recommend thorough inventory and documentation of the natural habitats and wildlife species occurring within the project corridor, with particular attention to species listed by the Commission as endangered, threatened, or of special concern (document enclosed). During alignment selection, wetlands and those uplands which support endangered or threatened species should be avoided if possible. Bridging, right-of-way width reduction, and extensive culverting should be implemented as necessary to minimize adverse impacts upon wetland vegetation and hydrology. If unavoidable adverse environmental impacts are anticipated, appropriate mitigatory measures should be presented in the environmental assessment.

We appreciate the opportunity to comment on this early notification package, and look forward to reviewing the project environmental assessment. Please call me if we can be of further assistance.

Sincerely,



F. G. Banks
Assistant Executive Director

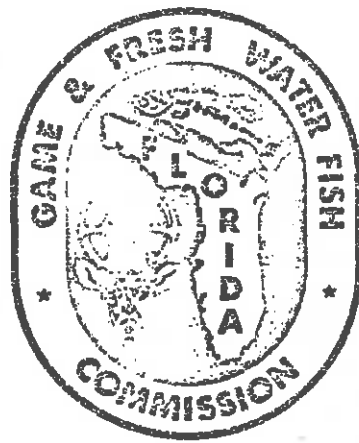
FGB/RF/rs

Enclosure

Endangered and Potentially Endangered Fauna and Flora in Florida

OFFICIAL LISTS

20 April 1984



Florida Game and Fresh Water Fish Commission

Compiled by Don A. Wood, Endangered Species Coordinator,
Florida Game and Fresh Water Fish Commission

FAUNA

Species	Designated Status ¹		
	FGFWFC ²	USFWS ³	CITES ⁴
<u>Fishes</u>			
Shortnose sturgeon (<i>Acipenser brevirostrum</i>)	E	E	I
Atlantic sturgeon (<i>Acipenser oxyrinchus</i>)	SCC	UR	II
Common snook (<i>Centropomus undecimalis</i>)	SCC		
Key silverside (<i>Menidia conchorum</i>)	E		
Bluestripe shiner (<i>Notropis callitaenia</i>)	T	UR	
Blackmouth shiner (<i>Notropis</i> undescribed species)	T		
Lake Eustis pupfish (<i>Cyprinodon variegatus hubbsi</i>)	SSC		
Saltmarsh topminnow (<i>Fundulus jenkinsi</i>)	SSC		
Rivulus (<i>Rivulus marmoratus</i>)	SSC		
Okaloosa darter (<i>Etheostoma okaloosae</i>)	E	E	
Harlequin darter (<i>Etheostoma histrio</i>)	SSC		
Southern tessellated darter (<i>Etheostoma olmstedti maculaticeps</i>)	SSC		
Crystal darter (<i>Ammocrypta asprella</i>)	T	UR	
Key blenny (<i>Starksia starcki</i>)	SSC		
Shoal bass (<i>Micropterus</i> undescribed species)	SSC		
Suwannee bass (<i>Micropterus notius</i>)	SSC		
Subtotals	E-3 T-3 SSC-10	E-2 T-0 UR-3	I-1 II-1
<u>Amphibians and Reptiles</u>			
Pine Barrens treefrog (<i>Hyla andersonii</i>)	SSC		
Gopher frog (<i>Rana areolata</i>)	SSC	UR	
Gulf hammock dwarf siren (<i>Pseudobranchius striatus lustricolus</i>)		UR	
Flatwoods salamander (<i>Ambystoma cingulatum</i>)		UR	
Georgia blind salamander (<i>Holbrookia wallacei</i>)		UR	
American crocodile (<i>Crocodylus acutus</i>)	E	E	I
American alligator (<i>Alligator mississippiensis</i>)	SSC	T	II
Leatherback turtle (<i>Dermochelys coriacea</i>)	E	E	I
Atlantic green turtle (<i>Chelonia mydas mydas</i>)	E	E	I
Atlantic hawksbill turtle (<i>Eretmochelys imbricata imbricata</i>)	E	E	I
Atlantic ridley turtle (<i>Lepidochelys kempfi</i>)	E	E	I
Atlantic loggerhead turtle (<i>Caretta caretta caretta</i>)	T	T	I
Alligator snapping turtle (<i>Macrochelys temminckii</i>)		UR	
Key mud turtle (<i>Kinosternon hauri bauri</i>)	E	UR	
Barbour's map turtle (<i>Graptemys barbouri</i>)	SSC	UR	
Suwannee cooter (<i>Chrysemys concinna suwanniensis</i>)	SSC	UR	
Gopher turtle (<i>Gopherus polyphemus</i>)	SSC	UR	II
Florida key mole skink (<i>Eumeces egregius egregius</i>)	SSC	UR	
Blue-tailed mole skink (<i>Eumeces egregius lividus</i>)	T	UR	
Sand skink (<i>Neoseps reynoldsi</i>)	T	UR	
Florida pine snake (<i>Pituophis melanoleucus mugitus</i>)		UR	
Atlantic salt marsh water snake (<i>Nerodia fasciata tuceniata</i>)	E	T	
Short-tailed snake (<i>Stilosoma extenuatum</i>)	T	UR	
Big Pine Key ringneck snake (<i>Diadophis punctatus acricus</i>)	T	UR	
Red rat snake (<i>Elaphe guttata guttata</i>)—lower Keys population only	SSC		
Florida brown snake (<i>Storeria dekayi victa</i>)—lower Keys population only	T		
Miami black-headed snake (<i>Tantilla uolittica</i>)	T	UR	
Eastern indigo snake (<i>Drymarchon corais couperi</i>)	T	T	
Florida ribbon snake (<i>Thamnophis sauritus sackeni</i>)—lower Keys population only	T		
Subtotals	E-7 T-9 SSC-8	E-5 T-4 UR-16	I-6 II-2

Species	Designated Status ¹		
	FGFWFC ²	USFWS ³	CITES ⁴
<u>Birds</u>			
Eastern brown pelican (<i>Pelecanus occidentalis carolinensis</i>)	T	E	
Wood stork (<i>Mycteria americana</i>)	E	E	
Golden eagle (<i>Aquila chrysaetos</i>)			II
Bald eagle (<i>Haliaeetus leucocephalus</i>)	T	E	I
Swainson's hawk (<i>Buteo swainsoni</i>)		UR	
Osprey (<i>Pandion haliaetus</i>)			II
Snail kite (<i>Rostrhamus sociabilis</i>)	E	E	
Swallow-tailed kite (<i>Elanoides forficatus</i>)		UR	
Marsh hawk or American harrier (<i>Circus cyaneus</i>)			II
Southeastern kestrel (<i>Falco sparverius paluis</i>)	T	UR	II
Eastern kestrel (<i>Falco sparverius sparverius</i>)			II
Pigeon hawk or merlin (<i>Falco columbarius</i>)			II
Arctic peregrine falcon (<i>Falco peregrinus tundrius</i>)	E	T	I
Crested caracara (<i>Polyborus plancus</i>)	T	UR	
Burrowing owl (<i>Athene cunicularia</i>)	SSC		
Southeastern snowy plover (<i>Charadrius alexandrinus tenuirostris</i>)	E	UR	
Piping plover (<i>Charadrius melodus</i>)		UR	
Florida sandhill crane (<i>Grus canadensis pratensis</i>)	T		II
American oystercatcher (<i>Haematopus palliatus</i>)	SSC		
Little blue heron (<i>Egretta caerulea</i>)	SSC		
Snowy egret (<i>Egretta thula</i>)	SSC		
Reddish egret (<i>Egretta rufescens</i>)	SSC	UR	
Tricolored heron or Louisiana heron (<i>Egretta tricolor</i>)	SSC		
Roseate spoonbill (<i>Ajaja ajaja</i>)	SSC		
Limpkin (<i>Aramus guarauna</i>)	SSC		
Mangrove clapper rail (<i>Rallus longirostris insularum</i>)		UR	
Roseate tern (<i>Sterna dougallii</i>)	T	UR	
Least tern (<i>Sterna antillarum</i>)	T		
White-crowned pigeon (<i>Columba leucocephala</i>)	T	UR	
Ivory-billed woodpecker (<i>Campephilus principalis</i>)	E	E	
Red-cockaded woodpecker (<i>Picoides borealis</i>)	T	E	
Florida scrub jay (<i>Aphelocoma coerulescens coerulescens</i>)	T	UR	
Migrant loggerhead shrike (<i>Lanius ludovicianus migrans</i>)		UR	
Marian's marsh wren (<i>Cistothorus palustris marianae</i>)	SSC		
Worthington's marsh wren (<i>Cistothorus palustris griseus</i>)	SSC		
Bachman's warbler (<i>Vermivora bachmanii</i>)	E	E	
Kirtland's warbler (<i>Dendroica kirtlandii</i>)	E	E	
Stoddard's yellow-throated warbler (<i>Dendroica dominica stoddardi</i>)		UR	
Dusky seaside sparrow (<i>Ammodramus maritimus nigriscens</i>)	E	E	
Cape Sable seaside sparrow (<i>Ammodramus maritimus mirabilis</i>)	E	E	
Scott's seaside sparrow (<i>Ammodramus maritimus peninsulae</i>)	SSC		
Wakulla seaside sparrow (<i>Ammodramus maritimus junicola</i>)	SSC	UR	
Smyrna seaside sparrow (<i>Ammodramus maritimus pelonota</i>)		UR	
Florida grasshopper sparrow (<i>Ammodramus savannarum floridanus</i>)	E	UR	
Bachman's sparrow (<i>Aimophila aestivalis</i>)		UR	
Subtotals	E-10 T-10 SSC-12	E-10 T-1 UR-17	I-2 II-7
<u>Mammals</u>			
Gray bat (<i>Myotis grisescens</i>)	E	E	
Indiana bat (<i>Myotis sodalis</i>)	E	E	
Sherman's short-tailed shrew (<i>Blarina brevicauda shermani</i>)		UR	
Homosassa shrew (<i>Sorex longirostris etonisi</i>)		UR	
Eastern chipmunk (<i>Tamias striatus</i>)	SSC		
Mangrove fox squirrel (<i>Sciurus niger avicennia</i>)	T	UR	
Sherman's fox squirrel (<i>Sciurus niger shermani</i>)	SSC	UR	
Goff's pocket gopher (<i>Geomys pinetis goffi</i>)	E	UR	
Silver rice-rat (<i>Oryzomys argentatus</i>)	E	UR	
Sanibel Island rice rat (<i>Oryzomys palustris sanibeli</i>)		UR	
Pallid beach mouse (<i>Peromyscus polionotus decoloratus</i>)	E	UR	

Species	Designated Status ¹		
	FGFWFC ²	USFWS ³	CITES ⁴
Choctawhatchee beach mouse (<i>Peromyscus polionotus allophrys</i>)	T	UR	
Perdido Bay beach mouse (<i>Peromyscus polionotus trissyllepsis</i>)	T	UR	
Florida mouse (<i>Peromyscus floridanus</i>)	T	UR	
Key Largo cotton mouse (<i>Peromyscus gossypinus allapaticola</i>)	E	E	
Chadwick Beach cotton mouse (<i>Peromyscus gossypinus restrictus</i>)	SSC		
Key Largo woodrat (<i>Neotoma floridana smalli</i>)	E	E	
Florida black bear (<i>Ursus americanus floridanus</i>)—except in Baker and Columbia counties and Apalachicola National Forest	T	UR	
Key Vaca raccoon (<i>Procyon lotor auspicotus</i>)	T	UR	
Everglades mink (<i>Mustela vison evergladensis</i>)	T	UR	
River otter (<i>Lutra canadensis</i>)			II
Florida panther (<i>Felis concolor coryi</i>)			I
Bobcat (<i>Lynx rufus</i>)	E	E	II
West Indian manatee (<i>Trichechus manatus latirostris</i>)	E	E	I
Key deer (<i>Odocoileus virginianus clavium</i>)	T	E	
Right whale (<i>Balaena glacialis</i>)	E	E	I
Finback whale (<i>Balaenoptera physalus</i>)	E	E	II
Sei whale (<i>Balaenoptera borealis</i>)	E	E	II
Humpback whale (<i>Megaptera novaeangliae</i>)	E	E	I
Sperm whale (<i>Physeter catodon</i>)	E	E	
Subtotals	E—14 T—8 SSC—3	E—12 T—0 UR—14	I—4 II—4
<u>Invertebrates</u>			
Stock Island tree snail (<i>Orthalicus reses</i>)	T	T	
Schaus' swallowtail butterfly (<i>Heraclides aristodemus ponceanus</i>)	E	E	
Bahama swallowtail butterfly (<i>Heraclides andraemon bonhotei</i>)		T	
Atala butterfly (<i>Eumaeus atala florida</i>)		UR	
Oklawaha sponge (<i>Dorsilia palmeri</i>)		UR	
Kissimmee sponge (<i>Ephydatia subtilis</i>)		UR	
Subtotals	E—1 T—1 SSC—0	E—1 T—2 UR—3	I—0 II—0
TOTALS	E—35 T—31 SSC—33 <u>99</u>	E—30 T—7 UR—53 <u>135</u>	I—13 II—14 <u>27</u>

¹E=Endangered; T=Threatened; SSC=Species of Special Concern; UR=Under Review (for possible listing); I=included in Appendix I; II=included in Appendix II.

²Florida Game and Fresh Water Fish Commission: Section 39-27.03-05, FAC (official State of Florida animal list).

³United States Fish and Wildlife Service: List of Endangered and Threatened Wildlife and Plants, 50 CFR 17.11-12 (official United States list).

⁴Convention on International Trade in Endangered Species of Wild Fauna and Flora.

FLORA

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USEFS ²	CITES ³	FDA ⁴
<i>Chamaedorea wrightii</i>	Paurotis palm or Everglades palm			T
<i>Chromolaena odorata</i>	Golden leather fern			T
<i>Chromolaena stans</i>	Giant leather fern			T
<i>Chromolaena venusta</i>	Venus-hair fern			T
<i>Chromolaena fragrans</i>	Fragrant maidenhair fern			T
<i>Chromolaena sp.</i>	Maidenhair fern (unnamed)			T
<i>Chromolaena purpurea var. carteri</i>	Carter's large purple false foxglove	UR		
<i>Chromolaena venophylla</i>	Narrow-leaved false foxglove	UR		
<i>Chromolaena incisa</i>	Incised groove bur or harvest lice	UR		
<i>Chromolaena arctata</i>	Pinewoods bluestem	UR		
<i>Chromolaena sp.</i>	Wild pine			T
<i>Chromolaena sp.</i>	Pine fern			T
<i>Chromolaena sp.</i>	Wild columbine or southern columbine	UR		
<i>Chromolaena sp.</i>	Blodgett's wild-mercury	UR		
<i>Chromolaena sp.</i>	Florida three-awned grass	UR		
<i>Chromolaena sp.</i>	Southern three-awned grass	UR		
<i>Chromolaena sp.</i>	Dutchman's pipe			T
<i>Chromolaena sp.</i>	Curtis milkweed			T
<i>Chromolaena sp.</i>	Southern milkweed	UR		
<i>Chromolaena sp.</i>	Pink pawpaw or dwarf pawpaw			E
<i>Chromolaena sp.</i>	Four-petal pawpaw or opossum pawpaw	UR		E
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			E
<i>Chromolaena sp.</i>	Auricled spleenwort			T
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			T
<i>Chromolaena sp.</i>	Slender spleenwort			T
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			T
<i>Chromolaena sp.</i>	Wagner's spleenwort	UR		T
<i>Chromolaena sp.</i>	Ebony spleenwort			T
<i>Chromolaena sp.</i>	Double spleenwort	UR		T
<i>Chromolaena sp.</i>	Dwarf spleenwort or chervil spleenwort			T
<i>Chromolaena sp.</i>	Little ebony spleenwort			T
<i>Chromolaena sp.</i>	Bird's nest spleenwort or wild birdnest fern			T
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			T
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			T
<i>Chromolaena sp.</i>	Spleenwort (unnamed)			T
<i>Chromolaena sp.</i>	Apalachicola River aster	UR		
<i>Chromolaena sp.</i>	Pale-violet aster	NT		
<i>Chromolaena sp.</i>	Plumose aster	UR		
<i>Chromolaena sp.</i>	Pinewoods aster	UR		
<i>Chromolaena sp.</i>	Southern lady fern			T
<i>Chromolaena sp.</i>	Mosquito fern			T
<i>Chromolaena sp.</i>	Pineland wild indigo	UR		
<i>Chromolaena sp.</i>	Hairy wild indigo	UR		
<i>Chromolaena sp.</i>	Apalachicola wild indigo	UR		
<i>Chromolaena sp.</i>	Streamside wild indigo	UR		
<i>Chromolaena sp.</i>	Coastal plain wild indigo	UR		
<i>Chromolaena sp.</i>	Orchid (unnamed)		II	T
<i>Chromolaena sp.</i>	Sinkhole fern			T
<i>Chromolaena sp.</i>	Orchid (unnamed)		II	T
<i>Chromolaena sp.</i>	Pine pink		II	T
<i>Chromolaena sp.</i>	Florida bonamia or large-flowered bonamia	UR		
<i>Chromolaena sp.</i>	Southern grape fern			T
<i>Chromolaena sp.</i>	Grape fern (unnamed)			T
<i>Chromolaena sp.</i>	Winter grape fern			T

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USFWS ²	CITES ³	FDA ⁴
<i>Botrychium virginianum</i>	Rattlesnake fern			T
<i>Brassia caudata</i>	Long-tailed spider orchid	UR	II	T
<i>Brickellia cordifolia</i>	Flyr's nemesis or Flyr's brickell-bush	UR		
<i>Brickellia eupatorioides</i> var. <i>floridana</i>	Florida thoroughwort brickell-bush or Florida boneset	UR		
<i>Bulbophyllum pachyrhachis</i>	Rat-tail orchid		II	T
<i>Caecalia diversifolia</i>	Variable-leaved Indian plantain	UR		
<i>Calamintha ashei</i>	Ashe's savory or Ashe's basil	UR		
<i>Calamintha dentatum</i>	Toothed savory or toothed basil	UR		
<i>Calamovilfa curtissii</i>	Curtiss' reedgrass	UR		
<i>Calopogon barbatus</i>	Bearded grass pink		II	T
<i>Calopogon multiflorus</i>	Many-flowered grass pink		II	T
<i>Calopogon pallidus</i>	Pale grass pink		II	T
<i>Calopogon pulchellus</i>	Grass pink (unnamed)		II	T
<i>Calopogon tuberosus</i>	Grass pink (unnamed)		II	T
<i>Calycanthus floridus</i>	Strawberry bush			T
<i>Campanula robiniae</i>	Robins' bellflower or Brooksville bellflower	UR		
<i>Campylocentrum pachyrrhizum</i>	Leafless orchid		II	T
<i>Campyloneurum angustifolium</i>	Narrow strap fern			E
<i>Campyloneurum costatum</i>	Strap fern (unnamed)			T
<i>Campyloneurum latum</i>	Strap fern (unnamed)			T
<i>Campyloneurum phyllitidis</i>	Strap fern (unnamed)			T
<i>Canna petusa</i>	Maraca or tattered canna	UR		
<i>Carex baltzelli</i>	Baltzell's sedge	UR		
<i>Carex chapmanii</i>	Chapman's sedge	UR		
<i>Cassia keyensis</i>	Big pine partridge pea or Florida keys senna	UR		E
<i>Catesbaea parviflora</i>	Small-flowered lily-thorn			E
<i>Catopsis berteroniana</i>	Powdery catopsis			E
<i>Catopsis floribunda</i>	Air plant (unnamed)			T
<i>Catopsis nutans</i>	Nodding catopsis			E
<i>Centrosema arenicola</i>	Sand butterfly pea	UR		
<i>Ceratophyllum floridanum</i>	Florida hornwort	NT		
<i>Ceratopteris pteridoides</i>	Water-horn fern (unnamed)			T
<i>Ceratopteris thalictroides</i>	Water-horn fern (unnamed)			T
<i>Cereus eriophorus</i> var. <i>fragrans</i>	Fragrant wool-bearing cereus	UR	II	T
<i>Cereus gracilis</i>	Prickly-apple	UR	II	E
<i>Cereus pentagonus</i>	Dilldoe cactus		II	T
<i>Cereus robinii</i>	Tree cactus	UR	II	E
<i>Cereus undatus</i>	Night-blooming cereus		II	T
<i>Chamaesyce cumulicola</i>	Sand dune spurge	UR		
<i>Chamaesyce deltoidea deltoidea</i>	Wedge spurge	UR		
<i>Chamaesyce deltoidea serpyllum</i>	Wild thyme spurge	UR		
<i>Chamaesyce garberi</i>	Garber's spurge	UR		
<i>Chamaesyce porteriana</i> var. <i>keyensis</i>	Porter's hairy podded spurge	UR		
<i>Chamaesyce porteriana</i> var. <i>scoparia</i>	Porter's broom spurge	UR		
<i>Cheilanthes microphylla</i>	Southern lip fern			T
<i>Chionanthus pygmaea</i>	Pigmy fringetree	UR		E
<i>Chrysophyllum olivaeforme</i>	Satinleaf			T
<i>Chrysopsis cruiseana</i>	Cruise's golden aster	UR		
<i>Chrysopsis floridana</i>	Florida golden aster	UR		
<i>Cienfuegosia heterophylla</i>	Yellow hibiscus			T
<i>Cleistes divaricata</i>	Rosebud orchid or spreading pogonia		II	T
<i>Clematis micrantha</i>	Old-man's beard or virgin's bower	UR		
<i>Clitoria fragrans</i>	Pigeon-wing butterflypea or sweet-scented butterflypea	UR		
<i>Clusia flava</i>	Yellow balsam-apple	UR		
<i>Clusia rosea</i>	Balsam-apple (unnamed)			E
<i>Coccothrinax argentata</i>	Silver thatch palm			E
<i>Cocos nucifera</i>	Coconut palm			T
<i>Coelorachis tuberculosa</i>	Florida jointtail or piedmont joint grass	UR		
<i>Commelina gigas</i>	Climbing dayflower	UR		T

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS		
		USFWS ¹	CITES ²	FDA ³
<i>Conradina breviflora</i>	Short-leaved rosemary	UR		
<i>Conradina glabra</i>	Apalachicola rosemary or panhandle rosemary	UR		
<i>Conradina grandiflora</i>	Large-flowered rosemary	UR		
<i>Corallorhiza odontorhiza</i>	Autumn coralroot		II	T
<i>Corallorhiza wisteriana</i>	Spring coralroot or Wister's coralroot		II	T
<i>Cordia sebestena</i>	Geiger tree			T
<i>Cornus alternifolia</i>	Pagoda dogwood			T
<i>Cranichis muscosa</i>	Orchid (unnamed)		II	T
<i>Croomia pauciflora</i>	Few-flowered croomia	UR		
<i>Croton elliotii</i>	Elliott's croton	UR		
<i>Croton glandulosa var. simpsonii</i>	Simpson's glandular croton	NT		
<i>Ctenitis sloanei</i>	Comb fern (unnamed)			T
<i>Ctenitis submarginalis</i>	Comb fern (unnamed)			T
<i>Ctenium floridanum</i>	Florida orange-grass	UR		
<i>Cucurbita okeechobeensis</i>	Okeechobee gourd or Indian pumpkin	UR		
<i>Cupania glabra</i>	Cupania			E
<i>Cuphea aspera</i>	Tropical waxweed	UR		E
<i>Cyrtopodium andersonii</i>	Orchid (unnamed)			T
<i>Cyrtopodium punctatum</i>	Cowhorn orchid or cigar orchid			E
<i>Deeringothamnus pulchellus</i>	Slim-petal pawpaw	UR		
<i>Deeringothamnus rugelii</i>	Yellow squirrel-banana or Rugel's pawpaw	UR		
<i>Dennstaedtia bipinnata</i>	Cuplet fern or hay-scented fern			E
<i>Dicerandra frutescens</i>	Scrub balm	UR		
<i>Dicerandra immaculata</i>	Spotless-petaled dicerandra	UR		
<i>Dicranopteris flexuosa</i>	Net fern			T
<i>Digitaria floridana</i>	Florida crabgrass	UR		
<i>Digitaria gracillima</i>	Crabgrass (unnamed)	UR		
<i>Disitaria pauciflora</i>	Finger grass (unnamed)	UR		
<i>Dryopteris ludoviciana</i>	Florida shield fern			T
<i>Elytraria carolinensis var. angustifolia</i>	Narrow-leaved Carolina scalystem	UR		
<i>Encyclia boothiana</i>	Dollar orchid or dogtooth orchid	UR	II	E
<i>Encyclia cochleata</i>	Shell orchid		II	T
<i>Encyclia pygmaea</i>	Dwarf epidendrum		II	T
<i>Encyclia tampensis</i>	Butterfly orchid		II	T
<i>Epidendrum acunae</i>	Acuna's epidendrum		II	T
<i>Epidendrum anceps</i>	Orchid (unnamed)		II	T
<i>Epidendrum canopseum</i>	Greenfly orchid		II	T
<i>Epidendrum difforme</i>	Unbelled epidendrum		II	T
<i>Epidendrum nocturnum</i>	Night-scent orchid or night-smelling epidendrum		II	T
<i>Epidendrum rigidum</i>	Rigid epidendrum		II	T
<i>Epidendrum strobiliferum</i>	Orchid (unnamed)		II	T
<i>Epigaea repens</i>	Trailing arbutus			E
<i>Equisetum hymale</i>	Scouring rush			T
<i>Eragrostis tracyi</i>	Sanibel Island lovegrass	UR		
<i>Eriochloa michauxii var. simpsonii</i>	Longleaf cup grass or Simpson's cup grass	UR		
<i>Eryngium cuneifolium</i>	Wedge-leaved button snakeroot	UR		
<i>Erythroides querceticola</i>	Low erythroides		II	T
<i>Erythronium americanum</i>	Dogtooth lily			T
<i>Eugenia confusa</i>	Redberry ironwood			T
<i>Eugenia simpsonii</i>	Simpson ironwood			T
<i>Eulophia alia</i>	Wild coco		II	T
<i>Eulophia cristata</i>	False coco	UR	II	T
<i>Euphorbia austrina</i>	Pineland spurge	UR		T
<i>Euphorbia discoidalis</i>	Appalachicola spurge	UR		
<i>Euphorbia exserta</i>	Exserted fruited spurge	UR		
<i>Euphorbia telephioides</i>	Telephus spurge	UR		
<i>Forestiera segregata var. pinetorum</i>	Pinewood privet or Florida privet	UR		
<i>Galactia pinetorum</i>	Small's milkpea	UR		
<i>Galeandra beyrichii</i>	Orchid (unnamed)		II	T

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS		
		USFWS ²	CITES ¹	FDA ⁴
<i>Garberia fruticosa</i>	Garberia			T
<i>Gentiana pennsylvanica</i>	Wiregrass gentian	UR		
<i>Goniophlebium triseriale</i>	Polypody fern (unnamed)			T
<i>Govenia uriculata</i>	Orchid (unnamed)		II	T
<i>Guaiacum sanctum</i>	Lignum-vitae		II	E
<i>Guzmania monostachia</i>	Fuch's bromeliad			E
<i>Gymnopogon floridanus</i>	Florida beardgrass or Chapman skeletongrass	UR		
<i>Habenaria distans</i>	Orchid (unnamed)		II	T
<i>Habenaria nivea</i>	Bog torch		II	T
<i>Habenaria odontopetala</i>	Orchid (unnamed)		II	T
<i>Habenaria quinqueveta</i>	Michaux's orchid or long-horned orchid		II	T
<i>Habenaria repens</i>	Water spider orchid or creeping orchid		II	T
<i>Harperocallis flava</i>	Harper's beauty	E		
<i>Harrisella filiformis</i>	Orchid (unnamed)		II	T
<i>Harrisella porrecta</i>	Orchid (unnamed)		II	T
<i>Hartwrightia floridana</i>	Florida hartwrightia	UR		
<i>Hedeoma graveolens</i>	Mock pennyroyal	UR		
<i>Hedyotis nigricans</i> var. <i>pulvinata</i>	Diamondflowers or mat-forming narrow-leaved bluet	UR		
<i>Helianthus carnosus</i>	Lakeside sunflower	UR		
<i>Helianthus debilis vestitus</i>	Hairy cucumber-leaf sunflower	UR		
<i>Heliotropium polyphyllum</i> var. <i>horizontale</i>	Prostrate many-leaved turnsole or heliotrope	UR		
<i>Heterotheca flexuosa</i>	Bent golden aster	UR		
<i>Hexalectris spicata</i>	Crested coralroot		II	T
<i>Hippomane mancinella</i>	Manchineel			T
<i>Hymenocallis coronaria</i>	Stream-bank spider lily	UR		
<i>Hymenocallis latifolia</i>	Broad-leaved spider lily	UR		
<i>Hypericum cummicola</i>	Highlands scrub hypericum	UR		
<i>Hypericum edsonianum</i>	Edison's St. John's-wort or St. Peter's-wort	UR		
<i>Hypericum lissophloeus</i>	Smooth-barked St. John's-wort	UR		
<i>Hypolepis repens</i>	Flakelet fern			T
<i>Ilex ambigua</i>	Carolina holly or sand holly			T
<i>Ilex amelanchier</i>	Serviceberry holly	UR		
<i>Ilex decidua</i>	Possumhaw			T
<i>Ilex krugiana</i>	Krug's holly			T
<i>Ilex montana</i>	Mountain winterberry			T
<i>Ilex opaca</i> var. <i>arenicola</i>	Scrub holly or sand-loving American holly	UR		
<i>Ilex verticillata</i>	Common winterberry			T
<i>Illicium floridanum</i>	Anise (unnamed)			T
<i>Illicium parviflorum</i>	Yellow anise tree or star anise	UR		T
<i>Ionopsis utricularioides</i>	Delicate ionopsis		II	E
<i>Isoetes chapmanii</i>	Chapman's quillwort			T
<i>Isoetes engelmannii</i>	Engelmann's quillwort			T
<i>Isoetes flaccida</i>	Florida quillwort			T
<i>Isotria verticillata</i>	Whorled pogonia		II	T
<i>Jacquemontia curtissii</i>	Pineland clustervine or Curtiss' clustervine	UR		
<i>Jacquemontia reclinata</i>	Beach clustervine or reclined clustervine	UR		
<i>Justicia cooleyi</i>	Cooley's water-willow	UR		
<i>Justicia crassifolia</i>	Thick-leaved water-willow	UR		
<i>Kosteletzkya smilacifolia</i>	Southern seashore mallow or saltmarsh mallow	UR		
<i>Lechea cernua</i>	Nodding pinweed	UR		
<i>Lechea divaricata</i>	Pine pinweed	UR		
<i>Lechea lakelae</i>	Lakela's pinweed	UR		
<i>Leitneria floridana</i>	Florida corkwood	UR		T
<i>Leochilus labiatus</i>	Orchid (unnamed)		II	T
<i>Lepanthopsis melanantha</i>	Harris' tiny orchid	UR	II	T
<i>Liatris ohlingerae</i>	Florida gayfeather	UR		

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USFWS ²	CITES ³	FDA ⁴
<i>Liatris provincialis</i>	Godfrey's blazing star or Godfrey's gayfeather	UR		
<i>Lilacopsis carolinensis</i>	Parsley (unnamed)	UR		
<i>Lilium iridollee</i>	Panhandle lily	UR		
<i>Limonium carolinianum</i> var. <i>angustatum</i>	Narrow-leaved sea lavender	NT		
<i>Lindera melissifolia</i>	Swamp spicebush or Jove's fruit	UR		
<i>Linum arenicola</i>	Sand flax	UR		
<i>Linum carteri</i> var. <i>carteri</i>	Carter's small-flowered flax	UR		
<i>Linum carteri</i> var. <i>smallii</i>	Carter's large-flowered flax	UR		
<i>Linum sulcatum</i> var. <i>harperi</i>	Harper's grooved yellow flax	UR		
<i>Linum westii</i>	West's flax	UR		
<i>Liparis elata</i>	Tall liparis orchid		II	T
<i>Listera australis</i>	Southern twayblade		II	T
<i>Lomariopsis kunzeana</i>	Holly fern			T
<i>Lupinus tracyi</i>	Tracy's lupine	UR		
<i>Lupinus westianus</i>	Gulfoast lupine or panhandle lupine	UR		
<i>Lycopodium alopecuroides</i>	Foxtail club moss			T
<i>Lycopodium appressum</i>	Southern club moss			T
<i>Lycopodium carolinianum</i>	Slender club moss			T
<i>Lycopodium cernuum</i>	Nodding club moss			T
<i>Lycopodium dichotomum</i>	Hanging club moss or coneless club moss			T
<i>Lycopodium prostratum</i>	Prostrate club moss or Harper's club moss			T
<i>Lycopodium microphyllum</i>	Climbing fern (unnamed)			T
<i>Lycopodium palmatum</i>	Climbing fern (unnamed)			T
<i>Lythrum curtissii</i>	Curtiss' lythrum	UR		
<i>Lythrum jagellare</i>	Lowland lythrum	UR		
<i>Macbridea alba</i>	White birds-in-a-nest	UR		
<i>Macradenia lutescens</i>	Trinidad macradenia		II	T
<i>Magnolia ashei</i>	Ashe's magnolia	UR		E
<i>Magnolia pyramidata</i>	Pyramidal magnolia			E
<i>Malaxis spicata</i>	Florida malaxis		II	T
<i>Malaxis unifolia</i>	Green adder's mouth		II	T
<i>Marshallia mohrii</i>	Mohr's barbara's buttons	UR		
<i>Marsilea mucronata</i>	Hairy pepperwort or hairy waterclover			T
<i>Mateia alabamensis</i>	Alabama milkweed	UR		
<i>Mateia floridana</i>	Florida milkweed	UR		
<i>Maxillaria crassifolia</i>	Hidden orchid		II	T
<i>Melanthera parvifolia</i>	Small-leaved melanthera	UR		
<i>Microgramma heterophylla</i>	Polypody fern (unnamed)			T
<i>Minuartia godfreyi</i>	Pink (unnamed)	UR		
<i>Monotropa brittonii</i>	Indian pipes or Britton's pinesap	UR		
<i>Monotropis reynoldsiae</i>	Pigmy pipes	UR		
<i>Myrcianthes fragrans</i> var. <i>simpsonii</i>	Simpson's stopper or twinberry	UR		
<i>Myriophyllum laxum</i>	Piedmont water milfoil	UR		
<i>Nemastylis floridana</i>	Fall-flowering pleatleaf or celestial lily	UR		
<i>Nephrolepis biserrata</i>	Boston fern (unnamed)			T
<i>Nolina atopocarpa</i>	Florida beargrass	UR		
<i>Nolina brittoniana</i>	Britton's beargrass	UR		
<i>Nuphar luteum ulvaceum</i>	West Florida cow lily	UR		
<i>Oncidium carthagenense</i>	Cool Bay dancing lady or spread-eagle oncidium	UR	II	T
<i>Oncidium floridanum</i>	Florida oncidium		II	T
<i>Oncidium luridum</i>	Mule-ear orchid or dingy-flowered oncidium		II	T
<i>Oridium variegatum</i>	Dancing-lady orchid or Florida variegated oncidium		II	T
<i>Onoclea sensibilis</i>	Sensitive fern or bead fern			T
<i>Ophioglossum crotalophoroides</i>	Bulbous adder's tongue			T
<i>Ophioglossum engelmannii</i>	Limestone adder's tongue			T
<i>Ophioglossum nudicaule</i>	Adder's tongue fern (unnamed)			T
<i>Ophioglossum palmatum</i>	Adder's tongue fern (unnamed)			F

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USFWS ²	CITES ³	FDA ⁴
<i>Ophioglossum petiolatum</i>	Adder's tongue fern (unnamed)			T
<i>Ophioglossum vulgatum</i>	Adder's tongue fern (unnamed)			T
<i>Opuntia compressa</i>	Prickly pear cactus (unnamed)		II	T
<i>Opuntia cubensis</i>	Prickly pear cactus (unnamed)		II	T
<i>Opuntia spinosissima</i>	Semaphore cactus	UR	II	T
<i>Opuntia stricta</i>	Prickly pear cactus (unnamed)		II	T
<i>Opuntia triacantha</i>	Three-spined prickly pear	UR	II	T
<i>Osmunda cinnamomea</i>	Cinnamon fern			T
<i>Osmunda regalis var. spectabilis</i>	Royal fern			T
<i>Oxypolis greenmanii</i>	Giant water dropwort or giant water cowbane	UR		T
<i>Paltonium lanceolatum</i>	Ribbon fern			T
<i>Panicum nudicaule</i>	Naked-stemmed panic grass	UR		
<i>Panicum pinetorum</i>	Pineland panic grass	UR		
<i>Parnassia caroliniana</i>	Coastal parnassia or Carolina grass-of-parnassus	UR		
<i>Parnassia grandifolia</i>	Grass-of-parnassus			E
<i>Paronychia chartacea</i>	Paper-like nailwort	UR		
<i>Paronychia rugelii var. interior</i>	Rugel's interior nailwort or sand squares	NT		
<i>Pavonia spinifex</i>	Yellow hibiscus			T
<i>Pellaea atropurpurea</i>	Cliff brake fern			T
<i>Peperomia floridana</i>	Everglades peperomia	UR		T
<i>Peperomia glabella</i>	Cypress peperomia			T
<i>Peperomia humilis</i>	Pepper (unnamed)			T
<i>Peperomia obtusifolia</i>	Florida peperomia			T
<i>Peperomia simplex</i>	Pale-green peperomia			T
<i>Peperomia spathulifolia</i>	Spatulate peperomia			T
<i>Pereskia aculeata</i>	Lemon vine		II	T
<i>Persea borbonia var. humilis</i>	Dwarf redbay or redbay persea	UR		
<i>Persicaria paludicola</i>	Everglades knotweed	NT		
<i>Phlebodium aureum</i>	Golden polypody			T
<i>Phyllanthus liebmannianus</i>	Pinewood dainties or Florida leaf flower	UR		
<i>Phyllanthus pentaphyllus floridanus</i>	Florida five-petaled leaf flower	UR		
<i>Physalis viscosa var. elliotii</i>	Elliot's sticky ground cherry	UR		
<i>Physotegia leptophyllum</i>	Slender-leaved false dragonhead	UR		
<i>Pinckneya pubens</i>	Hairy fevertree			T
<i>Pinguicula planifolia</i>	Chapman's butterwort	UR		
<i>Pisonia floridana</i>	Rock Key devil's claws	UR		
<i>Platanthera blephariglottis</i>	Large white fringed orchid		II	T
<i>Platanthera ciliaris</i>	Yellow fringed orchid		II	T
<i>Platanthera clavellata</i>	Little club-spur orchid or small green wood orchid		II	T
<i>Platanthera cristata</i>	Golden fringed orchid or crested fringed orchid		II	T
<i>Platanthera flava</i>	Southern tubercled orchid or gypsy-spikes		II	T
<i>Platanthera integra</i>	Yellow fringeless orchid or orange rein-orchid	UR	II	T
<i>Platanthera nivea</i>	Snowy orchid or bog torch		II	T
<i>Pleopeltis revoluta</i>	Star-scale fern			T
<i>Pleurothallis gelida</i>	Orchid (unnamed)		II	T
<i>Pogonia ophioglossoides</i>	Rose pogonia		II	T
<i>Polygala boykinii var. sparsifolia</i>	Boykin's few-leaved milkwort	UR		
<i>Polygala lewtonii</i>	Lewton's milkwort	UR		
<i>Polygala smallii</i>	Tiny milkwort or Small's milkwort	UR		
<i>Polygonella ciliata var. basiramia</i>	Hairy jointweed	UR		
<i>Polygonella macrophylla</i>	Large-leaved jointweed	UR		
<i>Polygonella myriophylla</i>	Small's jointweed or woody wireweed	UR		
<i>Polymnia laevigata</i>	Tennessee leaf cup	UR		
<i>Polypodium dispersum</i>	Polypody fern (unnamed)			T
<i>Polypodium plumula</i>	Polypody fern (unnamed)			T
<i>Polypodium ptilodon</i>	Polypody fern (unnamed)			T
<i>Polyrrhiza lindenii</i>	Ghost orchid or palm polly		II	E

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS		
		USFWS ²	CITES ³	FDA ⁴
<i>Stachya concreta</i>	Orchid (unnamed)		II	T
<i>Stachya extinctoria</i>	Pale-flowered polystachya		II	T
<i>Stachya flavescens</i>	Orchid (unnamed)		II	T
<i>Stenium acrostichoides</i>	Christmas fern			T
<i>Strobilium racemosum</i>	Shadow witch		II	T
<i>Stramogeton floridanus</i>	Florida pondweed	UR		
<i>Strobilium obgantha</i>	Orchid (unnamed)		II	T
<i>Strobilium gemiculata</i>	Scrub plum	UR		
<i>Strobilium sargentii</i>	Buccaneer palm or Sargent's cherry palm			T
<i>Stripteris nudum</i>	Whisk fern or fork fern			T
<i>Stripteris aquilinum</i>	Bracken fern			T
<i>Stripteris cretica</i>	Cretan brake fern			T
<i>Stripteris longifolia</i>	Ladder brake fern			T
<i>Stripteris tripartita</i>	Giant brake fern			T
<i>Stripteris vittata</i>	Brake fern (unnamed)			T
<i>Stripteris maritima</i>	Beach star	UR		
<i>Strobilium ophioccephala</i>	Snake orchid		II	T
<i>Strobilium hystrix</i>	Needle palm			T
<i>Strobilium parviflora</i>	Small-flowered meadowbeauty		UR	
<i>Strobilium salicifolia</i>	Panhandle meadowbeauty	UR		
<i>Strobilium buccifera</i>	Mistletoe cactus	UR	II	T
<i>Strobilium austrinum</i>	Orange azalea or Florida azalea			T
<i>Strobilium chapmanii</i>	Chapman's rhododendron	E		T
<i>Strobilium viscosum</i>	Swamp honeysuckle			T
<i>Strobilium cinerea</i>	Brown-haired snoutbean	UR		
<i>Strobilium culixa</i>	Georgia beak rush	UR		
<i>Strobilium punctata</i>	Pinland beak rush	UR		
<i>Strobilium chinellum</i>	Micosukee gooseberry or Florida gooseberry	UR		E
<i>Strobilium elata</i>	Florida royal palm	UR		E
<i>Strobilium nitida</i>	St. John's-susan	UR		
<i>Strobilium triloba var. pinnatifida</i>	Pinnate-lobed brown-eyed coneflower	UR		
<i>Strobilium etonia</i>	Scrub palmetto			T
<i>Strobilium minor</i>	Dwarf palmetto or blue stem			T
<i>Strobilium floridana</i>	Florida willow	UR		
<i>Strobilium blodgetti</i>	Blodgett's sage	UR		
<i>Strobilium rotundifolia</i>	Water spangles			T
<i>Strobilium leucophylla</i>	White-top pitcherplant			T
<i>Strobilium rubra</i>	Red-flowered pitcherplant			E
<i>Strobilium phumieri</i>	Scaevola			E
<i>Strobilium niveum</i>	Riparium autumngrass	UR		
<i>Strobilium rhizomatum</i>	Florida autumngrass or little bluestem	NT		
<i>Strobilium germanii</i>	Tropical curly-grass fern or ray fern	UR		
<i>Strobilium floridana</i>	Florida skullcap or helmet-flowers	UR		
<i>Strobilium upoda</i>	Meadow spikemoss			T
<i>Strobilium arenicola</i>	Sand spikemoss			T
<i>Strobilium armata</i>	Armored spikemoss			T
<i>Strobilium ludoviciana</i>	Spikemoss (unnamed)			T
<i>Strobilium plana</i>	Spikemoss (unnamed)			T
<i>Strobilium uncinata</i>	Spikemoss (unnamed)			T
<i>Sida rubromarginata</i>	Red-margined mallow	UR		
<i>Silene polypetalata</i>	Fringed campion	UR		
<i>Sium floridanum</i>	Florida water parsnip	UR		
<i>Sium bahamense var. rugelii</i>	Rugel's Bahama horse nettle or Rugel's cankerberry	UR		
<i>Solanum carolinense var. floridanum</i>	Florida horse-nettle	UR		
<i>Sphenomeris clavata</i>	Parsley fern			T
<i>Sphenostigma coelestinum</i>	Bartram's ixia	UR		T
<i>Srigelia gentianooides</i>	Gentian pinkroot	UR		
<i>Srigelia loganoides</i>	Florida pinkroot	UR		

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS		
		USFWS ¹	CITES ²	FDA ³
<i>Spiranthes brevilabris</i> var. <i>brevilabris</i>	Texas ladies' tresses		II	T
<i>Spiranthes brevilabris</i> var. <i>floridana</i>	Florida ladies'-tresses		II	T
<i>Spiranthes cernua</i> var. <i>odorata</i>	Fragrant ladies' tresses		II	T
<i>Spiranthes costaricensis</i>	Ladies'-tresses (unnamed)		II	T
<i>Spiranthes cranichoides</i>	Ladies'-tresses (unnamed)		II	T
<i>Spiranthes elata</i>	Tall neottia		II	T
<i>Spiranthes gracilis</i>	Slender ladies' tresses		II	T
<i>Spiranthes laciniata</i>	Lace-lip ladies'-tresses or lace-lip spiral orchid		II	T
<i>Spiranthes lanceolata</i> var. <i>lanceolata</i>	Leafless beaked orchid		II	T
<i>Spiranthes lanceolata</i> var. <i>luteoalba</i>	Ladies'-tresses (unnamed)		II	T
<i>Spiranthes lanceolata</i> var. <i>paludicola</i>	Red-flowered ladies'-tresses	UR	II	T
<i>Spiranthes longilabris</i>	Long-lip ladies'-tresses		II	T
<i>Spiranthes orchioides</i>	Scarlet ladies'-tresses		II	T
<i>Spiranthes ovalis</i>	Oval ladies'-tresses		II	T
<i>Spiranthes polyantha</i>	Florida keys ladies'-tresses	UR	II	T
<i>Spiranthes praecox</i>	Giant ladies'-tresses or grass-leaved ladies'-tresses		II	T
<i>Spiranthes tortilis</i>	Southern ladies'-tresses		II	T
<i>Spiranthes tuberosa</i>	Little ladies'-tresses or little pearl twist		II	T
<i>Spiranthes vernalis</i>	Spring ladies'-tresses		II	T
<i>Stachys lythroides</i>	Tallahassee hedge-nettle	UR		
<i>Stillingia sylvatica tenuis</i>	Slender queen's delight	UR		
<i>Strumpfia maritima</i>	Pride-of-big-pine			E
<i>Suriana maritima</i>	Bay cedar			E
<i>Swietenia mahogany</i>	West Indian mahogany			T
<i>Taxus floridana</i>	Florida yew	UR		E
<i>Tectaria amesiana</i>	Ames' halberd fern	UR		T
<i>Tectaria coriandrifolia</i>	Hattie Bauer halberd fern or hairy halberd fern			T
<i>Tectaria heracleifolia</i>	Halberd fern (unnamed)			T
<i>Tectaria incisa</i>	Halberd fern (unnamed)			T
<i>Tectaria lobata</i>	Halberd fern (unnamed)			T
<i>Tephrosia angustissima</i>	Narrow-leaved hoary pea	UR		
<i>Tephrosia mohrii</i>	Pineland hoary pea	UR		
<i>Tetramiera canaliculata</i>	Orchid (unnamed)		II	T
<i>Tetrazygia bicolor</i>	Tetrazygia			T
<i>Thalictrum cooley</i>	Cooley's meadowrue	UR		
<i>Thelypteris augescens</i>	Aspidium fern (unnamed)			T
<i>Thelypteris dentata</i>	Downy shield fern			T
<i>Thelypteris hexagonoptera</i>	Southern beech fern			T
<i>Thelypteris hispidula</i>	Aspidium fern (unnamed)			T
<i>Thelypteris interrupta</i>	Aspidium fern (unnamed)			T
<i>Thelypteris kunthii</i>	Aspidium fern (unnamed)			T
<i>Thelypteris ovata</i>	Aspidium fern (unnamed)			T
<i>Thelypteris palustris</i>	Marsh fern			T
<i>Thelypteris quadrangularis</i>	Aspidium fern (unnamed)			T
<i>Thelypteris reptans</i>	Creeping fern			T
<i>Thelypteris resinifera</i>	Aspidium fern (unnamed)			T
<i>Thelypteris reticulata</i>	Aspidium fern (unnamed)			T
<i>Thelypteris sclerophylla</i>	Aspidium fern (unnamed)			T
<i>Thelypteris serrata</i>	Aspidium fern (unnamed)			T
<i>Thelypteris tetragona</i>	Aspidium fern (unnamed)			T

SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USFWS ²	CITES ³	FDA ⁴
<i>Thysanotus floridana</i>	Florida thatch palm			T
<i>Thysanotus tenuis</i>	Brittle thatch palm			T
<i>Tillandsia bacillifera</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia burtramii</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia circumata</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia tuxoculata</i>	Wild pine or air plant (unnamed)			E
<i>Tillandsia flexuosa</i>	Twisted air plant			T
<i>Tillandsia paucifolia</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia polystachya</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia pruinosa</i>	Fuzzy-wuzzy air plant			T
<i>Tillandsia setacea</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia simulata</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia utriculata</i>	Wild pine or air plant (unnamed)			T
<i>Tillandsia valenzuelana</i>	Wild pine or air plant (unnamed)			T
<i>Tipularia discolor</i>	Crane-fly orchid		II	T
<i>Torreya taxifolia</i>	Florida torreya	E		E
<i>Tournefortia gnaphalodes</i>	Sea lavender			E
<i>Tragia saxicola</i>	Florida keys noseburn	UR		
<i>Trichomanes holopterum</i>	Filmy fern (unnamed)			T
<i>Trichomanes kraussii</i>	Filmy fern (unnamed)			T
<i>Trichomanes lineolatum</i>	Filmy fern (unnamed)			T
<i>Trichomanes petersii</i>	Filmy fern (unnamed)			T
<i>Trichomanes punctatum</i>	Filmy fern (unnamed)			T
<i>Trillium lanceifolium</i>	Lance-leaved wake-robin			E
<i>Triphora craigheadii</i>	Craighead's nodding-caps or Craighead's pogonia	UR	II	T
<i>Triphora cubensis</i>	Nodding caps (unnamed)		II	T
<i>Triphora gentianoides</i>	Nodding-caps (unnamed)		II	T
<i>Triphora latifolia</i>	Broad-leaved nodding-caps or broad-leaved pogonia	UR	II	T
<i>Triphora rickettii</i>	Nodding-caps (unnamed)		II	T
<i>Triphora trianthophora</i>	Nodding pogonia or three-birds orchid		II	T
<i>Tripsacum floridanum</i>	Florida gramagrass	UR		
<i>Trismeria trifoliata</i>	Braken fern (unnamed)			T
<i>Tropidia polystachya</i>	Young-palm orchid		II	T
<i>Vanilla barbellata</i>	Worm-vine orchid or link vine		II	T
<i>Vanilla dilloniana</i>	Leafless vanilla		II	T
<i>Vanilla inodora</i>	Scentless vanilla		II	T
<i>Vanilla mexicana</i>	Vanilla (unnamed)		II	T
<i>Vanilla phaeantha</i>	Leafy vanilla or oblong-leaved vanilla		II	T
<i>Vanilla planifolia</i>	Commercial vanilla		II	T
<i>Verbena maritima</i>	Coastal vervain	UR		
<i>Verbena tampensis</i>	Tampa vervain	UR		
<i>Verbesina chapmanii</i>	Chapman's crownbeard	UR		
<i>Verbesina heterophylla</i>	Variable-leaf crownbeard	UR		
<i>Vicia ocalensis</i>	Ocala vetch	UR		
<i>Vittaria lineata</i>	Shoestring fern			T
<i>Warea amplexifolia</i>	Clasping warea	UR		
<i>Warea carteri</i>	Carter's warea	UR		
<i>Woodsia obtusa</i>	Blunt-lobed woodsia			T
<i>Woodwardia areolata</i>	Netted chain fern			T
<i>Woodwardia virginica</i>	Virginia chain fern			T

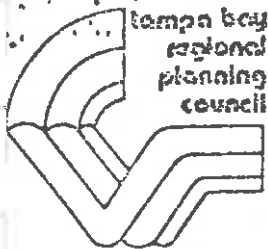
SCIENTIFIC NAME	COMMON NAME	DESIGNATED STATUS ¹		
		USFWS ²	CITES ³	FDA ⁴
<i>Xyris drummondii</i>	Drummond's yellow-eyed grass	UR		
<i>Xyris isoetifolia</i>	Quillwort yellow-eyed grass	UR		
<i>Xyris longisepala</i>	Karst pond yellow-eyed grass or Kral's yellow-eyed grass	UR		
<i>Xyris scabrifolia</i>	Harper's yellow-eyed grass	UR		
<i>Zamia floridana</i>	Florida coontie		II	T
<i>Zamia integrifolia</i>	Florida arrowroot		II	T
<i>Zamia umbrosa</i>	East coast coontie		II	T
<i>Zephyranthes</i> (all white species)	Rain lilies			T
<i>Zephyranthes simpsonii</i>	Rain zephyr lily			E
<i>Zeuxine strateumatica</i>	Orchid (unnamed)		II	T
<i>Zizia latifolia</i>	Bristol golden alexanders	UR		
TOTALS		E-3	I-0	E-41
		T-0	II-121	T-284
		UR-209	121	325
		NT-7		
		219		

¹E=Endangered; NT=Non-valid Taxon (ineligible for federal listing); T=Threatened; UR=Under Review (for possible listing); I=Included in Appendix I (of CITES); II=Included in Appendix II (of CITES).

²United States Fish and Wildlife Service: List of Endangered and Threatened Wildlife and Plants, 50 CFR 17.12, 1982 (official United States list).

³Convention on International Trade in Endangered Species of Wild Fauna and Flora.

⁴Florida Department of Agriculture and Consumer Services: Preservation of Native Flora of Florida Act, Section 581.185, Florida Statutes (official State of Florida list).



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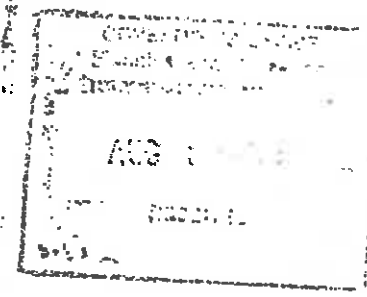
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Commissioner Charles Roberts

August 27, 1984

Mr. J.C. Kraft, Chief
Bureau of Environment
Florida Department of Transportation
605 Suwannee Street, MS 37
Tallahassee, FL 32304



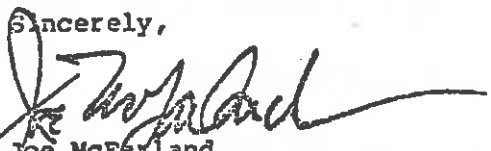
Dear Mr. Kraft:

**Subject: IC&R Review #156-84; Northwest Hillsborough Expressway
(State Project #10000-1531)**

The enclosed agenda item regarding the above referenced matter was considered and approved by the Clearinghouse Review Committee of the Tampa Bay Regional Planning Council at its August 27, 1984 meeting.

Please contact the Council staff if further information regarding this item is desired.

Sincerely,


Joe McFarland
Chairman
Clearinghouse Review Committee

JM/ lk

Enclosure

cc: Wendy J. Giesy
Ron Fahs ✓



CLEARINGHOUSE REVIEW

The Florida Department of Transportation (FDOT) has requested review and comment on an early notification package regarding the Location and Design Study for the Northwest Hillsborough Expressway. This project would involve construction of a new 20-22 mile limited access highway in northwest Hillsborough County. The project would be constructed by the Tampa-Hillsborough County Expressway Authority and the Florida Department of Transportation, and would be funded by revenue bonds for the portion north of Hillsborough Avenue and jointly funded by revenue bonds (Federal Highway Administration and FDOT funds) for the portion south of Hillsborough Avenue. Construction of the project is not currently scheduled by the FDOT, however, the estimated cost of the Location and Design Study is \$883,832.00. Location: Hillsborough County and City of Tampa.

Local Comments Requested From:

City of Tampa Housing, Inspections and Zoning: See attached memorandum dated August 10, 1984.

Hillsborough County Environmental Protection Commission: See attached memorandum dated August 7, 1984.

Hillsborough County Department of Development Coordination: See attached memorandum dated August 9, 1984.

Council Comments and Recommendations:

The information content of this early notification package is limited, thus reducing the clarity of project plans. Furthermore, consistency with Council policy and with Florida's Coastal Zone Management Plan can not be determined until the Location and Design Study and further biological assessments are submitted for review.

The study corridor in which the actual alignment of the Northwest Hillsborough Expressway (NHE) will be located extends approximately 20 to 22 miles beginning at I-275 (SR 93) running west toward Gunn Highway in the vicinity of Van Dyke Road and then turns south toward Waters Avenue where it runs essentially parallel with Anderson Road and eventually forks north of Hillsborough Avenue (SR 580) and continues south along the alignments of Eisenhower Boulevard (SR 589) and Dale Mabry Highway (SR 600, US 92); both legs eventually connect to I-275 (SR 93) (see attached map).

There are numerous water bodies and cypress domes within the proposed corridor. Protection of these features from encroachment by the highway and the deleterious effects of storm water run-off will be an issue during the review of the actual design study. Also, Seventeen Mile Run traverses the proposed corridor. This water body joins with Cypress Creek and eventually with the Hillsborough River. Design features which protect the quality of this water body will be an issue of concern during the review of the design study.

Clarification of funding sources and fiscal impacts on other county and city transportation projects will be an area of regional concern on which specifics will need to be provided in the study.

tampa bay regional planning council

D-46

9400 Ridger Boulevard, St. Petersburg, FL 33703 (813) 377-5151/Tampa 224 3000

The study area is characterized by urbanization of former agricultural lands. The dismemberment of established communities, the condemnation of and relocation of residences and commercial activities will be an issue of concern during the review of the location and design study.

The NHE's effectiveness as a regional transportation facility which will improve accessibility, not only for Northwest Hillsborough County, but also Pinellas and Pasco Counties will be an issue of concern during the review of the location and design study.

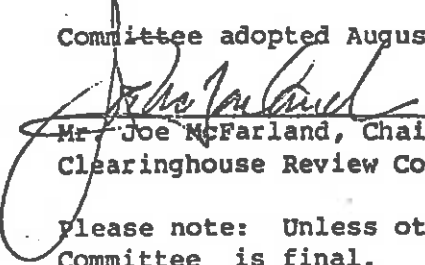
Expressway and other high capacity facilities often create demands for intense development in areas which, earlier, offer limited potential, thus adding to the dilemma of urban sprawl and its negative effects on public facilities. The facility's impact on land use planning in the Northwest Hillsborough area will be an issue of concern during the review of the location and design study.

Revenues necessary to construct and maintain the NHE will be significant. In previous reports estimates of \$350 million were given. While this expressway has been envisioned as a toll facility, it is assumed that other categories of funds shall serve as the principal source of construction and maintenance revenue. It has been noted in recent transportation improvement programs that many important capacity improvement projects have been delayed due to shortages of funds. Thus, the facility's projected cost balanced with its ability to attract vehicle trips away from overburdened roadways will become an issue of concern during the review of the location and design study.

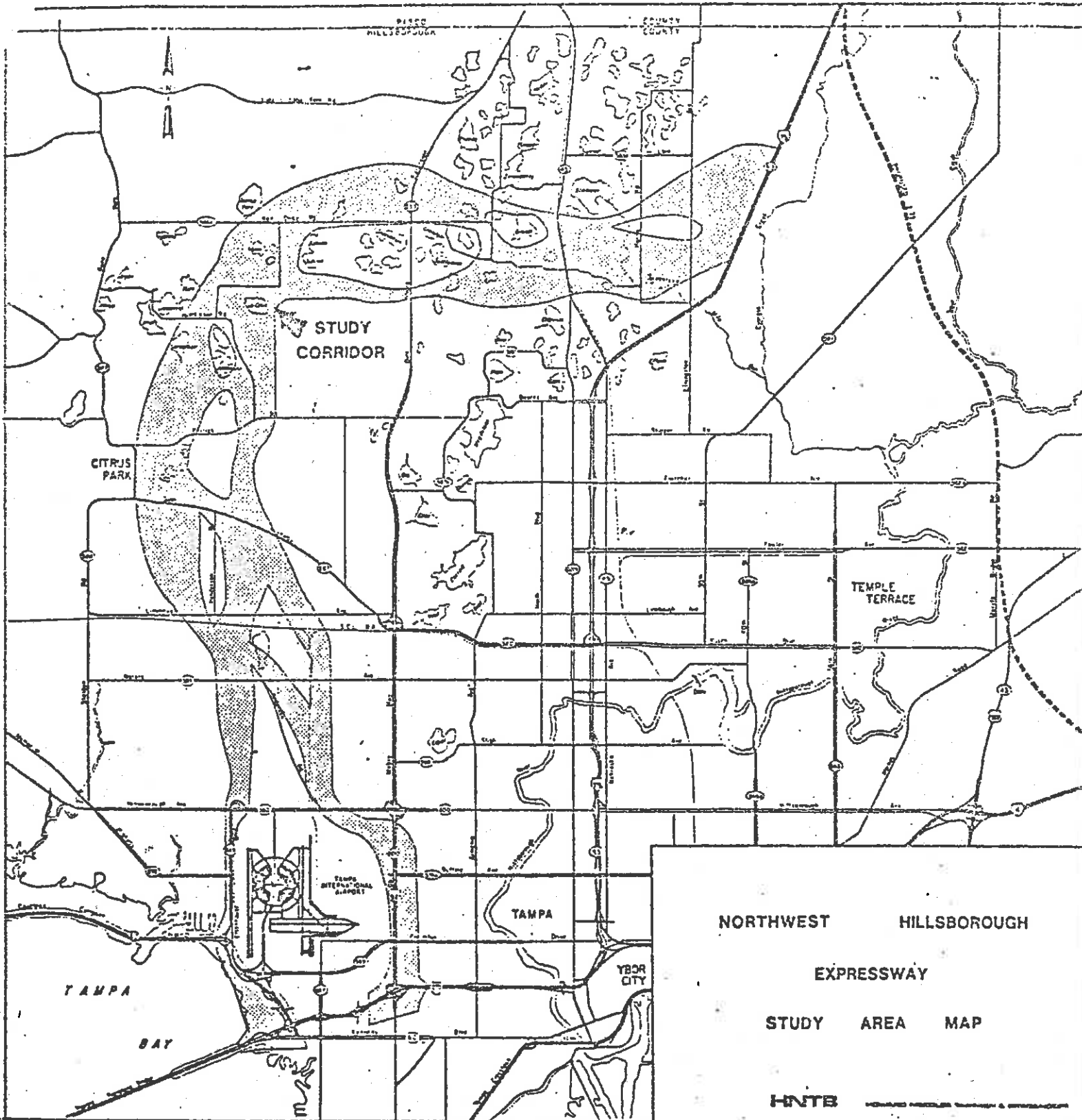
Finally, it should be noted that new high capacity facilities exert influence to redirect trips onto collector or arterial facilities which connect with it. Such trip diversion could deteriorate acceptable levels of service beyond that acceptable level. Therefore, the chosen alignment's influence to divert trips on existing collectors and arterials and the effect of these diverted trips will become issues of concern during the review of the location and design study.

It is evident that another facility is needed to reduce congestion on the overburdened road network in Northwest Hillsborough. It is therefore recommended that the study and additional biological assessments be provided for review. However, it is also recommended that at a minimum the issues raised in this review be addressed during the course of the Location and Design Study. Further, it is recommended that any additional comments addressing local concerns be considered prior to approval.

Committee adopted August 27, 1984.


Mr. Joe McFarland, Chairman
Clearinghouse Review Committee

Please note: Unless otherwise notified, action by the Clearinghouse Review Committee is final. Please append a copy to your application to indicate compliance with clearinghouse requirements. The committee's comments constitute compliance with Florida's Intergovernmental Coordination and Review process only.



NORTHWEST HILLSBOROUGH
EXPRESSWAY

STUDY AREA MAP

HNTB

CITY OF TAMPA, FLORIDA

To: Reg Alford
From: Joe Murdoch *JDM*
Subject: Northwest Hillsborough Expressway

Date: Aug. 10, 1984

I have reviewed the transmittal concerning the proposed Northwest Hillsborough Expressway. My concerns about the project relate to the general environmental impact of the additional highway construction on Tampa Bay and the wetlands of the area. As is noted in the transmittal you sent, the proposed corridor contains wetland areas including a portion of the watershed for Rocky Creek. This creates the potential for contamination of the Creek and, ultimately, contamination of Tampa Bay. I would urge the responsible authorities to consider any modifications of the alignment of the proposed highway which would avoid wetland areas.

Specifically, the southeast portion of the proposed corridor lies within the City limits and would utilize the City stormwater system. East of Dale Mabry, the system drains toward the Hillsborough River and the water quality of the River and the capacity of the existing system would be a consideration.

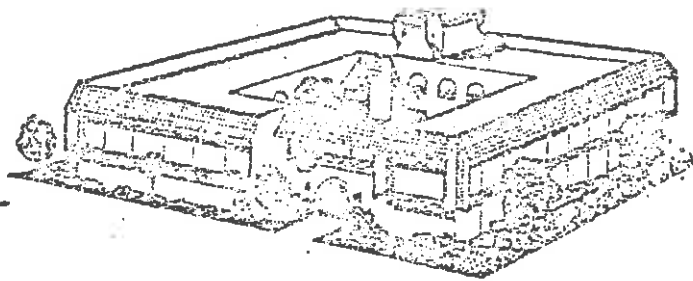
I would like to review the specific alignment of the proposed expressway when it is available. Please call me if you have any questions.

JDM/dw:5/53

cc Mike Salmon
Steve Tindale
Chris Barquin

COMMISSION

E. L. BING
RODNEY COLSON
MATT JETTON
JOHN R. PAULK
JAN KAMINSKI PLATT



ROGER P. STEWART
DIRECTOR

1500 - 5th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5980

MEMORANDUM

August 7, 1984

To: Sandra Eberhard, I C & R Coordinator
Tampa Bay Regional Planning Council

From: Rick Wilkins, Environmental Program Manager
Hillsborough County Environmental Protection Commission

Subject: Clearinghouse Review, I C & R #156-84;
Northwest Hillsborough Expressway (State Project #10000-1531).

The EPC staff has reviewed the "early notification package" for the above project and concurs with the preliminary survey of the area.

When more detailed plans are submitted, the EPC staff will review the project for potential wetland destruction and stormwater pollution. At this point, however, the plans are too general and preliminary to make a meaningful review.

RW/lw

RW

WESTERN UNION BLDG.
P.O. BOX 1110
TAMPA, FL 33601
TEL. (813) 272-5940

RECEIVED AUG 18 1984 AUG 9 1984

HILLSBOROUGH COUNTY CITY-COUNTY PLANNING COMMISSION



RONALD N. SHORT
EXECUTIVE DIRECTOR

J. L. MICHAL
CHAIRMAN

IRENE SILVER
VICE CHAIRMAN

JACK RODRIGUEZ
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BUFORD W. COUNCIL
DR. RANDOLPH GONZALEZ
ELTON L. HINTON
O. E. MELO, PE.
WILBERT WILLIAMS

MEMORANDUM

TO: Reginald Alford, Development Coordination Dept.
FROM: *JS* James W. Stutzman, Section Chief, TLU/John Martin, TUATS
DATE: August 9, 1984
RE: Northwest Expressway Comments

The Planning Commission staff has no comments at this time but will submit comments after reviewing the EIS and Traffic and Revenues Study when submitted.

JS/lc

TO: Mr. J.C. Kraft

FROM: Sandra Eberhard, IC&R Coordinator *SE*

SUBJECT: IC&R Review #156-84; Northwest Hillsborough Expressway (State Project #10000-1531) (SAI# FL8407260101C), Hillsborough County and City of Tampa

DATE: September 5, 1984

Enclosed are additional comments which should receive your consideration on the above referenced IC&R review.

SE/lk

Enclosure

cc: Wendy J. Giesy
Ron Fahs ✓

GOVERNOR'S OFFICE
Planning and Budgeting
Intergovernmental Coord.

SEP 7 1984

RECEIVED

MEMORANDUM

tampa bay regional planning council

9455 Kooger Boulevard, St. Petersburg, FL 33702 (813) 577-5151/Tamco.D292-9380

NW council calls for funds to widen Dale Mabry Hwy.

By MIRIAM GOODSPEED
An alarmed Northwest Council of Civic Associations last week voted to send letters to state and county officials requesting they immediately allocate funding for the widening of Dale Mabry Highway.

Letters urging passage of the funding will be sent to the state legislature and to the board of county commissioners. The letter to the commissioners will also oppose backing bonds and allocating gas tax money for the proposed Northwest Expressway.

Although Dale Mabry is scheduled to be widened to six lanes beginning in 1985, the Florida Department of Transportation has not yet gotten the funding for it, according to Ed Copeland, assistant county administrator in the division of public works.

In a transportation update to the council, Copeland explained that, according to his information, DOT planned to get the money by "trading" funds with other counties.

"They always felt that two to three years from now funds would be there, although they aren't there right now," said Copeland, "Hopefully, they will be."

He added that the estimated \$18.5-million widening project was a state program, not county, and he suggested council members take up the funding problem with their legislature.

A major planning problem in the county is communication, he said. Not only is there a lack of communication between the DOT and the county public works

department, but there is even a breakdown between various sections of the department.

"We have one group building roads while another issues building permits and no one is cognizant of each other."

This, he explained, was part of another problem — long forgotten zonings, such as the one on Wilsky Boulevard where an apartment complex sprang up before his department was even aware of it. The apartment's swimming pool lies directly in the path of a planned road.

This is not the first time such a thing has happened, he said, and it creates problems with necessary rights of way. When the county finally gets around to acquiring those rights, "we pay a small fortune for them."

Copeland also had some good news. There are, he said, four signal lights ready to go in. The light at the corner of Casey Road and Gurni Highway "is only waiting for TECO to turn on the juice." Among the rest are those scheduled on Busch Boulevard at Twin Lakes Drive and at Himes Avenue. The construction work at the Twin Lakes intersection is "mostly completed" and the new intersection at Himes Avenue will open "in a few weeks."

He called the future "bright" for county roads but added that cranking up planning "is not a piece of cake." The present county commission board is pushing to pass impact fees before they leave office.

(Continued on Page 2)

Funds for Dale Mabry

(Continued from Page 1)

and part of the impact fees would go to transportation.

Copeland said needed monies are coming from the gas tax and a bond program. There is between \$10 and \$15 million in the bond program, "a few more dollars than we estimated." An additional \$2 million from the gas tax "will flow back to us by the next fiscal year."

When the gas tax passed last June,

there were no plans as to how to use the money, "and it's taking time to develop them." It also takes time for designers to plan the road improvement because they are working on more than one project at once.

"Private business is good right now and they are also working for them."

Because of relatively low pay, the county is losing many of its best people to private business, he said, and this lack of an adequate staff also creates time lag.

Lutz Civic Association

P. O. BOX 1

LUTZ, FLORIDA, 33549

DEDICATED TO GROWTH AND IMPROVEMENT OF OUR COMMUNITY

TBRPC Clearinghouse Review Committee:

I would like to present the views of the Lutz Civic Association and the Lutz Community with regard to the proposed northwest expressway.

More than 300 people attended our last meeting. They were overwhelming in their position that the expressway would do harm to the community and that it would not serve the transportation needs of our area or of the county. Following are key factors which have brought us to this conclusion:

--According to 1982 counts, we have at least 30 major thoroughfares in the county which are operating at or above capacity, including Waters at 158%, Dale Mabry at 143%, US 41 at 130%, Route 580/Memorial Highway at 128%, and Hillsborough Avenue at 146%. The expressway addresses a small portion of the problem and does not effectively solve any.

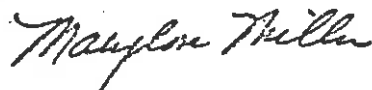
--The expressway would cost too much and would not pay for itself. In general, it would not take people where they need to go and would suffer the same ridership problems as the Crosstown. Crosstown deficits are currently running at \$6-7 million per year. With debt service at 2-1/2 to 3 times that of the Crosstown, the deficit potential is enormous.

--The expressway is diverting public and government attention and delaying the real work which must be done. This compounds the real problems.

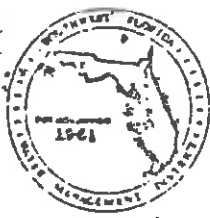
--High costs and deficits will drain money away from needed projects. This has been demonstrated by the Crosstown.

--The expressway would destroy homes and neighborhoods and do harm to the environment. We see no offsetting benefit to these human and environmental costs.

We recommend most strongly that the expressway be removed from future consideration and plans. We are opposed to the use of county, state, or other public monies to finance construction, operation, planning, or further studies. We urge the committee and our elected representatives to support these recommendations and to help us get on with the work that must be done to improve our transportation system.



Marylou Miller, President
August 24, 1984

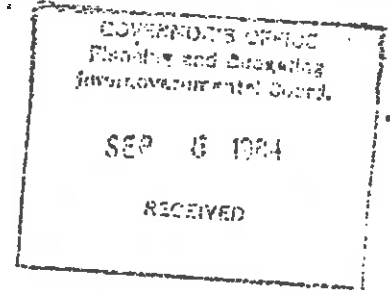


BRUCE A. SAMSON, Chairman, Tampa
Wm. O. STUBBS, JR., Vice Chairman, Ocala City
JIM KIMBROUGH, Secretary, Brooksville
RONALD B. LAMBERT, Treasurer, Wzuchula
DON CRANE, Assistant Secretary, St. Petersburg
ARCH UPDIKE, JR., Assistant Treasurer, Lake Wales

WALTER H. MARKALA, Plant City
MAKY A. KUMPE, Sarasota
MICHAEL ZAGORAC, JR., Belleair
GARY W. KUHL, Executive Director



September 15, 1983



Mr. Theodore C. Taub, Chairman
Tampa-Hillsborough County Expressway Authority
Post Office Box 1110
Tampa, FL 33601

SUBJECT: Northwest Hillsborough Expressway Phase 1 - Corridor Report,
FDOT Project No.: 10000-1531; Updated: July 1983

Dear Mr. Taub:

The staff of the Southwest Florida Water Management District (SWFWMD) has reviewed the above referenced report. The study corridors presented within the subject report encompass a significant amount of land area in Northwest Hillsborough County, and offer a wide range of possible alignments for the proposed expressway. Due to this fact, staff has not attempted to conduct a detailed analysis of your current project plans. When one or more specific alignments for the proposed expressway have been identified, staff will be better able to evaluate the project's potential impacts and indicate where permits may be required.

However, to assist you in choosing the specific expressway alignment(s) for more detailed analysis, the following comments are submitted at this time for your consideration.

1. From a floodplain management viewpoint, the District encourages the selection of an alternative that will minimize construction in wetlands, which provide temporary storage of floodwaters. This is particularly important in Northwest Hillsborough County where rapid growth is likely to increase the stormwater runoff and reduce the surface storage capacity of the region.
2. We would like to inform you that we are nearing completion of a report entitled "Floodplain Information on Rocky and Brushy Creeks". When this information becomes available, we hope that it will be considered during the planning and design of this project.

3. The Preliminary Design Report for the Sweetwater Creek Watershed Project, a joint District-Hillsborough County project, has recently been completed. We hope that information contained in this report also will be considered during the planning and design of this project.
4. As mentioned on page 82 of the report, an alignment developed in any of the corridors could require a District permit. To elaborate:
 - a. All corridors - A Management and Storage of Surface Waters (MSSW) permit, as specified in Chapter 40D-4, Florida Administrative Code (F.A.C.), may be required for an alignment chosen within any of the corridors if construction of the expressway acts as a dam or results in diverting water from an area exceeding forty acres. District staff will have to review the specific alignment plans to determine this.
 - b. Corridor A - One area that may require a permit, either a MSSW, or a Works of the District (WOD) permit (as specified in Chapter 40D-6, F.A.C.), is the Cypress Creek Swamp area near I-75 and in the vicinity of the I-75 by-pass, further east.
 - c. Corridor B - This corridor potentially includes the following Works of the District: Sweetwater Creek, Brushy Creek, Rocky Creek, and the Cypress Creek Swamp, and their associated tributaries. Permits would be required for construction in or crossing of these Works of the District.
 - d. Corridor C - This corridor includes the following Works of the District: Sweetwater Creek (at two locations), Thirteenmile Creek, and Cypress Creek Swamp, and their associated tributaries. Permits would be required for construction in or crossing of these Works of the District.
 - e. Corridor D - Involves the same WOD's as Corridor C.
5. Not specifically addressed within the report was the potential for District regulatory involvement for the abandonment of water wells. Any and all wells that are abandoned as a result of the project, will require a permit and will have to be abandoned in accordance with Chapter 40D-3, F.A.C., Regulation of Wells, and Chapter 17-21, F.A.C., Rules and Regulation Governing Water Wells in Florida.

6. The District has proposed to purchase lands within the Cypress Creek and Trout Creek floodplains under the State's "Save Our Rivers" program. Portions of the lands proposed for purchase lie partially within each one of the expressway's final study corridors. The primary purpose of purchasing these lands is to protect the flood storage - flood conveyance functions of the floodplain. This proposed purchase should be considered in the final selection and design of a more specific expressway alignment(s).
7. The District owns and/or operates a number of water control structures on various water bodies located in northwest Hillsborough County. Selection and design of a more specific expressway alignment(s) should take into consideration the operation and maintenance requirements of these facilities, including maintaining access to the same.
8. The District Governing Board has adopted management levels for numerous lakes within northwest Hillsborough County. Final alignment and design of the proposed expressway should be coordinated such that the expressway will not affect these lakes from fluctuating within their management levels.
9. The final expressway alignment should be planned so that the facility will not contribute to the degradation of surface water quality of lakes and streams.

We hope these comments will prove useful in the selection of more specific expressway alignments to be considered for further detailed analysis. District staff would welcome discussing these or any other relevant issues of concern with the Authority members or staff, the DOT, or the project consultants.

Please be advised that the staff comments stated above have not been presented to the District Governing Board. This review does not stand in lieu of normal permitting procedures, nor does it necessarily represent the position or opinion of the Governing Board.

Thank you for this opportunity to comment; and if I may be of further assistance, please contact me.

Sincerely,



RICHARD S. OWEN, Planner
Planning & Performance Evaluation

RSO:kag

cc: Hillsborough River Basin Board Members
Northwest Hillsborough River Basin Board Members
bcc: L. R. Cannon Bruce Wirth
Bob Gordon
Mike Holtkamp

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Locn: _____	
To: _____	Locn: _____	
To: _____	Locn: _____	
From: _____	Date: _____	
Reply Optional []	Reply Required []	Info. Only []
Date Due: _____	Date Due: _____	

TO: Suzanne Walker
FROM: Allan Hooker AH
DATE: August 9, 1984
SUBJECT: DOT Project Number 10000-1531;
T.P.I. Number 113669;
Northwest Hillsborough Expressway

Given the broad scope of the proposed corridor it would be premature for the Dredge and Fill Section to make specific comments about the Expressway's impact on wetlands and overall permissibility.

Project application review will include wetland type and nature to be affected, productive habitat considerations, mitigation quantity and quality, navigation where applicable, elevational data, and means of water quality assurances.

Stormwater treatment as per 17-25, Florida Administrative Code, will be reviewed by the Department also.

AH/l
cc: Wendy Giesy

APPENDIX E

TAMPA URBAN AREA
METROPOLITAN PLANNING ORGANIZATION
LETTER DATED DECEMBER 3, 1985

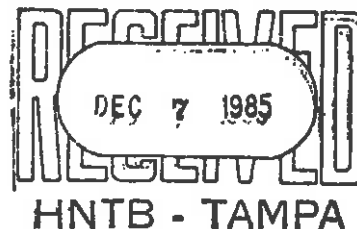
403 NORTH MORGAN STREET
P.O. BOX 1110
TAMPA FL 33601
(813) 272-5940

WILLIAM MERIWETHER
CHAIRMAN
JOSEPH J. KUBICKI
ADMINISTRATOR

MPO TAMPA URBAN AREA
METROPOLITAN PLANNING ORGANIZATION

December 3, 1985

Mr. Jim Kennedy, District Director
for Tampa Bay
Florida Department of Transportation
c/o HARTline
4305 E. 21st Avenue
Tampa, FL 33605



Dear Jim:

In response to our discussion last week concerning the history and current status of the Northwest Expressway and the Metropolitan Planning Organization's Long Range Transportation Plan, I would like to provide the following.

On August 24, 1981, the MPO adopted its Long Range Transportation Plan with a future design year of 2000. This plan reflected the development of an expressway facility through the northwest area of the County as one way of addressing the transportation needs of that area. Although arterial facility traffic solutions were evaluated, the MPO decided that the most prudent approach to the development of traffic facilities in this area was through the development of an expressway facility which would be toll financed. As such, a northwest expressway extending from I-275 to I-75 was shown on the plan for purposes of more detailed studies by the State and Tampa/Hillsborough County Expressway Authority.

In early 1985, the MPO began a routine review of the Long Range Plan and update to the year 2010. As a part of the development of this plan, we have had the benefit of the detailed planning studies of the Expressway Authority and improved socio-economic and land development information for the northwest area. As a result, we have prepared and have received MPO approval for final testing of a road plan which maintains the Northwest Expressway between Dale Mabry Highway (SR 597) and I-275, but replaces that portion of the proposed expressway between SR 597 and I-75 with an at-grade arterial highway. This proposal is consistent with the detailed studies of the Expressway Authority and is supported through network analysis and future traffic projections of the MPO.

The MPO and its staff fully support the activities of the Expressway Authority and the State to date in the evaluation of this project and looks forward to the completion of the detailed financial studies as an essential element of the projects ultimate feasibility. The MPO

E-1

Mr. Jim Kennedy
December 2, 1985
Page 2

will again review the project at the time of the completion of the financial feasibility analysis to determine its effect, if any, on the road funding program and the financial feasibility of the adopted Long Range Plan.

If I can be of any further assistance in clarifying the position of the MPO and its past actions, please feel free to contact me.

Sincerely,



Joseph J. Kubicki,
Staff Administrator

JJK:lf

cc: Ray Speer
MPO Members
Dale Patton

APPENDIX F

FLORIDA DEPARTMENT OF STATE
DIVISION OF ARCHIVES
HISTORY AND RECORDS MANAGEMENT
LETTER DATED DECEMBER 18, 1985



FLORIDA DEPARTMENT OF STATE

George Firestone
Secretary of State
DIVISION OF ARCHIVES,
HISTORY AND RECORDS MANAGEMENT
The Capitol, Tallahassee, Florida 32301-8020
(904) 488-1480

December 18, 1985

In Reply Refer to:

Mike Wisenbaker
Historic Sites Specialist
(904) 487-2333

Mr. P.E. Carpenter
Federal Highway Administration
227 N. Bronough St., Room 2015
Tallahassee, Florida 32301

RE: Your Letter and Attachment of December 2, 1985
Cultural Resource Assessment Review Request,
"Cultural Resource Assessment Survey of the
Proposed Northwest Hillsborough Expressway,
Hillsborough County, Florida.

Dear Mr. Carpenter:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites and properties listed, or eligible for listing, in the National Register of Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-422, P.L. 94-458 and P.L. 96-515, and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

We have reviewed the results of the above cited survey which was directed by Joan Deming of Archaeological Consultants, Inc. On the basis of the information contained in the survey report, we concur with Ms. Deming that prehistoric sites 8Hi2151-2153, as well as the five identified non-site loci, are not eligible for listing in the National Register of Historic Places.


It is, therefore, the opinion of this office that the Northwest Hillsborough Expressway will have not effect on sites eligible, or potentially eligible, for listing in the National Register of Historic Places. Thus, the project may proceed without any further involvement from this office.

Mr. P.E. Carpenter
December 18, 1985
Page Two

If you have any questions concerning our comments, please do not hesitate to contact us.

Your interest and cooperation in helping to protect Florida's archaeological and historic resources are appreciated.

Sincerely,


George W Percy
State Historic
Preservation Officer

GWP/Wmw

