FEDERAL HIGHWAY ADMINISTRATION
REGION FOUR

COUNTY ROAD 1 EXTENSION
FROM NEW YORK AVENUE TO U.S. 19
PASCO COUNTY, FLORIDA

FINAL ENGINEERING REPORT

WORK PROGRAM ITEM NUMBER 7125939

STATE PROJECT NUMBER 14500-1605

FEDERAL AID PROJECT NUMBER M-1737-(1)

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1.0 ABSTRACT

The Florida Department of Transportation (FDOT) proposes to extend County Road 1 (C.R. 1) from New York Avenue to U.S. 19, a distance of approximately 2.41 kilometers (1.5 miles). This project is consistent with the 1991 Comprehensive Plan for Pasco County (dated July 16, 1991). This report is one element of a Project Development and Environmental Study which examines in detail the engineering analysis of the proposed extension of County Road 1 from New York Avenue to U.S. 19.

This study considered the feasibility of extending County Road 1 on new alignment from New York Avenue to U.S. 19. Two typical sections were developed and evaluated using engineering, economic and environmental criteria. An urban typical section (Section 7, Figure 7-1, p. 7-3) and a rural typical section (Section 7, Figure 7-2, p. 7-4) were developed. Twelve (12) alternatives were developed for the study corridor using the two typical sections. Six (6) alternatives were developed using the urban typical section and six (6) alternatives were developed using the rural typical section. Six (6) of the alternatives connected to Scheer Boulevard and six (6) connected to Emerald Boulevard.

In order to provide a comparison between the alternatives, evaluation matrixes was prepared (Section 7, pages 7-13 and 7-14). The alternatives evaluation matrix identified the number of relocations, right-of-way and construction costs for each alternative. The environmental evaluation matrix identified the socio-economic, cultural, natural and physical impacts associated with each alternative.

A public information workshop was conducted on October 20, 1992 in the cafeteria of the Hudson High School, 14410 Cobra Way, Hudson, Florida. The workshop gave the public an opportunity to comment on the project, regarding specific location, proposed design, socio-economic effects, and possible environmental impacts. The public was able to review drawings of the conceptual design plans and the possible impacts to the area. All twelve (12) alternatives were presented at the workshop.

Following the public information workshop, Alternatives 1 through 7 and 10 through 12 were eliminated from further consideration due to right-of-way cost and the number of potential relocations. Alternatives 8 and 9 were carried forward for further consideration.

Criteria used to further evaluate Alternatives 8 and 9 included a life cycle cost analysis, driver expectation, speeds, frequency of driveway opening, number of cross streets, noise barrier cost analysis and future land use. The life cycle cost analysis determined the anticipated cost of vehicular accidents of a rural typical section versus an urban typical section. The results of the life cycle cost analysis determined that the rural typical section would have an annual saving of $733,000 for a net present worth savings of $7,764,000 over the 20 year life of the project.

The noise barrier cost analysis determined that the cost differential between Alternatives 8 an 9 was minimal. Alternative 8 was estimated to cost $94,380 while Alternative 9 would cost $133,650. Barrier costs were not considered a deciding factor in the selection of the preferred alternative since the 5dB reduction could be met.

Alternative 9 was selected as the preferred build alternative. Alternative 9 recommends the construction of a four lane divided rural typical section in 59.74 meters (196 feet) of right-of-way and makes the connection to U.S. 19 at Emerald Boulevard. This alternative was carried forward to the public hearing.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this Preliminary Engineering Report is to document the engineering decisions and the design criteria used in the development of the proposed typical sections and alignment alternatives for the extension of County Road 1 from New York Avenue to U.S. 19. This report contains information regarding the development of the typical sections and the evaluation of alternative alignments analyzed during the study to provide 2010 design year improvements. This report also includes the economic evaluation of the alternatives considered and a recommendation of a preferred alternative.

2.2 PROJECT DESCRIPTION

County Road 1 (Little Road) is a minor arterial roadway on the Pasco County Transportation System. County Road 1 is located between Seven Springs Boulevard (C.R. 77) and New York Avenue, a distance of approximately 28.16 km (17.5 miles). The proposed extension will connect County Road 1 to U.S. 19 in the vicinity of Scheer Boulevard or Emerald Boulevard, a distance of approximately 2.41 km (1.5 miles). The Area Location Map, Figure 2-1, shows the existing alignment of C.R. 1 and the proposed corridor for the extension. The Project Location Map, Figure 2-2, shows the proposed study limits. County Road 1 south of New York Avenue is a two (2) lane undivided rural roadway with one (1) 3.66 m (12 feet) wide travel lane in each direction located within 36.58 m (120 feet) of existing right-of-way.

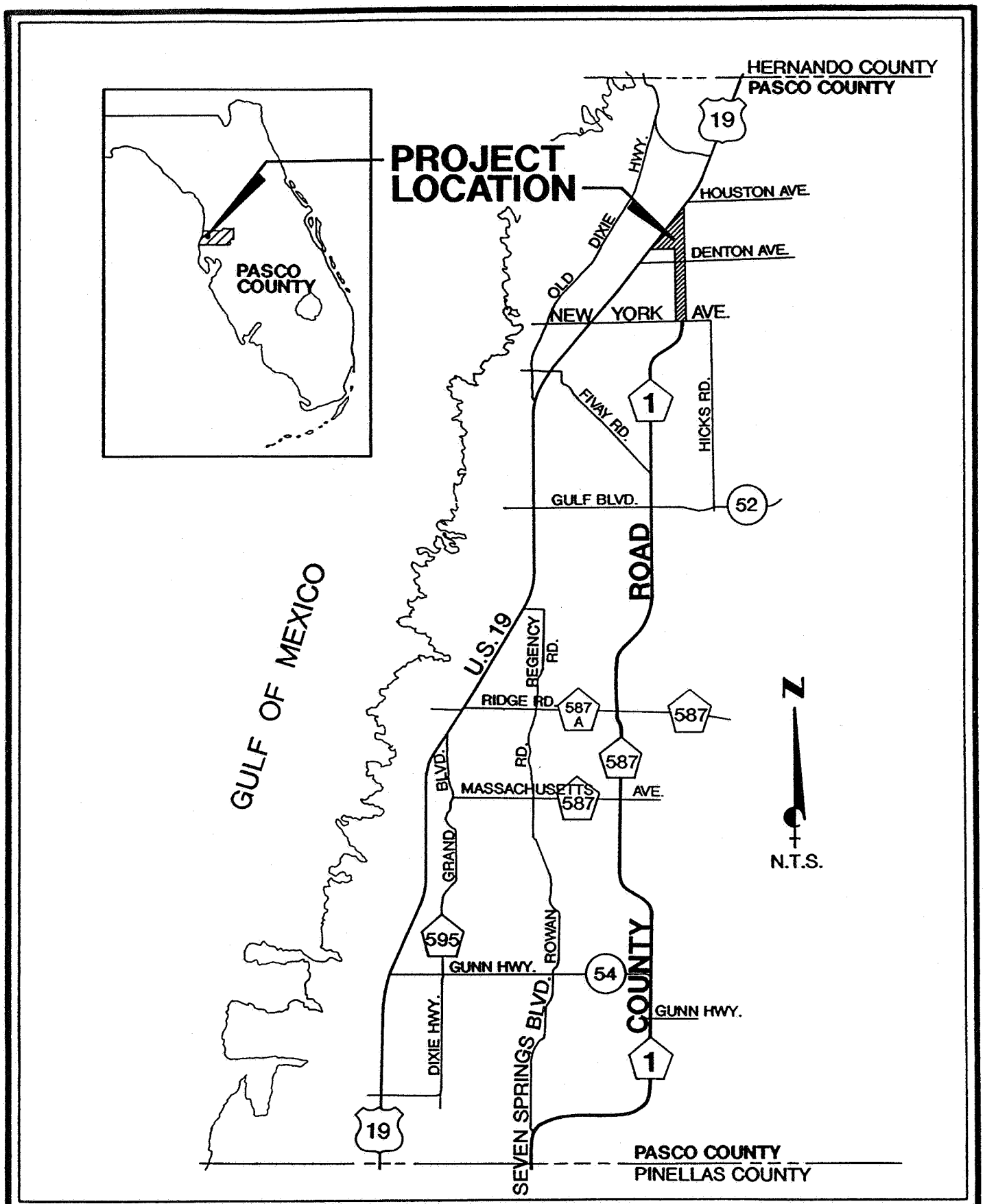


FIGURE 2-1

AREA LOCATION MAP

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

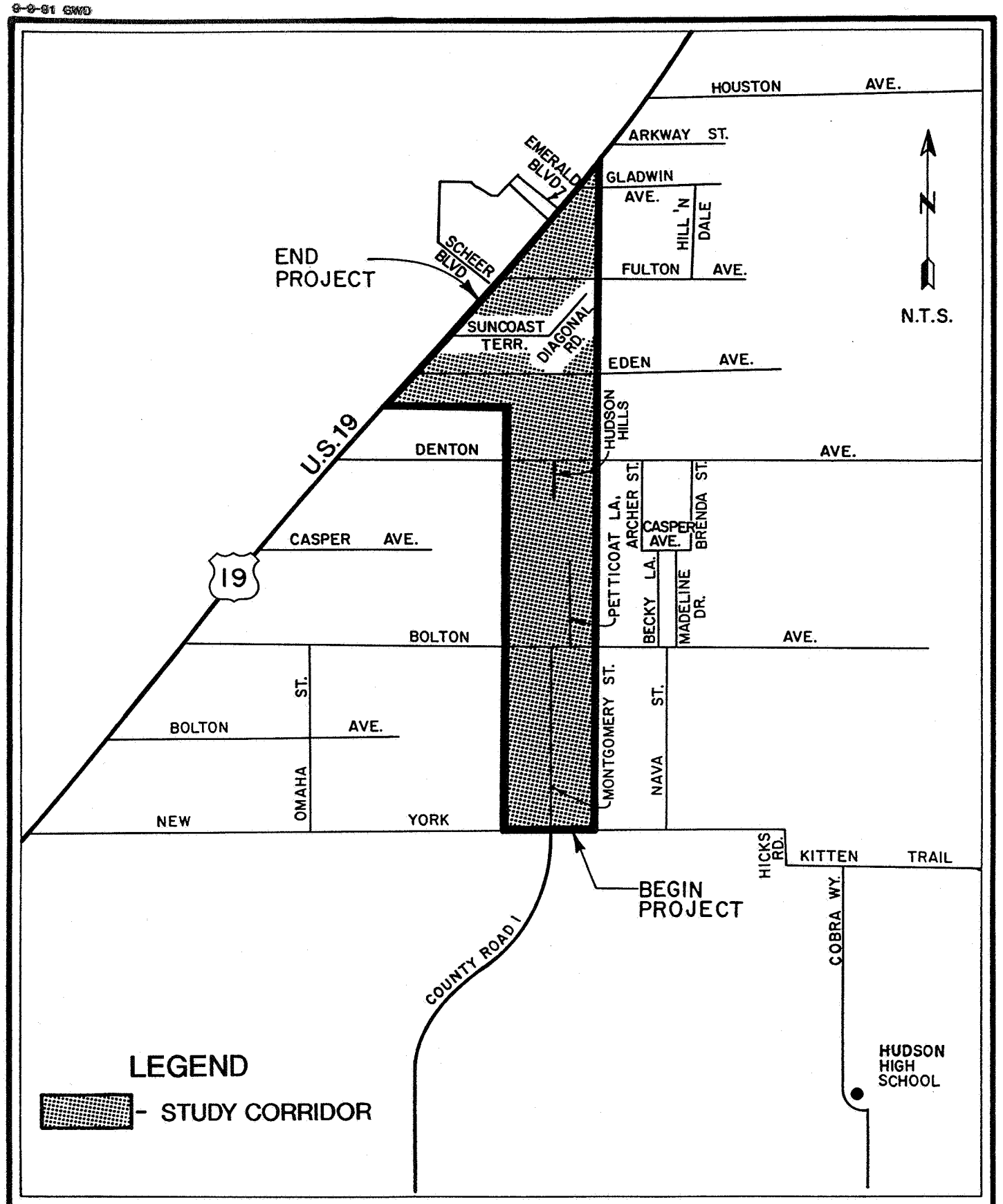


FIGURE 2-2

PROJECT STUDY LIMITS

COUNTY ROAD 1 EXTENSION
FROM NEW YORK AVENUE
TO U.S.19
PASCO COUNTY, FL.

3.0 EXISTING CONDITIONS

3.1 EXISTING ROADWAY CHARACTERISTICS

3.1.1 Functional Classification

County Road 1 is a minor arterial roadway. Montgomery Road and Hudson Hills Lane which are two (2) short segments of existing roadways located within the study corridor are classified as minor rural collectors.

3.1.2 Typical Sections

County Road 1 south of New York Avenue is a two (2) lane undivided rural roadway with a 3.81 m (12.5 feet) wide travel lane in each direction. The total pavement width is 7.62 m (25 feet). Curb and gutter is provided along the east edge of pavement at New York Avenue. The existing roadway is located within 36.58 m (120 feet) of right-of-way. Pasco County has made provisions for future expansion to a six (6) lane divided urban highway within the existing 36.58 m (120 feet) of right-of-way. The roadway has been staged constructed with the existing two (2) travel lanes located in the eastern half of the right-of-way. The right-of-way extends to 54.86 m (180 feet) in those areas where stormwater retention is included. The existing and future construction typical section for County Road 1 south of New York Avenue is shown in Figure 3-1.

Within the study corridor, there are two (2) rural collector streets. They are Montgomery Street and Hudson Hills Lane. Montgomery Street is located between New York Avenue and Bolton Avenue and is a two (2) lane undivided rural roadway with a 3.66 m (12 feet) wide travel lane in each direction. The total pavement width is 7.32 m (24 feet) and is approximately 0.72 m (0.45 mile) long. Montgomery Street is located within 15.24 m (50 feet) of existing right-of-way. Shoulders are grass and stormwater runoff drains directly into swales at various locations along the roadway. The typical section for Montgomery Street is shown in Figure 3-2.

Hudson Hills Lane is located south of Denton Avenue and is a 161.54 m (530 feet) long two (2) lane roadway with a 3.35 m (11 feet) wide travel lane in each direction. Hudson Hills Lane is located within 15.24 m (50 feet) of existing right-of-way. The typical section for Hudson Hills Lane is shown in Figure 3-3. Table 3-1 provides a summary of the existing roadway data for all three (3) roads.

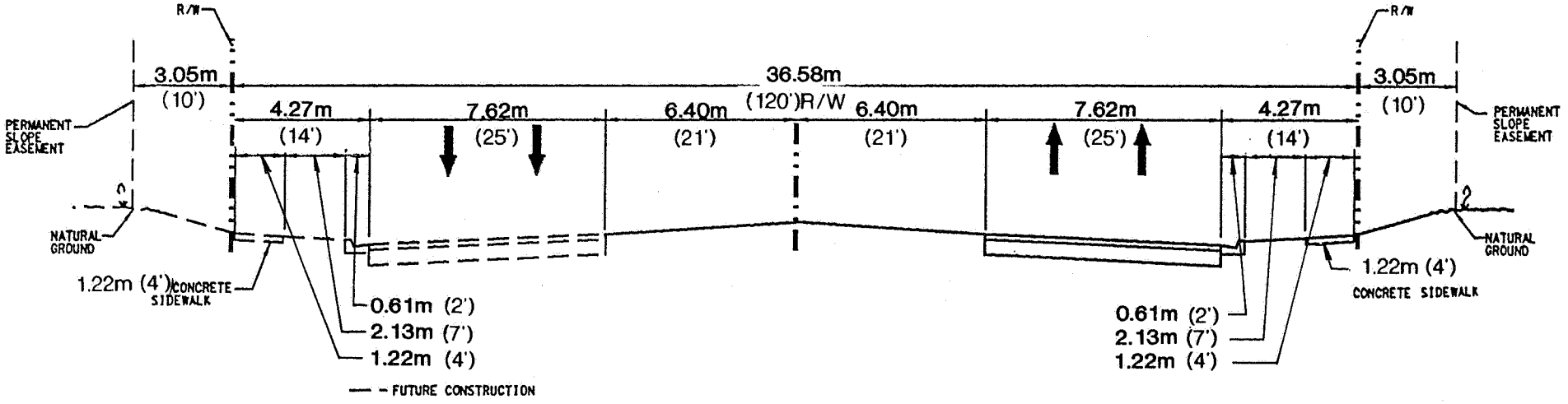


FIGURE 3-1

EXISTING TYPICAL SECTION,
SOUTH OF NEW YORK AVE.

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S.19

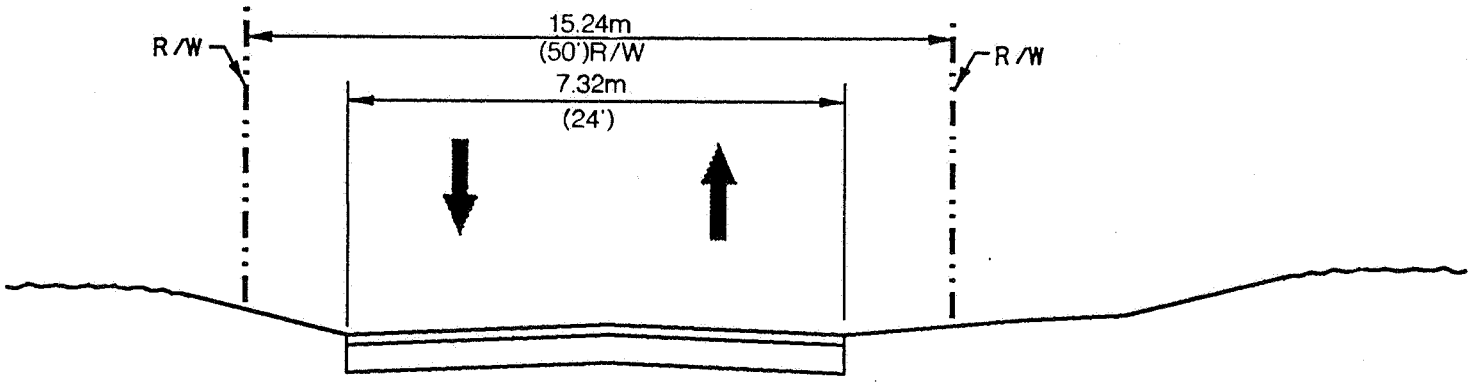


FIGURE 3-2

EXISTING TYPICAL SECTION,
MONTGOMERY STREET

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

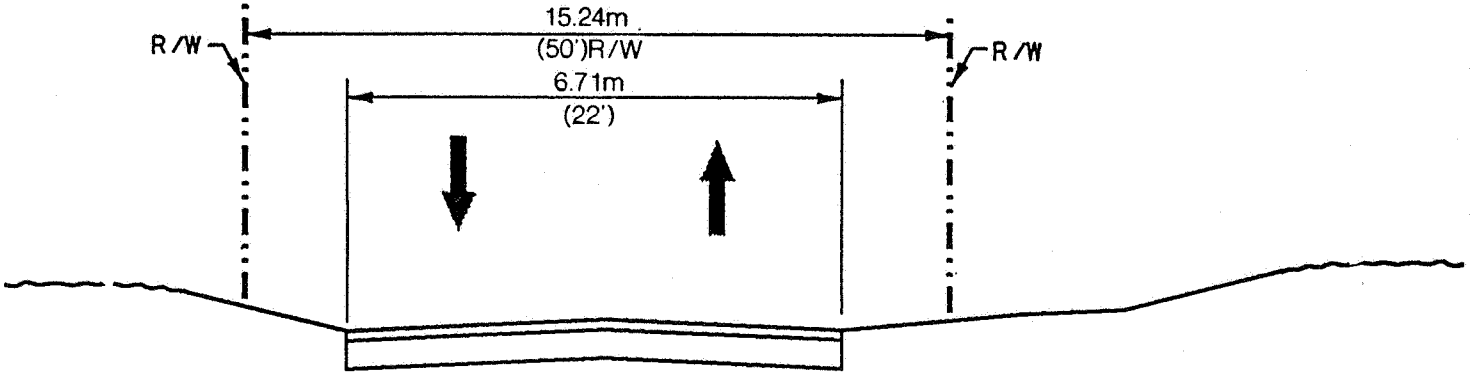


FIGURE 3-3

EXISTING TYPICAL SECTION,
HUDSON HILLS LANE

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

Table 3-1 Existing Roadway Data

Facility	Existing Geometry	Length (kilometers)	Approximate ROW Width	Pavement Width
County Road 1 from Hudson Ave. to New York Ave.	2LU*	3.22 km (2.0 miles)	36.58 m (120'+)	7.62 m (25')
Montgomery Street from New York Avenue to Bolton	2LU*	0.72 km (0.45 mile)	15.24 m (50')	7.32 m (24')
Hudson Hills Lane Rd. 161.54 m (530') South of Denton Ave. to Denton Ave.	2LU*	0.16 km (0.10 mile)	15.24 m (50')	7.32 m (24')

* 2LU - 2 lane undivided

3.1.3 Pedestrian and Bicycle Facilities

Currently, pedestrians are limited to a 1.22 m (4 feet) wide sidewalk located adjacent to the existing right-of-way line on the east side of the roadway south of New York Avenue. Bicyclists are required to share the travel lane with vehicular traffic. Provisions have been made to include both pedestrian and bicycle facilities within the future typical section for County Road 1 south of New York Avenue. The future typical section will include a 1.22 m (4 feet) wide sidewalk on both sides and a 4.27 m (14 feet) wide outside travel lane to accommodate bicyclists. Pedestrian crosswalks are not provided or planned for any of the existing intersections. No pedestrian or bicyclists provisions are available on either Montgomery Street or Hudson Hills Lane.

3.1.4 Right-of-way

The existing right-of-way along County Road 1 from Fivay Road to New York Avenue is 36.58 m (120 feet) and extends to 54.86 m (180 feet) in some locations to accommodate retention areas where necessary. Additional right-of-way is provided at New York Avenue immediately south of the existing intersection for retention area.

Within the study corridor, there is a 15.24 m (50 feet) wide right-of-way envelope from New York Avenue to Fulton Avenue, a distance of approximately 3.22 km (2.0 miles). Both Montgomery Street and Hudson Hills Lane are located within this 15.24 m (50 feet) right-of-way. Figure 3-4 illustrates the existing right-of-way.

3.1.5 Horizontal Alignment

County Road 1 runs north/south from Fivay Road to Hudson Avenue. The alignment then curves to the east and then curves back to the north to New York Avenue.

Montgomery Street continues north on the same north/south alignment to Bolton Avenue. Hudson Hills Lane begins on the same alignment and runs north to Denton Avenue. There is no existing north/south roadway between Denton Avenue and U.S. 19.

3.1.6 Vertical Alignment

County Road 1 south of New York Avenue is relatively flat. There is one shallow vertical curve which occurs in the middle of the reverse curve between Hudson Avenue and New York Avenue. Montgomery Street has a crest vertical curve between Hudson Avenue

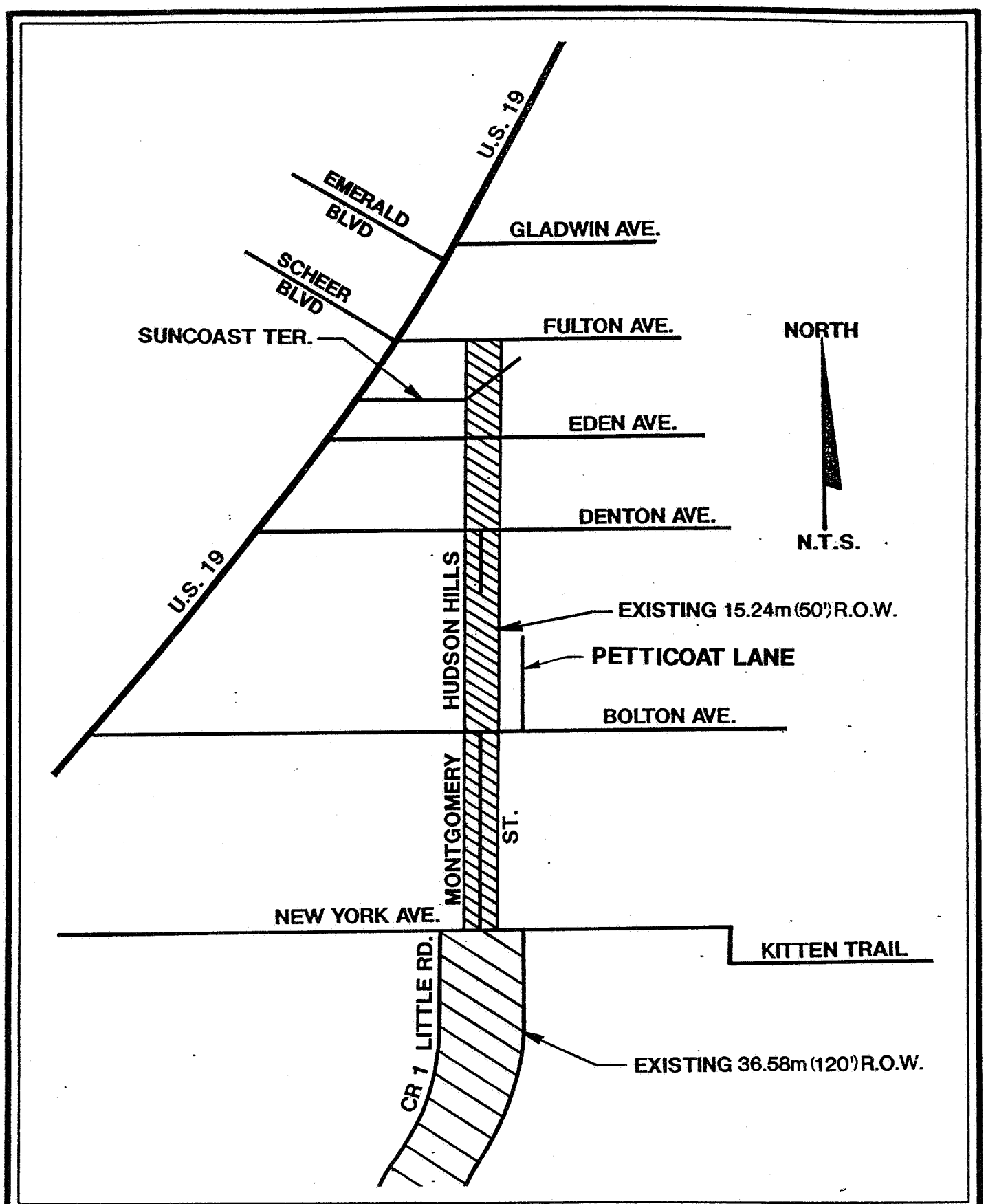


FIGURE 3-4

EXISTING RIGHT-OF-WAY

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

and Denton Avenue. No as-built drawings or survey data was available to evaluate the geometry of the vertical curve for the purpose of determining if the existing curve meets current design standards. There is no existing roadway between Denton Avenue and U.S. 19.

3.1.7 Drainage

Several retention ponds have been built on either side of County Road 1 south of New York Avenue by developers. Curb and gutters along one edge of pavement collect stormwater in curb inlets and direct it under the roadway to the retention area. Along the opposite side, stormwater flows directly off the roadway into the retention areas.

Montgomery Street has no existing stormwater facilities. Stormwater drains directly into grassy swales on either side of the roadway. Hudson Hills Lane has shallow shoulder gutters which direct the runoff to the natural grade at the south end of the road and to Bolton Avenue at the north end. The Pasco County Comprehensive Plan (1991) encourages the use of natural means for stormwater management, minimizing the need for concrete culverts and pipes. A Location Hydraulic Report, dated July 1993, was prepared for this study and should be reviewed for more information.

Stormwater runoff from the study area flows westward. Three cross drains along U.S. 19 convey sheet flow towards Fillman Bayou and the Gulf of Mexico. These three cross drains occur between New York Avenue and Scheer Boulevard. The existing drainage system along U.S. 19 is an open system, consisting of roadway ditches and median inlets with crossdrains. Stormwater runoff from Montgomery Street, New York Avenue, Bolton Avenue, Denton Avenue, Eden Avenue, and Fulton Avenue drains into the adjacent grassed areas within the right-of-way. A few of the driveways on these roadways have side drains, but the majority do not.

3.1.8 Geotechnical Data

No geotechnical data was collected for this study. However, Williams and Associates Geotechnical Engineers collected soils data along County Road 1 in 1988 for use in the design of County Road 1 from Hudson Avenue to New York Avenue. This information was used for the design of County Road 1 from Hudson Avenue to New York Avenue. The soil was found to be primarily gray and light brown fine sands, with sparse amounts of silty sand, clayey fine sand, and limestone. The groundwater table was observed at that time to

be between 1.13 m (3.7 feet) and 1.68 m (5.5 feet) below ground level. It is anticipated that similar soil types should be found throughout the remainder of the proposed project area.

3.1.9 Accident Data

Accident data for the existing area around the proposed study corridor was provided by Pasco County Traffic Department. In 1990, there were two (2) accidents in the vicinity of Fivay Road and County Road 1 and there were five in 1991. Fifteen accidents were reported near the Hudson Road/County Road 1 intersection in 1990 and three in 1991.

Accident data from the Florida Department of Transportation, District 7, for areas along U.S. 19 reveal that there were nineteen accidents in the vicinity of U.S. 19 and New York Avenue in 1989 and ten in 1990. Three accidents occurred near or at the intersection of U.S. 19 and Denton Avenue in 1989 and in 1990. Table 3-2 is a summary of accidents along U.S. 19 by accident type.

Table 3-2 Accident Data Summary along U.S. 19 From New York Avenue to Houston Avenue

ACCIDENT TYPE	1987	1988	1989	1990	1991
# OF Crashes	49	55	66	43	36
Fatalities	2	3	1	2	1
# of Injuries	86	66	91	66	50
No Improper Driving	0	3	5	6	3
Careless Driving	16	17	42	24	17
Failure to Yield R.O.W.	16	14	14	7	8
Disregarded stop sign	3	0	0	0	0
Disregarded Traffic Signal	0	0	0	1	2
Improper Lane Change	7	4	1	2	2
Improper Turn	0	0	1	1	0
D.W.I.	2	2	0	1	0
Exceeded Safe Speed	2	2	0	0	0
Improper Parking	0	0	1	0	0
Improper Load	1	0	0	1	1
Improper Passing	0	0	0	0	1
Failed to Maintain Equipment	1	0	0	0	0
Drove left of Center	1	0	0	0	0
Driving wrong way/side	2	0	0	0	0
Others	2	6	2	0	1
Unknown	0	1	0	0	1

3.1.10 Traffic Signals, Locations and Intersection Design

Within the study limits, there are no signalized intersections. The intersection of County Road 1 at New York Avenue/Montgomery Street is a stop sign controlled intersection with the north and south legs of the intersection being required to stop for through traffic on New York Avenue. The intersections of both Montgomery Street with Bolton Avenue and Hudson Hills Lane with Denton Avenue are stop controlled with the north and south legs of these intersections being required to stop for through traffic on Bolton Avenue and Denton Avenue. The closest signalized intersection on U.S. 19 is at New York Avenue, a distance of approximately 3.22 km (2.0 miles) south of Scheer Boulevard.

The T-intersections of both Scheer and Emerald Boulevard with U.S. 19 are both stop controlled. Emerald Boulevard is located approximately 390.14 m (1280 feet) northeast of Scheer Boulevard on the west side of U.S. 19.

3.1.11 Lighting

Roadway lighting does not exist along County Road 1 south of New York Avenue. Roadway lighting also does not exist on Montgomery Street or Hudson Hills Lane or elsewhere within the project limits.

3.1.12 Utilities

Utility companies and agencies were contacted to determine existing utility systems within the proposed study corridor. The results of this coordination is described as follows:

Electric:
Electric service is provided by Withlacoochee River Electric Company (WREC). Electric lines cross the corridor at Bolton Avenue, Denton Avenue, Eden Avenue, and Fulton Avenue. Lines also run along the east right-of-way of U.S. 19 where the proposed corridor ends.

Telephone:
General Telephone and Electric Company maintains overhead and buried conduits along the east side of Montgomery Street with crossings at Bolton Avenue, Denton Avenue, Eden Avenue, Fulton Avenue, Suncoast Avenue, and along U.S. 19.

Both U.S. Sprint and MCI Telecommunications Corporation were contacted to determine if either company maintained services within the study corridor. Neither company has facilities within the study corridor.

Cable Television:
Cable television is provided by TCI Communications of Pasco County, which maintains overhead and buried conduits along the east side of Montgomery Street from just north of New York Avenue to Denton Avenue with east\west crossings at Bolton Avenue, Denton Avenue, Fulton Avenue, and along U.S. 19.

Gas:
No petroleum or gasolines exist within the project corridor. Enron/Florida Gas Transmission Company and People's Gas Company do operate within the study area. They do not, however, have facilities located within the project area.

Sewer and Water:
Pasco County Utilities provide sewer and water services within the study area. Both services are provided along Hudson Hills Lane and at the intersection of U.S. 19. Additionally, Hudson Water Works has facilities along the east side of Montgomery Street from New York Avenue to Bolton Avenue.

Storm Drainage:
Storm drainage systems along Montgomery Street consist of open swales. No underground storm drainage facilities exist along the proposed corridor.

3.1.13 Structural and Operational Conditions

Information regarding the structural and operational condition of Montgomery Street and Hudson Hills Lane is not available. Field reviews of both segments of roadway indicate that the pavement along Montgomery Street is in fair condition. There were no signs of pavement cracking or deterioration. The riding surface was worn due to age and the edge of the travel lanes showed signs of cracking. Hudson Hills Lane is relatively new pavement and showed no signs of deterioration.

All existing pavement along Montgomery Street and Hudson Hills Lane will be removed prior to construction. In addition, any pavement on the existing crossroads will be removed as needed for intersection improvements.

3.2 EXISTING BRIDGES

There are no existing bridges located within the study area.

3.3 EXISTING ENVIRONMENTAL CHARACTERISTICS

3.3.1 Land Use Data

The study area is situated in an rural-suburban area of northwest Pasco County between 0.0 and 2.41 km (1.5 miles) from U.S. 19. Residential, commercial, and industrial land uses represent approximately 50 percent of the study area. The remaining land is undeveloped. The existing land use is depicted in Figure 3-5. Land uses were classified according to the Florida Land Use, Cover and Forms Classification System (Florida Department of Transportation, 1985), known as FLUCFCS.

The southern portion of the study area between New York and Denton Avenues consists predominately of low to high-density residential lands intermixed with areas of undeveloped land. Single family and mobile homes are prevalent along Montgomery Street and Petticoat Lane. A high-density residential development, Hudson Hills Manor, occurs between Bolton and Denton Avenue. The area between Denton and Eden Avenues is predominantly commercial and industrial land uses. North of Eden Avenue to Gladwin Avenue is predominately undeveloped with scattered single family residences. Single-family and mobile homes are prevalent along Suncoast Terrace. Along U.S. 19, commercial development is intermixed with undeveloped parcels. Future land use within the study area is expected to follow the pattern of the existing land uses according to the Future Land Use Element of the Pasco County Comprehensive Plan, July 16, 1991. The future land use map is depicted in Figure 3-6. Commercial land uses are expected to continue to develop along the U.S. 19 corridor. The residential areas between New York and Denton Avenues and Eden and Gladwin Avenues are designated as high-density residential land use [15 to 22 residences per hectare (6 to 9 residences per acre)]. Light industrial and commercial land uses are expected to continue to develop along Denton Avenue.

There are no planned developments within the study limits. Several of the planned residential developments outside the study area have been built out. This includes Beacon Woods, a high-density residential development that occurs along Fivay Road. A proposed shopping mall to serve the Beacon Woods community is planned along Hicks Road which is southeast of the project study area.

LAND USE/COVER TYPES (FLUCFCS CODES)

110	RESIDENTIAL, LOW DENSITY
120	RESIDENTIAL, MEDIUM DENSITY
130	RESIDENTIAL, HIGH DENSITY
140	COMMERCIAL AND SERVICES
150	INDUSTRIAL
212	UNIMPROVED PASTURES
310	HERBACEOUS
321	PALMETTO PRAIRIE
411	PINE FLATWOODS
412	LONGLEAF PINE - XERIC OAK
413	SAND PINE
421	XERIC OAK
432	SAND LIVE OAK
616	INLAND PONDS AND SLOUGHS (WILLOW)
621	CYPRESS
643	WET PRAIRIE
741	DISTURBED LAND - RURAL
742	BORROW AREA

DEVELOPED LAND (FLUCFCS CODES 110-150)

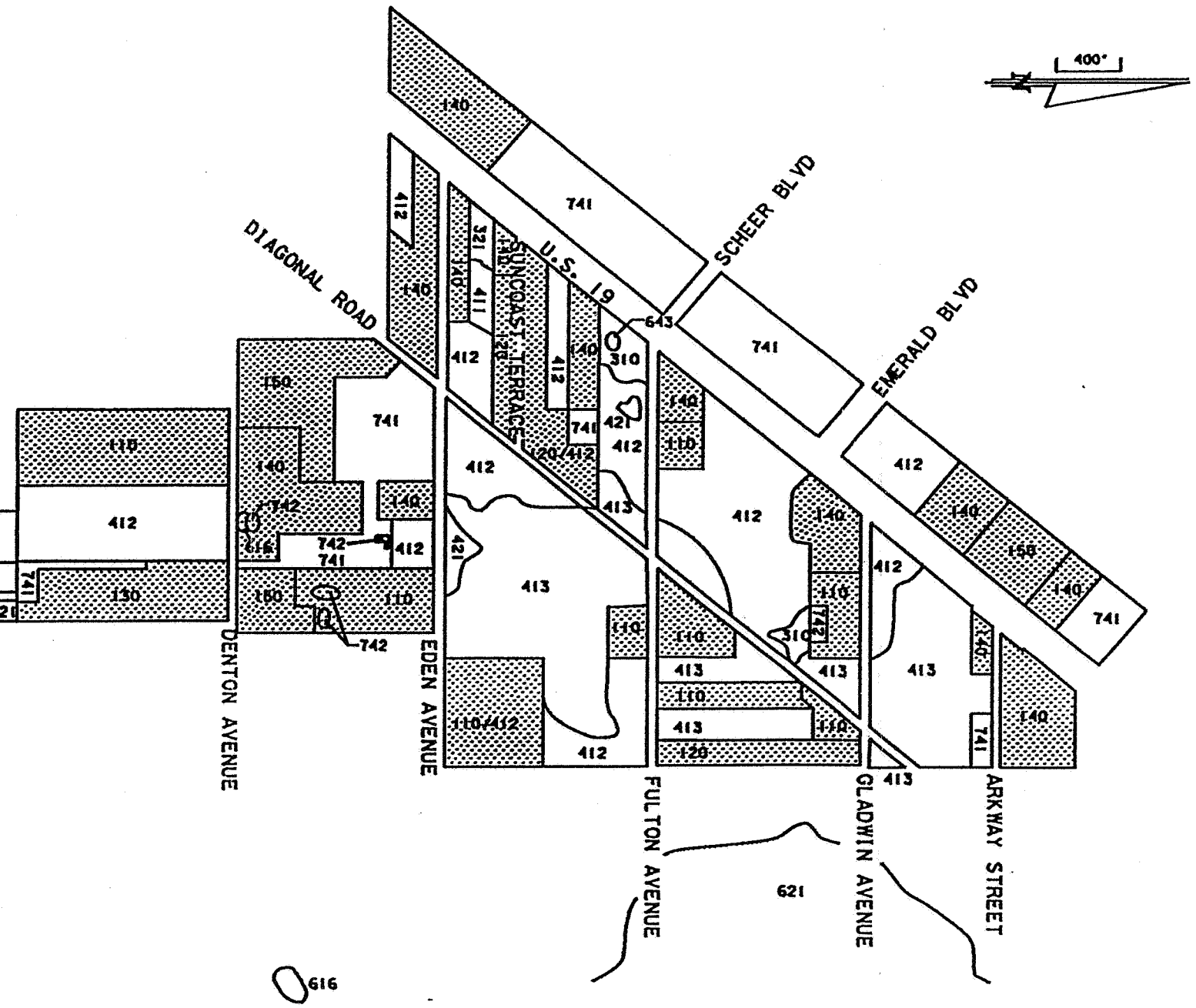


FIGURE 3-5

EXISTING LAND USE/COVER TYPE MAP

COUNTY ROAD I EXTENSION
NEW YORK AVE. TO US 19

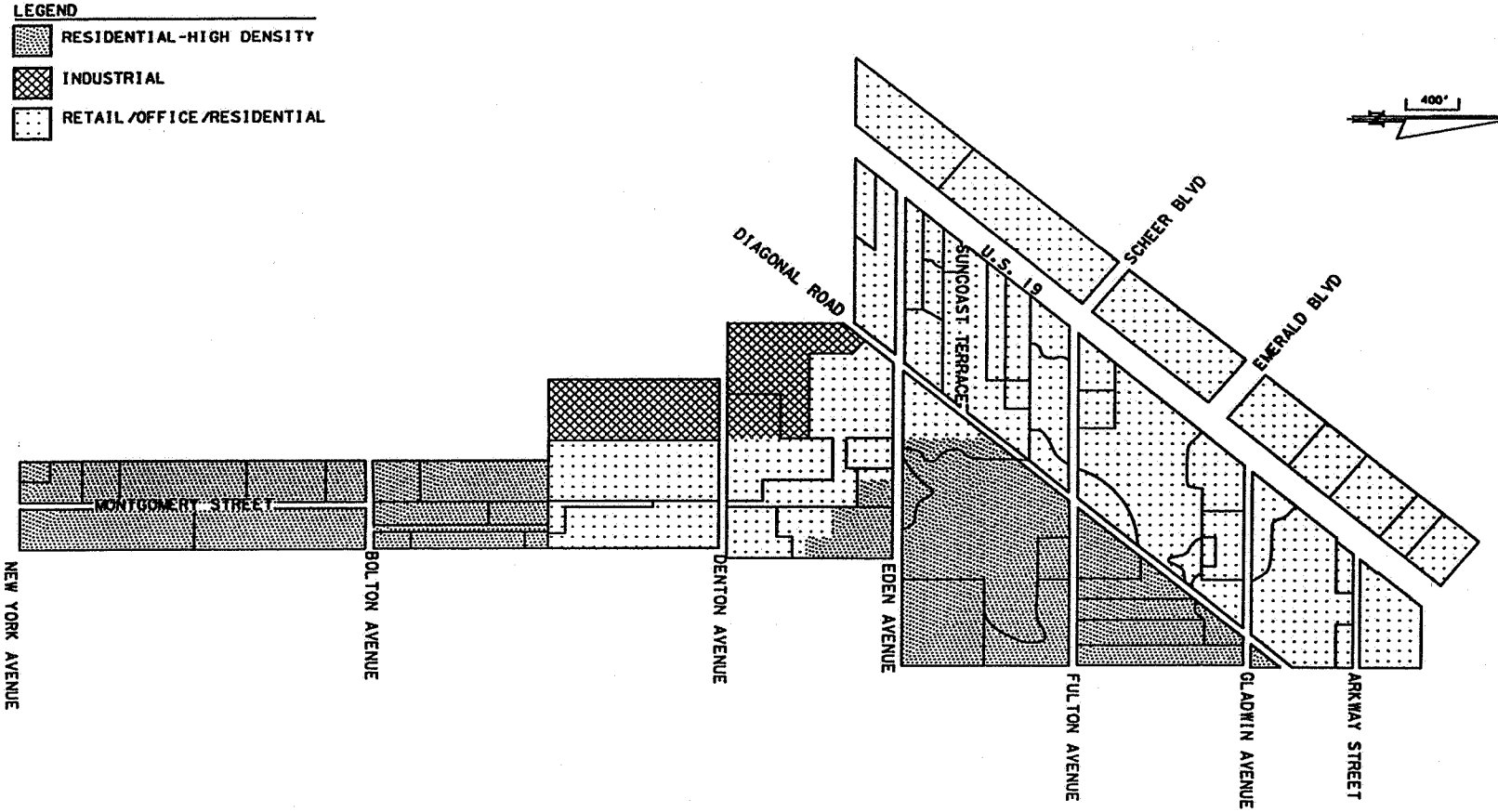


FIGURE 3-6

FUTURE LAND USE MAP

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

3.3.2 Cultural Features and Community Services

The cultural features and community service facilities within or adjacent to the project study corridor were identified. Figure 3-7 depicts the location of schools, churches, and recreational areas. Figure 3-8 depicts the location of medical, police/fire, and social service facilities. The location of cemeteries are depicted on both Figures 3-7 and 3-8. The locations of the community facilities were determined by field surveys, from the Pasco County Comprehensive Plan (July 16, 1991), or through coordination with Pasco County (School Board, Planning Department, and Sheriff's Department).

3.3.2.1 Educational Facilities

No schools occur within the project study corridor (see Figure 3-7). Hudson High School, Hudson Middle School and Northwest Elementary School are located approximately 1.61 km (1.0 mile) southeast of the southern portion of the project. The Montessori Learning Center is located on Denton Avenue near Archer Street, just east of the study corridor. Based on the Pasco County Comprehensive Plan (July 16, 1991) future land use map, no schools are currently proposed to be built within the study area.

3.3.2.2 Recreational Facilities

No recreational facilities occur within the study corridor. The two (2) recreational facilities in the general vicinity of the project corridor include the Fivay Recreation Center and Arthur F. Engle Memorial Park (see Figure 3-7). Fivay Recreational Center is approximately 1.61 km (1.0 mile) southeast of New York Avenue and Montgomery Street. Arthur F. Engle Memorial Park is located 2.09 km (1.3 miles) east of the project corridor. Fivay Recreational Center is the largest with 20.23 hectares (fifty acres), which include softball fields, racquetball courts, tennis courts, soccer fields, and a swimming pool. Based on the Pasco County Comprehensive Plan (July 16, 1991) maps of future land use and proposed regional, neighborhood, and community parks, no recreational areas or parks are currently proposed within the study area.

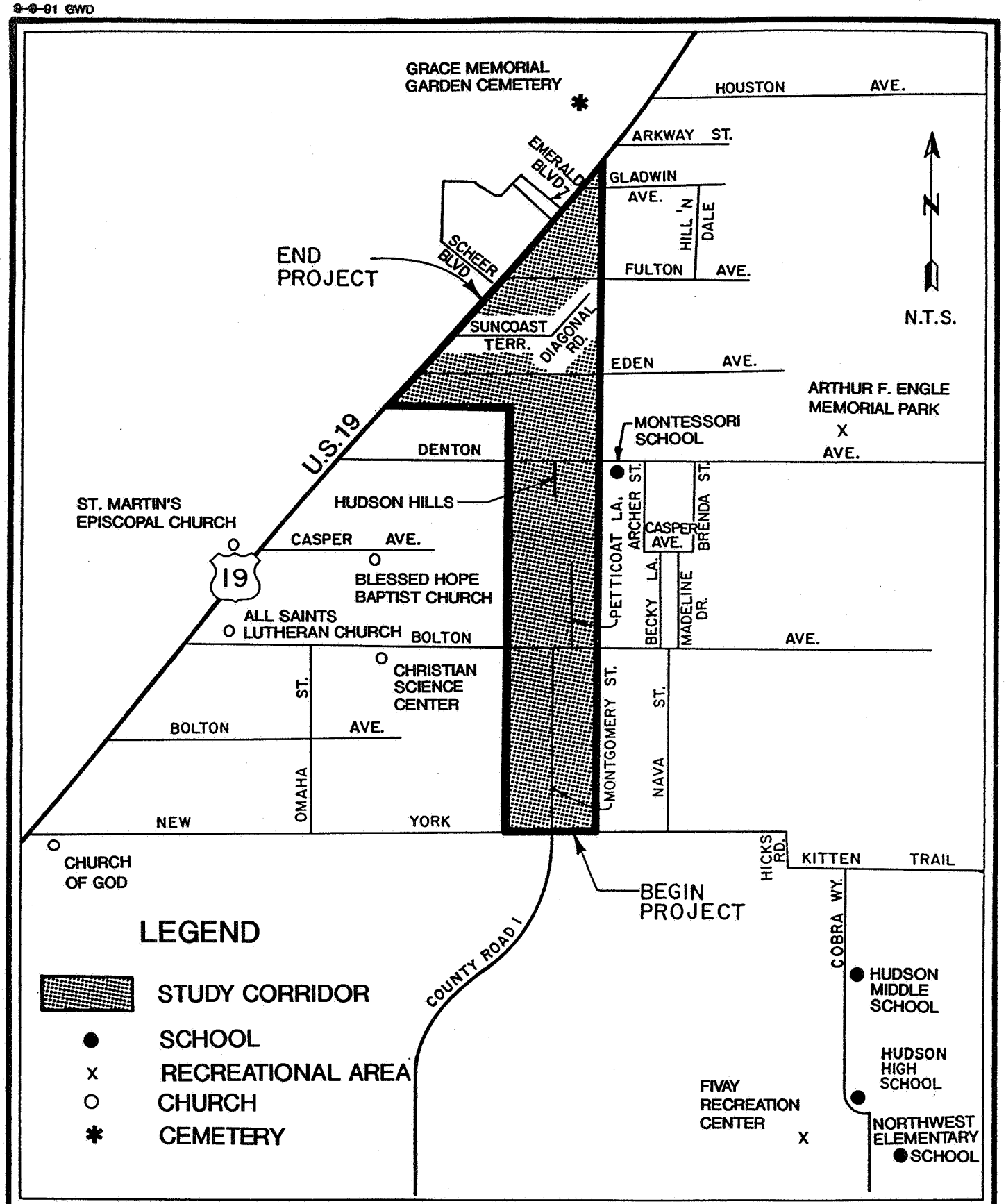


FIGURE 3-7

LOCATION OF SCHOOLS, RECREATIONAL AREAS AND CHURCHES

COUNTY ROAD 1 EXTENSION FROM NEW YORK AVENUE TO U.S.19 PASCO COUNTY, FL.

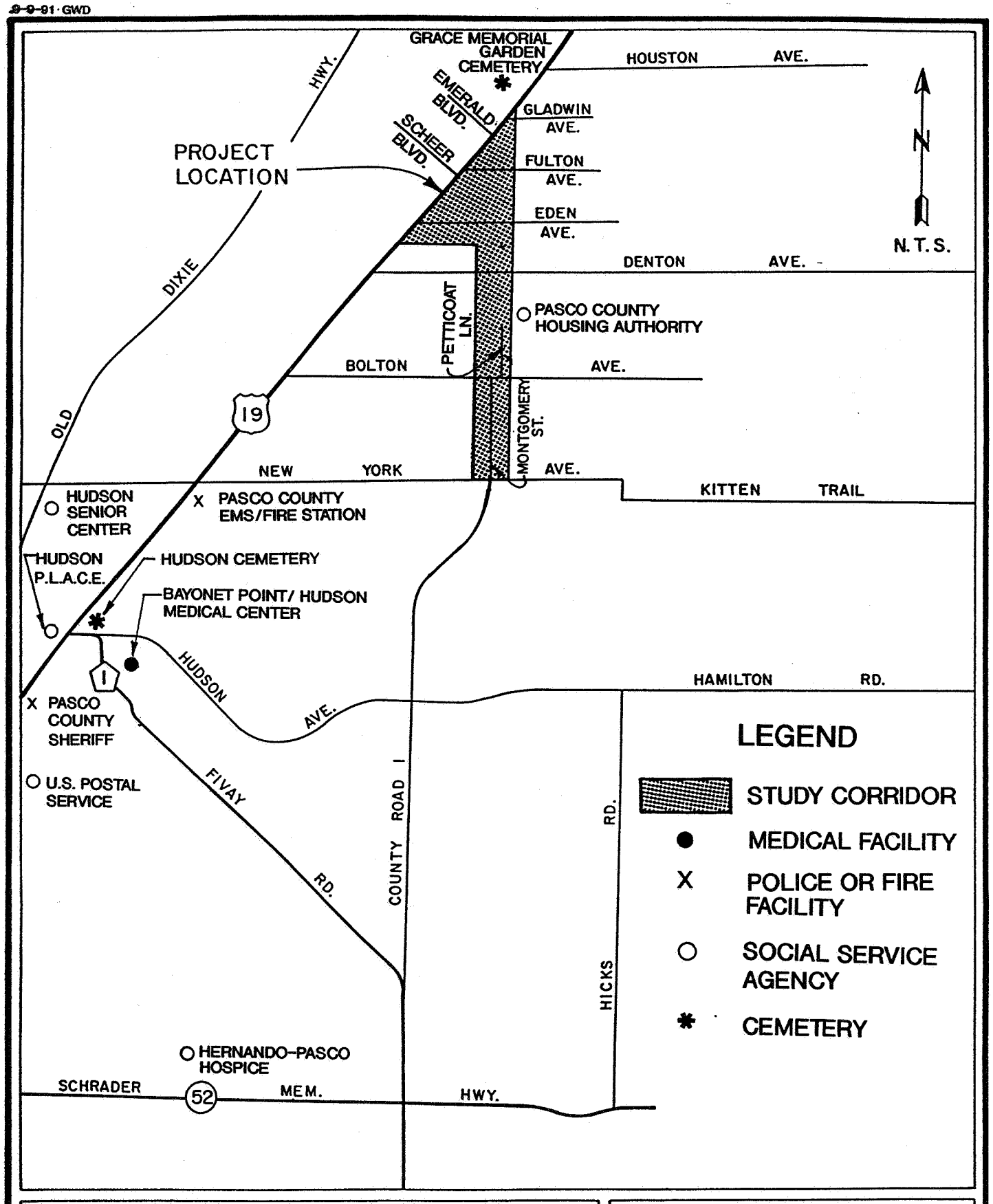


FIGURE 3-8

LOCATION OF MEDICAL, POLICE/FIRE AND SOCIAL SERVICE FACILITIES

COUNTY ROAD 1 EXTENSION FROM NEW YORK AVENUE TO US-19

3.3.2.3 Religious Institutions and Cemeteries

No churches or cemeteries occur within the study corridor (see Figure 3-7). Most of the churches in Hudson are located south of Fivay Road. Hudson Cemetery is located on the northeast corner of U.S. 19 and Hudson Avenue. Grace Memorial Gardens Cemetery is located west of U.S. 19, approximately 609.6 m (2,000 feet) north of Emerald Boulevard.

3.3.2.4 Medical Facilities

No medical facilities occur within the study corridor. The Bayonet Point Hospital and the Bayonet Point/Hudson Kidney Center are the closest medical facilities (see Figure 3-8). These facilities are located along Fivay Road, south of Hudson Avenue.

3.3.2.5 Fire and Police Protection

No fire or police stations occur in the study corridor (see Figure 3-8). Fire protection for the study area is provided by Pasco County. The nearest station, Fire Station No. 10, is located east of U.S. 19 between Hudson and New York Avenues.

Police protection in the study area is provided by the Pasco County Sheriff's Department. The nearest sheriff's office is located on U.S. 19, less than 0.80 km (0.5 mile) south of Hudson Avenue.

3.3.2.6 Social Service Agencies

There are five social service agencies in the Hudson area. All of these agencies are outside the project study corridor (see Figure 3-8). The agencies in the surrounding area include the Florida Job Services, the Hernando-Pasco Hospice, Inc., the Hudson Multipurpose Senior Center, the Hudson P.L.A.C.E., and the Pasco County Housing Authority.

The Florida Job Service is the state employment service in the area. It is located in the Bayonet Square shopping center at the intersection of U.S. 19 and S.R. 52.

The Hernando-Pasco Hospice serves terminally ill patients and patients who require home care. It is located on Majestic Avenue in the Beacon Woods North development.

Hudson Multipurpose Senior Center serves the elderly and retired residents of Pasco County. It is located east of U.S. 19 on Old Dixie Highway.

The Hudson P.L.A.C.E. is a volunteer community service associated with the Hudson Elementary School. It is located one block east of U.S. 19 on Hudson Avenue at the school.

The Pasco County Housing Authority (Hudson Hills) is the County office that operates the Hudson Hills Estates public housing development south of Denton Avenue.

3.3.2.7 Community Centers

There are no community centers in the project corridor or in the Hudson area. The Fivay Recreational Center located southeast of the project corridor fulfills the function of a community center.

3.3.2.8 Public and Civic Buildings

A public housing development, Hudson Hills Estates, is located south of Denton Avenue and east of Hudson Hills Lane. The development consists primarily of duplexes with scattered single-family residences. Approximately 34 dwelling units occur within the study corridor. There are no other public or civic buildings located within the study corridor.

3.3.2.9 Archaeological and Historical Resources

A cultural resource assessment survey was performed to locate and identify any cultural resources within the study corridor and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (see Cultural Resource Assessment Survey, December, 1992 and revised May, 1993). The archaeological and historical/architectural components of this survey were conducted in October and November of 1992.

No prehistoric or historic period archaeological sites were found during the field surveys or literature review. In addition, no historic structures were identified or found within or adjacent to the study corridor. Historical research indicated that the study area was undeveloped prior to the 1950's. Exploitation of the virgin timber was probably the major land use during historic times. Therefore, it is unlikely any historic structures occur within the study corridor.

No archaeological or historical sites or properties were identified, nor are any expected to be encountered during subsequent project development. The Cultural Resource Assessment Survey was sent to the State Historical Preservation Officer (SHPO) of the Department of Historical Resources for review and comment. In a letter dated August 26, 1993, SHPO determined that the project will have no effect on any significant resources.

3.3.3 Natural and Biological Features

The project corridor was surveyed for types of biological communities. Figure 3-5 depicts the boundaries of the plant communities in the study area. The major community types found in the project area are longleaf pine-xeric oak (FLUCFCS code 412) and sand pine (413). Other community types found in the project area include xeric oak (421), herbaceous (310), palmetto prairie (321), pine flatwoods (411), sand live oak (432), inland pond (616), cypress (621) and wet prairie (643). In addition, undeveloped parcels that provide wildlife habitat but are too disturbed to be classified as native plant communities were identified by one of the following designations: unimproved pasture (212), disturbed land - rural (741) and borrow area (742).

Longleaf pine - xeric oak (412) is the FLUCFCS designation for the plant community commonly known as sandhill. Sandhill is an upland savanna-like ecosystem characterized by longleaf pines (Pinus palustris) and perennial grasses and forbs, interspersed with oaks. However, in the study area oaks are the predominate tree, interspersed with longleaf pines. The percentage of longleaf pine trees varied between 10 and 40 percent. The oak species present, turkey oak (Quercus laevis), bluejack oak (Q. incana) and live oak (Q. virginiana), are tolerant of the well-drained, infertile soils on which sandhill occurs. The ground cover is dominated by wiregrass (Aristida stricta). Other species typical of sandhill and dry pinelands are present, including yellow buttons (Balduina angustifolia) and bracken fern (Pteridium aquilinum).

The sand pine community in the project corridor has a dense canopy of sand pines and oaks, particularly sand live oak (Quercus geminata). While some areas of sand pine are relatively open below, others have a thick subcanopy of oaks and saw palmetto (Serenoa repens). The saw palmetto is head high and nearly impenetrable in spots. The herbaceous ground cover is sparse and consists of remnant populations of wiregrass, as well as gopher apple, bracken fern and blazing star (Liatris sp.). Ground lichens of the species Cladonia are present.

Although there is a large cypress swamp (621) approximately 152.4 m (500 feet) east of the project corridor, the only natural wetland within the project corridor is a small [i.e., less than 0.40 ha (one acre)] wet prairie (643) located approximately 30.48 m (100 feet) east of U.S. 19 and 60.96 m (200 feet) south of Fulton Avenue. A diverse assemblage of herbaceous species adapted to short hydroperiods and surface saturation occurs in the wet prairie. Carpet grass (Axonopus furcatus), nut rush (Scleria reticulata), capeweed (Phyla nodiflora) and beak rushes (Rhynchospora spp.) are examples of the low-growing native grasses and rushes in the wet prairie.

Manmade wetlands within the study area consist of one willow head (616-Inland Pond under FLUCFCS) and six borrow pit ponds (742). The willow head is adjacent to a borrow pond north of Denton Avenue and consists primarily of willow (Salix caroliniana), with some cattails (Typha sp.). The borrow ponds are steep-sided pits with little wetland vegetation or function.

The presence of federally endangered and threatened species within the study area was evaluated (see Threatened and Endangered Species Impact Assessment, February 17, 1993). This evaluation included a literature review, field surveys of the project area, and coordination with U.S. Fish and Wildlife Service (USFWS) and Florida Game and Fresh Water Fish Commission (FGFWFC). It was determined that the historic range of the Florida scrub jay, red-cockaded woodpecker, Southern bald eagle, wood stork, Bachman's warbler, Arctic peregrine falcon, Florida panther, American alligator, and Eastern indigo snake occur within the study area. However, no federally listed species are presently known to occur within the study area. None of these species or their nests were observed within the study area during any of the wildlife surveys. The Eastern indigo snake and wood stork have the most probability of occurring in the study area. The Eastern indigo snake is known to inhabit sandy xeric habitats in conjunction with gopher tortoises. Wood storks are known to forage in the wetlands of western Pasco County.

The proposed project is not located in an area designated as "critical habitat" by the U.S. Department of Interior. No federally endangered or threatened plant species are known to occur within the project corridor or Pasco County. The closest eagles' nest is approximately 4.83 km (3.0 miles) to the south of the project corridor according to information from FGFWFC in Lakeland (Mr. Paul Schultz).

In addition to threatened and endangered species listed by USFWS, FGFWFC lists and protects a number of species within the State of Florida. The historic range of 12 species include the project corridor (gopher tortoise, Florida gopher frog, Florida mouse, Sherman's fox squirrel, Southeastern American kestrel, limpkin, little blue heron, snowy egret, tricolored heron, Florida sandhill crane, Florida pine snake, and short tailed snake). Of these 12 state-listed species, only the gopher tortoise, listed as a Species of Special Concern, was confirmed in the study area.

Due to the minimal amount [less than 0.28 ha (0.7 acres)] of wetland involvement, impacts to wading birds (limpkin, little blue heron, snowy egret, tricolored heron, Florida sandhill crane) are anticipated to be minimal. No rookeries or nests were observed or are known to exist within the study area.

The gopher tortoise is the only state listed species confirmed in the study area. Gopher tortoise burrows were encountered in the sandhill, xeric oak hammock, and sand pine scrub plant communities within the study area. Estimates of gopher tortoise densities in these communities ranged from 3 to 21 tortoises/hectare (1.3 to 8.8 tortoises/acre). The project area contains suboptimal habitat for other listed species, such as the Southeastern American kestrel, Sherman's fox squirrel, and wading birds.

The project has been evaluated for impacts to wildlife and habitat resources, including protected species in accordance with Chapter 50, Code of Federal Regulations (CFR), Part 402 and the Endangered Species Act of 1973, as amended. The evaluation consisted of a literature review, field surveys of the project area, and coordination with the USFWS and FGFWFC. The evaluation indicated that no "critical habitat" occurs in the project area and no federally listed species would be affected by the proposed project. USFWS was sent a copy of the Endangered and Threatened Species Assessment for their review and concurrence that the project would not jeopardize the continued existence of any federally listed species. USFWS correspondence dated April 14, 1993 indicated that there will be no involvement of federally listed species.

4.0 NEED FOR IMPROVEMENT

The following sections identify the need for the proposed extension of County Road 1. The proposed project is discussed with respect to local and regional planning efforts.

4.1 DEFICIENCIES OF THE EXISTING FACILITIES

4.1.1 System Linkage

County Road 1 (Little Road) is a minor arterial which runs from Seven Springs Boulevard (C.R. 77), located approximately 0.8 km (0.5 mile) north of the Pinellas County line, to New York Avenue in west Pasco County, a distance of approximately 28.16 km (17.5 miles) (see Figure 2-1). The proposed extension of County Road 1 from New York Avenue to U.S. 19 is approximately 2.41 km (1.5 miles).

The proposed extension will complete a much needed highway link in Pasco County. The extension is consistent with the Pasco County Comprehensive Plan (revised and edited by Florida Land Design and Engineering, Inc. dated July 16, 1991). This plan indicates County Road 1 extension will need to be a four (4) lane divided arterial by the 2010 design year.

The proposed extension is also consistent with the Pasco County Capital Improvement Program (CIP). The CIP indicates that County Road 1 from New York Avenue to U.S. 19 will be constructed as a four (4) lane divided facility and is funded in the County's five year CIP.

4.2 SAFETY

The intersection of New York Avenue and U.S. 19 was the location of nineteen accidents in 1989. U.S. 19 between Hudson Avenue and Gladwin Avenue is a highly industrialized area. Traffic from heavy industries, such as an aggregate mine, a concrete batch plant, and a construction equipment supplier, access U.S. 19 in this area. School buses also utilize U.S. 19 to transport students to Hudson area schools. Because it is the only major north/south roadway in the area, motorists suffer through afternoon peak hour level of service F.

The highest number of accident types to occur along U.S. 19 fall in two categories: (1) careless driving and (2) failure to yield the right-of-way. Unlike other types of accidents such as rear end or side swipes, it is unclear as to the cause of the accidents. Therefore, a specific conclusions as to what caused the accidents along U.S. 19 can not be drawn. The extension of County Road 1

will, however, enable motorists to bypass this industrialized area and crowded section of U.S. 19. The reduction in traffic volumes through the intersections and along U.S. 19 will help reduce the accident rate.

4.3 CAPACITY

A traffic analysis was conducted along the County Road 1 extension from New York Avenue to U.S. 19 to determine laneage required for the expected travel demand in the interim year 2000 and the 2010 design year. The traffic volumes for the 2010 design year were developed using the Florida Standard Urban Transportation Model Structure (FSUTMS) computer model utilizing a run prepared for the Bi-County Expressway project by Post, Buckley, Schuh and Jernigan, Inc. (PBS&J) using socioeconomic data prepared for the North Suncoast Corridor Study. The model was operated assuming the link for County Road 1 from New York Avenue to U.S. 19 would be in place by the 2010 design year. Figure 4-1 provides the 1991, 2000 and 2010 daily traffic volumes in the project vicinity.

Intersection analyses were performed for C.R. 1 at New York Avenue and U.S. 19 by using the procedures described in the 1985 Highway Capacity Manual (HCM), Special Report 209, Transportation Research Board. The Highway Capacity Software (HCS), a computerized version of the HCM published by the U.S. Department of Transportation, was used for the analyses. The proposed intersection geometrics required to obtain desirable level of service (LOS) C operating conditions are illustrated in Figures 4-2 and 4-3 for both 2000 and the 2010 design year.

A link analysis was conducted to determine the required laneage along County Road 1 between New York Avenue and U.S. 19 by using the Florida Department of Transportation (FDOT) Generalized Level of Service Tables. It was determined that a four (4) lane divided facility would be required throughout the project limits to achieve desirable LOS C operating conditions. The approved "Technical Memorandum, Project Traffic Report", dated August 1992, for the proposed County Road 1 extension, prepared by Reynolds, Smith and Hills, Inc., provides additional detailed information regarding the methodology used in developing traffic projections.

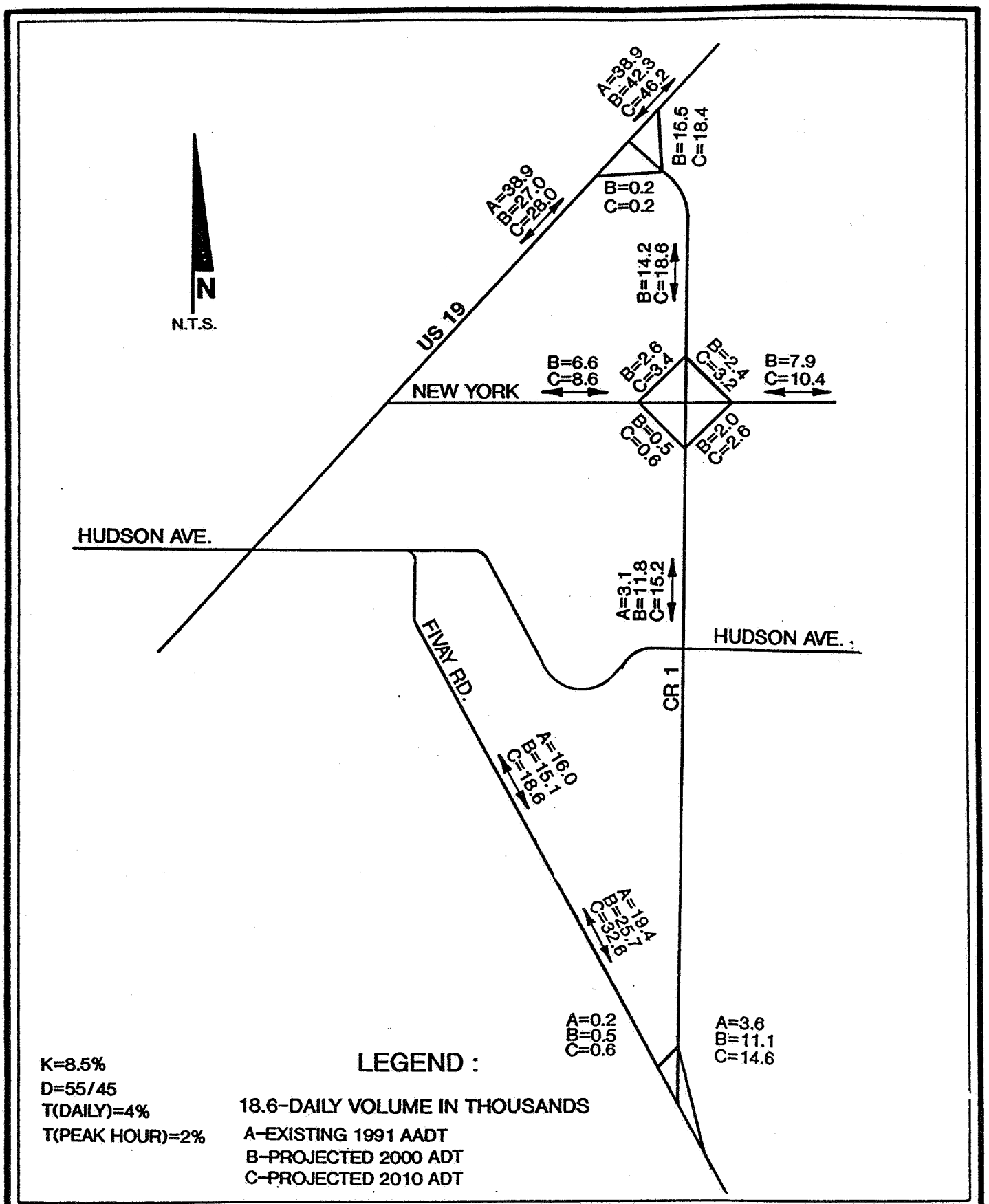


FIGURE 4-1

1991, 2000, 2010 DAILY TRAFFIC VOLUMES

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

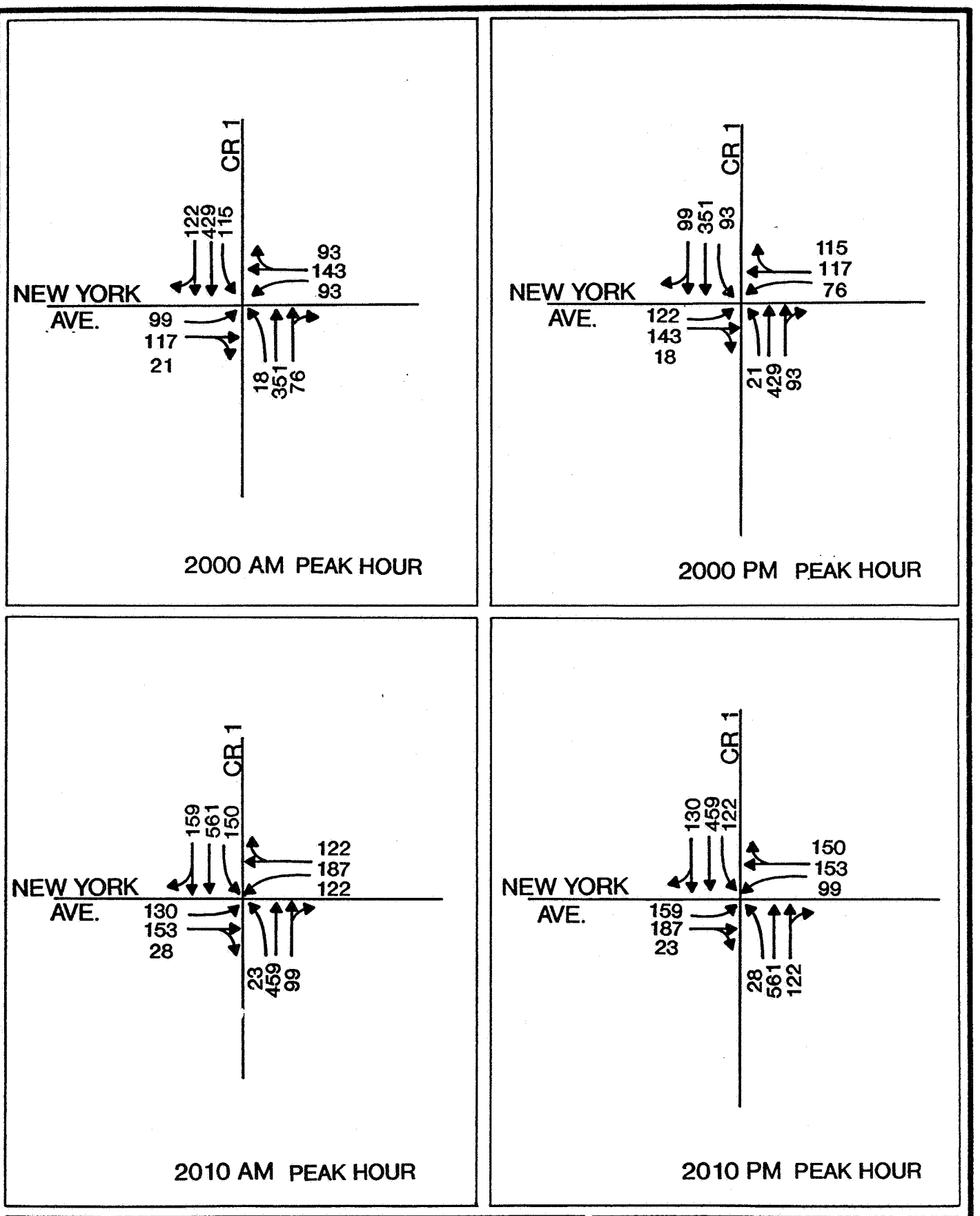
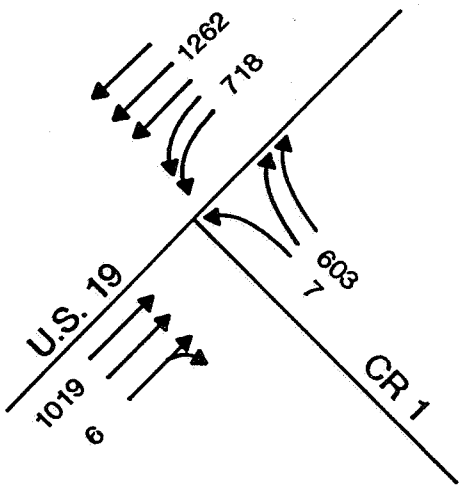


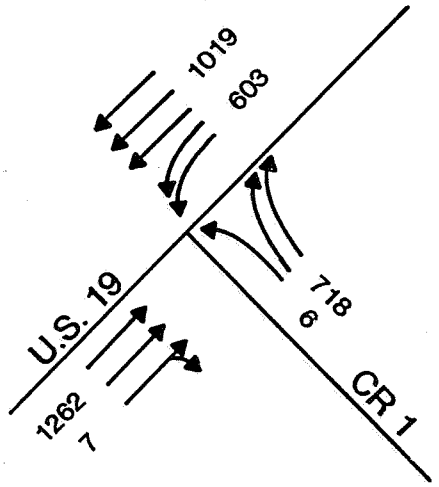
FIGURE 4-2

PROPOSED INTERSECTION GEOMETRY
2000 AND 2010 - NEW YORK AVE.

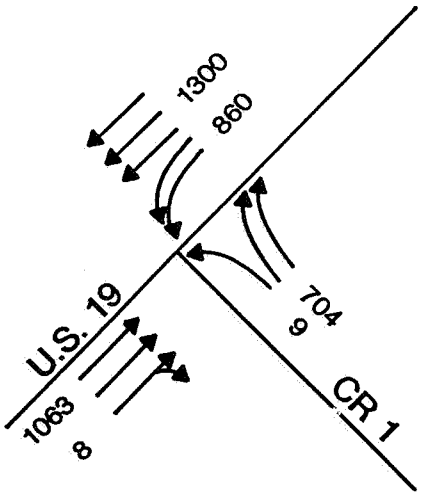
COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19



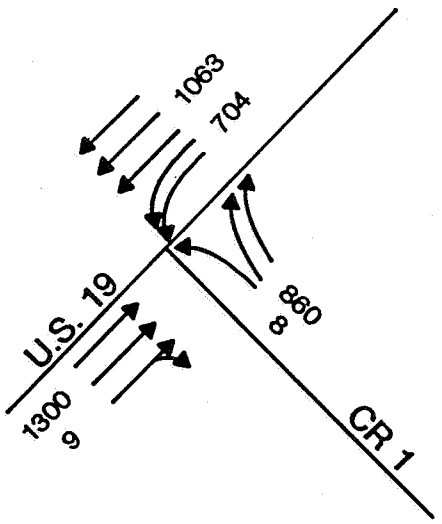
2000 AM PEAK HOUR



2000 PM PEAK HOUR



2010 AM PEAK HOUR



2010 PM PEAK HOUR

FIGURE 4-3

PROPOSED INTERSECTION GEOMETRY
2000 AND 2010 - U.S. 19

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

4.4 CONSISTENCY WITH TRANSPORTATION PLAN

The proposed alternatives, consisting of construction of a new four (4) lane facility, have been determined to be consistent with the transportation element of the Pasco County Comprehensive Plan. The Planning Department of the Florida Department of Transportation has certified that the project is in conformance with the State Implementation Plan (SIP) and is in the current FHWA approved Pasco Urban Area MPO's Transportation Improvement Program (TIP), Fiscal Year 1992/93 through 1996/97.

4.5 SOCIAL/ECONOMIC DEMAND

Pasco County is rapidly growing and this growth is expected to continue. The land use adjacent to the existing County Road 1 extension is predominately residential between New York Avenue and Denton Avenue. The land use between Denton Avenue and Eden Avenue is light industrial. From Eden Avenue to U.S. 19, the land use is primarily a mixture of single family homes and vacant land. The County Road 1 extension corridor will provide access to undeveloped land for future residential and light industrial growth.

5.0 CORRIDOR ANALYSIS

5.1 EVALUATION OF ALTERNATE CORRIDORS

Pasco County has identified the need to extend County Road 1 north from New York Avenue to U.S. 19 (see Figure 2-2), a distance of approximately 2.41 km (1.5 miles). As discussed in Section 4 of this report, the extension of County Road 1 would complete a needed highway systems link within western Pasco County. The proposed alignment would provide the most direct north-south route to U.S. 19 for residents and businesses located within the Hudson area and would serve as a local collector-distributor road. The traffic analysis for this project determined that the proposed improvement would need to be a four (4) lane highway.

5.1.1 New York Avenue Corridor

An alternative to extending County Road 1 north to U.S. 19 would be to make improvements to New York Avenue from County Road 1 to U.S. 19. New York Avenue is currently a two (2) lane rural roadway located within approximately 18.29 m (60 feet) of right-of-way. Additional right-of-way would need to be acquired to satisfy either an urban or rural typical section. This corridor is moderately developed with both residential and business properties located adjacent to the corridor. Acquisition of additional right-of-way would be expensive and could potentially result in a larger number of relocations. The distance from County Road 1 to U.S. 19 along New York Avenue is approximately 2.25 km (1.4 miles). Construction cost for either an urban or rural typical section would be relatively the same cost to extend County Road 1 from New York Avenue to U.S. 19 since the distances are relatively equal.

For the purpose of comparing each alternative corridor, improvements would have to be made to U.S. 19 from New York Avenue to either Scheer Boulevard or Emerald Boulevard. The distance from New York Avenue to Scheer Boulevard is approximately 3.22 km (2.0 miles) and the distance to Emerald Boulevard is approximately 3.54 km (2.2 miles). U.S. 19 within these limits is a four (4) lane divided rural highway with two (2) travel lanes in each direction. The Florida Department of Transportation is currently increasing the capacity of U.S. 19 by adding one (1) additional travel lane in each direction (a total of three (3) travel lanes in each direction). The addition of one (1) travel lane in each direction currently being completed by FDOT will provide the needed capacity to meet the 2010 demand traffic for U.S. 19 within the limits of the study. The additional traffic demand anticipated to use County Road 1 will be required to use U.S. 19 until the extension is constructed.

Travel distance along New York Avenue from County Road 1 to U.S. 19 is approximately 2.25 km (1.4 miles) plus an additional travel distance of 3.54 km (2.2 miles) along U.S. 19 for a total travel distance of 5.79 km (3.6 miles). Motorists will be required to travel an additional 3.54 km (2.2 miles) to reach the same destination as will be provided by this alternative corridor. Motorists will expend more funds on fuel and maintenance of their automobiles due to the additional travel distance.

This alternative corridor was eliminated due to the anticipated increase in right-of-way cost, relocations, impacts to U.S. 19 and additional cost to the motorist.

5.1.2 Fivay Road Corridor

Another alternative to extending County Road 1 would be to improve Fivay Road from County Road 1 to U.S. 19, a distance of approximately 4.83 km (3.0 miles). Fivay Road is a two (2) lane rural roadway located within 24.38 m (80 feet) of right-of-way. Additional right-of-way would need to be acquired to satisfy either an urban or rural typical section. This corridor is heavily developed with both residential and business properties located adjacent to the corridor. Acquisition of additional right-of-way would be expensive and potentially result in a larger number of relocations. The distance from County Road 1 to U.S. 19 along Fivay Road is approximately 3.62 km (2.25 miles). Construction cost would be sixty percent greater than the estimated construction cost to extend County Road 1 north to U.S. 19.

For this alternative corridor, motorists would have to use approximately 4.83 km (3.0 miles) of U.S. 19 to reach either Scheer Boulevard or Emerald Boulevard. U.S. 19 is a heavily used corridor within west Pasco County. The current expansion of U.S. 19 to a six (6) lane roadway will help relieve traffic congestion and provide an acceptable level of service for the 2010 design year. However, the capacity of U.S. 19 will be diminished. Motorists will be required to travel an additional 6.12 km (3.8 miles) to reach the same destination.

Both alternative corridors are not in compliance with the currently approved Long Range Transportation Plan for Pasco County. Pasco County has committed to the extension of County Road 1 and is reflected in the County's Capital Improvement Plan.

5.1.3 County Road 1 Extension Corridor

This corridor considers the extension of County Road 1 from New York Avenue to U.S. 19, a distance of approximately 2.41 km (1.5 miles). The proposed extension would connect to U.S. 19 at either Scheer Boulevard or Emerald Boulevard (see Figure 5-1). A 15.24 m (50 feet) wide right-of-way envelope exists from New York Avenue to Fulton Avenue, a distance of approximately 2.25 km (1.4 miles). This right-of-way envelope is owned by Pasco County. Both Montgomery Street and Hudson Hills Lane are located within this right-of-way. Additional right-of-way would be needed to satisfy either the proposed urban or rural typical section.

Existing land use along the proposed corridor is dominated by single family dwellings from New York Avenue to north of Fulton Avenue. A moderate amount of retail/office units are located adjacent to the U.S. 19 from Scheer Boulevard to Emerald Boulevard. The corridor also has a moderate amount of light and heavy industrial development located along Denton Avenue and Eden Avenue. There are pockets of vacant land located adjacent to the proposed corridor. Due to the amount of vacant land and the low density of single family dwellings located adjacent to this corridor, acquisition of additional right-of-way would appear to be less costly than alternatives for New York Avenue or Fivay Road.

The extension of County Road 1, north to either Scheer Boulevard or Emerald Boulevard, would eliminate the need for motorists located in Hudson to use U.S. 19 for trips north of Emerald Boulevard. The reversal is also true. Motorists traveling south on U.S. 19 to locations in Hudson could use the extension rather than U.S. 19. The proposed extension of County Road 1 would help maintain the integrity of the current improvements to U.S. 19.

The proposed extension of County Road 1 is in compliance with the currently approved Long Range Transportation Plan for Pasco County. Pasco County has committed to the extension and this is reflected in the County's Capital Improvement Plan for the County.

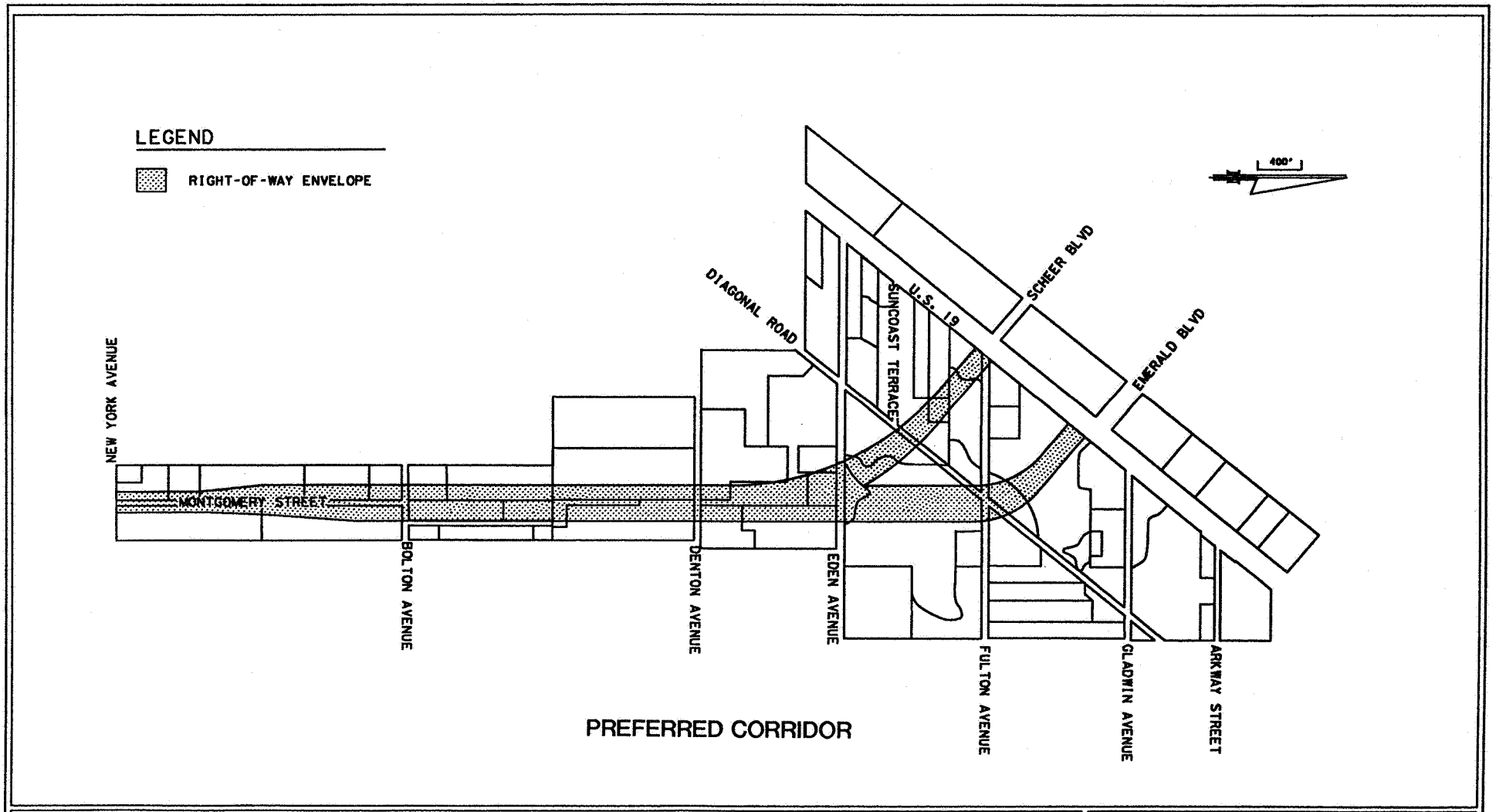


FIGURE 5-1

COUNTY ROAD 1 EXTENSION CORRIDOR

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO US 19

5.2 Corridor Selection

Both New York Avenue and Fivay Road alternative corridors were rejected because of the anticipated additional right-of-way cost, increased number of relocations, construction cost and the circuitous route motorists located within the Hudson area would have to use to reach the same destination. In addition, neither alternative corridor is in compliance with the transportation element of the Pasco County Comprehensive Plan.

The corridor recommended for further evaluation is the extension of County Road 1 from New York Avenue north to U.S. 19 to connect with either Scheer Boulevard or Emerald Boulevard which will utilize the existing 15.24 m (50 feet) right-of-way corridor.

6.0 TRAFFIC

The following sections identify existing and projected traffic volumes within the project limits. Detailed information is contained in the approved "Technical Memorandum, Project Traffic Report" dated August 1992.

6.1 EXISTING CONDITIONS

County Road 1, south of New York Avenue, is a two (2) lane roadway and has a posted speed limit of 72.42 km/h [45 miles per hour (mph)]. Montgomery Street is a two (2) lane rural roadway which runs due north from New York Avenue to Bolton Avenue. Montgomery Street has a posted speed limit of 48.28 km/h (30 mph). Hudson Hills Lane is a two (2) lane rural roadway and has a 48.28 km/h (30 mph) speed limit. Table 6-1 lists existing conditions on the cross roads.

Table 6-1 Roads Intersecting County Road 1 Extension

Roads Intersecting C.R. 1 Extension	Existing Cross-Section	Posted Speed Limit		Paved
New York Avenue	2 LU	45 mph	72.42 km/h	Y
Bolton Avenue	2 LU	45 mph	72.42 km/h	Y
Denton Avenue	2 LU	45 mph	72.42 km/h	Y
Eden Avenue	2 LU	30 mph	48.28 km/h	N
Suncoast Terrace	2 LU	N/P	N	
Fulton Avenue	2 LU	30 mph	48.28 km/h	N

* 2LU - Two (2) lane undivided
mph = miles per hour
N/P - Not posted
km/h = kilometers per hour

6.2 MULTIMODAL TRANSPORTATION SYSTEM CONSIDERATIONS

The private automobile is the primary mode of passenger transport since the project is located in an area that is currently developed at low densities. There are no park and ride or commuter facilities in the project area. The availability of other modes that are used is described below.

6.2.1 Public Transportation

Pasco Area Transportation Service (PATS) provides public transportation known as Specialized Transportation for Area Residents (STAR). STAR is a demand-response service to individuals who are elderly, handicapped, or economically disadvantaged. Reservations are made 24 hours in advance. Presently, there is no fixed-route bus system in Pasco County, however, the county's Comprehensive Plan includes the provision for a future mass transit system and is presently studying alternatives. The proposed extension of C.R. 1 is not cited as a prospective route, but will most likely be included in the study.

6.2.2 Airports

There are no airports within the project area. The nearest airport is Hidden Lakes Airport, which is a 19.67 ha (48.6 acre) private facility located approximately 12.87 km (8 miles) south of the project area. Another airport, Pilot Country Estates, is a 37.23 ha (92 acre) private facility located approximately 17.70 km (11 miles) southeast of the project area. The nearest commercial airport is the Tampa Bay Executive Airport, which is a 64.75 ha (160 acre) facility located approximately 22.53 km (14 miles) south of the project area.

Pasco County has identified the need for the construction of a new general aviation airport in west Pasco County to relieve traffic at Tampa International and St. Petersburg-Clearwater International Airports. However, no specific site has been chosen to date.

6.2.3 Railroad Crossings

There are no existing or proposed railroad crossings within the project limits.

6.3 TRAFFIC ANALYSIS ASSUMPTIONS

The traffic volumes for the 2010 design year were developed using a Florida Standard Urban Transportation Model Structure (FSUTMS) computer model run prepared for the Bi-County Expressway project by Post, Buckley, Schuh, and Jernigan, Inc. (PBS&J) using socioeconomic data prepared for the North Suncoast Corridor Study. The model run was produced assuming the link for C.R. 1 from New York Avenue to U.S. 19 would be in operation for the 2010 design year. The future daily traffic volumes were converted into design hour traffic volumes by applying the design hour factor, K, of 8.5

percent and the directional distribution factor, D, of 55 percent. The truck percentage factor, T, used for the analysis was two (2) percent in the peak (design) hour and four (4) percent daily. Capacity analyses were conducted to determine the laneage requirements for the County Road 1 extension. The Highway Capacity Software (HCS) was used for the analysis of the intersections. The FDOT Generalized Level of Service Tables, which are based on the 1985 HCM, were used for the link analysis. The desirable Level of Service for these analyses is C. Table 6-2 shows the existing levels of service for peak hour traffic conditions.

Table 6-2 Existing (1991) Levels of Service

Existing Intersection	Peak Hour	Level of Service
S.R. 52 and C.R. 1	AM	C
	PM	C
U.S. 19 and Hudson Avenue	AM	D
	PM	F
U.S. 19 and New York Avenue	AM	C
	PM	B

6.4 EXISTING TRAFFIC VOLUMES

Existing traffic counts (1991) were collected along C.R. 1 between Fivay Road and S.R. 52. These volumes were adjusted to reflect annual average conditions. The AADT along C.R. 1 south of Fivay Road is 19,400 vehicles per day. Afternoon peak hour volumes along this segment of roadway are 846 vehicles northbound and 789 vehicles southbound. These peak hour volumes are adjusted annual average traffic volumes.

The existing traffic volumes along C.R. 1 between Fivay Road and New York Avenue are low since the roadway has recently been completed and it travels through a sparsely developed residential area. Traffic counts were conducted along C.R. 1 north of Fivay Road and south of New York Avenue for 48 hours. The AADT along C.R. 1 north of Fivay Road is 3,777 and south of New York Avenue is 2,281. Peak hour volumes for C.R. 1 north of Fivay Road are 193 vehicles northbound and 143 vehicles southbound. For C.R. 1 south of New York Avenue, the peak hour volumes are 138 northbound and 86 vehicles southbound. These peak hour volumes are adjusted annual average volumes. Traffic volumes are also low on Montgomery Street due to the limited existing residential development.

6.5 TRAFFIC VOLUME PROJECTIONS

Future 2010 design year volumes were determined by the methodology described in Section 6.3, Traffic Analysis Assumptions. Figure 4-1 provides the year 2000 and the 2010 design year daily volumes, and Figures 4-2 and 4-3 provide peak hour traffic volumes. The traffic report contains additional information regarding traffic volumes.

6.6 LEVEL OF SERVICE

Arterial and intersection level of service analyses were performed for existing and proposed lane arrangements with 2000 and 2010 traffic volumes. Details of these analyses are included in the approved Technical Memorandum/Project Traffic Report and are summarized below in the following sections.

6.6.1 Intersection Analyses

Intersection analyses were conducted using the procedures described in the 1985 Highway Capacity Manual (HCM) Special Report by the Transportation Research Board. A computerized version of the HCM, the Highway Capacity Software (HCS), published by the U.S. Department of Transportation, was used for the analyses. The required laneage geometry necessary to provide level of service (LOS) C operating conditions through the 2010 design year have been identified. The intersection of C.R. 1 and New York Avenue will operate at LOS C in both the A.M. and P.M. peak hours in 2010, assuming the intersection is improved to provide the approach laneage indicated below. Figure 4-2 indicates the intersection geometrics recommended at C.R. 1 and New York Avenue for the year 2000 and the 2010 design year. This includes two (2) through lanes in each direction on C.R. 1 and independent left turn lanes on each approach leg.

The intersection of C.R. 1 and U.S. 19 will operate at LOS B during both the A.M. and P.M. peak hours in 2010 assuming that the C.R. 1 approach provides a single left turn lane and two (2) right turn lanes for northwest bound traffic and U.S. 19 is widened to add two (2) southbound left turn lanes at C.R. 1. Figure 4-3 indicates the intersection geometrics recommended for C.R. 1 and U.S. 19 for both the year 2000 and the 2010 design year.

6.6.2 Link Analysis

A link analysis was conducted using the peak hour volumes to determine the lane requirements for C.R. 1 between New York Avenue and U.S. 19. The FDOT Generalized Level of Service tables dated 1988 were used to review the LOS for the new roadway. The projected 2010 traffic volume on this section of C.R. 1 is 870 vehicles northbound and 711 vehicles southbound in the P.M. peak hour. A four (4) lane divided facility will be needed to provide LOS C operating conditions in the 2010 design year for these traffic volumes.

7.0 ALTERNATIVE ALIGNMENT ANALYSIS

7.1 NO PROJECT ALTERNATIVE

The No Project Alternative considered the feasibility of not constructing the County Road 1 Extension from New York Avenue to U.S. 19. This alternative would save right-of-way and construction costs of a new facility. It would also eliminate the short-term disruption that would occur along the existing roadways in the vicinity of the project area during construction. In addition, there would not be any business or residential relocations.

The No Project Alternative would have no provisions to accommodate the anticipated growth in traffic volumes. Much of the projected traffic along the County Road 1 Extension results from the extensive residential development near Hudson Avenue. The major contributor is Beacon Woods East, which has been developed into several smaller subdivisions of various names. This development is presently under construction. It is anticipated that the majority of the traffic demand from this residential development will use U.S. 19 if the County Road 1 Extension is not constructed.

If constructed, C.R. 1 will serve as a local minor arterial to the development and will provide relief to U.S. 19. Also, the extension will complete a needed highway link in Pasco County. The extension is consistent with the Pasco County Comprehensive Plan. A four (4) lane divided facility is required to provide LOS C operating conditions in the 2010 design year.

The No Project Alternative will remain a viable alternative until after the public hearing when a final recommendation will be made.

7.2 TRANSPORTATION SYSTEM MANAGEMENT (TSM) ALTERNATIVES

Transportation System Management (TSM) alternatives have been reviewed for the project area. These alternatives such as mass transit, fringe parking, and ride-sharing would have little or no impact on reducing the traffic volumes along C.R. 1 and existing cross streets within the study limits. This is due to the rural nature of the study area and the diverse trip end destinations which result from the surrounding land uses. TSM alternatives are not considered to be viable alternatives to provide the additional capacity needed for the 2010 design year.

7.3 BUILD ALTERNATIVES

7.3.1 Introduction

The need to extend County Road 1 from New York Avenue to U.S. 19 was established in Section 6 of this report. Based upon the approved Technical Memorandum/Project Traffic Report, a four (4) lane divided facility will be required to provide LOS C operating conditions in the 2010 design year for the projected traffic volumes. The corridor evaluation determined that the County Road 1 extension corridor was the most feasible and should be carried forward for more detailed alignment analysis. The following sections discuss in detail the development of the alternative alignments within the County Road 1 extension corridor.

7.3.2 County Road 1 Extension Alternatives

Several alternative alignments were developed within the County Road 1 Extension corridor. Two (2) typical sections were developed for the proposed roadway. An urban typical section was developed to be compatible with the existing typical section for County Road 1 south of New York Avenue. This typical section would provide two (2) travel lanes in each direction separated by a 13.41 m (44 feet) wide median and 3.66 m (12 feet) wide borders on each side. Sidewalks, 1.52 m (5 feet) wide, would be constructed on both sides of the road. The urban typical section would be constructed within 37.80 m (124 feet) of right-of-way. Figure 7-1 shows the proposed urban typical section.

A rural typical section was developed which would provide two (2) travel lanes in each direction separated by a 13.41 m (44 feet) wide median with 3.66 m (12 feet) wide grassed shoulders. Paved shoulders, 1.22 m (4 feet) wide, would be provided on each side. A 12.9 m (40 feet) wide ditch section would be provided on both sides to accommodate stormwater runoff from the roadway. The rural typical section would be constructed within 59.74 m (196 feet) of right-of-way. Figure 7-2 shows the proposed rural typical section.

Twelve (12) alternatives were developed for the corridor using the above described typical sections. Centered, left and right alignment alternatives were developed using the 15.24 m (50 feet) wide right-of-way envelope available from New York Avenue to Fulton Avenue as a baseline. Six (6) alternatives were developed using the urban typical section and six (6) alternatives were developed using the rural typical section.

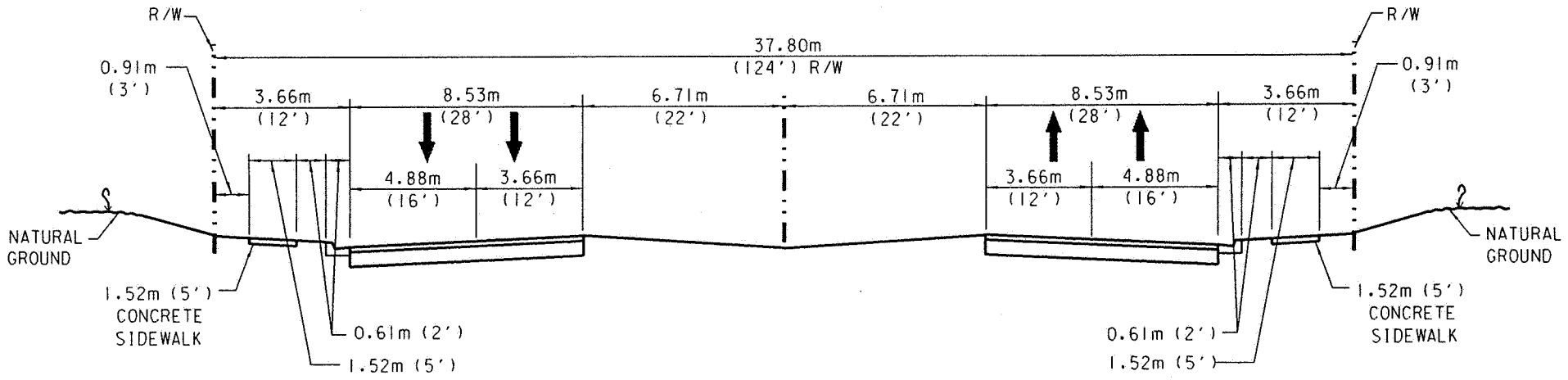


FIGURE 7-1

PROPOSED URBAN TYPICAL SECTION

COUNTY ROAD I EXTENSION
NEW YORK AVE. TO U.S. 19

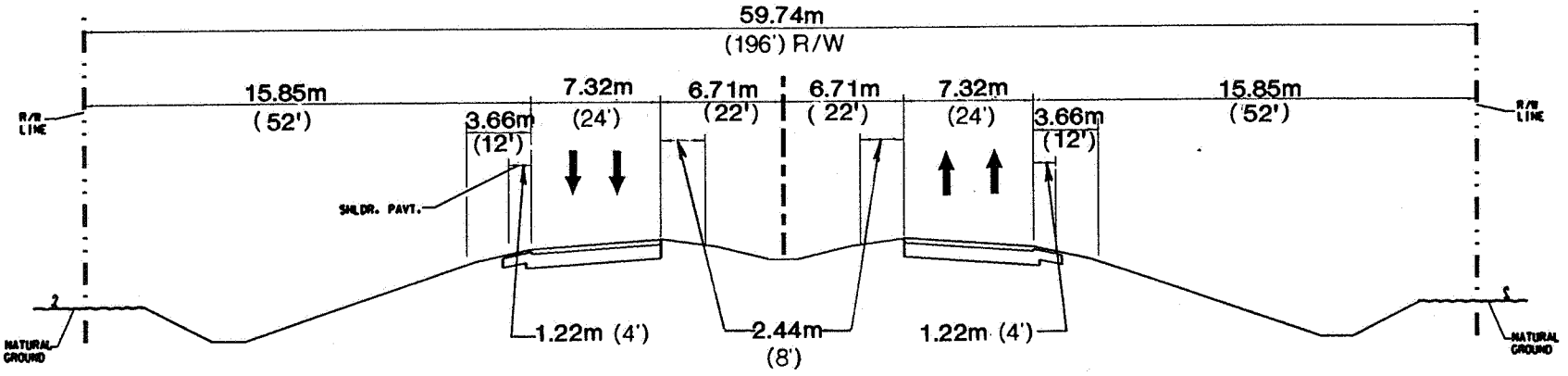


FIGURE 7-2

PROPOSED RURAL TYPICAL SECTION

COUNTY ROAD 1 EXTENSION

NEW YORK AVE TO U.S. 19

Of the six (6) alternatives developed using the urban typical section, three (3) evaluated the feasibility of connecting to Scheer Boulevard at U.S. 19 and three (3) evaluated connecting to Emerald Boulevard at U.S. 19. The same approach was used to evaluate the connections to U.S. 19 using the rural typical section.

7.3.2.1 Alternative 1

This alternative considered the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased on the east side (right alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 37.80 m (124 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 8.30 ha (20.5 acres) of right-of-way would be needed.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.2 Alternative 2

This alternative considers the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased on the west side (left alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be

purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 37.80 m (124 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 8.34 ha (10.6 acres) of right-of-way would be needed.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.3 Alternative 3

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased on the west side (left alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed rural typical section. Approximately 13.64 ha (33.7 acres) of right-of-way would need to be purchased to construct this alternative.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane

paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.4 Alternative 4

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased on the east side (right alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed rural typical section. Approximately 13.72 ha (33.9 acres) of right-of-way would need to be purchased to construct this alternative.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.5 Alternative 5

This alternative considered the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from both sides (centered alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. This would require the acquisition of 11.28 m (37 feet) east and west of the existing 15.24 m (50 feet) right-of-way envelope. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 17.32 m (24 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 8.42 ha (20.8 acres) of right-of-way would need to be purchased to construct this alternative.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.6 Alternative 6

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from both sides (centered alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. This would require the acquisition of 22.25 m (73 feet) east and west of the existing 15.24 m (50 feet) right-of-way envelope. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Scheer Boulevard at U.S. 19. From Fulton

Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed rural typical section. Approximately 13.76 ha (34.0 acres) of right-of-way would need to be purchased to construct this alternative.

Currently Fulton Avenue intersects with U.S. 19 opposite Scheer Boulevard. This alternative recommends that access to U.S. 19 from Fulton Avenue be closed and a cul-de-sac be constructed at the west end of Fulton Avenue. Access to U.S. 19 for residents living along Fulton Avenue would be redirected to Diagonal Road, an unimproved roadway located within 15.24 m (50 feet) of available right-of-way. Diagonal Road would be reconstructed to provide a two (2) lane paved roadway from Fulton Road to the proposed County Road 1 Extension, a distance of approximately 0.74 km (0.46 mile). This would include intersection improvements at Fulton Avenue and Diagonal Road. Intersection improvements at Bolton Avenue, Denton Avenue and Eden Avenue would be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. Left turn storage lanes are not required at these cross streets.

7.3.2.7 Alternative 7

This alternative considered the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from the east side (right alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 37.80 m (124 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 9.02 ha (22.3 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required on the cross streets at Bolton, Denton, Eden or Fulton Avenues.

7.3.2.8 Alternative 8

This alternative considered the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from the west side (left alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 37.80 m (124 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 8.94 ha (22.1 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any additional modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required on the cross streets at Bolton, Denton, Eden or Fulton Avenues.

7.3.2.9 Alternative 9

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from the west sides (left alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed rural typical section. Approximately 14.49 ha (35.8 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any additional modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required at Bolton, Denton, Eden or Fulton Avenues.

7.3.2.10 Alternative 10

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from the east side (right alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed rural typical section. Approximately 14.49 ha (35.8 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any additional modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required at Bolton, Denton, Eden or Fulton Avenues.

7.3.2.11 Alternative 11

This alternative considered the feasibility of constructing a four (4) lane urban typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from both sides (centered alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 22.56 m (74 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. This would require the acquisition of 11.28 m (37 feet) east and west of the existing 15.24 m (50 feet) right-of-way envelope. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 37.80 m (124 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 9.27 ha (22.9 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any additional modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the

end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required at Bolton, Denton, Eden or Fulton Avenues.

7.3.2.12 Alternative 12

This alternative considered the feasibility of constructing a four (4) lane rural typical section from New York Avenue to U.S. 19. Right-of-way needed to accommodate the proposed four (4) lane typical section would be purchased from both sides (centered alignment) of the existing 15.24 m (50 feet) right-of-way envelope. An additional 44.50 m (146 feet) of right-of-way would need to be purchased from New York Avenue to just south of Fulton Avenue. This would require the acquisition of 22.25 m (73 feet) east and west of the existing 15.24 m (50 feet) right-of-way envelope. At a point just south of Fulton Avenue, a horizontal curve is used to transition to the west to Emerald Boulevard at U.S. 19. From Fulton Avenue to U.S. 19, 59.74 m (196 feet) of right-of-way would need to be purchased to accommodate the proposed urban typical section. Approximately 15.09 ha (37.3 acres) of right-of-way would need to be purchased to construct this alternative.

This alternative does not require any additional modifications to the existing cross streets for access to County Road 1 or U.S. 19. Improvements to all cross streets intersecting with County Road 1 will be limited to a paved throat width of 7.32 m (24 feet) to the end of the 10.67 m (35 feet) radius returns with paved tapers to match existing lane widths on the unpaved or paved cross streets. A left turn storage lane will not be required on the cross streets at Bolton, Denton, Eden or Fulton Avenues.

7.4 ALTERNATIVES EVALUATION MATRIX

In order to provide a comparison between the alternatives which were developed for this project an evaluation matrix was prepared. The alternatives evaluation matrix, presented in Table 7-1 identifies the number of relocations, right-of-way and construction costs for each alternative. Table 7-2 identifies the socio-economic, cultural and historical resources, and natural and physical impacts for each alternative.

Table 7–1 Alternative Evaluation Matrix

EVALUATION CRITERIA	ALTERNATIVE ALIGNMENTS											
	1	2	3	4	5	6	7	8	9	10	11	12
	UR	UL	RL	RR	UC	RC	UR	UL	RL	RR	UC	RC
	CONNECTION TO SCHEER BOULEVARD						CONNECTION TO EMERALD BOULEVARD					
RELOCATIONS:												
RESIDENTIAL	29	4	5	57	23	25	54	2	3	54	23	27
BUSINESS	3	3	3	3	3	3	1	1	1	1	0	0
NON–PROFIT	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL RELOCATIONS:	32	7	8	60	26	28	55	3	4	55	23	27
CONSTRUCTION COST:												
ROADWAY (MAINLINE)	$3,515,000	$3,515,000	$3,254,000	$3,254,000	$3,515,000	$3,254,000	$3,710,000	$3,710,000	$3,450,000	$3,450,000	$3,710,000	$3,450,000
ROADWAY (FULTON & DIAGONAL RD.)	$403,000	$403,000	$403,000	$403,000	$403,000	$403,000	$0	$0	$0	$0	$0	$0
PRELIMINARY ENGINEERING (10%)	$391,800	$391,800	$365,700	$365,700	$391,800	$365,700	$371,000	$371,000	$345,000	$345,000	$371,000	$345,000
CEI (10%)	$391,800	$391,800	$365,700	$365,700	$391,800	$365,700	$371,000	$371,000	$345,000	$345,000	$371,000	$345,000
TOTAL CONSTRUCTION COST:	$4,701,600	$4,701,600	$4,388,400	$4,388,400	$4,701,600	$4,388,400	$4,452,000	$4,452,000	$4,140,000	$4,140,000	$4,452,000	$4,140,000
RIGHT–OF–WAY COST:												
ACQUISITION	$5,185,000	$2,508,000	$2,840,000	$7,391,000	$4,795,000	$6,259,000	$7,056,000	$1,654,000	$2,416,000	$6,264,000	$4,051,000	$5,286,000
RELOCATION	$409,000	$104,000	$165,000	$747,000	$308,000	$410,000	$674,000	$72,000	$98,000	$694,000	$268,000	$372,000
TOTAL RIGHT–OF–WAY COST:	$5,594,000	$2,612,000	$3,005,000	$8,138,000	$5,103,000	$6,669,000	$7,730,000	$1,726,000	$2,514,000	$6,958,000	$4,319,000	$5,658,000
TOTAL PROJECT COST	**$10,295,600**	**$7,313,600**	**$7,393,400**	**$12,526,400**	**$9,804,600**	**$11,057,400**	**$12,182,000**	**$6,178,000**	**$6,654,000**	**$11,098,000**	**$8,771,000**	**$9,798,000**

September 15, 1993

UR = urban, right alignment
UL = urban, left alignment
UC = urban, centered alignment
RR = rural, right alignment
RL = rural, left alignment
RC = rural, centered alignment

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Table 7–2 Environmental Evaluation Matix

EVALUATION CRITERIA	ALTERNATIVE ALIGNMENTS											
	1	2	3	4	5	6	7	8	9	10	11	12
	UR	UL	RL	RR	UC	RC	UR	UL	RL	RR	UC	RC
SOCIO–ECONOMIC	CONNECTION TO SCHEER BOULEVARD						CONNECTION TO EMERALD BOULEVARD					
Socio–Economic Impacts	Moderate	Minimal	Minimal	High	Moderate	Moderate	High	Minimal	Minimal	High	Moderate	Moderate
Developed Land (hectares (acres))	4.78 (11.8)	3.64 (9.0)	5.75 (14.2)	8.26 (20.4)	4.25 (10.5)	6.92 (17.1)	4.37 (10.8)	2.87 (7.1)	4.37 (10.8)	7.69 (19.0)	3.72 (9.2)	6.03 (14.9)
Undeveloped Land (hectares (acres))	3.52 (8.7)	4.70 (11.6)	7.89 (19.5)	5.46 (13.5)	4.17 (10.3)	6.84 (16.9)	4.65 (11.5)	6.07 (15.0)	10.12 (25.0)	8.09 (20.0)	5.55 (13.7)	9.06 (22.4)
Total R/W Requirements (hectares (acres))	8.30 (20.5)	8.34 (20.6)	13.64 (33.7)	13.72 (33.9)	8.42 (20.8)	13.76 (34.0)	9.02 (22.3)	8.94 (22.1)	14.49 (35.8)	15.78 (39.0)	9.27 (22.9)	15.09 (37.3)
Parcels Impacted												
Residential	15	9	13	17	18	18	11	6	9	14	18	18
Business	4	2	3	4	4	4	1	1	1	1	3	3
Vacant	14	14	13	16	17	18	19	13	12	15	14	13
Total Parcels	33	25	29	37	39	40	31	20	22	30	35	34
CULTURAL AND HISTORICAL RESOURCES												
Section 4(f) Lands	None	None	None	None	None	None	None	None	None	None	None	None
Historical Buildings	None	None	None	None	None	None	None	None	None	None	None	None
Archaeological Sites	None	None	None	None	None	None	None	None	None	None	None	None
Recreation Areas	None	None	None	None	None	None	None	None	None	None	None	None
NATURAL AND PHYSICAL IMPACTS												
Air	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Noise Impacts												
(Noise Sensitive Sites)	29	34	26	8	13	7	28	32	25	5	12	6
Wetland (hectraes (acres))	0.20 (0.5)	0.20 (0.5)	0.28 (0.7)	0.28 (0.7)	0.20 (0.5)	0.28 (0.7)	0	0	0	0	0	0
Water Quality	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Potential Contamination Sites												
Petroleum	1	1	1	1	1	1	0	0	0	0	0	0
Non–Petroleum	4	3	3	4	4	4	4	3	3	4	4	4
Total Sites	5	4	4	5	5	5	4	3	3	4	4	4
Floodplains	None	None	None	None	None	None	None	None	None	None	None	None
Threatened & Endangered Species												
Gopher Tortoises (Approximate)	25–30	30–35	40–45	30–35	30–35	40–45	30–35	40–45	50–55	45–50	35–40	50–55
Farmlands	None	None	None	None	None	None	None	None	None	None	None	None

July 22, 1994

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7.4.1 Relocations

The number of relocations for each alternative was identified based upon the number of residences, businesses, and non-profit land uses which would be acquired in order to allow each alternative to be constructed, operated, and maintained. Alternatives 8 and 9 resulted in the fewest relocations while Alternatives 4, 7, and 10 resulted in the highest number of relocations. Alternative 8 requires 3 relocations (lowest) while Alternative 4 requires 60 relocations (highest).

7.4.2 Socioeconomic Impacts

The socioeconomic impacts for each of the alternatives were reviewed. Alternative 8 requires minimal right-of-way acquisition and relocations. Two (2) residents and one (1) business would be relocated by this alternative. Therefore, this alternative was determined to have minimal socioeconomic impacts. In contrast, Alternative 4 would require 57 residential relocations and 3 businesses. The large number of relocations is site specific. Hickory Hills Estates, a government subsidized housing complex, is located in the southeast quadrant of the intersection of Hudson Hills and Denton Avenue. The complex consists of single story duplexes. Alternative 4 will require the acquisition of approximately eighteen (18) of these dwelling units which results in the majority of the relocations for Alternative 4. Because of the number of relocations associated with this alternative, the socioeconomic impacts were determined to be moderate.

7.4.3 Right-of-way and Construction Costs

Right-of-way and construction cost estimates were developed for each alternative. These costs are described below.

7.4.3.1 Right-of-way Costs

The right-of-way costs indicated in Table 7-1 include the amounts to purchase the land, legal fees, administrative support costs, business damages, and relocation expenses. Right-of-way cost estimates were prepared by FDOT's Right-Of-Way Department. The cost estimates include right-of-way cost for retention/detention sites per alternative. Alternative 8 has an estimated right-of-way cost of $1,726,000 as the lowest and Alternative 4 has the highest with an estimated cost of $8,138,000.

7.4.3.2 Construction, Preliminary Engineering and Construction Engineering Inspection Costs

Construction costs were developed using FDOT's long range estimates for each of the alternatives. The long range estimates were prepared July 1992. Preliminary engineering and construction engineering inspection costs of 10 percent each were added to the construction costs for each alternative to account for these tasks. Costs were also included for improvements to Diagonal Road for Alternatives 1 through 6. Alternatives 9, 10 and 12 have the lowest construction cost of $4,140,000. Alternatives 1, 2 and 5 have the highest construction cost of $4,701,600.

7.4.3.3 Total Cost

All of the above indicated costs were added to determine the total cost for each alternative and is shown in Table 7-1. The total cost for Alternative 8 is estimated to be $6,178,000 (lowest). The total cost for Alternative 7 is estimated to be $12,182,000 (highest).

7.4.4 Comparative Analysis of Alternatives

Using the information available in Tables 7-1 and 7-2, a comparative analysis was conducted for the purpose of determining which alternatives should be carried forward. Although all factors were considered in the evaluation, selection of alternatives to be carried forward was based primarily on differences in right-of-way cost and number of potential relocations.

A cultural resource assessment survey was performed to locate and identify any cultural resources within the project impact zone and to assess their significance in terms of eligibility for listing in the National Register of Historic Places. The archaeological and historical/architectural components of this survey were conducted in October and November of 1992. As a result of field survey, no previously unknown prehistoric or historic period archaeological sites were found. In addition, no historic structures were found to be situated within or adjacent to the alternatives within the County Road 1 Extension corridor.

Natural and physical impacts were reviewed. It was determined that air, floodplains, water quality, and farmlands impacts were also the same for all twelve (12) alternatives.

Impacts to gopher tortoises for each of the twelve (12) alternatives were assessed. The number of gopher tortoises impacted varied slightly between alternatives ranging from 25-30 (Alternative 1) to 50-55 (Alternative 9). The urban typical

section (Alternatives 1, 2, 5, 7, 8 and 11) had lower impacts than the rural typical section (Alternatives 3, 4, 6, 9, 10, and 12). The width of the typical section accounted for the difference in the number of gopher tortoises impacted. All alternatives would require the consideration of mitigation of impacts (relocation or off-site mitigation). Due to the slight differences in number of gopher tortoises impacted, relocation or off-site mitigation costs were considered to be similar for all alternatives. Therefore, impacts to gopher tortoises were not a primary factor in the selection of alternatives to be carried forward.

Factors which varied for each of the alternatives were right-of-way cost, number of relocations, and number of noise sensitive sites impacted. The estimated right-of-way cost for each alternative ranged from $1.7 million dollars for Alternative 8 to $8.1 million dollars for Alternative 4. Alternative 8 had three (3) relocations while Alternative 4 had a total of 60 relocations. Alternatives 5, 6, 11, and 12 were developed as centered alignments along the existing 15.24 m (50 feet) right-of-way envelope. This means that the additional right-of-way needed to satisfy the proposed typical sections would be purchased equally from both side. Therefore, 34 to 40 parcels were impacted by these alternatives which resulted in a range of 23 to 28 relocations. Alternatives 1, 4 through 7 and 10 through 12 all had substantially greater right-of-way costs and larger numbers of relocations than Alternative 2, 3, 8, and 9.

Noise impacts for each of the twelve (12) alternatives were assessed. Noise contours and projected noise level increases were used to determine the number of noise sensitive sites impacted by each of the alternatives. The noise contours represent the area exposed to projected noise levels that exceed the Federal Highway Administration Noise Abatement Criteria. The evaluation determined that Alternatives 4, 5, 6, 10, 11, and 12 have the lowest number of impacts to noise sensitive sites (5 to 13 sites). The remaining alternatives (1, 2, 3, 7, 8, and 9) will impact between 25 to 34 noise sensitive sites.

The primary reason that Alternatives 4, 5, 6, 10, 11, and 12 impact fewer noise sensitive sites is because these alternatives would displace noise sensitive sites through right-of-way acquisition. The left alignment will avoid a number of residences that would be relocated with a centered or right alignment. Accordingly, Alternatives 2, 3, 8, and 9 with a left alignment will require the relocation of only three to eight residences. The alternatives with right or centered alignments will require the relocation of 23 to 55 residences. Therefore, the alternatives would generally have similar numbers of noise-sensitive sites impacted if they included the number of residences being relocated.

A further comparison of impacts associated with Alternatives 2, 3, 8, and 9 was conducted. Impacts to wetland sites within the study corridor were limited to the alternatives developed to connect to Scheer Boulevard. Alternatives connecting to Scheer Boulevard would impact one (1) natural wetland site located at the southeast quadrant of the proposed intersection of County Road 1 with U.S. 19. The urban typical section (Alternative 2) would impact 0.20 ha (0.5 acre) of the wetland site. The rural typical section (Alternative 3) would impact 0.28 ha (0.7 acre) of the wetland site. Alternatives 8 and 9, which connect to Emerald Boulevard, would not impact any natural wetland sites.

In addition, Alternatives 2 and 3 have higher right-of-way costs than Alternatives 8 and 9. Alternative 2 was $900,000 dollars higher than Alternative 8 and $98,000 higher than Alternative 9. Alternative 3 was $1.3 million dollars higher than Alternative 8 and $491,000 higher than Alternative 9. The number of relocations was also higher for Alternatives 2 and 3. Alternative 2 had seven (7) relocations and Alternative 3 had eight (8). Alternative 8 had three (3) and Alternative 9 had four (4). Alternatives 2 and 3 were eliminated from further consideration due to their higher right-of-way cost, higher number of relocations and impacts to the wetland site.

The comparative analysis of the alternatives indicated that Alternatives 8 and 9 should be carried forward for further consideration.

7.5 PUBLIC PARTICIPATION

The public has had the opportunity to comment on all twelve of the alternatives under consideration. An Alternatives Public Information Workshop was held for this project on October 22, 1992. At that meeting Alternatives 2, 3, 8 and 9 were displayed on walls in the meeting room and Alternatives 1, 4, 5-7 and 10-12 were presented in book format placed on tables. Representatives from Pasco County and the general public attended the meeting. Additional information regarding the public information meeting is contained in Section 9.

7.6 COORDINATION WITH FDOT

Representatives from FDOT and the consultant met on January 26, 1993 to discuss the evaluation matrix. Each alternative was reviewed and discussed regarding costs and socioeconomic impacts. It was determined that Alternatives 8 and 9 should be carried forward for further analysis. A life cycle cost analysis should be conducted to determine the anticipated cost of vehicular accidents for both Alternatives 8 and 9 over the twenty year life of the

project. This information would be helpful in determining which alternative would better serve the community. In addition, noise barrier costs would be identified for both of these alternatives and included in the cost of the project.

7.7 LIFE CYCLE COST ANALYSIS

In an effort to better define the differences between Alternatives 8 and 9, a life cycle cost analysis was prepared. The primary difference between these alternatives relates to the cost of accidents. Information regarding average crash rates by highway category (1990 data base) and cost/crash by facility type (1988, 1989, and 1990 crash data) was provided by FDOT (see Appendix A). This information was used to determine the cost incurred over the life of the project based upon average daily traffic, average crash rates by highway category for a four (4) lane divided roadway, and cost per crash.

The life of the roadway pavement was selected to be 20 years, since at this point a resurfacing of the pavement would likely be required. Assuming a project opening of 1995, the time span would run from 1995 to 2015 with a midpoint year of 2005.

Average daily traffic was obtained from the Technical Memorandum, Project Traffic Report (see Section 4) for the years 2000 and 2010. Average daily traffic for the year 2000 was determined to be 14,200 vehicles per day. For the year 2010, it was determined to be 18,600 vehicles per day. Using a straight line projection between these two (2) years resulted in an average of 16,400 vehicles per day in 2005 which would be the average traffic on the roadway over the 20 year life cycle. Using information provided by FDOT regarding average crash rate by facility type (Table 2, Appendix A), it was determined that the average crash rate per million vehicle miles for a four (4) lane divided highway with an urban typical section was 2.344 and for a rural typical section, it was 0.963.

In evaluating the urban typical section, it was determined that it would experience the same type of cost per accident as a rural typical section. This conclusion was based upon several factors. The existing study corridor is moderately developed and the future land use planned for the study area supports a continuation of the existing land use. It is anticipated that there will continue to be a limited number of cross streets and driveways. The proposed urban typical section will use a 13.41 m (44 feet) wide median. In addition, the intersections of County Road 1 at New York Avenue and County Road 1 at U.S. 19 will be signalized. This will result in relatively high operating speeds for both the urban and rural typical sections. Because of these reasons, it is anticipated that

the driver will react to the urban roadway in the same manner as a rural roadway.

A cost of $59,100 per accident (Table 4, Appendix A) for both the urban and rural typical section was used. Using the average daily traffic volume of 16,400 and a project length of 2.41 km (1.5 miles), it was determined that there would be 8,979,000 vehicle miles of travel per year. Based upon this information, average costs per year of $1,244,000 for the urban typical and $511,000 for the rural typical section were calculated. Over the 20 year life of the facility, the urban typical would have an accident cost of $13,178,000 while the rural would have a cost of $5,414,000. The rural typical section would result in an annual saving of $733,000. This would result in a net present worth savings of $7,764,000 over the 20 year life of the project using a 7% discount rate. These calculations are summarized in Table 7-3.

Table 7-3 Life Cycle Cost Analysis

1. Average Daily Traffic for 2005 midpoint year:
   Year 2000 Traffic = 14,200
   Year 2010 Traffic = 18,600

   Year 2005 Traffic = 16,400 vehicles per day (vpd)

2. Average Miles of Travel per year (AMTPY):

   Average Miles of Travel per year = 16,400 vpd x 1.5 miles x 365 days per year = 8,979,000 vehicle miles per year

3. Average Cost Per Year:

   Urban = $59,100 per accident x 2.344 accidents per million vehicle miles x 8,979,000 vehicle miles per year = $1,244,000 per year

   Rural = $59,100 per accident x 0.963 accidents per million vehicle miles x 8,979,000 vehicle miles per year = $511,000 per year

4. Cost over 20 Year Life:

   Urban = $1,244,000 per year x 10.594* = $13,178,000
   Rural = $511,000 per year x 10.594* = $5,414,000

   Savings = $13,178,000 - $5,414,000 = $7,764,000

   * 10.594 = Present worth value for series of payments over 20 year life using a 7% discount rate.

7.8 NOISE BARRIER COST ANALYSIS

Noise abatement measures to minimize impacts to noise-sensitive sites along the project corridor were evaluated for Alternatives 8 and 9. Structural barriers were found to be economically reasonable and feasible measures to minimize noise impacts by 5 dBA to the residences of Hudson Hills Estate.

A detailed barrier analysis was conducted to determine the length and height of a barrier providing a minimum of 5 dBA reduction in predicted noise levels. The cost of structural barriers for Alternative 8 is estimated to cost $94,380. The cost of structural barriers for Alternative 9 is estimated to cost $133,650. The cost differential between these alternatives was minimal ($39,270). Therefore, barrier costs were not considered a deciding factor in the selection of the preferred build alternative.

7.9 COMPARISON OF ALTERNATIVES 8 AND 9

There are several design factors which vary between Alternatives 8 and 9. These design considerations are (1) right-of-way requirements, (2) construction cost, (3) stormwater requirements, (4) design speed, and (5) shoulder treatment. The following provides a discussion which compares these design elements.

Alternative 8 can be constructed within a total right-of-way envelope of 37.80 m (124 feet) which represents 8.94 ha (22.1 acres) of property that needs to be acquired. The cost to acquire the 8.94 ha (22.1 acres) is estimated to be $1,726,000. Alternative 9 requires a total of 59.74 m (196 feet) of right-of-way which represents 14.49 ha (35.8 acres). The cost to acquire the 14.49 ha (35.8 acres) is estimated to be $2,514,000. By comparison, Alternative 9 will require 5.54 more ha (13.7 more acres) than the Alternative 8. This will cost $788,000 more than Alternative 8. Alternative 9 requires an additional 5.54 ha (13.7) acres because the typical section is 21.95 m (72 feet) wider than Alternative 8.

The construction cost for Alternative 8 is estimated to be $3,710,000. The estimated construction cost for Alternative 9 is $3,450,000. Alternative 8 costs $260,000 more to construct than Alternative 9. The additional cost to construct Alternative 8 is attributable to the closed drainage system and retention/detention ponds for treatment of stormwater runoff. A total of 1.24 ha (3.07 acres) for retention/detention pond sites are required for Alternative 8 while only 0.53 ha (1.3 acres) are required for Alternative 9.

Alternative 9 will include open ditches on both sides of the roadway. The ditches will be used for attenuation of the runoff and will be supplemented with retention ponds where required. Additional right-of-way acquisition is considered to be minimal for Alternative 9 for the attenuation of stormwater treatment.

The design speed of the respective alternatives is another factor to be considered. Alternative 8 was developed based upon a 72.42 kmph (45 mph) design speed and Alternative 9 was developed based upon a 80.47 kmph (50 mph) design speed. The higher design speed provided by Alternative 9 allows for more appropriate vertical and horizontal geometry for the proposed roadway and adjacent land use. The clear zone is the distance from the edge of the outside travel lane to an obstruction. The 7.32 m (24 feet) of grassed area adjacent to the outside travel lane provided with Alternative 9 allows the motorist to regain control of the vehicle and avoid or reduce the consequences of collision with roadside objects. This area also serves as an emergency refuge location for disabled vehicles. The clear zone for Alternative 8 is 1.22 m (4 feet) from the face of the curb. The area surrounding the proposed alignment is rural with limited development (driveways) and cross streets. With Alternative 9 and the rural nature of the surrounding area, the motorist should experience fewer interruptions and be able to travel at a higher speed.

Shoulder treatment for Alternative 8 is a border width which is 3.66 m (12 feet) wide and includes the curb and gutter and a sidewalk 1.52 m (5 feet) wide. The distance from the outside travel lane to the right-of-way line would be 3.66 m (12 feet). Alternative 9 provides 3.66 m (12 feet) of shoulder width which includes 1.22 m (4 feet) of paved shoulder. The distance from the outside travel lane to the right-of-way line would be 15.85 m (52 feet). For Alternative 9, disabled vehicles are able to leave the outside travel lane when utilizing the shoulder; thereby, reducing the potential for conflicts with other vehicles. For Alternative 8, disabled vehicles must find a suitable location to leave the roadway or mount the curb leaving the vehicle partially in the outside travel lane and blocking the paved shoulder. The wider border width of Alternative 9 will allow for greater visibility of vehicles entering the roadway from driveways and side streets.

A Conceptual Stage Relocation Plan dated December 1993 was prepared for both Alternatives 8 and 9. Alternative 8 would have 2 (two) residential and 5 (five) business relocations. Alternative 9 would have 5 (five) residential and 5 (five) business relocations. This represents a change from the data provided in Table 7-1, Alternatives Evaluation Matrix on page 7-13. The original estimate of one business relocation for both alternative was determined to be three businesses located in one structure. Since the original

estimate was made, two additional businesses have been built and both alternatives would impact the new businesses.

Residential relocations have increased from 3 (three) to 5 (five) since the original estimate was performed for Alternative 9. The analysis conducted during the development of the Conceptual Stage Relocation Plan was performed at a greater level of detail which resulted in a change in the number of residential relocations associated with Alternative 9. Two mobile homes located on the west side of Montgomery Street on the south end of the project were originally considered suitable for on site relocation due to the depth of the remain property. These sites were later interpreted as off site relocations. Residential relocations associated with Alternative 8 remain unchanged.

The original estimate was prepared in January 1993. Both Alternatives 8 and 9 impact additional relocations as identified in the Plan. The additional relocations do not affect the selection of the recommended alternative.

7.10 PREFERRED BUILD ALTERNATIVE

Alternative 9, rural cross section - left right of way acquisition, was selected as the preferred build alternative. This selection was based upon the following factors:

1. The design speed for Alternative 9 is 80.47 kmph (50 mph). The higher design speed requires flatter horizontal and vertical curves to be used in the design of the roadway. Additionally, the clear zone for the rural typical section is 7.32 m (24 feet) versus 1.22 m (4 feet) from the face of the curb for the urban typical section. The flatter curves and greater clear zones provide increased room for motorists to recover in the event that control of their vehicle is lost, reducing accident potential.

2. Driver visibility - The rural typical section has 15.85 m (52 feet) (border width plus swales) between the right of way line and the outside edge of the travel lane. This provides a wide margin for motorists traveling on County Road 1 to see on coming traffic approaching the roadway from crossroads or driveways. This will allow the driver a greater level of comfort traveling on County Road 1 and should help reduce traffic accidents.

3. Fewer conflict points - There are four existing cross streets between New York Avenue and U.S. 19. They are: Bolton Avenue, Denton Avenue, Eden Avenue, and Fulton Avenue. Only Bolton and Denton Avenues are currently paved. In addition, the existing development is residential and light commercial properties which currently access the cross streets. It is anticipated that future development will continue to be residential and light commercial land uses. The motorists using the proposed extension will encounter a limited number of cross streets and driveway openings. Due to the limited number of conflict points and adjacent land uses, this segment of County Road 1 is better suited to a rural typical section and a higher design speed.

4. Ability to travel at greater speed between signals - The design speed for Alternative 9 is 80.47 kmph (50 mph). For the opening year, signals will be proposed at New York Avenue and at U.S. 19. This means that motorists will be able to travel 2.41 km (1.5 miles) without any required stops, allowing increased travel speeds.

5. Relocations - Alternative 9 requires the relocation of five (5) residential properties and five (5) business properties.

6. Wetlands - There is no wetland involvement with Alternative 9.

8.0 PRELIMINARY DESIGN ANALYSIS

8.1 DESIGN TRAFFIC VOLUMES

The 2010 design year traffic projections were developed for the County Road 1 extension using the FSUTMS model. These projections and the methodology used is documented in the approved Traffic Memorandum, Project Traffic Report (dated July,1992). Daily and peak hour volumes were developed by applying the peak hour factor, K, of 8.5 percent and the directional distribution factor, D, of 55 percent to the daily volumes. Sections 4.2 and 6.0 discuss the details of the analysis performed to determine the laneage required.

8.2 TYPICAL SECTIONS

The typical section for the preferred build alternative, Alternative 9, is the rural typical section. The rural typical section would provide two (2) travel lanes in each direction separated by a median 13.41 m (44 feet) wide with 3.66 m (12 feet) grassed shoulders. Paved shoulders, 1.22 m (4 feet) wide , would be provided on each side. A ditch section 12.9 m (40 feet) wide would be provided on both sides to accommodate stormwater runoff from the roadway. It is anticipated that an additional 0.53 ha (1.3 acres) will have to be acquired to accommodate retention/detention pond sites. This determination will be made when detailed design is completed. The rural typical section will be constructed within 59.74 m (196 feet) of right-of-way. Figure 8-1 shows the proposed rural typical section.

Table 8-1 Recommended Design Criteria

Element	Desirable
Design Speeds	80 km/h (50 mph)
Lane Widths	3.66 m (12 feet) (inside), 3.66 m (12 feet) (outside)
Shoulder Widths	3.66 m (12 feet)
Paved Shoulder	1.22 m (4 feet) (outside), 2.44 m (8 feet) (median)
Maximum Grade (vertical)	3.0% (flat terrain) maximum 0.3% (flat terrain) minimum
Right-of-way	59.74 m (196 feet)
Median	13.41 m (44 feet)
Maximum Degree of Curvature (horizontal)	8°15'
Maximum Superelevation Rate (meter per meter of roadway)	0.10
Minimum Stopping Sight Distance	99 to 121.92 m (325 to 400 ft)

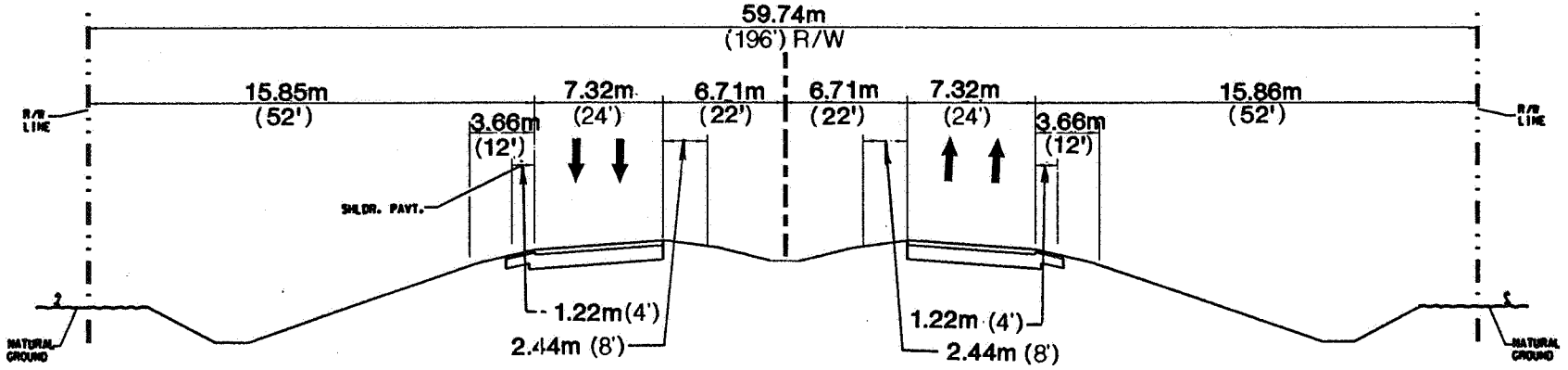


FIGURE 8-1

PROPOSED RURAL TYPICAL SECTION

COUNTY ROAD 1 EXTENSION

NEW YORK AVE TO U.S. 19

8.3 INTERSECTION CONCEPTS & SIGNAL ANALYSIS

Intersection analyses were performed for County Road 1 at New York Avenue and U.S. 19. The approved "Technical Memorandum, Project Traffic Report", dated August 1992, prepared by Reynolds, Smith and Hills, Inc., provides additional detailed information regarding the methodology used in developing traffic projections and intersection analyses. Figures 8-2 and 8-3 show the proposed intersection geometrics required to obtain desirable level of service (LOS) C operating conditions for both 2000 and the 2010 design year.

8.4 PRELIMINARY ENGINEERING, RIGHT-OF-WAY COST, CONSTRUCTION and RELOCATION COSTS

FDOT Long Range Estimates were prepared for each alternative developed to determine the construction cost. Right-of-way cost estimates were prepared by FDOT and included the number of business, residential, and non-profit relocations. Preliminary cost associated with Alternative 9 are shown in Table 8-2.

A Conceptual Stage Relocation Plan, dated December 1993, was prepared by Post, Buckly, Schuh and Jernigan, Inc. for this project. The Plan indicates that there will be five (5) residential and five (5) business relocations associated with the preferred build alternative.

8.5 PEDESTRIAN AND BICYCLE FACILITIES

Alternative 9 recommends the construction of a four lane rural typical section. It is anticipated that pedestrian traffic will be minimal due to the existing land use. Therefore, pedestrian facilities are not provided. Bicyclist are accommodated with a paved shoulder 1.22 m (4 feet) wide adjacent to the outside travel lane.

8.6 UTILITY IMPACTS

All companies maintaining utility lines within the study area were contacted to determine potential impacts to both existing and future facilities. Section 3.1.12 of this report identifies both

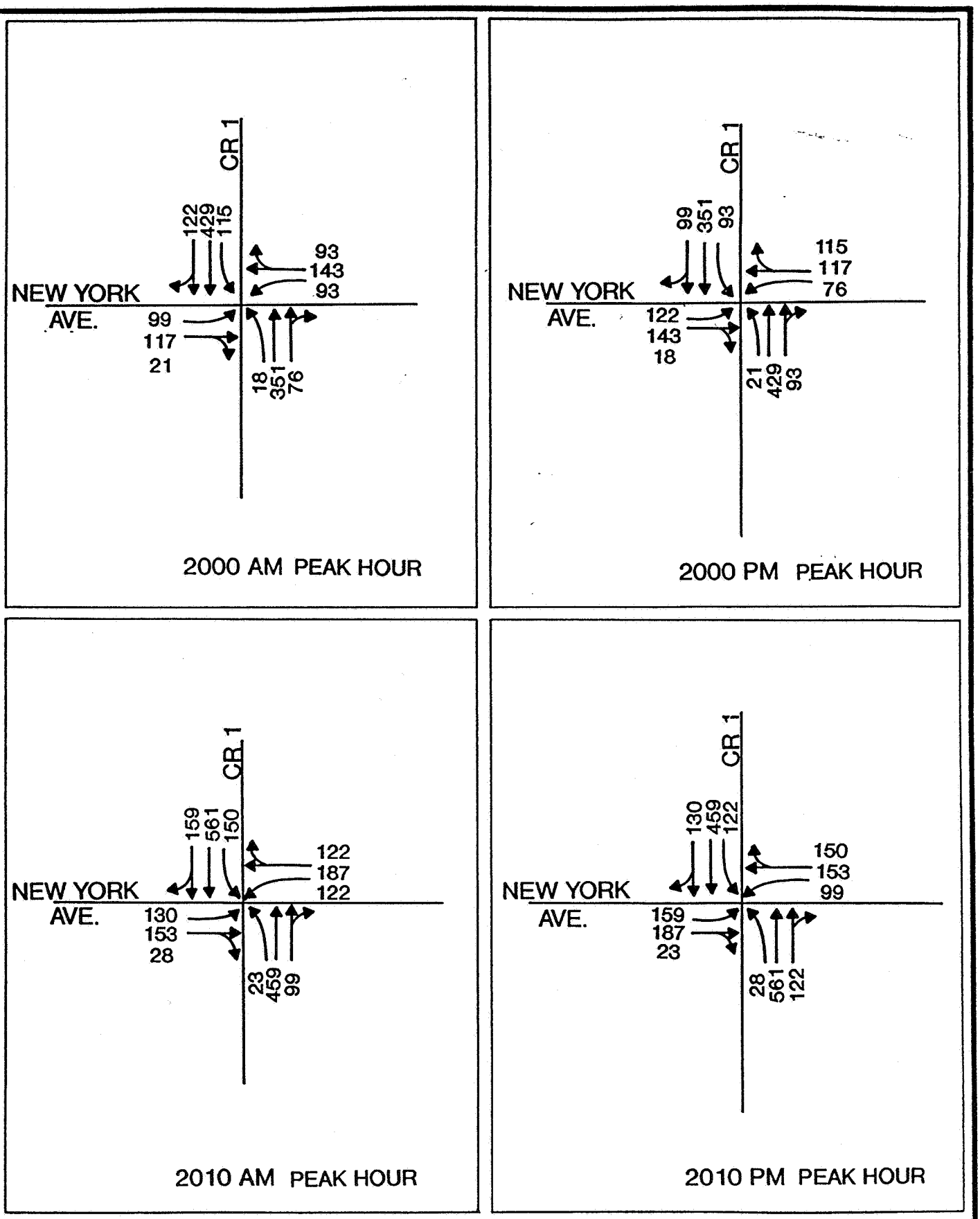
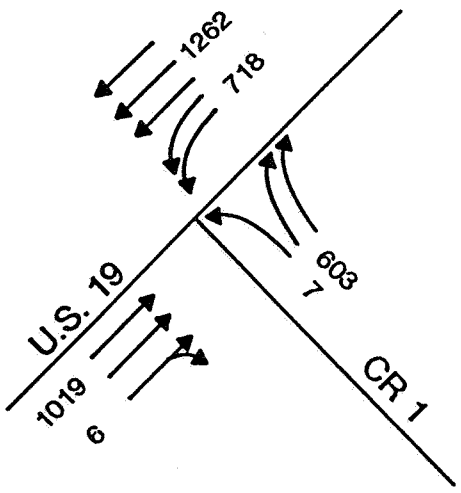


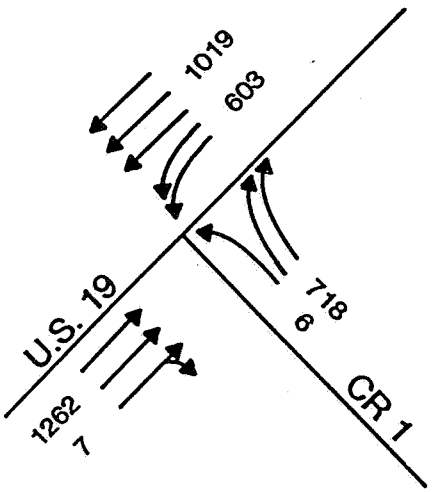
FIGURE 8-2

PROPOSED INTERSECTION GEOMETRY
2000 AND 2010 – NEW YORK AVE.

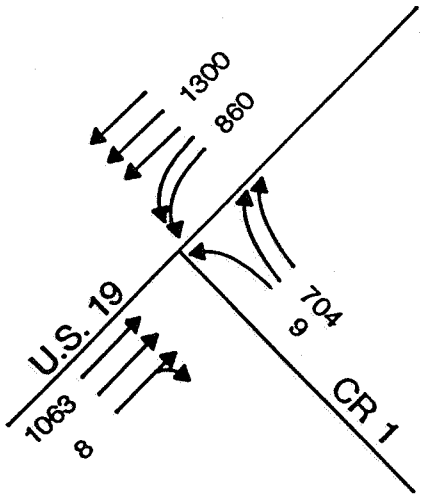
COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19



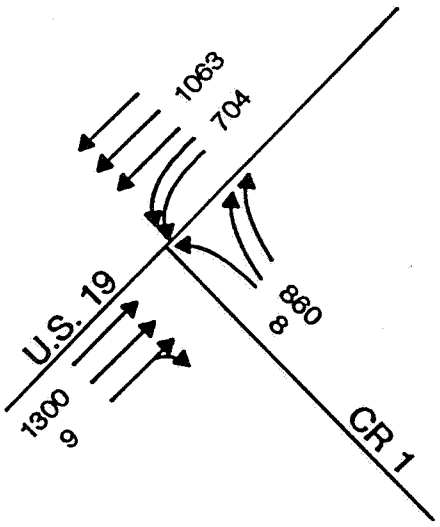
2000 AM PEAK HOUR



2000 PM PEAK HOUR



2010 AM PEAK HOUR



2010 PM PEAK HOUR

FIGURE 8-3

PROPOSED INTERSECTION GEOMETRY
2000 AND 2010 - U.S. 19

COUNTY ROAD 1 EXTENSION
NEW YORK AVE. TO U.S. 19

Table 8–2 Preliminary Engineering, Right–of–Way, Construction and Relocation Costs

COUNTY ROAD 1 EXTENSION
RELOCATION AND COST SUMMARY

SUMMARY ITEMS	PREFERRED ALIGNMENT (9)

RELOCATIONS

RESIDENTIAL	5
BUSINESS	5
NON–PROFIT	0
TOTAL RELOCATIONS	10

CONSTRUCTION COST

ROADWAY	$3,450,000
PRELIMINARY ENGINEERING (10%)	$345,000
CEI (10%)	$345,000
TOTAL CONSTRUCTION COST	$4,140,000

RIGHT–OF–WAY COST

ACQUISITION	$2,416,000
RELOCATION	$98,000
TOTAL RIGHT–OF–WAY COST	$2,514,000

TOTAL PROJECT COST	**$6,654,000**

public and private existing utilities. Based on the location of these utilities, impacts and relocations were identified for all alternatives. It is anticipated that utility impacts caused by the new roadway will be minimal.

8.7 MAINTENANCE OF TRAFFIC

Alternative 9 recommends the extension of County Road 1 from New York Avenue to U.S. 19 on new alignment. There are only two existing streets located within the new alignment. They are Montgomery Street and Hudson Hills. Traffic will be maintained on these roadways during construction. Traffic on cross streets will also be maintained during construction. A Traffic Control Plan will be developed in accordance with the current FDOT Roadway and Traffic Design Standards during the final design phase.

8.8 RECYCLING OF SALVAGEABLE MATERIALS

Salvaging the existing pavement was not considered to be viable due to the alignment of the proposed improvement in comparison to the existing alignments of Montgomery Street and Hudson Hills Drive.

8.9 DRAINAGE

Drainage for the proposed roadway improvements will be treated prior to discharge through proper stormwater retention. The roadway will have a grassed median and ditches on each side for conveyance of stormwater. Additional retention/detention ponds will be required to satisfy stormwater requirements. This represents 0.53 ha (1.3 acres) of right-of-way acquisition. Preliminary analysis has chosen two alternative sites which were presented at the project's public hearing. The final locations will be determined based on detailed drainage design during the final design phase of the project.

8.10 LIGHTING

No lighting will be provided for this project.

8.11 Environmental Impacts

The environmental impacts of the preferred Build Alternative were evaluated with respect to social, cultural, natural environment, and physical aspects. Impacts of the preferred Build Alternative in each of these categories are summarized below.

8.11.1 Social Impacts

Due to the current pattern of development, the preferred Build Alternative is not anticipated to promote changes in land use or secondary development. The existing and future land use patterns of residential and commercial development are expected to remain the same. Since the potential to significantly change the land use in the study area or to induce secondary development is low, the extension of County Road 1 is considered to have a minimal impact on nearby land uses.

Due to the limited involvement with residential areas, it is anticipated that the project will have no impact on community cohesiveness. The proposed improvements may improve community cohesion by facilitating access between these neighborhoods and the commercial areas along U.S. 19, Denton Avenue, and Eden Avenue.

Since the preferred Build Alternative has a limited number of relocations, minimal involvement with minorities, and would not change the character of the study area, the relocation impacts are considered minimal.

The preferred Build Alternative is not anticipated to impact any community facilities.

This project has been developed in accordance with The Civil Rights Act of 1964, as amended by the Civil Rights Act of 1968.

Since the preferred Build Alternative was developed with input and consensus from county officials and opportunities for public input, the controversy potential is considered minimal.

Although energy will be expended to construct and maintain the facility, more energy will be saved via increased fuel economy due to improved travel conditions. If constructed, the extension of County Road 1 would serve as a local minor arterial roadway to provide some traffic relief and help minimize traffic congestion along U.S. 19. Therefore, the project will act to reduce fuel consumption and will have a positive impact on energy conservation.

Utility involvement is primarily along Montgomery Street, Hudson Hills Lane, and cross streets. Due to the limited amount of involvement with utilities, the preferred Build Alternative will have minimal impact on utilities located within the project limits. There are no existing or proposed railroad crossings within the project limits.

8.11.2 Cultural Impacts

The preferred Build Alternative will have no involvement regarding Section 4(f) lands or recreation areas. The preferred Build Alternative will enhance pedestrian and bicycle amenities.

A Cultural Resource Assessment Survey was conducted to assess the potential for impacts to any historical resources in the project area. No historical resources were observed or known to occur within the study area. Therefore, no historical structures will be impacted by the preferred Build Alternative.

The survey also addressed potential archaeological sites. The survey did not identify any prehistoric or historic period archaeological site and none are currently listed in the Florida Master Site file. Therefore, no archaeological sites are anticipated to be impacted by the preferred Build Alternative.

The State Historic Preservation Office concurred with the results of the cultural resources assessment survey and stated so in a letter dated August 26, 1993.

8.11.3 Natural Impacts

The proposed improvements do not involve an Aquatic Preserve, Outstanding Florida Waters, Wild/Scenic Rivers, Coastal Barrier Islands, or Farmlands.

Potential wetland impacts associated with the preferred Build Alternative were assessed. The wetland assessment revealed a total of two natural wetlands and six man made wetlands in the project corridor. The preferred Build Alternative will involve one of the six man made wetlands and none of the natural wetlands. The wetland area affected is associated with a 0.10 ha (0.25 acre) borrow pit which has been largely covered with concrete. Preliminary coordination with the regulatory agencies (U.S. Army Corps of Engineers, Southwest Florida Water Management District, and Florida Department of Environmental Protection) indicated that this wetland area is not considered a jurisdictional site. It is a man made wetland and lacks hydric soils. Therefore, no dredge and fill permits will be required for this project. Since this site is not considered a jurisdictional wetland, no mitigation is proposed. Based on this information, impacts to wetlands are considered minimal.

No major surface water feature is located in the project study area. However, stormwater runoff from the study area flows westward towards U.S. 19 and then to the Gulf of Mexico. Vehicular related pollutants associated with highway runoff within the

project limits will be controlled to avoid degrading the water quality of the receiving waters. The appropriate stormwater management practices will be considered for mitigating stormwater runoff impacts. Therefore, the proposed improvements will have minimal impact on the surface or ground water resources in the project area.

Impacts to the floodplains resulting from construction of the preferred Build Alternative were identified and evaluated. According to the Federal Insurance Rate Map, the study area is within Zone C (areas of minimal flooding) and Zone B (areas between limits of the 100 year flood and the 500 year flood). No longitudinal or transverse encroachment in the base floodplain is anticipated. Based on the lack of floodplain or floodway involvement, there is no anticipated flooding risk associated with the proposed improvements. The proposed project is also not anticipated to encourage the development of incompatible floodplain development, or produce any impacts on natural and beneficial floodplain values. The FDOT Drainage Manual indicates that this project would be classified as a Category 1 encroachment.

Agency coordination has been conducted with the Florida State Clearinghouse pursuant to the Coastal Zone Management Act Reauthorization Amendments of 1990. Correspondence from the Florida State Clearinghouse dated December 10, 1991 states that the proposed action is consistent with the Florida Coastal Management Program (FCMP) at the Advanced Notification stage.

The preferred Build Alternative was evaluated for impacts to wildlife and habitat resources, including protected species in accordance with Chapter 50, Code of Federal Regulations, Part 402 and the Endangered Species Act of 1973, as amended. The evaluation indicated that no "critical habitat" occurs in the project area and no federally listed species would be affected by the proposed project. U.S. Fish and Wildlife Service correspondence dated April 14, 1993 indicated that there will be no involvement of federally listed species with construction of the preferred Build Alternative.

The project corridor contains portions of the historic range of 12 species listed and protected in the State of Florida. Of these 12 state listed species, only the gopher tortoise (Gopherus polyphemus), listed as a Species of Special Concern, was confirmed in the corridor. Mitigation will be decided in the permitting phase of the project based upon continued coordination with the Florida Game and Fresh Water Fish Commission.

8.11.4 Physical Impacts

Predicted design year noise levels for the preferred Build Alternative ranged from 59 dBA to 66 dBA. Noise levels will increase 8 to 15 dBA over existing levels. The increases in noise levels are attributed to the proximity of the proposed roadway alignment to the noise sensitive sites. With the preferred Build Alternative, the outside edge of pavement for the northbound lanes will be approximately 21.94 m (72 feet) from the closest dwelling units. Structural barriers were found to be feasible and economically reasonable at 19 of 36 dwelling units impacted. The project will cause impacts to the remaining 17 dwelling units. Various abatement measures were studied but none were found feasible or economically reasonable. With the preferred Build Alternative, the impacts to these 17 dwelling units will be an unavoidable consequence of the proposed project.

Air quality impacts were assessed for the preferred Build Alternative. The proposed project passed the Air Quality Screening Test and therefore, impacts are considered to be none.

A contamination screening evaluation was conducted. The preferred Build Alternative will involve five potential contamination sites. Four of the five sites are considered no risk. The remaining site is considered to be a medium risk site due to possible petroleum usage on the site. The potential contamination concerns are not anticipated to affect or delay the project implementation significantly. No significant contamination involvement is anticipated, based on information reviewed to date. Therefore, contamination impacts are considered to be minimal.

Construction activities accompanying the proposed improvements will produce temporary air, noise, traffic flow, and visual impacts on the residences, businesses, and motorists within the immediate vicinity of the project. These effects will be minimized by the contractor's adherence to measures discussed in FDOT's "Standards and Specifications for Road and Bridge Construction" and through the use of Best Management Practices, as directed by the FDOT Project Manager. To minimize traffic delays, a Maintenance of Traffic (MOT) plan will be developed and approved for use and in accordance with current practices.

9.0 COMMENTS AND COORDINATION

9.1 INTRODUCTION

A Public Involvement Program was developed and is being implemented as an integral part of this project. The purpose of this program is to establish and maintain communication with the public at large, with the agencies and individuals concerned with the project and its potential impacts. To ensure open communication and agency and public input, FDOT has provided an Advanced Notification package to state and federal agencies, and other interested parties defining the project and, in cursory terms, describing anticipated issues and impacts. Finally, in an effort to resolve all issues identified, FDOT has conducted extensive interagency coordination and consultation effort and a public participation process. This section of the document details FDOT's program to fully identify, address, and resolve all project related issues identified through the public involvement process. A Comments and Coordination Report dated May 1994 was been prepared and summarizes the Pulbic Involvement Program for this project.

9.2 GOVERNMENTAL AGENCY RESPONSES

9.2.1 Advanced Notification Process

FDOT, through the Advanced Notification process, informed a number of federal, state, regional, and local agencies of the existence of this project and its scope. An Advanced Notification Package, along with an attached mailing list, was forwarded to the Florida State Clearinghouse for processing on October 10, 1991, to initiate the advanced notification process. Individual packages were also sent directly to federal and local agencies. Those agencies receiving advanced notification packages are identified below. Those agencies that responded to the package are indicated by an asterisk.

FEDERAL

Federal Highway Administration
National Marine Fisheries
U.S. Department of the Interior - U.S. Geological Survey
U.S. Department of the Interior - Bureau of Land Management
U.S. Department of the Interior - U.S. Fish & Wildlife Service
U.S. Department of Housing and Urban Development
U.S. Environmental Protection Agency
National Marine Fisheries Service
U.S. Army Corps of Engineers *
Federal Emergency Management Agency

National Oceanic and Atmospheric Administration *
U.S. Coast Guard - Seventh Coast Guard District
Marine Fisheries Commission
U.S. Department of Energy
U.S. Department of State *
U.S. Office of Cultural Resource Preservation
U.S. Department Environmental Officer
U.S. Department of National Resources

STATE

State of Florida - Office of the Governor *
Florida Department of Natural Resources *
Florida Department of Environmental Regulation *
Florida Department of State - Divisions of Historical Resources *
Florida Game and Fresh Water Fish Commission *
Florida Recreational Trails Councils
Florida Department of Transportation - Federal Aid Programs Coordinator
Florida Department of Transportation - Environmental Office

REGIONAL/LOCAL

Tampa Bay Regional Planning Council *
Southwest Florida Water Management District *

The Office of the Governor has indicated that the proposed improvements will be in accordance with state plans, projects, programs, and objectives when consideration is given to the comments expressed by the reviewing agencies (see letter in Appendix B). Copies of the agency response letters are provided in Appendix B. The pertinent comments from the agencies that responded are summarized below.

United States Department of State

Comment: We find that the proposed action does not appear to have any impact on the foreign relations of the United States, nor on international environmental issues. The Department of State therefore does not need to comment on the project at this time.

Response: No response required.

United States Department of Commerce
National Oceanic and Atmospheric Administration

Comment: Based on the information included in the notification, the proposed project will not adversely affect resources within our purview.

Response: No response required.

United States Department of the Army
Corps of Engineers

Comment: The area encompassed by the project has been visited and the area along U.S. 19, near Fulton Avenue, meets the criteria of a wetland per the 1987 Wetlands Jurisdictional Manual. However, a formal jurisdictional delineation will need to be completed and verified prior to permit application submittal.

Response: The wetland located at U.S. 19 near Fulton will not be impacted by the preferred build alternative - Alternative 9. Therefore, no Corps jurisdictional wetland will be impacted and no formal jurisdictional delineation will not be required.

State of Florida
Office of the Governor

Comment: Based on the comments from our reviewing agencies, funding for the proposed action is consistent with the Florida Coastal Management Program (FCMP) advanced notification stage. Subsequent environmental documents will be reviewed to determine continued consistency with the FCMP as provided for in 15 CFR 930.95.

Response: Subsequent environmental documents will be provided for the purpose of determining continued consistency with FCMP as provided for in 15 CFR 930.95.

State of Florida
Department of Environmental Regulation (DER)

Comment: The "jurisdictional wetland" identified in the

report (Advanced Notification Package) should have a Binding Jurisdictional Determination conducted pursuant to 17-312 FAC in order to determine the landward extent of State Waters. The project must conform with the requirements of Chapter 403 FS in order to protect the water quality and biological resources of the subject wetland. The road alignment must conform to the Department's policy of minimization of wetland impacts to the greatest extent possible, including but not limited to reduction of side slopes, soil stabilization, prevention of untreated runoff into wetland areas and maintenance of treatment systems where required.

Response: The jurisdictional wetland identified in the Advanced Notification Package will not be impacted by the proposed build alternative. Therefore, a Binding Jurisdictional Determination will not be required. The proposed build alternative will not impact any natural wetlands.

Florida Department of State
Division of Historical Resources

Comment: We have reviewed the Advanced Notification for the Florida Department of Transportation (FDOT) project referenced above. We note that a preliminary paragraph concerning expected cultural resources for the project area was included in the Advanced Notification. No mention, however, was made as to whether or not an archaeological or historical survey will be completed. It is the recommendation of this office that such a survey should be done prior to any project related ground disturbing activities. Therefore, conditioned upon the FDOT undertaking a cultural resource survey, and appropriately avoiding or mitigating project impacts to any identified significant archaeological or historic sites, the proposed project will have no effect on any sites listed, or eligible for listing, in the National Register. If the conditions are met the project will also be consistent with the historic preservation aspects of Florida's coastal zone program.

Response: A cultural resource assessment survey of the study area was performed to locate and identify any

cultural resources within the project impact zone and to assess their significance in terms of eligibility for listing in the Natural Register of Historic Places. The archaeological and historical/architectural components of this survey were conducted in October and November of 1992. The results of the cultural resource assessment survey indicate that there are no cultural resources, including archaeological sites and historic structures, eligible for listing in the National Register of Historic Places.

State of Florida
Florida Game and Fresh Water Fish Commission

Comment: We recommend that roadway impacts to native habitats be minimized wherever possible, and recommend that an alignment be selected that has the least impact to these resources.

Response: During the development of alternatives, full consideration will be given to minimizing overall project impacts to the environment while proposing a roadway which is safe for the motorist.

Comment: Any proposed wetland mitigation should include enhancing existing wetlands in preference to creation of new wetlands from native upland. Any wetland mitigation, enhancement, or creation should at least be at a 1:1 ratio and of the same type of natural wetland as the impacted site. One or two large mitigation sites are preferable to numerous isolated small wetland areas that are likely to be impacted by future urban expansion. Any created mitigation areas should be protected from future impacts by conservation easement, deed dedication to a management entity, or a similar conservation mechanism.

Response: No response required.

State of Florida
Florida Department of Natural Resources

Comment: The Department of Natural Resources, Division of State Lands requires consent in the form of an

easement for public right-of-way on sovereignty submerged lands pursuant to Chapter 18-21, F.A.C. Upon receipt of the Joint DER/ACOE application for this project, our Title and Lands Record Section will identify any activity occurring on state-owned lands. A Completeness summary will be sent to you requesting any additional information required to complete your file.

Response: If applicable, FDOT will comply with this request during the final design phase.

Tampa Bay Regional Planning Council

Comment: Every effort should be made to protect endangered and threatened species and their habitats. Utilization of upland buffers and wildlife corridors is supported to maintain animal crossings and trails.

Response: During the development of alternatives, full consideration will be given to minimizing overall project impacts to the environment while proposing a roadway which is safe for the motorist.

Comment: Permanent impacts to wetlands should be eliminated or minimized. Unavoidable wetland impacts (i.e., those deemed to meet established public interest criteria) should require a minimum of 1:1 recreated to impacted mitigation using the same type or more productive vegetation. Mitigation should be sufficiently monitored to ensure 80-85% cover over time.

Response: During the development of alternatives, full consideration will be given to minimizing impacts to the environment while proposing a roadway which is safe for the motorist. Alternatives 8 and 9 which are being carried forward for further consideration have no wetland impacts.

Comment: Stormwater controls should be required for all improved or new developments or roadways.

Response: The treatment of stormwater runoff will be fully addressed during design. The project will comply with all required design criteria and permitting requirements.

Comment: The project should ensure protection of surface and groundwater quality.

Response: The project will comply will all permitting requirements.

Comment: Wherever possible, stabilization projects should use native vegetation on gradual slopes rather than shoreline or channel hardening.

Response: The suggestion regarding the use of native vegetation on gradual slopes will be considered during final design.

Comment: If the project is located within a designated Aquatic Preserve or a waterbody that has been classified "Outstanding Florida Waters", additional protection may be required to maintain a healthy environment.

Response: According to Chapter 17-302.700, Florida Administrative Code, this project does not lie within a designated Aquatic Preserve or a waterbody that has been classified "Outstanding Florida Waters".

Southwest Florida Water Management District

Comment: The staff of the Southwest Florida Water Management District (SWFWMD) has reviewed the material for the project referenced above. Based on the information provided, the District has concerns regarding the exact location for construction of the project. The review materials indicate the proposed alignment may result in wetland impacts. If the final alignment has not been selected, we recommend that you choose one that will reduce the necessity for wetland impacts. Development on appropriate upland sites will help alleviate potential impacts to the natural functions of wetlands systems.

Response: The build preferred alternative will not impact any natural wetlands.

9.3 PUBLIC INVOLVEMENT

A Public Involvement Plan was developed and is being implemented at appropriate stages of the project. The plan involves the notification to the public of meetings which includes the following:

1. State, local, regional and federal agencies, and public and private groups having a concern in the project were contacted at the outset of the study.

2. The local news media were utilized for carrying public notices and news releases concerning the project.

3. A public information workshop was held at Hudson High School Cafeteria on October 20, 1992.

4. A public hearing was held on April 7, 1994 at the Hudson High School Cafeteria.

9.3.1 Public Information Workshop

A public information workshop was held on Tuesday, October 20, 1992, in the cafeteria of the Hudson High School, 14410 Cobra Way, from 5:00 to 8:00 p.m. The workshop was held to inform the public of the proposed extension of County Road 1 from New York Avenue to U.S. 19. The workshop gave the public an opportunity to comment on the project, regarding specific location, proposed designs, socio-economic effects, and possible environmental impacts. The public was able to review drawings of the conceptual design plans and the possible impacts to the area. All twelve (12) alternatives were presented at the workshop. Alternatives 2, 3, 8, and 9 were displayed on the walls of the cafeteria. Alternatives 1, 4-7 and 10-12 were displayed in book form on tables in the cafeteria. FDOT and its consultants were on hand at the workshop to discuss the project, answer questions, and take written comments. A total of forty-eight (48) persons attended the workshop.

Individuals expressed several specific comments to FDOT and its consultants during the workshop. Five (5) written statements were submitted during the public workshop. Five (5) additional written statements or letters were received within the time allocated for the receipt of written comments. The following provides a summary of the comments received during the workshop:

Comment 1: I have reviewed the projects on the wall and have found Alternatives 2 and 3 run through my house and property. Frankly I would be happy

to see one or the other Alternative 2 & 3. I would like to move out of state, so I would be more then happy to sell my property. I hope this project happens soon. (1 Comment)

Response 1: None required.

Comment 2: I understand the proposed County Road 1 Extension from New York Ave. to U.S. 19 will border west side of my property. I do not like it. I believe it will disrupt our peace and quiet in our rural area, cause more dust and dirt and fumes in the air which we will breathe. I bought this property for the rural atmosphere which this road will disrupt. (1 Comment)

Response 2: In accordance with Chapter 23, Code of Federal Regulation, Part 770, Air Quality Guidelines, an air quality study was conducted to assess the potential impacts within the project area from the carbon monoxide (CO) pollution generated by traffic associated with the no-build and preferred build alternatives. It was concluded that the project alternatives would not significantly impact the air sensitive sites or land uses within the project area. Construction activities will cause minor short-term air quality impacts in the form of dust from earthwork and unpaved roads and smoke from open burning. These impacts will be minimized or controlled by adherence to all state and local regulation and to the FDOT Standard specifications for Road and Bridge construction and any of the special provisions in the construction contract.

Comment 3: Individuals expressed support for Alternatives 8 and 9. (3 Comments)

Response 3: None required.

The following provides a summary of the comments received within the allotted time frame following the public workshop:

Comment 1: All of the proposed extensions under serious consideration necessitate our mobile home and

shop to be moved, inasmuch as the road will go on the right-a-way just west of our property. Our property will not be purchased inasmuch as we are to the east of the road. However, we feel we should be able to have a noise barrier installed by the project or be supplied the expense to move our buildings.

Response 1: A study was conducted to determine if noise barriers were economically feasible and reasonable. The results of the analysis determined that a noise barrier at this location was not economically feasible and reasonable.

Comment 2: I have no objection to cutting through my property to connect the new extension Rd 1 to Emerald Blvd. with fair compensation considering this property is commercial (C2).

Response 2: None required.

Comment 3: We favor Alternative Alignment #3.

Response 3: None required.

Comment 4: I attended the workshop in Hudson and still am not clear as to the effect this will have on my property. Will there be access to the property from Fulton Road and Rt. 19? What will this proposed change do to the value of my property - increase or decrease? I have circled my property on the enclosed map. Exactly how much of the property would be taken and what limit, if any, should be of the remaining?

Response 4: Current access to U.S. 19 from Fulton Avenue will remain and residents along Fulton Avenue will be able to access U.S. 19 from County Road 1.

It is uncertain as to how the extension of County Road 1 to U.S. 19 will affect property values within the study corridor. The evaluation of the affect the proposed project will have on property values is beyond the scope of the study.

A determination regarding how the project will impact specific parcels along the project limits can not be determined until final design.

Comment 5: Of the two alternative's offered as exit's into U.S. 19, I suggest that the one at SHEER BLVD. be adopted. Sheer Industrial Park is composed of some two hundred acres and should be pretty well into full development in five year.....As a conservative estimate and not taking into consideration the buildup of the immediate area, will certainly command some sort of traffic control device for the intersection of SHEER BLVD. and U.S. 19. If EMERALD BLVD. is selected as the entry point into U.S. 19, it will also require a signal light. These two signal lights in such close proximity to each other is I believe or the best traffic control scenario. I therefore urge that SHEER BLVD. is given top priority as the choice for entry onto U.S. 19.

Response 5: A traffic signal will be constructed at the project's tie to U.S. 19 (proposed for U.S. 19 and Emerald Blvd.) to accommodate the projected traffic. At the appropriate time, a traffic warrant study could be conducted by FDOT's Traffic Operations Department or Pasco County to determine if a traffic signal is needed at Scheer Blvd. and U.S. 19.

9.3.2 Public Hearing

A public hearing was held on Thursday, April 7, 1994, in the Mayer's Room of the Hudson High School, from 5:00 to 8:00 p.m. The hearing was held to inform the public and local officials about the results of the project development and environmental study for the extension of County Road 1 from New York Avenue to U.S. 19. The public hearing gave concerned parties an opportunity to express their opinions for the public record concerning the project's preferred Build Alternative (Alternative 9).

From 5:00 to 6:30 p.m., the public was able to review the conceptual design plans for the preferred Build Alternative (Alternative 9) and the possible impacts to the area. FDOT and consultant staff were on hand during the informal phase of the hearing to discuss the project, answer any questions, and to listen to any comments. All members of the public in attendance

were given a handout with pertinent information about the project. According to the sign-in sheets, a total of 71 individuals attended the hearing. A formal presentation was given by the Department at 6:30 p.m. An opportunity for the public to express their views and make statements on the record regarding the proposed project followed.

During the public hearing, three individuals spoke for the public record. One individual expressed concern regarding the affect the extension would have on development (limiting commercial development) in the area and the possibility of limiting truck traffic. The second individual wanted to know if they could offer commentary or suggestions on modifications to the existing section of County Road 1 south of New York Avenue. The third individual represented the Hudson Flea Market who wanted to know if the project would impact their operations. All individuals were directed to an FDOT representative following the formal portion of the hearing to have their concerns addressed. Two written comments were received within the allotted time frame of ten days following the public hearing. One comment reiterated the request to comment on modifications to the existing section of County Road 1 south of New York Avenue. FDOT responded by directing the individual to Pasco County representatives for information. The second comment expressed concern with regard to potential noise and air pollution around their home. The individuals home was located outside the limits of the project study area.

9.3.3 Coordination with Pasco County

An Introductory/Kickoff Meeting was held with the Pasco County/West Pasco Metropolitan Planning Organization Board on November 14, 1994. Mr. Mike Coleman, FDOT, indicated that the Department has begun to study the feasibility of extending County Road 1 from New York Avenue to U.S. 19. Mr. Roy Chapman of Reynolds, Smith and Hills, gave a brief presentation outlining the study and major milestones that were to be accomplished.

A coordination meeting was held on March 4, 1993 with representatives of Pasco County. Mr. Jerry Carrigan and Mr. Doug Uden of Pasco County attended the meeting. Mr. Roy Chapman gave a presentation regarding the typical sections and alternative alignments that had been developed for the project. All twelve alternatives were discussed with regards to the cost, number of relocations and environmental impacts. The meeting concluded with a discussion regarding the feasibility of continuing the study and the implications this decision would have on Pasco County's responsibility to reimburse FDOT for the study funds. An agreement was reached between FDOT and Pasco County to complete the study.

A coordination meeting was held on February 14, 1994 with representatives of Pasco County to review the recommendations of the study team. The study team recommended that Alternative 9 be carried forward to the public hearing as the preferred alternative. Alternative 9 recommends a rural typical section within a total of 59.74 m (196 feet) of right of way. Mr. Uden requested that the information used to select the recommended alternative be provided for distribution to staff. Mr. Uden also requested that a presentation be made to the Pasco County Metropolitan Planning Organization. The presentation was scheduled for March 10, 1994.

On March 10, 1994, Ms. Lynn Hybarger of FDOT, gave a brief presentation to the Pasco County Metropolitan Organization Board regarding the upcoming public hearing. Ms. Hybarger indicated that a preferred Build Alternative, Alternative 9, had been selected and would be presented at the hearing. She gave a brief overview about Alternative 9 and requested comments from the Board. No comments were made by Board members.

APPENDIX A

LIFE CYCLE COSTS ANALYSIS

In an effort to better define the differences between Alternatives 8 and 9, a life cycle cost analysis was prepared. The primary difference between these alternatives relates to the cost of accidents. Information regarding average crash rates by highway category (1990 data base) and cost/crash by facility type (1988,1989, and 1990 crash data) was provided by FDOT (see Appendix A). This information was used to determine the cost incurred over the life of the project based upon average daily traffic, average crash rates by highway category for a four lane divided roadway, and cost per crash.

The life cycle for the roadway pavement was selected to be 20 years, since at this point a resurfacing of the pavement would likely be required. Assuming a project opening of 1995, the time span would run from 1995 to 2015 with a midpoint year of 2005.

Average daily traffic was obtained from the Traffic Technical Memorandum (see Section 4) for the years 2000 and 2010. Average daily traffic for the year 2000 was determined to be 14,200 vehicles per day. For the year 2010, it was determined to be 18,600 vehicles per day. Using a straight line projection between these two years resulted in an average of 16,400 vehicles per day in 2005 which would be the average traffic on the roadway over the 20 year life cycle. Using information provided by FDOT regarding average crash rate by facility type (Table 2, Appendix A), it was determined that the average crash rate per million vehicle miles for a four lane divided highway with an urban typical section was 2.344 and for a rural typical section, it was 0.963.

In evaluating the urban typical section at this location, it was determined that it would experience the same cost per accident as a rural typical section. This conclusion was based upon several factors. The existing study corridor is moderately developed and the future land use planned for the study area supports a continuation of the existing land use. It is anticipated that there will continue to be a limited number of cross streets and driveways. The proposed urban typical section will use a 44 foot wide median. In addition, there will be only two signalized intersections (New York Avenue and U.S. 19) at each end of the project, a distance of 1.5 miles. This will result in relatively high operating speeds for both the urban and rural typical sections. Because of these reasons, it is anticipated that the driver will react to the urban roadway in the same manner as a rural roadway.

A cost of $59,100 per accident (Table 4, Appendix A) for both the urban and rural typical section was used. Using the average daily traffic volume of 16,400 and a project length of 1.5 miles, it was determined that there would be 8,979,000 vehicle miles of travel per year. Based upon this information, average costs per year of $1,244,000 for the urban typical and $511,000 for the rural typical section were calculated. Over the 20 year life of the facility, the urban typical would have an accident cost of $13,178,000 while the rural would have a cost of $5,414,000. The rural typical section would result in an annual saving of $733,000. This would result in a net present worth savings of $7,764,000 over the 20 year life of the project using a 7% discount rate. These calculations are summarized in Table 7-3.

Table 7-3 Life Cycle Cost Analysis

1. Average Daily Traffic for 2005 midpoint year:
   Year 2000 Traffic = 14,200
   Year 2010 Traffic = 18,600

   Year 2005 Traffic = 16,400 vehicles per day (vpd)

2. Average Miles of Travel per year (AMTPY):

   Average Miles of Travel per year = 16,400 vpd x
   1.5 miles x 365 days per year = 8,979,000 vehicle miles per year

3. Average Cost Per Year:

   Urban = $59,100 per accident x 2.344 accidents per million vehicle miles x 8,979,000 vehicle miles per year = $1,244,000 per year

   Rural = $59,100 per accident x 0.963 accidents per million vehicle miles x 8,979,000 vehicle miles per year = $511,000 per year

4. Cost over 20 Year Life:

   Urban = $1,244,000 per year x 10.594* = $13,178,000

   Rural = $511,000 per year x 10.594* = $5,414,000

   Savings = $13,178,000 - $5,414,000 = $7,764,000

   * 10.594 = Present worth value for series of payments over 20 year life using a 7% discount rate.

K = Constant (1.645 rural, 3.291 urban)

The average crash rate is expressed in crashes per million vehicles miles (or crashes per million vehicles for spots) and is the sum of the crashes in relation to the total million vehicle miles driven per year on a particular category of road. The 1990 average crash rates, which are calculated for categories of highways, are listed in Table 2.

TABLE 2. AVERAGE CRASH RATES - 1990

	Segment Rates/MVM			
	Divided Roadway		Undivided Roadway	
Highway Category	Urban	Rural	Urban	Rural
Less than 3 Lanes	1.752	0.536	2.485	0.842
3 Lanes	1.361	0.797	6.390	0.983
4 Lanes	2.344	0.963	2.044	0.158
5 Lanes	4.218	1.408	0.198	0.000
6 or More Lanes	3.241	0.980	0.238	0.000
Main Interstate	1.244	0.278	0.000	0.000
Other Interstate	0.592	0.000	38.461	24.489
Main Turnpike	0.459	0.393	0.000	0.000
Other Turnpike	2.059	0.101	0.000	0.000

	Spot Rates/MV			
	Divided Roadway		Undivided Roadway	
Highway Category	Urban	Rural	Urban	Rural
Less than 3 Lanes	0.986	1.205	1.123	1.479
3 Lanes	0.794	0.000	1.260	1.753
4 Lanes	0.739	0.767	0.986	1.095
5 Lanes	0.630	0.000	1.561	0.000
6 or More Lanes	0.575	0.876	1.452	0.000
Main Interstate	0.191	0.301	0.000	0.000
Other Interstate	0.000	0.000	0.000	0.000
Main Turnpike	0.301	0.575	0.000	0.000
Other Turnpike	4.246	0.000	0.000	0.000

Zero rates indicate either no crashes or no locations were identified for that particular class/category or road.

ADT X LENGTH X 365 DAYS = MVM/YR

TABLE 4. COST/CRASH BY FACILITY TYPE *

	Divided		Undivided	
Facility Type	Urban	Rural	Urban	Rural
< than 3 Lanes	$22,400	$46,400	$28,000	$74,800
3 Lanes	22,400	46,400	18,300	46,400
4 Lanes	26,000	59,100	19,800	47,200
5 Lanes	17,700	41,100	25,900	47,200
6 or More Lanes	22,100	41,100	17,300	47,200
Main Interstate	29,500	71,100	29,500	71,100
Other Interstate	29,500	71,100	29,500	71,100
Main Turnpike	38,800	71,500	38,800	71,500
Other Turnpike	38,800	71,500	38,800	71,500

* Derived from 1988, 1989 and 1990 crash data

2.1.6 Implementation

The governing factor for project implementation (selection and scheduling) is the amount of funds allocated. The allocation of funds is governed by federal appropriations and state policy on distribution of funds to the districts. The amount of allocation is established by the Secretary and the Executive Committee. Five year funding levels are published annually in the document entitled "Multi-Year Work Program Instructions" prepared by Program Development. Districts are instructed to schedule at least three years of projects.

2.1.6.1 Project Selection

The District Secretary, recognizing funding restrictions, may select a lesser cost alternative than the one with the highest benefit-cost ratio. Final selection of safety projects by the District Secretary will be based on the benefit-cost ratios as well as the district's transportation needs (expected growth areas), future construction programs and liability considerations.

APPENDIX B

FLORIDA DEPARTMENT OF TRANSPORTATION

BOB MARTINEZ
GOVERNOR

BEN G. WATTS
SECRETARY

Project Development
4950 West Kennedy Blvd.
Suite 409
Tampa, FL 33609

October 10, 1991

Mr. Dan Stevens, Director
Florida State Clearinghouse
Office of Planning and Budgeting
The Capital
Tallahassee, FL 32399-0001

SUBJECT: Advance Notification
Work Program Item No. 7125939
State Project No. 14500-1605
Federal-Aid Project No. M-1737-(1)
County Road 1 Extension
Pasco County, Florida

Dear Mr. Stevens:

The attached Advance Notification Package is forwarded to your office for processing through appropriate State agencies in accordance with Executive Order 83-150. Distribution to local and Federal agencies is being made as noted.

Although more specific comments will be solicited during the permit coordination process, we request the permitting and permit reviewing agencies review the attached information and furnish us with whatever general comments they consider pertinent at this time.

This is a Federal-aid action and the Florida Department of Transportation, in consultation with the Federal Highway Administration, will determine what degree of environmental documentation will be necessary. The determination will be based upon in-house environmental evaluations and comments received through coordination with other agencies. Please provide a consistency review for this project in accordance with the State's Coastal Zone Management Program.

We are looking forward to receiving your comments on the project within 30 days. Should additional review time be required, a written request for an extension of time must be submitted to our office within the initial 30-day comment period.

Your comments should be addressed to:

Mr. David A. Twiddy, Jr., P.E.
Project Development & Environmental Engineer
Florida Department of Transportation
4950 W. Kennedy Boulevard
Suite 500
Tampa, FL 33609

With a copy to:

Leroy C. Irwin, Manager
Environmental Management Office
Florida Department of Transportation
605 Suwanee Street, M.S. 37
Tallahassee, FL 32399-0450

Your expeditious handling of this notice will be appreciated.

Sincerely,

David A. Twiddy, Jr.

David A. Twiddy, Jr. P.E.
Project Development and Environmental Engineer

Attachment

cc: Federal Highway Administration
National Marine Fisheries
U.S. Geological Survey Chief
Bureau of Land Management
U.S. Fish and Wildlife Service
U.S. Department of Housing & Urban Development
U.S.Environmental Protection Agency
National Marine Fisheries Service
U.S. Army Corps of Engineers
Federal Emergency Management Agency
National Oceanic and Atmospheric Administration
Seventh Coast Guard District
Marine Fisheries Commission
U.S. Department of Energy
Department of National Resources
Tampa Bay Regional Planning Council
Southwest Florida Water Management District
Federal Aid Programs Coordinator, FDOT
Environmental Office, FDOT
U.S. Department of State
U.S. Office of Cultural Resource Preservation
Department of Environmental Regulation
Florida Game and Fresh Water Fish Commission
Florida Recreational Trails Councils
Department of Natural Resources
U.S. Department Environmental Officer
Department of Environmental Regulation

RB-11/rb10-8-7

OMB Approval No. 0348-0006

FEDERAL ASSISTANCE

1. TYPE OF SUBMISSION (Mark appropriate box)
- [X] NOTICE OF INTENT (OPTIONAL)
- [ ] PREAPPLICATION
- [ ] APPLICATION

2. APPLICANT'S APPLICATION IDENTIFIER
a. NUMBER: 7125939
b. DATE (Year month day): 19 91 9 9

3. STATE APPLICATION IDENTIFIER (NOTE: TO BE ASSIGNED BY STATE)
a. NUMBER:
b. DATE ASSIGNED (Year month day): 19

Leave Blank

4. LEGAL APPLICANT/RECIPIENT
a. Applicant Name: Florida Department of Pre-Construction and Design
b. Organization Unit: Environmental Management Office
c. Street/P.O. Box: 605 Suwanne Street
d. City: Tallahassee
e. County: Leon
f. State: Florida
g. ZIP Code: 32399-0450
h. Contact Person (Name & Telephone No.): David A. Twiddy, Jr. (813) 871-7840

5. EMPLOYER IDENTIFICATION NUMBER (EIN)

6. PROGRAM (From CFDA)
a. NUMBER: 2 0 . 2 0 5
MULTIPLE [ ]
b. TITLE: Highway Research Planning and Construction

7. TITLE OF APPLICANT'S PROJECT (Use section IV of this form to provide a summary description of the project.)
State Project Number 14500-1605
Work Program Item No. 7125939

8. TYPE OF APPLICANT/RECIPIENT
A–State; B–Interstate; C–Substate Organization; D–County; E–City; F–School District; G–Special Purpose District; H–Community Action Agency; I–Higher Educational Institution; J–Indian Tribe; K–Other (Specify)
Enter appropriate letter: A

9. AREA OF PROJECT IMPACT (Names of cities, counties, states, etc.)
Pasco County State of Florida

10. ESTIMATED NUMBER OF PERSONS BENEFITING
State of Florida

11. TYPE OF ASSISTANCE
A–Basic Grant; B–Supplemental Grant; C–Loan; D–Insurance; E–Other
Enter appropriate letter(s): A

12. PROPOSED FUNDING

a. FEDERAL	$5,688,000 .00
b. APPLICANT	.00
c. STATE	00 .00
d. LOCAL	$1,422,000 .00
e. OTHER	.00
f. Total	$ 7,110,000 .00

13. CONGRESSIONAL DISTRICTS OF:
a. APPLICANT:
b. PROJECT:

14. TYPE OF APPLICATION
A–New; B–Renewal; C–Revision; D–Continuation; E–Augmentation
Enter appropriate letter:

15. PROJECT START DATE (Year month day): 19 93 09 01

16. PROJECT DURATION: 24 Months

17. TYPE OF CHANGE (For 14c or 14e)
A–Increase Dollars; B–Decrease Dollars; C–Increase Duration; D–Decrease Duration; E–Cancellation; F–Other (Specify)
Enter appropriate letter(s):

18. DATE DUE TO FEDERAL AGENCY (Year month day): 19

19. FEDERAL AGENCY TO RECEIVE REQUEST: U.S. Dept. of Transportation, Washington, D.C.
a. ORGANIZATIONAL UNIT (IF APPROPRIATE): Federal Highway Administration
b. ADMINISTRATIVE CONTACT (IF KNOWN):
c. ADDRESS: Washington, D.C. 20590

20. EXISTING FEDERAL GRANT IDENTIFICATION NUMBER: M-1737-(1)

21. REMARKS ADDED: [ ] Yes [X] No

22. THE APPLICANT CERTIFIES THAT► To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

a. YES, THIS NOTICE OF INTENT/PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:
DATE ____________

b. NO, PROGRAM IS NOT COVERED BY E.O. 12372 [ ]
OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW [ ]

23. CERTIFYING REPRESENTATIVE
a. TYPED NAME AND TITLE: David A. Twiddy, Jr. District PD & E Engineer
b. SIGNATURE: [signature]

24. APPLICATION RECEIVED (Year month day): 19

25. FEDERAL APPLICATION IDENTIFICATION NUMBER

26. FEDERAL GRANT IDENTIFICATION

27. ACTION TAKEN
- [ ] a. AWARDED
- [ ] b. REJECTED
- [ ] c. RETURNED FOR AMENDMENT
- [ ] d. RETURNED FOR E.O. 12372 SUBMISSION BY APPLICANT TO STATE
- [ ] e. DEFERRED
- [ ] f. WITHDRAWN

28. FUNDING

a. FEDERAL	$ .00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ .00

29. ACTION DATE► (Year month day): 19

30. STARTING DATE (Year month date): 19

31. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)

32. ENDING DATE (Year month date): 19

33. REMARKS ADDED: [ ] Yes [ ] No

3. Environmental Information

a. Land Use: The existing land use in the study area includes residential, light industrial, commercial and undeveloped land. Low density residential land use occurs primarily along Montgomery Street, Petticoat Lane and Gladwin Avenue. Hudson Hill Manor located south of Denton Avenue and northeast of Petticoat Lane is the only high density residential land use in the study area. Light industrial and commercial land uses are scattered along Denton Avenue and in the vicinity of US 19 and Gladwin Avenue. Undeveloped tracts of land are scattered throughout the study area especially between Eden Avenue and Gladwin Avenue.

b. Wetlands: Preliminary site reviews indicated that the project could potentially impact one wetland site. This wetland is located along US 19 near Fulton Avenue and is dominated by Carolina Willow. Since this wetland is associated/connected with a drainage canal which leads to the Gulf of Mexico, it is considered to be a FDER jurisdictional wetland.

c. Floodplain: According to Federal Insurance Rate Maps Community 120230 Panel Number 0185B, approximately 85% of the study are is within Zone C (areas of minimal flooding) and within approximately 15% of Zone B (areas between limits of the 100 - year flood and 500 - year flood). There are no base or 100 - year flood plains (Zone A) or regulated floodways within the project limits.

d. Wildlife and Habitat: The study area does not include any areas designated as critical habitat by the U.S. Department of Interior. The undeveloped portions of the study area consists primarily of Turkey Oak - Longleaf Pine Sandhill and Scrub Oak communities with a few scattered stands of Sand Pine Scrub. These community types are known to be inhabited by a number of Federal and State listed wildlife species including Eastern Indigo Snake, Gopher Tortoise, Florida Mouse, Gopher Frog, Florida Scrub Jay and Sherman's Fox Squirrel. Except for Gopher Tortoise burrows, no listed species were observed during preliminary site

reviews. Impacts to listed species will be determined during the project development phase.

h. Cultural Resources: Based on examination of existing information at the Florida Master Site File in Tallahassee and at the Files of Archaeological Consultants, Inc., it is anticipated that less than 6 Florida Master Site File forms (FMSF forms) will have to be prepared for structures 50 years or older along the proposed corridor. No Determination of Eligibility (DOE) is anticipated for any structure. No prehistoric archaeological sites are currently listed in the Florida Master Site file. A moderate to high probability for the occurrence of unknown prehistoric resources is anticipated along segments of the proposed corridor where well-drained sandy soils and potable water are found. Small, lithic scatter camp sites are the only type of site anticipated in this kind of terrain.

j. Hazardous Material: No known hazardous material generators are located within the study area. An above ground petroleum storage tank (200 to 500 gallons) and six 55 gallon oil druns were observed at a commercial business located on Gladwin Avenue east of US 19. A hazardous material survey and evaluation will be conducted during project development phase.

9-9-91 GWD

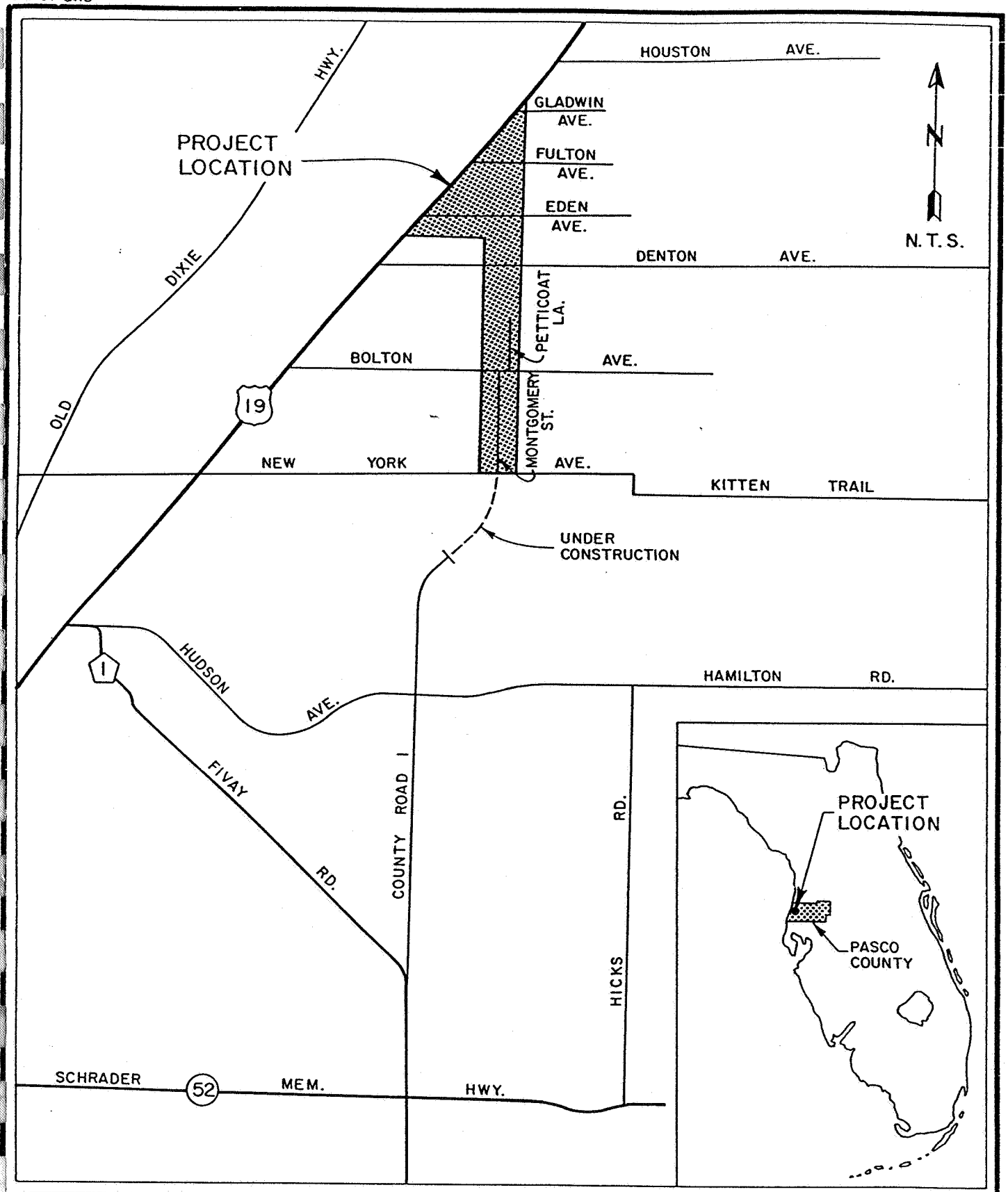


FIGURE 1

AREA LOCATION MAP

COUNTY ROAD 1 EXTENSION
FROM NEW YORK AVENUE
TO US-19

FORM 508-03
04/86

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
ADVANCE NOTIFICATION FACT SHEET

1. Need for Project: The Pasco County's Long Range Transportation Plan identifies the need to complete the extention of County Road 1 to US 19. The completed roadway will serve as a releiver to Fivay Road and provide motorists with an alternate parallel route to US 19 from SR 52 to US 19.
2. Description of the Project: The proposed project will run from New York Avenue to US 19, a distance of approximately 1.5 miles. County Road 1 is currently under construction south of New York Avenue. The new extention will connect the segment of County Road 1 currently under construction with US 19. (SEE FIGURE 1)
3. Environmental Information:
   a. Land Use: See Attachment 1
   b. Wetlands: See Attachment 1
   c. Floodplain: See Attachment 1
   d. Wildlife and Habitat: See Attachment 1
   e. Outstanding Florida Waters: None
   f. Aquatic Preserves: None
   g. Coastal Zone Consistency Determination is Required? _x_ Yes __ No
   h. Cultural Resources: See Attachment 1
   i. Coastal Barrier Resources: None
   j. Hazardous Materials: See Attachment 1
   k. Other Comments: None

4. Navigable Waterway Crossing? __ Yes _x_ No

5. List Permits Required:
   FDER
   CORPS of Engineers
   Southwest Florida Water Management District

Federal Assistance Multi-Purpose Facesheet Addendum for State Agencies Only

(Pursuant to Section 216.212, Florida Statutes)

GENERAL INSTRUCTIONS

At least sixty (60) days prior to the anticipated filing date, submit five (5) completed copies of the Federal Assistance Multi-Purpose Facesheet, Standard Form 424, with Addendum, additional project narratives if necessary, and project location map if applicable, to the Intergovernmental Coordination Unit, Executive Office of the Governor, The Capitol, Tallahassee, Florida 32301. In addition, five (5) completed copies should be submitted to the appropriate Regional and/or Metropolitan Clearinghouse if the project is local in nature. Allow thirty (30) days for processing and an additional thirty (30) days if a full application is requested to be reviewed. The form must be completely filled out before the review can begin. If any section is not applicable, designate with "N/A". If any further elaboration is required on any item, attach additional sheets, with reference to item number. If you have any additional questions, call the Intergovernmental Coordination Unit at (904) 488-8114 or SUNCOM 278-8114.

1. Budget Entity Title.

2. State Program Structure No. and Title:

3. Project included in: (a) Legislative Budget Request Yes ☐ FY _____ No ☐

(b) Approved Budget Yes ☐ No ☐ (c) Governor's Budget Yes ☐ No ☐

4. Project included in Federally Required "State Plan".

Yes ☐ No ☐ Agency:

5. Legal Authority.

6. A-95 Review.

Yes ☒ No ☐

7. Change in Plan Operation

Yes ☐ No ☐

8. Commit State Funding Yes ☐ No ☐

FUND CODE	AMOUNT

9. New Position Required:

Yes ☐ No ☐ Number _____

10. Matching Requirements

Federal 80 % State _____ % Local/Other 20 %

11. Indirect Cost Proposal (Overhead)

Department and/or Division Overhead $ _____ Amount _____ %

Statewide Allocated Overhead _____ Amount _____ %

Total _____ Amount _____ %

If "No", explain. _____

12. Total Proposed Funding Multi-Year Projects (Dates)

From '93 To '95

Federal	$5,688,000
Applicant	
State	
Local	$1,422,000
Other	
Total	$7,110,000

13. Type of State Match

Cash ☐ In Kind ☐

Explain: _____

Item 1—Enter the title of the budget entity as defined by Section 216.011(1)(d), F.S., and as included in the General Appropriations Act for the current fiscal year.

Item 2—Enter the number and title of the appropriate state reporting level program component as currently approved by the Office of Planning and Budgeting.

Item 3—Mark appropriate block:

a—If "Yes", enter the fiscal year of the Legislative Budget Request in which the project is included.

b—This item is applicable only to the state's current fiscal year.

c—This item is applicable only after publication of the Governor's Budget for the particular fiscal year for which project funds are requested.

Item 4—Mark appropriate block. If "Yes", enter the federal agency for which the plan is prepared.

Item 5—Enter the section of the Florida Statutes or Laws of Florida which authorizes the state agency to carry out the activities proposed in this project.

Item 6—Mark appropriate block to indicate if OMB Circular A-95 review is required.

Item 7—Mark appropriate block. Does the project alter the plan of operation from that included in the approved budget for the budget entity?

Item 8—Mark appropriate block. Does the project proposal commit the state to assume funding after federal funding expires?

Item 9—Enter the number of new positions (above that included in the appropriations for the new budget entity) required to carry out the project.

Item 10—Indicate, in percentage terms, the federal/state/local matching requirements specified by federal law or regulation. If non-federal match is not required in such specific terms, explain the basis for the distribution of funding.

Item 11—If the application should include overhead for which you are to receive reimbursement from the federal grantor agency in accordance with FMC 74-4, OASC-10, or other federal provisions, enter the amounts included in the approved indirect cost rate for: (1) intra-agency, -department and/or -unit overhead; (2) statewide overhead.

The amount allocated to the project for central state governmental services must be based on Florida's Approved Statewide Cost Allocation Plan for the project period.

If none is claimed, check the "No" block; if "No", *an explanation must be given* or the application will be returned without action.

Item 12—Enter the dates the total project will cover if more than one (1) year. This item applies only to multi-year projects. Information required in Section 1, Item 13 of Standard Form 424 provides information for projects with a duration of one (1) year or less. Complete that funding information here as required for Item 13, Form 424.

On occasion, local match is derived from state funds allocated to local units. If this is the case, so indicate and specify the sources of funding.

Item 13—In the case of state cash match, indicate the appropriation from which such match is to be provided. For in-kind match, explain the types of expenditures to be utilized.

United States Department of State

Bureau of Oceans and International Environmental and Scientific Affairs

Washington, D.C. 20520

21 October 1991

Mr. David A. Twiddy, Jr., P.E.
Project Development and Environmental Engineer
Florida Department of Transportation
4950 W. Kennedy Boulevard, Suite 500
Tampa, Florida 33609

Dear Mr. Twiddy:

Thank you for giving us the opportunity to review the advance notification, regarding State Project Number 14500-1605 (extension of County Road 1 to US 19) reconstruction in Pasco County.

We find that the proposed action does not appear to have any impact on the foreign relations of the United States, nor on international environmental issues. The Department of State therefore does not need to comment on the project at this time.

Sincerely,

Raymond E. Clore
Office of Ecology, Health and Conservation

cc: Leroy C. Irwin, Manager
Environmental Management Office
Florida Department of Transportation
605 Suwannee Street, M.S. 37
Tallahassee, Florida 323990450

Project Development District 7 OCT 21 1991

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Habitat Conservation Division
Panama City Branch Office
3500 Delwood Beach Road
Panama City, FL 32408

October 16, 1991

Mr. David A. Twiddy, Jr.
Project Development
& Environmental Engineer
Florida Department of Transportation
4950 W. Kennedy Boulevard, Suite 500
Tampa, Florida 33609

Dear Mr. Twiddy:

SUBJECT: Advance Notification
Project Name: County Road 1 Extension
State Project Number: 14500-1605
Work Program Item Number: 7125939 , 18
Federal Aid Project Number: M-1737-(1)

Based on the information included in the notification, the proposed project will not adversely affect resources within our purview. Thank you for the opportunity to review these plans.

Sincerely,

W. Mark Thompson

Edwin J. Keppner, Ph.D.
for Branch Chief

cc: Leroy Irwin, DOT

7125939.18

Project Development District 7 NOV 8 1991

DEPARTMENT OF THE ARMY
GULF COAST AREA OFFICE, JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 19247
TAMPA, FLORIDA 33686-9247

REPLY TO
ATTENTION OF

November 5, 1991

Tampa Regulatory
Field Office
199141596

Mr. David Twiddy, Jr.
c/o Department of Transportation
Project Development
4950 West Kennedy Boulevard, Suite 409
Tampa, Florida 33609

Dear Mr. Twiddy

Reference is made to your letter received October 22, 1991, regarding the extension of County Road 1, from New York Avenue to Highway 19, in Section 24, Township 24 South, Range 16 East, Pasco County, Florida.

The area encompassed by the project has been visited and the area along U.S. 19, near Fulton Avenue, meets the criteria of a wetland per the 1987 Wetlands Jurisdictional Manual. However, a formal jurisdictional delineation will need to be completed and verified prior to permit application submittal.

If you have any questions regarding this matter, don't hesitate to contact me at the Tampa Regulatory Field Office, (813)840-2908.

Sincerely,

Joseph R. Bacheler
Chief, Tampa Regulatory
Field Office

7125939, 18

Project Development District 7 DEC 16 1991

STATE OF FLORIDA

Office of the Governor

THE CAPITOL
TALLAHASSEE, FLORIDA 32399-0001

LAWTON CHILES
GOVERNOR

December 10, 1991

Mr. David A. Twiddy, Jr., P.E.
Project Development and Environmental
Engineer
Department of Transportation
4950 West Kennedy Boulevard
Suite 500
Tampa, Florida 33609

RE: State Project 14500-1605 - Work Program Item 7125939 -
County Road 1 Extension - Pasco County, Florida

SAI: FL9110150570C

Dear Mr. Twiddy:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 83-150, section 216.212, Florida Statutes, the Coastal Zone Management Act Reauthorization Amendments of 1990 and the National Environmental Policy Act, has coordinated a review of the above referenced project.

Pursuant to Presidential Executive Order 12372, the project will be in accord with State plans, programs, procedures and objectives; and approved for submission to the federal funding agency when consideration is given to the enclosed agency comments.

The Department of Environmental Regulation (DER) states that the "jurisdictional wetland" identified in the report should have a Binding Jurisdictional Determination conducted pursuant to 17-312 FAC in order to determine the landward extent of State Waters. The DER also states that the project must conform with the requirements of Chapter 403, Florida Statutes, regarding water quality and biological resources of the subject wetland. The road alignment must conform to the DER's policy of minimization of wetland impacts to the greatest extent possible. Please refer to the enclosed DER comments.

The Department of State (DOS) notes that a cultural resource survey should be conducted to identify significant archaeological and/or historic sites. The proposed project will have no effect on this site, if the Department of Transportation avoids or mitigates the impact on sites identified in the survey.

The Game and Fresh Water Fish Commission (GFWFC) recommends that roadway impacts to native habitats be minimized wherever possible and that an alignment be selected that has the least impact to these resources. Please refer to the enclosed GFWFC comments.

Based on the comments from our reviewing agencies, funding for the proposed action is consistent with the Florida Coastal Management Program (FCMP) advanced notification stage. Subsequent environmental documents will be reviewed to determine continued consistency with the FCMP as provided for in 15 CFR 930.95. These documents should provide thorough information regarding the location and extent of wetlands dredging and filling, borrow sources, dredging or filling associated with bridge construction and stormwater management. Continued concurrence with this project will be based, in part, on adequate resolution of issues identified during earlier reviews. Any environmental assessments prepared for this project should be submitted to the Florida State Clearinghouse for interagency review.

Pursuant to section 215.195, Florida Statutes, State agencies are required, upon federal grant approval, to deposit the amount of reimbursement of allocable statewide overhead into the State-Federal Relations Trust Fund. The deposits should be placed in SAMAS account code 31 20 269001 31100000 00 0015 00 00. If you have any questions regarding this matter, please contact your OPB budget analyst or Jean Whitten at (904)488-8114.

Please attach a copy of this letter and any enclosures to your application facesheet or cover form and forward to the federal funding agency. (If applicable, enter the State Application Identifier (SAI#) number, shown above, in box 3A of Standard Form 424 or where appropriate on other cover form.) This action will assure the federal agency of your compliance with Florida's review requirements, help ensure notification of federal agency

action under the Federal Assistance Award Data System (FAADS) and reduce the chance of unnecessary delays in processing your application by the federal agency.

Sincerely,

Janice L. Alcott

Janice L. Alcott, Director
State Clearinghouse

JLA/bl

Enclosure(s)

cc: Department of Environmental Regulation
Department of State
Game and Fresh Water Fish Commission
Mr. Leroy Irwin

DER

Director
State Clearinghouse
Office of Planning and Budgeting
Executive Office of the Governor
The Capitol
Tallahassee, Florida 32399-0001

re:SAI# FL 9110150570C
Advanced Notification for County
Road 1, Pasco County

DER-TAMPA OFFICE offers the following comments:

The "jurisdictional wetland" identified in the report should have a Binding Jurisdictional Determination conducted pursuant to 17-312 FAC in order to determine the landward extent of State Waters. The project must conform with the requirements of Chapter 403 FS in order to protect the water quality and biological resources of the subject wetland. The road alignment must conform to the Department's policy of minimization of wetland impacts to the greatest extent possible, including but not limited to reduction of side slopes, soil stabilization, prevention of untreated runoff into wetland areas and maintenance of treatment systems where required.

Reviewer:

Bob Stetler, Water Management Administrator
Water Management Division
12/7/91

FILE 7125-1391.1E

Project Development District 7 NOV 1 9 1991

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor 813-623-5561 Carol M. Browner, Secretary

November 12, 1991

David A. Twiddy, Jr., P.E.
Project Development & Environmental Engineer
Florida Department of Transportation
4950 W. Kennedy Blvd.
Suite 500
Tampa, FL 33609

Subject: Advance Notification
Work Program Item No. 7125939
State Project No. 14500-1605
Federal - Aid Project No. M-1737-(1)
County Road 1, Extension
Pasco County, Florida

Dear Mr. Twiddy:

Based on your notification that you are planning to undertake the above mentioned work, this letter constitutes notice that a permit is required from this agency pursuant to Chapter 403, Florida Statutes for the following items:

Dredging and filling in ditches and wetlands tributary to Fillmans Bayou, Gulf of Mexico pursuant to Chapter 403, F.S. and Chapter 17-312.860, Class III waters of the State. Every effort should be made to minimize wetland impacts with particular emphasis on minimization of fill placement within jurisdictional wetlands and drainage systems.

We are enclosing our application forms for your project. Please complete the appropriate sections of the forms and forward them to this office. If you have any questions or need assistance with the application, please contact George Craciun at 813-623-5561 (Ext. 332).

Sincerely,

Bob Stetler

Bob Stetler
Environmental Administrator
Water Management

BS/msb

Recycled Paper

cc: Leroy C. Irwin

FLORIDA DEPARTMENT OF STATE
Jim Smith
Secretary of State
DIVISION OF HISTORICAL RESOURCES
R.A. Gray Building
500 South Bronough
Tallahassee, Florida 32399-0250
Director's Office (904) 488-1480
Telecopier Number (FAX) (904) 488-3353

October 28, 1991

Ms. Janice L. Alcott, Director
State Planning and Development
Clearinghouse
Office of Planning and Budgeting
The Capitol
Tallahassee, Florida 32399-0001

In Reply Refer To:
Denise M. Breit
Historic Sites
Specialist
(904) 487-2333
Project File No. 912947

RE: Cultural Resource Assessment Request
SAI# FL9110150570C
Florida Department of Transportation
Advance Notification
SPN: 14500-1605
WPN: 7125939
Pasco County, Florida

Dear Ms. Alcott:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the above referenced project(s) for possible impact to archaeological and historical sites or properties listed, or eligible for listing, in the National Register of Historic Places. The authority for this procedure is the National Historic Preservation Act of 1966 (Public Law 89-665), as amended.

We have reviewed the Advanced Notification for the Florida Department of Transportation (FDOT) project referenced above. We note that a preliminary paragraph concerning expected cultural resources for the project area was included in the Advanced Notification. No mention, however, was made as to whether or not an archaeological or historical survey will be completed. It is the recommendation of this office that such a survey should be done prior to any project related ground disturbing activities. Therefore, conditioned upon the FDOT undertaking a cultural resource survey, and appropriately avoiding or mitigating project impacts to any identified significant archaeological or historic sites, the proposed project will have no effect on any sites listed, or eligible for listing, in the National Register. If these conditions are met the project will also be consistent with the historic preservation aspects of Florida's coastal zone program.

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's archaeological and historic resources is appreciated.

Sincerely,

Suzanne P. Walker

for George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Bdb
xc: C. Leroy Irwin

FLORIDA GAME AND FRESH WATER FISH COMMISSION

7125939.

FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, Florida 32399-1600
(904) 488-1960

November 1, 1991

Ms. Janice L. Alcott, Director
Florida State Clearinghouse
Executive Office of the Governor
Office of Planning and Budgeting
The Capitol
Tallahassee, Florida 32399-0001

RE: SAI #FL9110150570C, Pasco County, County Road 1 Extension

Dear Ms. Alcott:

The Office of Environmental Services of the Florida Game and Fresh Water Fish Commission has reviewed the referenced document, and offers the following comments.

The Florida Department of Transportation is proposing to extend Pasco County Road 1 from New York Avenue north to U.S. 19. Existing land use in the project area includes residential, light industrial, commercial, and undeveloped land. Natural areas include a willow wetland, and turkey oak-longleaf pine sandhill, scrub oak, and sand pine uplands. Gopher tortoise burrows were observed in preliminary site review.

The following endangered (E), threatened (T), and species of special concern (SSC) animal species are present, or have the potential to be present, in the proposed road corridor: wood stork (E), Florida sandhill crane (T), southeastern American kestrel (T), short-tailed snake (T), eastern indigo snake (T), limpkin (SSC), roseate spoonbill (SSC), snowy egret (SSC), tricolored heron (SSC), little blue heron (SSC), burrowing owl (SSC), American alligator (SSC), gopher tortoise (SSC), gopher frog (SSC), Florida mouse (SSC), and Sherman's fox squirrel (SSC).

The proposed project's primary impacts on wildlife will result from the loss of native upland and wetland communities which provide cover, nesting, feeding, and roosting habitat for a variety of animals. Secondary impacts of roadway expansion would result from the acceleration of urban sprawl in western Pasco County, with the inevitable additional loss of wildlife habitat.

We recommend that roadway impacts to native habitats be minimized wherever possible, and recommend that an alignment be selected that has the least impact to these resources. Any proposed wetland mitigation should include enhancing existing wetlands in preference to creation of new wetlands from native upland. Any wetland mitigation, enhancement, or creation should at least be at a 1:1 ratio and of the same type of natural wetland as the impacted site. One or two large mitigation sites are preferable to numerous isolated small wetland areas that are likely to be impacted by future urban expansion. Any created mitigation areas should be protected from future impacts by conservation easement, deed dedication to a management entity, or a similar conservation mechanism.

Sincerely,

Bradley J. Hartman, Director
Office of Environmental Services

BJH/JWB/rs
ENV 1-3-2
cc: Mr. David A. Twiddy, Jr.
Project Development & Environmental Engineer
District Seven
Florida Department of Transportation
4950 West Kennedy Boulevard
Tampa, Florida 33609

Mr. Leroy C. Irwin, Manager
Environmental Management Office
Florida Department of Transportation
605 Suwanee Street MS37
Tallahassee, Florida 32399-0450

1125939.1

Project Development ... NOV

Lawton Chiles
Governor

Jim Smith
Secretary of State

Bob Butterworth
Attorney General

Gerald Lewis
State Comptroller

Tom Gallagher
State Treasurer

Bob Crawford
Commissioner of Agriculture

Betty Castor
Commissioner of Education

Tom Gardner, Executive Director

FLORIDA DEPARTMENT OF NATURAL RESOURCES

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399

October 30, 1991

Mr. David A. Twiddy
Project Development and Environmental Engineer
Florida Department of Transportation, District VII
4950 West Kennedy Boulevard, Suite 409
Tampa, Florida 33609

Dear Mr. Twiddy:

RE: Advance Notification
WPI: 7125939
SPN: 14500-1605
FACN: M-1737-(1)
Pasco County, Florida
County Road 1 Extension

Thank you for your recent advance notification regarding the above captioned project. The Department of Natural Resources, Division of State Lands requires consent in the form of an easement for public right of way on sovereignty submerged lands pursuant to Chapter 18-21, F.A.C.

Upon receipt of the Joint DER/ACOE application for this project, our Title and Lands Record Section will identify any activity occurring on state-owned lands. A Completeness summary will be sent to you requesting any additional information required to complete your file.

If you have any questions, please feel free to contact me at the State Lands West Central Florida District Office, 8402 Laurel Fair Circle, Suite 212, Tampa, Florida 33610-7364. (813) 622-7634.

Sincerely,

William M. Torres, Environmental Administrator
DSL West Central Florida District Office

WMT/er

SAI: FL9110150570

PROJECT: ADVANCE NOTIFICATION: COUNTY ROAD 1 EXTENSION, PA
SCO COUNTY, FLORIDA WP #7125939 - SP #14500-1605

7125939.18

RECEIVED: 10/15/91

Project Development District 7 NOV 4 199

...espondence requesting review under its intergovernmental coordination and review process. This correspondence has been assigned a **State Application Identifier (SAI) Number**, shown above, which should be used in all communications with this office concerning the application or project.

The State Clearinghouse will coordinate a review of the application or project pursuant to Presidential Executive Order 12372; Gubernatorial Executive Order Number 83-150; section 216.212, Florida Statutes; the National Environmental Policy Act; the Florida approved coastal management program; the Outer Continental Shelf Lands Act; and other federal or informational review requirements.

The review begins on the date the correspondence is received by the State Clearinghouse and normally is completed in 30 days, although longer review periods of 45 and 60 days are permitted by federal law for specific types of applications or projects. Completion of the review may be delayed if additional information is needed by reviewing agencies, in which case you will be notified. Please send three (3) copies of your application or project to the appropriate Regional Planning Council (RPC), if applicable.

FLORIDA STATE CLEARINGHOUSE
Executive Office of the Governor/OPB
Growth Management and Planning Policy Unit
The Capitol, Tallahassee, Florida 32399-0001
(904) 488-8114; (SunCom) 278-8114

7125939.18

tampa bay regional planning council

9455 Koger Boulevard
St. Petersburg, FL 33702-2491
(813) 577-5151/Tampa 224-9380
Suncom 586-3217

November 4, 1991

Mr. David A. Twiddy, Jr., P.E.
Project Development & Environmental Engineer
Florida Department of Transportation
4950 W. Kennedy Boulevard, Sutie 500
Tampa, FL 33609

Subject: Work Program Item No. 7125939
State Project No. 14500-1605
Federal-Aid Project No. M-1737-(1)

Dear Mr. Twiddy:

Thank you for the opportunity to offer preliminary comments on: the Advance Notification Package for the County Road 1 extension in Pasco County. Consideration should be given to the following recommendations:

- Every effort should be made to protect endangered and threatened species and their habitats. Utilization of upland buffers and wildlife corridors is supported to maintain animal crossings and trails.

- Permanent impacts to wetlands should be eliminated or minimized. Unavoidable wetland impacts (i.e., those deemed to meet established public interest criteria) should require a minimum of 1:1 recreated to impacted mitigation using the same type or more productive vegetation. Mitigation should be sufficiently monitored to ensure 80-85% cover over time.

- Stormwater controls should be required for all improved or new developments or roadways.

- The project should ensure protection of surface and groundwater quality.

- Wherever possible, stabilization projects should use native vegetation on gradual slopes rather than shoreline or channel hardening.

- If the project is located within a designated Aquatic Preserve or a waterbody that has been classified "Outstanding Florida Waters," additional protection may be required to maintain a healthy environment.

The Tampa Bay Regional Planning Council will offer additional recommendations when the permitting agencies submit dredge and fill permit applications for review. We would appreciate being copied on additional information as it becomes available.

Sincerely,

Sheila Benz
Director of Planning

/j

cc: Leroy C. Irwin, Manager
Environmental Management Office
Florida Department of Transportation
605 Suwanee Street, M.S. 37
Tallahassee, FL 32399-0450

Southwest Florida Water Management District

2379 Broad Street (U.S. 41 South) Brooksville, Florida 34609-6899
Phone (904) 796-7211 or 1-800-423-1476 SUNCOM 628-4150

October 30, 1991

Mr. David A. Twiddy, Jr., P.E.
Project Development & Environmental Engineer
District Seven
Florida Department of Transportation
4950 West Kennedy Boulevard, Suite 409
Tampa, Florida 33609

Subject: County Road 1 Extension
State Project Number 14500-1605
Federal Review Number M-1737-(1)
Work Program Number 7125939 .18
Pasco County, Florida

Dear Mr. Twiddy:

The Staff of the Southwest Florida Water Management District (SWFWMD) has reviewed the material for the project referenced above. Based on the information provided, the District has concerns regarding the exact location for construction of the project. The review materials indicate the proposed alignment may result in wetland impacts. If the final alignment has not been selected, we recommend that you choose one that will reduce the necessity for wetland impacts. Development on appropriate upland sites will help alleviate potential impacts to the natural functions of wetland systems.

If you have any questions or if I can be of further assistance, please contact me in the District's Planning Department.

Sincerely,

Joseph P. Quinn
Community Assistance Planner

JPQ

cc: Ed Hobin - SWFWMD Brooksville
L.C. Irwin - FDOT