U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

PINELLAS AND PASCO COUNTIES, FLORIDA

STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

GANDY BOULEVARD (S.R. 694) TO ALTERNATE U.S. 19 (S.R. 595)

Prepared For

THE FLORIDA DEPARTMENT OF TRANSPORTATION

Prepared By
GREINER ENGINEERING SCIENCES, INC.
Tampa, Florida

JUNE 1988

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I. INTRODUCTION

PURPOSE OF THE PERMIT COORDINATION REPORT

This report provides preliminary information about areas which may require permit involvement due to the construction of proposed improvements to U.S. Highway 19 between Gandy Boulevard (SR 694) and Alternate U.S. Highway 19 in Pinellas and Pasco Counties, Florida. The intent of this report is to provide information to the appropriate environmental permitting and review agencies for the establishment of permitting requirements and mitigation measures at an early stage in the project development process. These agencies would include but may not be limited to the following:

* Florida Department of Environmental Regulation (FDER)
* Southwest Florida Water Management District (SWFWMD)
* U.S. Army Corps of Engineers (USCOE)
* U.S. Coast Guard
* Pinellas Park Water Management District (PPWMD)
* Pinellas County Department of Environmental Management
* Florida Department of Natural Resources (FDNR)
* Florida Game and Fresh Water Fish Commission (FGFWFC)
* U.S. Fish and Wildlife Service (USFWS)
* U.S. Environmental Protection Agency (EPA)

PROJECT DESCRIPTION

The proposed project involves the improvement of U.S. Highway 19 from an arterial roadway to a controlled access expressway facility. This project consists of four design segments (A,B,C, and D) between Gandy Boulevard (SR 694) in Pinellas County

Alternate U.S. 19 (SR 595) in Pasco County. Exhibit 1 illustrates the corridor study area and design segment locations.

Existing Roadway

Presently, U.S. 19 is the primary north-south arterial highway in Pinellas and Pasco Counties. The existing facility essentially consists of a four (4)- and six (6)- lane, divided arterial. Since there are no other major north-south regional highway facilities in this area, the majority of the regional motor vehicle trips associated with the established population centers are directed to the U.S. 19 corridor. Furthermore, this corridor is characterized by intense commercial, office and retail areas which also generate a great deal of motor vehicle traffic. As a result, many segments of the U.S. 19 facility presently operate at unacceptable levels of service (LOS) during many hours of the day. In terms of roadway operating conditions, the current LOS can be characterized by low travel speeds, unstable traffic flow, peak-period traffic volumes at or near roadway capacity, and long delays at intersections. Important elements of the existing U.S. 19 facility are discussed in detail in the Draft Environmental Impact Statement.[1]

Proposed Project

The proposed project generally consists of upgrading U.S. 19 to a limited access, six lane freeway facility, with two lane one-way frontage roads on each side. In some

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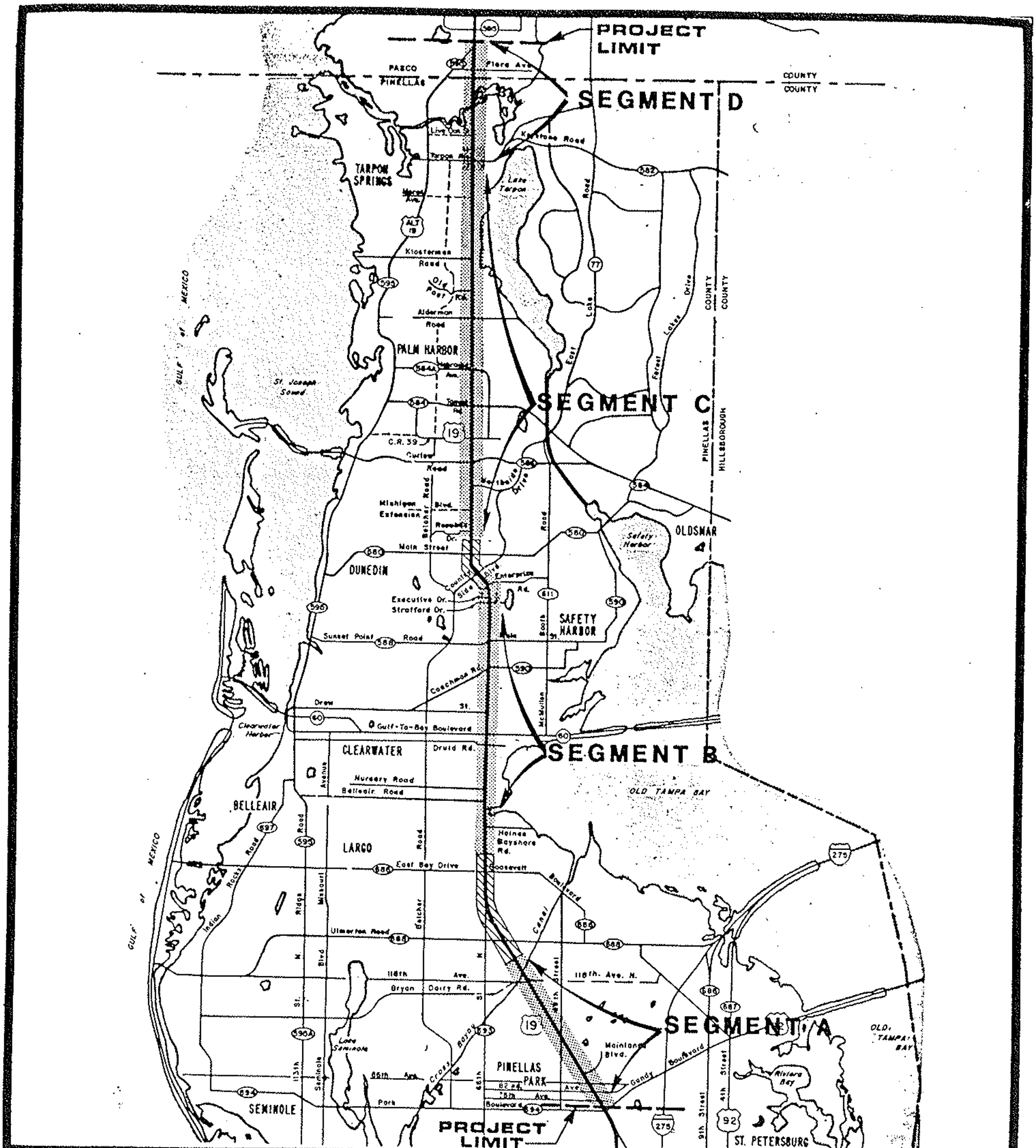
1/ Florida Department of Transportation, Draft Environmental Impact Statement, U.S. 19 Project Development and Environmental Studies, State Project Number 15150-1565, 1988.



N

0 0.5 1 2 3 4 Miles

SCALE

LEGEND

Previously Planned and Programmed Interchange Areas

Current Study Area

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

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DESIGN SEGMENT LOCATION MAP

Florida Department of Transportation

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EXHIBIT 1

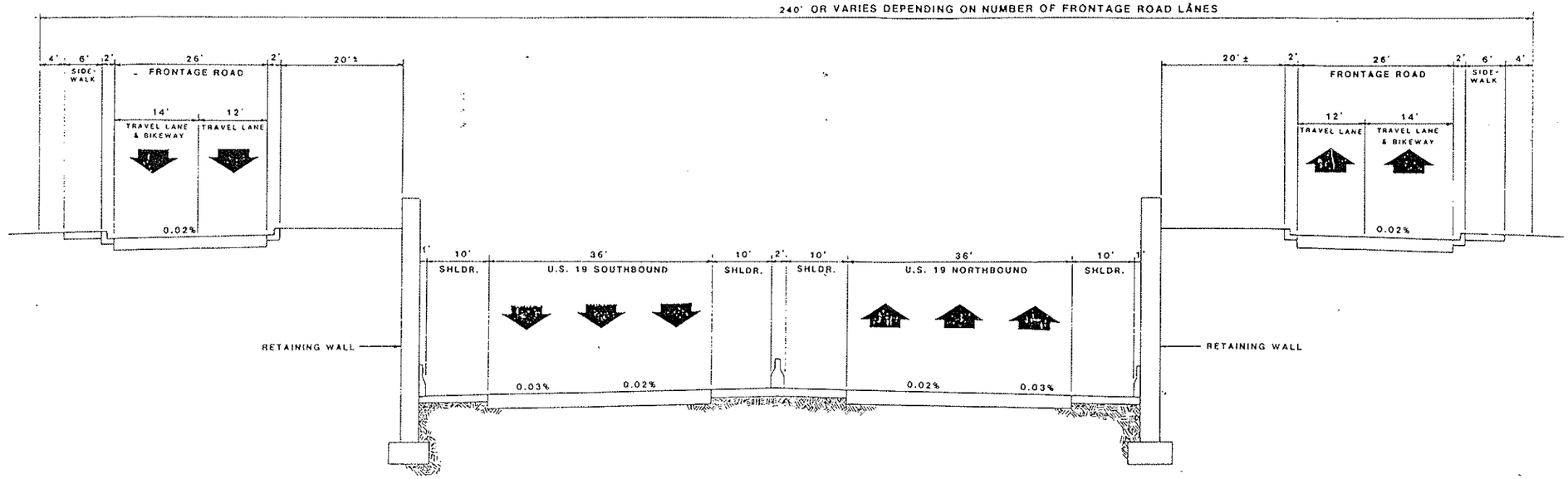
locations auxiliary lanes between access ramps will increase the mainline to eight lanes. All major roadway intersections with U.S. 19 shall be redesigned as grade separated urban interchanges. Over passes shall be built for U.S. 19 over other significant roadways. Exhibits 2 and 3 illustrate typical 6 and 8 lane mainline sections. Exhibit 4 illustrates a typical urban interchange between 6 lane mainline U.S. 19 and a 6 lane arterial crossroad. Exhibit 5 illustrates a typical urban interchange between an 8 lane mainline and an 8 lane arterial crossroad. The alignment of the proposed project shall generally follow the existing U.S. 19 alignment within a 200 foot right-of-way. Further details of the alignment and recommended design concepts are discussed in the Draft Environmental Impact Statement.[1]

Proposed improvements would involve areas that may require water related permits from various agencies. The project may require the redesign and relocation of parallel drainage systems, modifications or extensions of drainage crossings, fill in adjacent wetlands and the widening of bridges over waterways. The bulk of this report deals specifically with areas which are likely to require permit involvement.

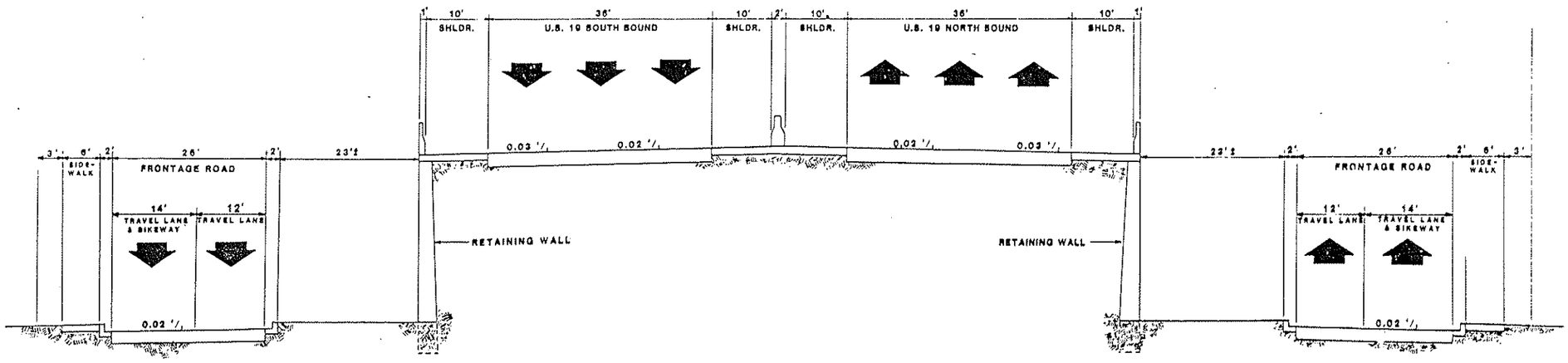
II. PERMIT COORDINATION ANALYSIS

WETLAND INVENTORY

Wetland areas which have the potential to be impacted by the proposed improvements to U.S. 19 were identified and inventoried. This was first accomplished by identification of wetland areas through interpretation of aerial photographs and review of National Wetland Inventory (NWI) maps. A total of forty-seven wetland sites, all within Pinellas County were identified along the corridor. Sites were designated from south to north by design segment. Once preliminary designs for the



6-LANE DEPRESSED URBAN INTERCHANGE TYPICAL SECTION



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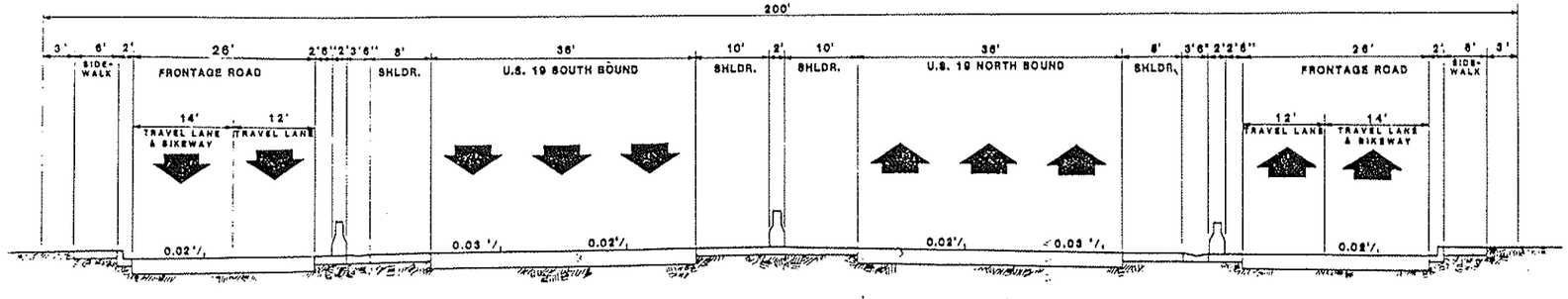

6-LANE MAINLINE TYPICAL SECTION

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U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

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6 LANE TYPICAL SECTIONS

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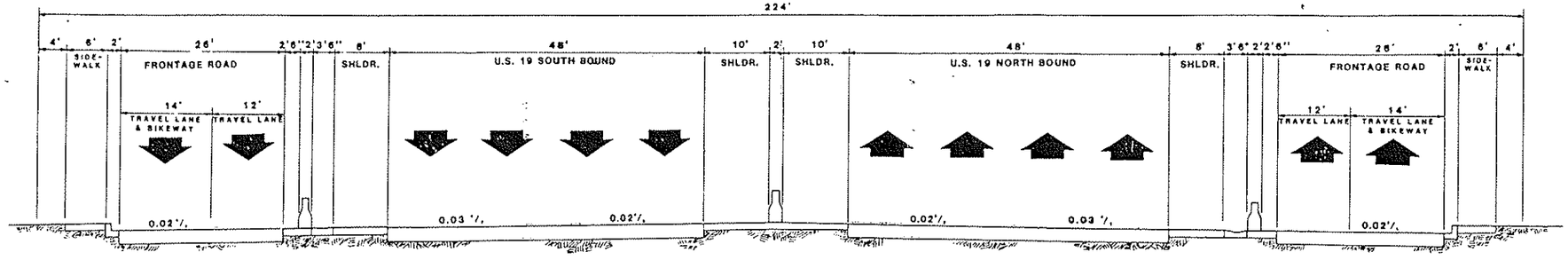
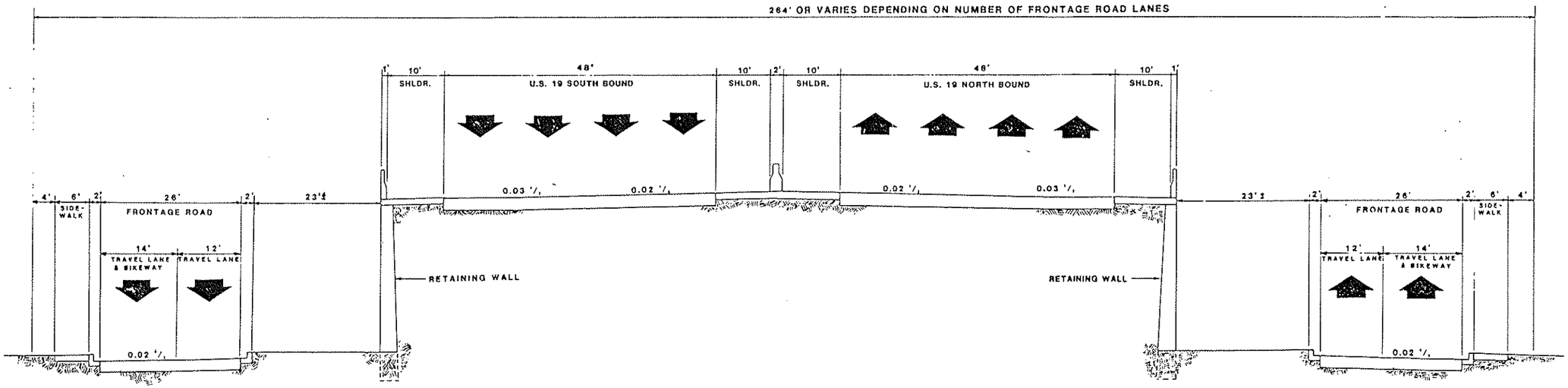
EXHIBIT 2



8-LANE MAINLINE TYPICAL SECTION



8-LANE URBAN INTERCHANGE TYPICAL SECTION

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8 LANE TYPICAL SECTIONS

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EXHIBIT 3

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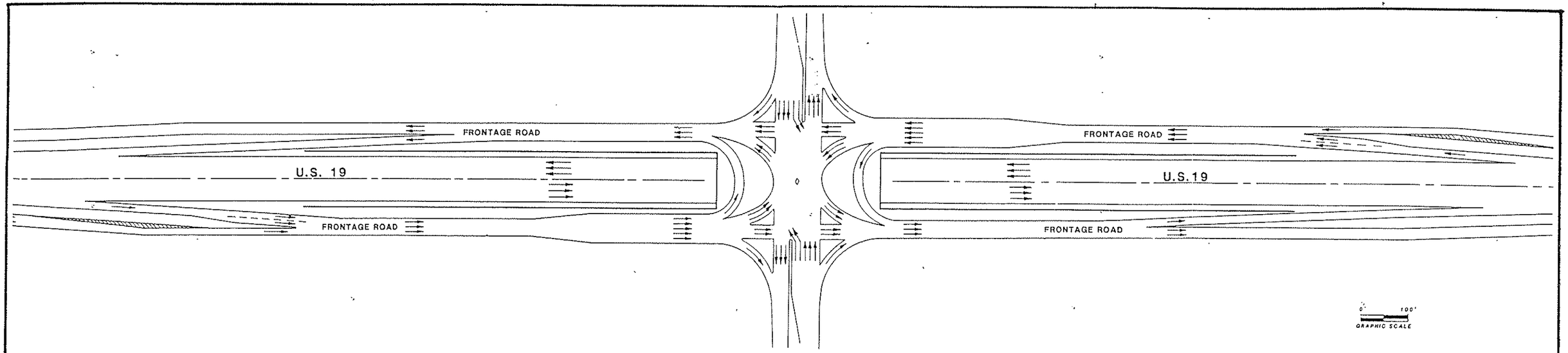
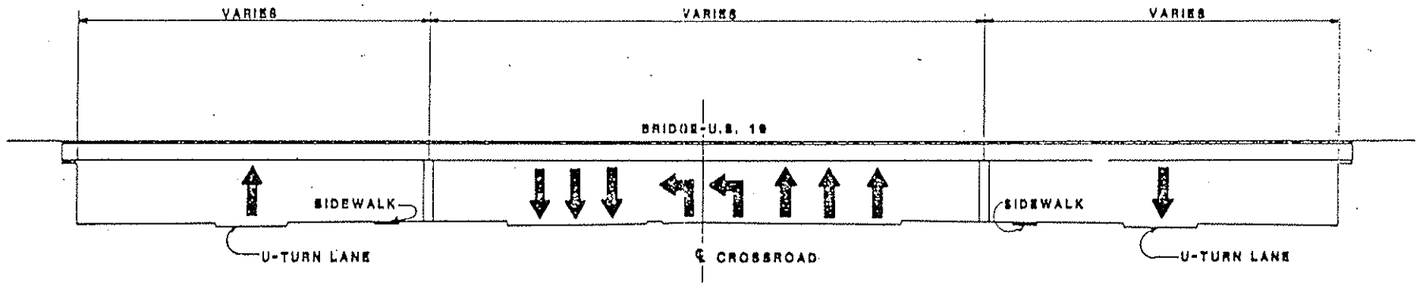


TYPICAL INTERCHANGE PLAN VIEW
CONVENTIONAL RAMPS WITH 6-LANE MAINLINE



TYPICAL CROSSROAD ELEVATION AT INTERCHANGE

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
STATE PROJECT NO. 15150-1565.

TYPICAL 6 LANE INTERCHANGE PLAN AND ELEVATION

Florida Department of Transportation
EXHIBIT 4

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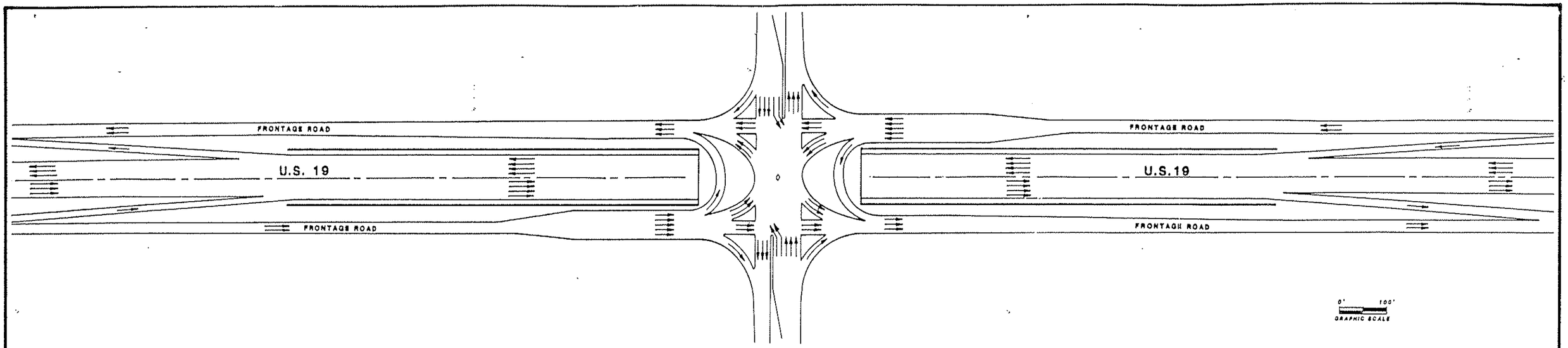
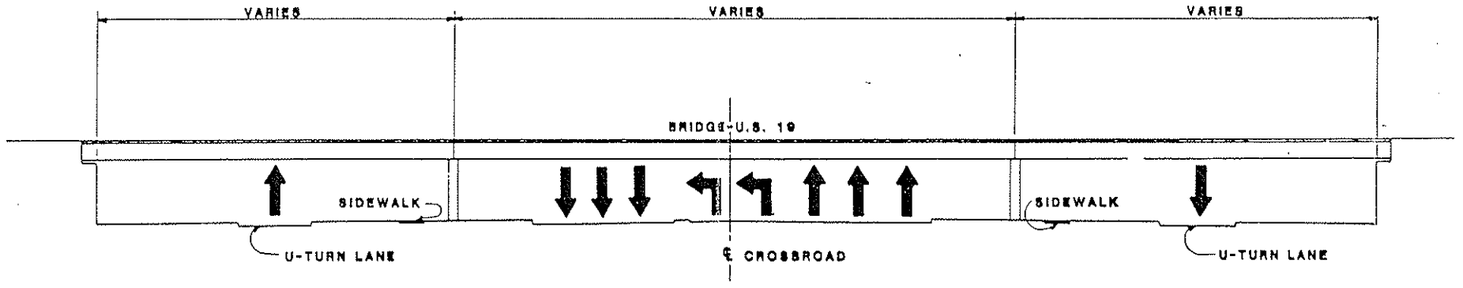


TYPICAL INTERCHANGE PLAN VIEW
REVERSED RAMPS WITH 8-LANE MAINLINE



TYPICAL CROSSROAD ELEVATION AT INTERCHANGE

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
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TYPICAL 8 LANE INTERCHANGE PLAN AND ELEVATION

Florida Department of Transportation
EXHIBIT 5

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corridor were developed, field surveys were conducted to more accurately inventory existing wetland areas and evaluate the potential for impacts.

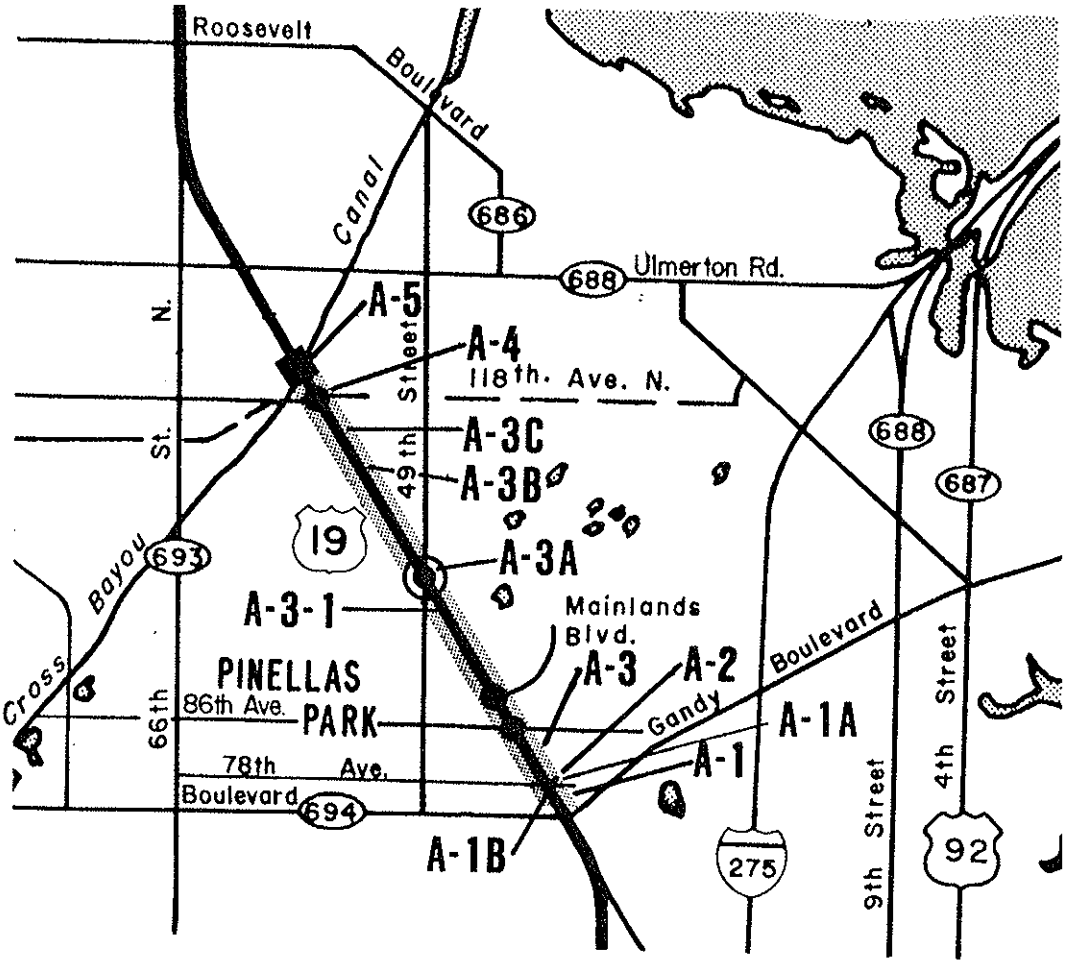
Field surveys were conducted in August 1986 and March 1988. Each wetland area observed along the corridor which appeared to have the potential to be affected by the proposed project, was inventoried. The inventory included photographs and descriptions of the physical and natural characteristics of each site.

The forty-seven identified locations included twenty-nine drainage ditches, five retention ponds, ten wetland areas adjacent to the roadway and three navigable waterways with bridge crossings. Appendix A contains photographs and field note summaries for each site. NWI classified wetlands are discussed in Appendix C.

Design Segment A

Design Segment A, starting at Gandy Boulevard and ending 800 feet north of Cross Bayou Canal, has the potential to affect eleven areas which may require permits. This includes eight drainage ditches (A-1, A-1A, A-1B, A-2, A-3-1, A-3A, A-3C, and A-4), an adjacent wetland (A-3), a retention pond (A-3B) and the Cross Bayou Canal (A-5). Recommended design concepts of the segment and the locations of permit coordination sites are illustrated on Exhibit 6. A description of each site follows:

Site A-1 - Consists of a drainage canal approximately 20 feet in width at its intersection with US 19, located 200 feet north of Gandy Boulevard (74th Avenue



LEGEND

- INTERCHANGE
- OVERPASS (MINOR INTERCHANGE)
- GRADE SEPARATION
- EXPRESSWAY AND FRONTAGE ROADS AT GRADE
- A-1 PERMIT COORDINATION SITE

NOTE:
Previously Programmed Interchange Areas Are Not Shown

N

Scale in miles

0 0.5 1 2

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

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DESIGN SEGMENT A PERMIT COORDINATION SITES

Florida Department of Transportation

EXHIBIT 6

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North). This canal originates west of US 19, crosses beneath the existing roadway (via double box culverts) and continues eastward, finally crossing Gandy Boulevard into Sawgrass Lake. The approximate water depth at the time of field review was 6 to 10 inches.

Canal vegetation consists of maidencane, pickerelweed and hydrilla east of US 19. There is no significant vegetation west of US 19 within the retention basin for La Quinta Motel.

This site has not been classified by the U.S. Fish and Wildlife Service.

Site A-1A and A-1B - Are small drainage ditches which contain typical wetland species commonly found in these habitats.

Site A-2 - Consists of an eight-foot-wide drainage ditch at its intersection with US 19, located approximately 1,600 feet north of 82nd Avenue North. This ditch originates west of US 19, crosses beneath US 19 (via box culverts) and continues eastward towards site A-1. The water depth at time of inspection was 6 to 10 inches.

The hydrophytic vegetation east of US 19 consists of alligator weed, barnyard grass, and maidencane. The west side contains alligator weed and willow shrubs.

This site has not been classified by the U.S. Fish and Wildlife Service.

Site A-3 - Consists of a 1.5 acre wetland area adjacent to the existing right-of-way on the east side of US 19, located approximately 2,000 feet north of 82nd Avenue.

Brazilian pepper and dog fennel dominate the west boundary of the wetland. Arrowhead, water primrose and additional herbaceous species have colonized this site.

The U.S. Fish and Wildlife Service has classified this wetland PEM5C (Palustrine, Emergent, Narrow leaved persistent, Seasonal).

Sites A-3-1, A-3A, and A-3C - Are small drainage ditches containing wetland species commonly found in these habitats.

Site A-3B- Is a retention pond, approximately 0.30 acres in size, located east of US 19 in the triangle formed by the intersection of US 19 and 52nd Street N.

Site A-4 - Consists of a 2- to 3-foot-wide drainage ditch at its intersection with US 19, approximately 50 feet north of 118th Avenue. This canal originates east of US 19, crosses beneath the existing roadway (via one 48- inch R.C.P. culvert), and continues west to its confluence with the Cross Bayou Canal. The approximate water depth was 1 foot at the time of field review.

Ditch vegetation consists of alligator weed, common salvinia, arrowhead, water primrose and sedge. The north ditch banks east of US 19 appear to receive periodic maintenance (e.g., mowing, brush removal, etc.).

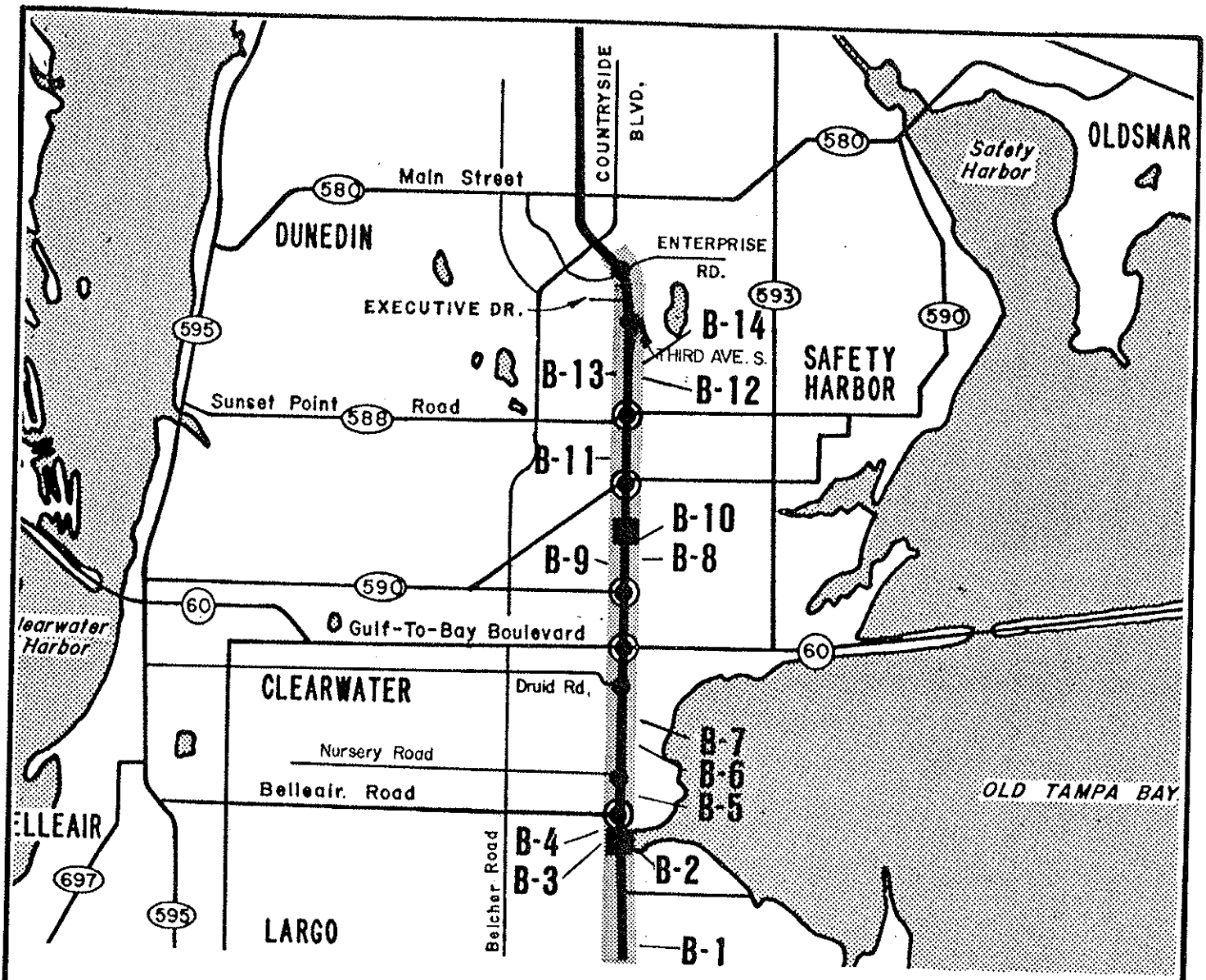
Site A-5 - Consists of a 5-foot-wide canal (Cross Bayou Canal) at its intersection with US 19. This canal is tidally influenced and flows beneath US 19 through a divided, two-lane bridge structure. Approximate water depth at the time of field review was 2 feet below Mean Low Water (MLW).

Canal vegetation consists of black mangrove, sea purslane, wax myrtle, Brazilian pepper and saltgrass in the northeast quadrant of US 19 and the Cross Bayou Canal. The southeast quadrant contains red mangroves and pennywort. The northwest quadrant contains black mangroves, and the southwest quadrant contains red mangroves and Brazilian pepper.

This area has been classified as EIOWL (Estuarine, Subtidal, Open Water, Subtidal) and POWH (Palustrine, Open Water, Permanent) and PSS3/EM5C (Palustrine, Scrub-Shrub, Broad-leaved evergreen, Emergent, Narrow-leaved persistent, Seasonal) according to the U.S. Fish and Wildlife Service National Wetlands Inventory, 1982.

Design Segment B

Design Segment B, which starts at Whitney Road and ends north of Enterprise Road, has the potential to affect fourteen areas which may require permits. This includes nine drainage ditches (B-1, B-5, B-6, B-7, B-8, B-10, B-12, B-13, B-14), three adjacent wetlands (B-2, B-3, B-11), one retention pond (B-9), and Allens Creek (B-4). Recommended design concepts of the segment and the location of permit coordination sites are illustrated on Exhibit 7.



LEGEND

- INTERCHANGE
- OVERPASS (MINOR INTERCHANGE)
- GRADE SEPARATION
- EXPRESSWAY AND FRONTAGE ROADS AT GRADE
- B-1 PERMIT COORDINATION SITE

N

Scale in miles

0 0.5 1 2

NOTE:

Previously Programmed Interchange Areas Are Not Shown

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Pinellas and Pasco Counties, Florida

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DESIGN SEGMENT B PERMIT COORDINATION SITES

Florida Department of Transportation

EXHIBIT 7

Site B-1 - Consists of a 5-foot-wide drainage ditch located approximately 1,350 feet north of Whitney Road. This ditch originates east of US 19, crosses beneath US 19 via one 30-inch culvert on the east side and one 42-inch culvert on the west side, and continued westward. Approximate water depth at time of the field review was 1 foot.

Ditch vegetation consists of alligator weed, pennywort, sedge, pickerelweed, water primrose, and maidencane on the east side of US 19. Alligator weed occupies the waterway to the west.

This site has not been classified by the U.S. Fish and Wildlife Service.

Site B-2 - Consists of a tidal flat located 400 to 1,200 feet south of Allen's Creek on the east side of US 19. It is part of a larger wetland area measuring approximately 54 acres. Dominant vegetation includes the recolonization of white and black mangrove from previous frost drainage. Also present were Brazilian pepper, saltbush, cordgrass, soft rush, soft stem, bulrush, goldenrod, and sea lavender.

This areas has been classified as E2SS3U (Estuarine, Intertidal Scrub Shrub, Broad-leaved evergreen, Unknown) according to the U.S. Fish and Wildlife Service National Wetlands Inventory, 1982.

Site B-3 - Consists of a tidal flat adjacent to the toe of slope west of US 19, approximately 700 to 900 feet South of Allen's Creek (200 feet in length). It is part of a larger wetland area measuring approximately 1.5 acres. Dominant vegetation

included white mangroves returning from previous frost damage, caric sedge and various grasses. This area has been classified E2SS3U (The same as site B-2).

Site B-4 - Consists of a 100-foot-wide navigable waterway (Allen's Creek) at its intersection with US 19. This waterway is tidally influenced and flows below US 19, beneath a 6-lane bridge structure. Approximate water depth at the time of field review was 1.8 feet below MLW.

Dominant vegetation includes a dense population of red and black mangroves along the parallel ditch adjacent to US 19 in the northeast quadrant. In addition, white mangrove, sea purslane, saltgrass and dog fenel are common. The parallel ditch located in the southeast quadrant contains saltgrass and a single red mangrove. The northwest quadrant contains red mangroves and saltgrass. The southwest quadrant contains saltgrass.

This area has been classified as EIOWL (same as site A-5).

Site B-5 Consists of a 10-foot-wide drainage ditch located approximately 200 feet south of Nursery Road. This canal originates west of US 19 at a junction box, crosses beneath the existing roadway (via two 36 inch R.C.P. culverts east of US 19) and continues east to its confluence with Old Tampa Bay. Approximate water depth at the time of field review was 3 to 6 inches.

The ditch vegetation consists of hydrilla, alligator weed, maidencane and various grasses.

This site has not been classified by the U.S. Fish and Wildlife Service.

Site B-6 - Consists of a 2- to 6-foot-wide drainage ditch, approximately 300 feet north of Harn Road. The ditch originates west of US 19 at a mitered end section and ditch bottom inlet, crosses beneath the existing roadway (via two 36-inch R.C.P. culverts), and continues east to its confluence with Old Tampa Bay. Approximate water depth at the time of the field review was 1 to 2 feet. A gas pipeline parallels US 19 on the east side of the road.

Ditch vegetation consists of arrowhead, elephant ear, water primrose and algae along the west side of US 19. Caric sedge, bladderpod, cattail and various grasses occupy the west side of the roadway.

This site was not classified by the U.S. Fish and Wildlife Service.

Site B-7 - Consists of an 80-foot-wide drainage basin located approximately 350 feet south of Seville Boulevard. Algae and saltgrass were the only vegetation observed.

This site has not been classified by the U.S. Fish and Wildlife Service.

Site B-8 - Consists of a drainage ditch located approximately 700 feet north of Drew Street. The east side contains no significant wetland vegetation. The west side of US 19 has been altered since previous field inspections in August, 1986. This site and site B-9 have been converted to a retention pond for Lechmere.

Site B-9 - This site, previously a willow shrub wetland, has been converted to a retention pond for Lechmere. This retention pond is larger than 5 acres in size. An alligator was observed on the bank of the pond.

Site B-10 - Consists of a 50-foot-wide drainage canal located approximately 1,900 feet north of Drew Street.

Site B-11 - Consists of a two-acre isolated cypress stand located adjacent to toe-of-slope approximately 1,100 feet north of N.E. Coachman Road, west of US 19. The dominant vegetation includes bald cypress mixed with bays. This site has been encroached by recent development into and adjacent to the wetland area.

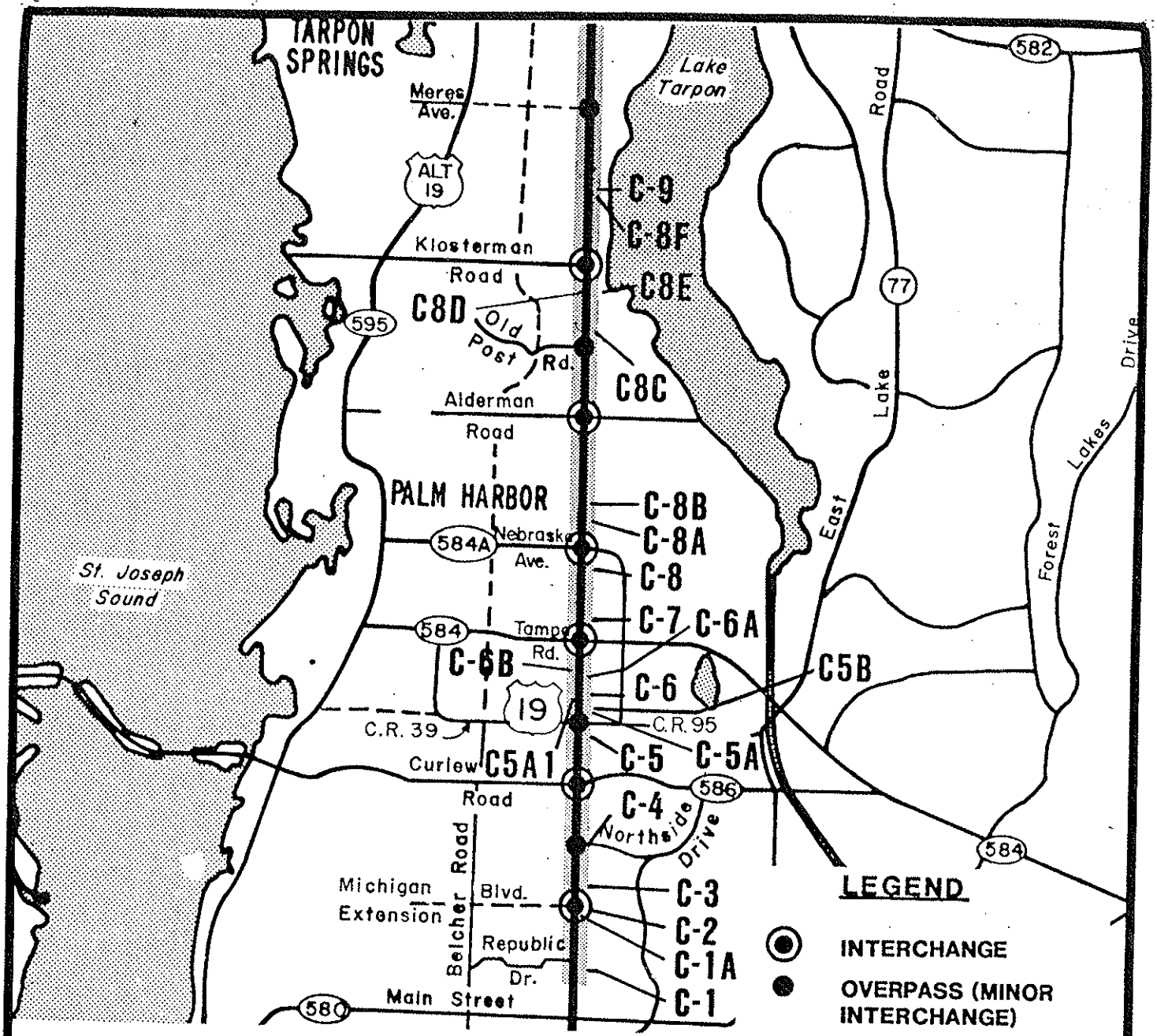
The U.S. Fish and Wildlife Service has classified this wetland PF03/1C (Palustrine, Forested, Broad-leaved evergreen, Broad-leaved deciduous, Seasonal).

Sites B-12 through B-14 - are drainage ditches that contain wetland vegetation typical to these areas. These man-made ditches were constructed for the conveyance and storage of storm water runoff. These sites have not been classified by the U.S. Fish and Wildlife Service.

Design Segment C

Design Segment C, which starts at Evans Road and ends south of Tarpon Avenue, has the potential to affect eleven drainage ditches, three retention ponds, and six forested wetlands which may require permits. Recommended design concepts of the segment and the locations of permit coordination sites are illustrated on Exhibit 8.

Sites C-1 through C-5 and Sites C-6, C-6B, C-7, C-8 and C-9 - are drainage ditches that contain wetland vegetation typical to these areas. These man-made ditches were constructed for the conveyance and storage of storm water runoff. These sites have not been classified by the U.S. Fish and Wildlife Service.



NOTE:
Previously Programmed Interchange Areas Are Not Shown

N
Scale in miles
0 0.5 1 2

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Pinellas and Pasco Counties, Florida
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DESIGN SEGMENT C

PERMIT COORDINATION SITES

Florida Department of Transportation
EXHIBIT 8

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Site C-5A - Consists of a retention pond located approximately 1,200 feet north of CR 95 east of US 19.

Site C-5A1 - Consists of a wetland located adjacent to toe-of-slope, approximately 1,400 to 1,800 feet north of CR 95, west of US 19. The dominant vegetation at the site includes willow, water oak, primrose willow, duckweed, and Brazilian pepper along the edges.

Site C-6A - Consisted of a wetland located adjacent to toe-of-slope, approximately 2,500 feet north of CR 95, east of US 19. The dominant vegetation includes red maple, water oak, willow, primrose willow, softrush, sweetbay and redbay. This is part of a wetland system encompassing approximately 2.5 acres.

Site C-8A and C-8B - Are retention ponds approximately 0.08 acres in size, located 820 feet and 1,040 feet north of SR 584A east of US 19.

Site C-8C - Consists of a cypress stand located approximately 1,600 feet north of Old Post Road. Bald cypress was the dominant vegetation. This wetland system encompasses approximately 4.5 acres. The U.S. Fish and Wildlife Service has classified this wetland PFO2F (Palustrine, Forested, Needle-leaved deciduous, Semi-permanent).

Site C-8D - Consists of an isolated cypress wetland located approximately 1,600 feet north of Old Post Road, west of US 19. The dominant vegetation includes bald cypress mixed with willow shrubs. The entire wetland system includes approximately 30 acres.

The U.S. Fish and Wildlife Service has classified this wetland PFO2F (Palustrine, Forested, Needle-leaved deciduous, Semi-permanent).

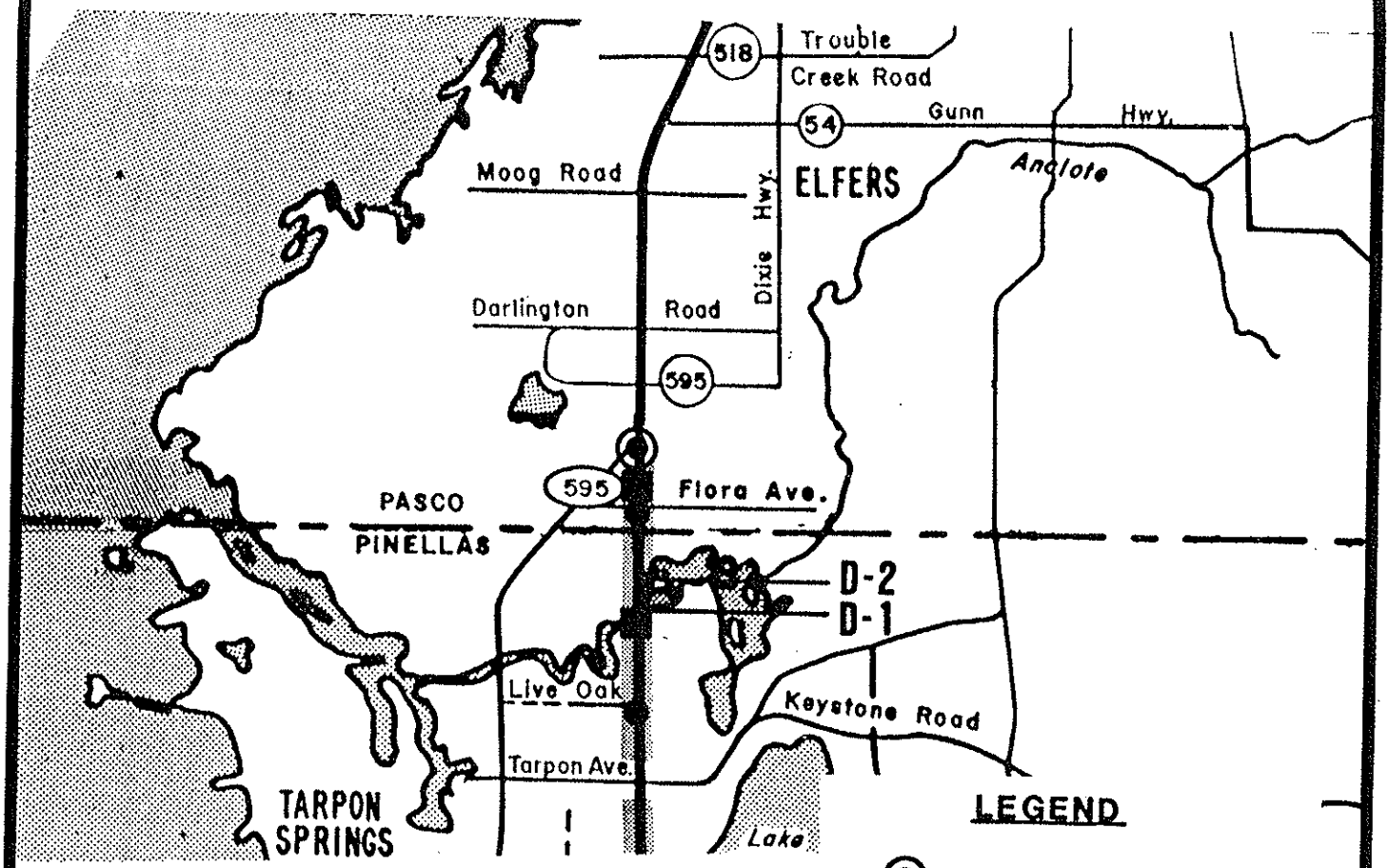
Site C-8E - Consists of a cypress community located approximately 1,400 to 2,000 feet south of Klosterman Road on the east side of US 19. The dominant vegetation includes bald cypress, mixed with willow shrubs. The overall wetland area was less than one acre in size.

Site C-8F - Consists of a wetland community located approximately 150 to 1400 feet north of Anderson Park entrance. Willow shrubs dominate the site. Bald Cypress trees dominate the canopy mixed with species of red maple. The entire wetland system covers approximately 11 acres.

Design Segment D

Design Segment D, which starts north of Tarpon Avenue and ends 1,300 feet north of Alternate U.S. 19, has the potential to involve two areas which may require permits. Both areas include portions of the Anclote River. Recommended design concepts of the segment and the location of the permit coordination sites are illustrated on Exhibit 9.

Site D-1 - Consists of a 15-foot-wide tidal drainage ditch located approximately 1,600 feet south of the Anclote River Bridge. The waterway crosses beneath US 19 via one box culvert. The approximate water depth was 6 inches during field review.



LEGEND

- INTERCHANGE
- OVERPASS (MINOR INTERCHANGE)
- GRADE SEPARATION
- EXPRESSWAY AND FRONTAGE ROADS AT GRADE
- D-1 PERMIT COORDINATION SITE

NOTE:
Previously Programmed Interchange Areas Are Not Shown

N

Scale in miles
0 0.5 1 2

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida
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DESIGN SEGMENT D
PERMIT COORDINATION SITES

Florida Department of Transportation

EXHIBIT 9

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The dominant vegetation included saltgrass, blackrush and cassia east of US 19. Black mangrove, red mangrove, sea purslane, saltgrass and Brazilian pepper occupy the west side of US 19.

This is a non-navigable crossing and, due to its shallow depth, is not anticipated to provide a diverse wildlife habitat.

The U.S. Fish and Wildlife Service has not classified this wetland.

Site D-2 - Consists of a 200-foot-wide navigable waterway (Anclote River) which is tidally influenced at its intersection with US 19. This waterway extends below US 19 beneath a 2-lane divided bridge structure. The approximate depth during field inspection was 9 feet below MLW.

This waterway provides a diverse habitat to a variety of wildlife including fish, alligator, wading birds, osprey, manatee and woodstork.

The U.S. Fish and Wildlife Service has classified this site as E2EMIP (Estuarine, Intertidal, Emergent, Persistent, Irregular).

WETLAND VEGETATION

Principal wetland plant species, present within the project limits of each permit coordination site were identified during the field survey. A list of observed plant species can be found in Appendix B. Freshwater wetlands generally contained vegetation associated with the littoral zone of lentic waters. They consisted of emergent or floating annuals and perennials. In shallow ponds and ditches these

species survive with intermittent flooding, providing the duration is long enough to allow the plants to reach maturity. This includes such species as the common cattail (Typha latifolia), Bacopa (Bacopa spp.), pickerelweed (Pontederia lanceolata) and alligator weed (Althernanthera philoxeroides) which are common inhabitants and will reproduce rapidly. Several ditches do not appear to retain enough water for the support of wetland vegetation and are covered by weeds and grasses.

Plant species associated with wetlands and their surrounding ecotone areas included deciduous and evergreen shrubs and trees. Some common examples are bald cypress (Taxodium distichum), willow (Salix spp.), and red maple (Acer rubrum).

Vegetation found in areas subject to salt water inundation, such as estuaries, tidal flats, and the navigable waters were principally inhabited by such species as red mangrove (Rhizophora mangle), black mangrove (Avicennia germinans), white mangrove (Laguncularia racemosa), cordgrass (Spartina spp.), and black rush (Juncus roemarianus). Investigations in these areas was restricted to shorelines along estuaries and tidal flats.

ANTICIPATED CONSTRUCTION

The identified permit coordination sites have the potential to be affected by the proposed project primarily through the widening of the facility, the addition of frontage roads, and the construction of interchanges.

Crossings over navigable waterways would require the installation of new bridges, possible widening or replacement of existing bridges and installation of any associated erosion control and drainage structures. All three bridge crossing sites are anticipated

to require bridge construction because of the addition of parallel frontage roads. The amount of additional bridge construction necessary is dependent upon the suitability of existing structures for the roadway design. Appendix D contains information forwarded to the U.S. Coast Guard to determine their involvement. Exhibit 10 illustrates bridge crossings and typical sections.

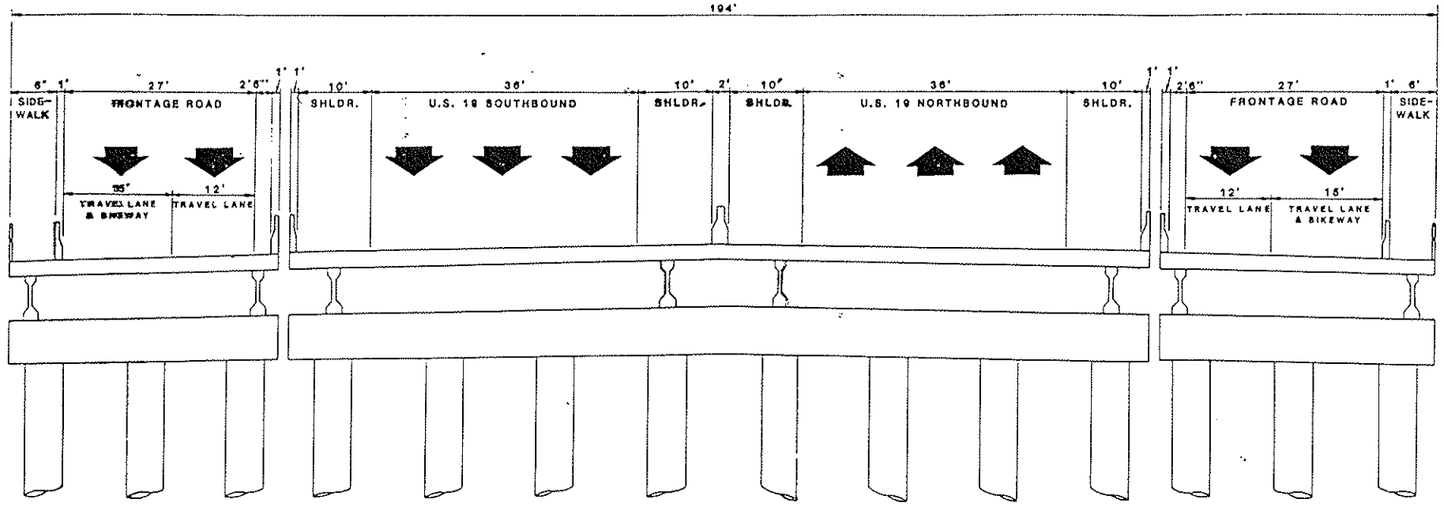
Fill will be required to widen the roadway in order to develop the appropriate surface for construction. In some areas fill may be required along the edge of wetlands located adjacent to the roadway.

Drainage systems along the corridor shall be modified or relocated. Drainage structures which traverse the roadway are likely to require the extension or replacement of culverts. Existing drainage ditches parallel to the roadway may be relocated adjacent to the widened facility or converted to enclosed drainage systems.

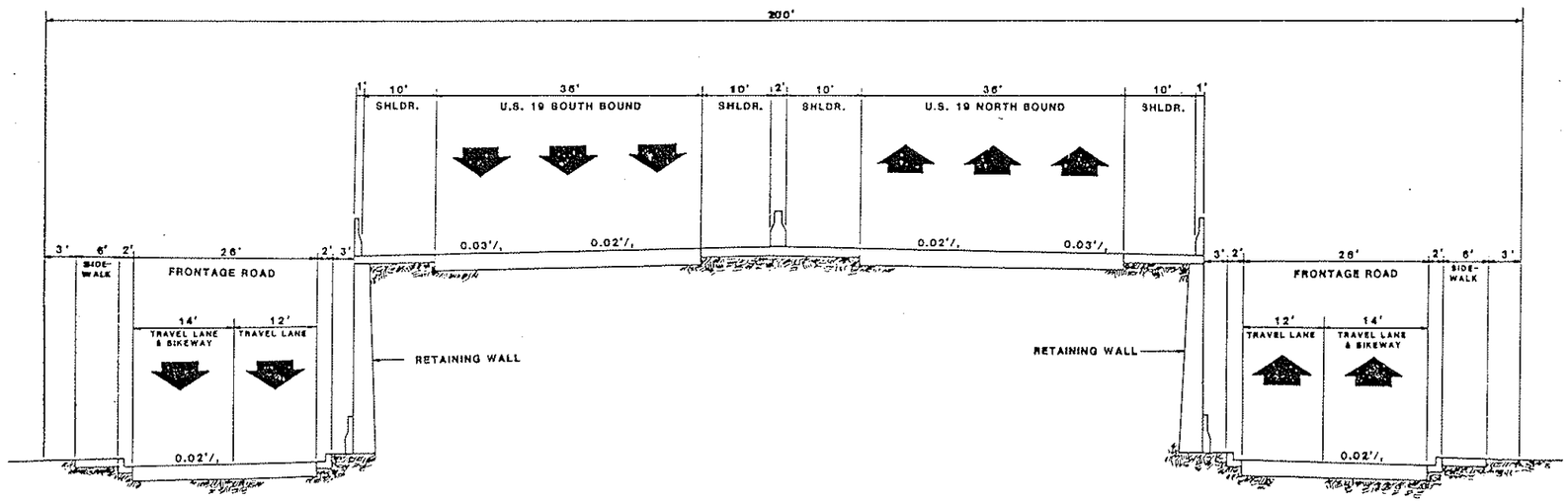
ANTICIPATED ENVIRONMENTAL IMPACTS

Waters within Pinellas County are designated as an Aquatic Preserve under Florida Administrative Code Section 17-3.041. As part of Outstanding Florida Waters, Aquatic Preserves are afforded the highest protection by the Florida Department of Environmental Regulation.

The proposed improvements of U.S. 19 will result in the permanent loss of some wetland areas. Areas with the largest potential to be impacted include Cross Bayou Canal (Site A-5), Allen's Creek (Site B-4), and the Anclote River (Site D-2) where bridge improvement or installation is required.



MAINLINE AND FRONTAGE ROAD TYPICAL SECTION ACROSS WATER BODY



URBAN OVERPASS TYPICAL SECTION

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
STATE PROJECT NO 15150-1565

BRIDGE CROSSING AND OVERPASS TYPICAL SECTIONS

Florida Department of Transportation
EXHIBIT 10

Greiner Engineering Sciences, Inc.

Some wetland areas adjacent to the facility may be affected by roadway widening. Of these areas, sites B-2 and B-3 appeared to be the most valuable wetlands due to their tidal nature and mangrove populations.

Drainage ditches which run parallel and perpendicular to the roadway would require removal or relocation as a result of the project. Twenty-nine of the forty-seven sites identified are drainage systems of some type. Most of these drainage areas do not support significant populations of wetland vegetation or wildlife. Since the major function of these areas is to collect stormwater runoff, these sites do not appear to be valuable wetland systems. Project involvement with many of the drainage ditches identified may fall under the category of incidental construction and may not require permits. The more valuable drainage ditches appeared to be the larger permanently flowing systems, including B-10, C-2, C-3, and D-1.

The Permit Coordination Site Matrix (Table 1) identifies the anticipated construction methods, type of encroachment, and an estimated acreage of impact for each site. Drainage systems were not considered to be impacted by the proposed construction if they did not contain wetland vegetation. The total acreages of wetland systems were determined from the 1" = 400' aerials and/or the 1" = 100' aerials. Drainage ditches, canals, and rivers were not included in measurement of the entire wetland system. Wetland impacts created by the construction of headwalls and discharge structures would be considered incidental construction and would not require dredge/fill permits in accordance with Chapter 17-12.050, F.A.C. A brief summary of the impacts follows.

Design Segement A

Site A-1 - Approximately .012 acres of wetlands are anticipated to be impacted by the proposed improvements of culvert extensions along this drainage canal.

TABLE 1

PERMIT COORDINATION SITE MATRIX

	Site	Description	Anticipated Construction Methods	Anticipated Impacts to Wetlands: Type of Encroachment	Acreages Eastside	Acreages Westside	System
Segment A	A-1	Ditch, two 6'x4' box culverts	2	B	.006	.006	--
	A1A	Ditch, two 24" and two 36" (below grate) culverts drop box-junction box	2	B	.003	N/I	--
	A1B	Ditch, Two 36" cuverts	2	B	.002	.002	--
	A-2	Ditch, two 42" and one 60" culverts	2	B	.005	.003	--
	A-3	Wetland area near toe of slope	1	B	N/I	N/I	1.5
	A-3-1	Ditch, one 30" culvert with junction box on east	2	A	N/I	N/I	*
	A3A	Ditch, one 36" culvert one drop box west	1	A	N/I	N/I	--
	A3B	Retention Pond	1	A	N/I	N/I	.30
	A3C	Ditch, Two 36" culverts	2	B	.006	.01	--
	A-4	Ditch, one 48" culvert	2	B	.004	.001	--
	A-5	Bridge structure	3	C	.06	.06	--
Segment B	B-1	Ditch, one culvert, 30" on east side and 42" on west side	2	B	.003	.005	--
	B-2	Tidal area adjoining toe of slope	2	D	0.31	N/I	54
	B-3	Tidal area adjoining toe of slope	2	D	N/I	0.1	1.5
	B-4	Bridge structure	1	C	0.2	0.2	--
	B-5	Ditch, two 36" culverts, one drop box west side	2	B	.001	N/I	--
	B-6	Ditch, two 36" culverts	2	B	0.14	0.14	--
	B-7	Ditch, two culverts, on east side (60" & 30"), one 42" on west side	2	B	N/I	.012	--
	B-8	Ditch, one 42" culvert with retention pond on west	2	B	.002	.08	--
	B-9	Retention pond near toe of slope	4	D	N/I	0.6	>5.0
	B-10	Ditch, one 36" culvert	1	A	N/I	N/I	--
	B-11	Wetland area near toe of slope, east side one 36" culvert	4	D	.003	.53	2.0
	B-12	Ditch, one 30" culvert	2	B	.01	N/I	--
	B-13	Ditch, one 18" culvert	2	B	.004	.003	--
	B-14	Ditch, one 30" culvert	2	A	N/I	N/I	--
Segment C	C-1	Ditch, one 18" culvert, east side	2	B	.0006	N/I	--
	C-1A	Ditch, 4 culverts			.17	N/I	--
	C-2	Ditch, four 54" culverts	2	B	.023	.05	--
	C-3	Ditch, two 48" culverts	2	B	.025	.022	--
	C-4	Ditch, two 54" culvert east side, two 72"x48" box culverts west side	2	B	.02	.02	--
	C-5	Ditch, one 36" culvert	2	B	N/I	.007	--
	C-5A	Retention Pond	4	A	N/I	N/I	--
	C-5A1	Wetland Area near toe of slope	4	D	N/I	.05	--
	C-6	Ditch, one 36" culvert	2	B	.003	N/I	--
	C-6A	Wetland area near toe of slope	4	D	.20	N/I	2.5
	C-6B	Ditch, one 30" culvert	2	A	N/I	N/I	*
	C-7	Ditch, two 30" culverts	2	B	.02	N/I	--
	C-8	Ditch, one 24" and one 30" culverts	2	B	.008	.008	--
	C-8A	Retention Pond	4	D	.0005	N/I	.08
	C-8B	Retention Pond	4	D	.006	N/I	.08
	C-8C	Wetland Area near toe of slope	4	D	.23	N/I	4.5
	C-8D	Wetland Area near toe of slope	4	D	N/I	1.28	30.0
	C-8E	Wetland Area near toe of slope	4	D	.24	N/I	1.0
	C-8F	Wetland Area near toe of slope	4	D	.16	N/I	11.0
	C-9	Ditch, one 54" culvert with drop box on west side	2	B	.002	N/I	--

TABLE 1

PERMIT COORDINATION SITE MATRIX - Continued

	Site	Description	Anticipated Construction Methods	Anticipated Impacts to Wetlands: Type of Encroachment	Acreages Eastside	Acreages Westside	System
Segment D	D-1	Ditch, one box culvert 6' wide 4' high east side, 5 1/2' high west side	3	B	.05	.042	--
	D-2	Twin span bridge structure	4	C	.2	.19	--
					2.1171	3.421	

N/I = No Impact

KEY TO MATRIX

Anticipated Construction Methods

1. Retention of culvert and headwall at existing location and steepen side side slopes where necessary.
2. Extension and/or replacement of culvert and associated structures.
3. Additional bridge abuttments, pilings, piers, and slope protection.
4. Addition of fill material to extend side slopes.

Anticipated Impact on Wetland Areas

A. No encroachment into wetland area.

B. Encroachment into wetland area and permanent loss of area relative to extent of culvert relocation.

C. Disturbance of shoreline and river bottom, with permanent loss of area relative to number of additional pilings to be placed and required slope protection.

D. Encroachment into wetland area and permanent loss of area relative to extent of fill.

Site A-2 - Approximately .008 acres of wetlands are anticipated to be impacted by the proposed improvements by the extention of culverts

Site A-3 - This site is not anticipated to be impacted by the proposed improvements.

Site A-4 - Approximately 0.005 acres of wetlands are anticipated to be impacted along this drainage ditch by extending culverts.

Site A-5 - Approximately 0.12 acres of wetlands are anticipated to be impacted at the Cross-Bayou Canal by the proposed bridge construction.

Design Segment B

Site B-1 - Approximately 0.008 acres of wetlands are anticipated to be impacted by the proposed improvements including extension of culverts along this drainage ditch.

Site B-2 - Approximately 0.31 acres of wetlands are anticipated to be impacted by the proposed improvements. This tidal flat would require fill to develop the appropriate surface for road construction.

Site B-3 - Approximately 0.1 acres of wetlands are anticipated to be impacted by the proposed construction. This tidal flat would require fill to develop the appropriate surface for road construction.

Site B-4 - The anticipated impact to Allen's Creek includes approximately 0.4 acres of wetlands impacts. Some of these impacts would be temporary during bridge construction.

Site B-5 - This site is not anticipated to be affected by the proposed improvements west of US 19; however, approximately 0.001 acres of wetlands would be impacted by the extension of culvert.

Site B-6 - Approximately 0.14 acres of wetlands are anticipated to be affected through culvert extension.

Site B-7 - Approximately .012 acres of wetlands are anticipated to be impacted by culvert extension.

Site B-8 - Approximately 0.08 acres of wetlands are anticipated to be filled for road construction.

Site B-9 - Approximately 0.6 acres of wetlands would be filled for road construction.

Site B-10 - This site is not anticipated to be impacted by the proposed improvements.

Site B-11 - The anticipated impact to this site includes approximately 0.5 acres of fill for proposed improvements.

Sites B-12 through B-14 and Sites C-7 and C-9 - These sites are anticipated to receive minimal impact due to culvert extensions.

Design Segment C

Sites C-1 through C-5 and Sites C-6, C-6B, C-7, C-8, and C-9 - These sites are anticipated to receive minimal impact due to extension of culverts.

Site C-5A - This site is not anticipated to be impacted by the widening of US 19.

Site C-5A1 - Approximately 0.05 acres of wetlands are anticipated to be filled for the proposed improvements.

Site C-6A - Approximately 0.20 acres of wetlands are anticipated to be impacted by the proposed improvements.

Site C-8A and C-8B - Are not anticipated to be impacted by the widening of US 19; however, the cement structure may be relocated.

Site C-8C - Approximate impact to this wetland would include 0.23 acres for fill.

Site C-8D - Approximately 1.28 acres of wetlands would be impacted.

Site C-8E - The anticipated impact to this site includes approximately 0.24 acres for fill in the wetland area.

Site C-8F - Widening of US 19 would require approximately 0.16 acres of fill into this wetland to develop the appropriate surface.

Design Segment D

Site D-1 - The anticipated impact to this site would include approximately 0.05 acres on the east side of US 19 and .042 acres west of US 19 for culvert improvements.

Site D-2 - It is anticipated that less than 0.4 acres of impacts would be required for proposed improvements. Some of these impacts would be temporary during the construction.

MITIGATION SUMMARY

Twenty-nine of the forty-seven sites identified involve drainage systems (culverts) of some type. These would include sites (A-1, A-1A, A-1B, A-2, A-3-1, A-3A, A-3C, A-4, B-5, B-6, B-7, B-8, B-19, B-12, B-13, B-14, C-1, C-1A, C-2, C-3, C-4, C-5, C-6, C-6B, C-7, C-8, C-9, and D-1). A candidate mitigation scenario for the above drainage systems could include combining the total acreage of impacts from the above sites and applying this total to the enhancement of an existing wetland system. This would appear to be a viable alternative for mitigation due to the small acreage of wetland impacts to each individual culverted ditch.

The parallel drainage systems are not anticipated to require mitigation since these would be relocated and would re-establish wetland vegetation. These systems would also retain their primary function in stormwater treatment.

Site B-10 could be considered a candidate mitigation area for these drainage ditches since there would be more than 1 acre available for wetland enhancement within the existing right-of-way. This site would be regraded on both the east and west sides of US 19 and planted with herbaceous wetland species.

Sites B-9, C-8A, and C-8B are retention ponds outside of the existing right-of-way which may be impacted. This would require a functional replacement as mitigation for their existing capacity.

The proposed bridge structures along the Cross Bayou Canal (A-5), Allens Creek (B-4), and the Anclote River (D-2) could be mitigated within their own systems. The following mitigation scenario could be applied to enhance the existing wetland system; Noxious species of Brazilian pepper could be removed, the slopes regraded and replaced with herbaceous salt tolerant species, i.e., Spartina, or the areas void of vegetation could be regraded and planted with salt tolerant species, or the mud flats could be planted with salt tolerant species.

The mitigation scenario for the tidal area sites (B-2) and (B-3) which include 0.41 acres of wetland impacts could be mitigated within the existing system.

The larger fresh water systems (Sites B-11, C-5A1, C-6A, C-8C, C-8D, C-8E, and C-8F) that include cypress swamps, mixed hardwood systems, scrub-shrub, and herbaceous wetlands could be mitigated by acquiring land outside the existing right-of-way to enhance some of the existing communities. In addition, the isolated systems could be mitigated along the littoral shelf within the proposed retention areas as required by SWFWMD.

Some of these wetlands are dominated by invader species along the edges, i.e., willow shrub and saltbush. These communities are anticipated to require less mitigation than the more valuable wetlands.

III. REQUESTS AND RECOMMENDATIONS

This report has identified and described areas which may require water related permits due to the development of proposed improvements to U.S. 19. It is the aim of this report to provide substantial information to appropriate environmental permitting and review agencies for the early coordination of the project's wetland involvement.

It is necessary that comments from appropriate environmental permitting and review agencies be included in the Draft Environmental Impact Statement being prepared for this project by the Florida Department of Transportation.

The Florida Department of Transportation requests that appropriate agencies review the contents of this report and provide comments within 30 days of the receipt of this report. Agencies are specifically requested to comment on:

1. The permit requirements for any area along the corridor affected by the project;
2. The significance of existing wetland areas within the project limits;
3. The significance of the effects of the proposed project;
4. The likelihood of a permit application being approved at each site without anticipated complications, such as general permits, exemptions; and
5. Any mitigation measures which are required for permit approval.

The Department is prepared to assist any agency with questions regarding the review of the Permit Coordination Report and will be pleased to conduct a joint agency field review of the corridor, if necessary. Aerial photographs of the corridor are available under separate cover.

For further information concerning this permit coordination report, please contact:

Mr. Frank Black
Florida Department of Transportation
Bartow District Office
P.O. Box 1249
Bartow, Florida 33830
(813) 533-8161

or

Ronald W. Gregory, A.I.C.P.
Project Director
Greiner Engineering Sciences, Inc.
P.O. Box 23646
5601 Mariner Street
Tampa, Florida 33609-3416
(813) 879-1711

APPENDIX A

PERMIT COORDINATION FIELD NOTES AND PHOTOGRAPHS

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site A-1
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 200± north of Gandy Boulevard (74th Avenue N), Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

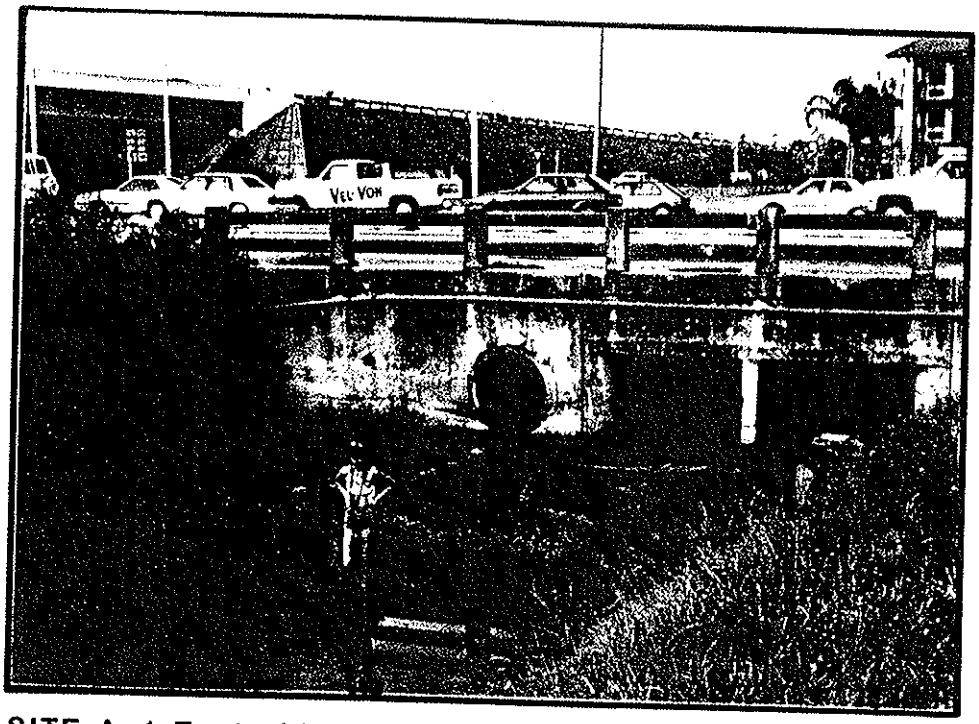
WATERWAY: WIDTH: 20'± **DEPTH:** 6"-10" **FLOW DIRECTION:** East

TYPE OF CROSSING: Two 6' wide x 4' high box culverts with 42" R.C.P. Culvert.

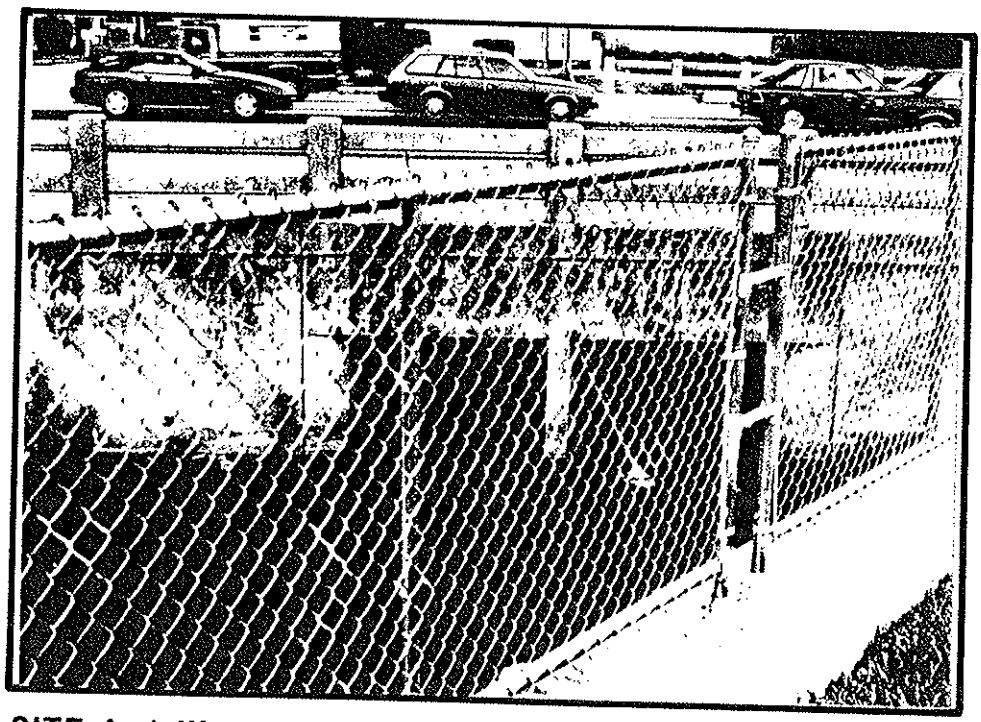
CONDITION: Structures open.

VEGETATION: East side - maidencane, pickerelweed, hydrilla.
West side - no significant vegetation.

REMARKS: West side - new structures with retention basin. Headwall 48' wide and 7' from E.P.
East side - headwall 55' wide and 15'± from E.P.



SITE A-1 East side of U.S. 19 looking west.



SITE A-1 West side of U.S. 19 looking east.

U.S. 19 PROJECT DEVELOPMENT
AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

Florida Department of Transportation

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site A-1A
Inspection Date: March 29, 1988

LOCATION: 40'± north of 78th Avenue.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

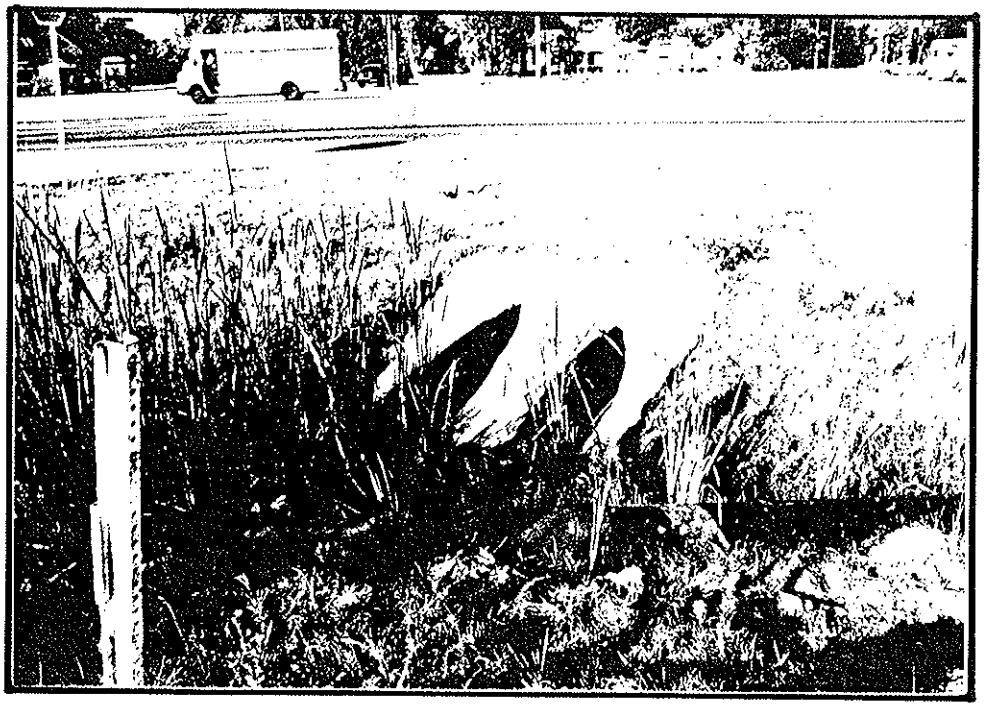
WATERWAY: WIDTH: 3'-5' **DEPTH:** 0.5'-1' **FLOW DIRECTION:** East

TYPE OF CROSSING: East side - Two 24" R.C.P. culvert.
West side - Two 36" R.C.P. culvert and drop box.

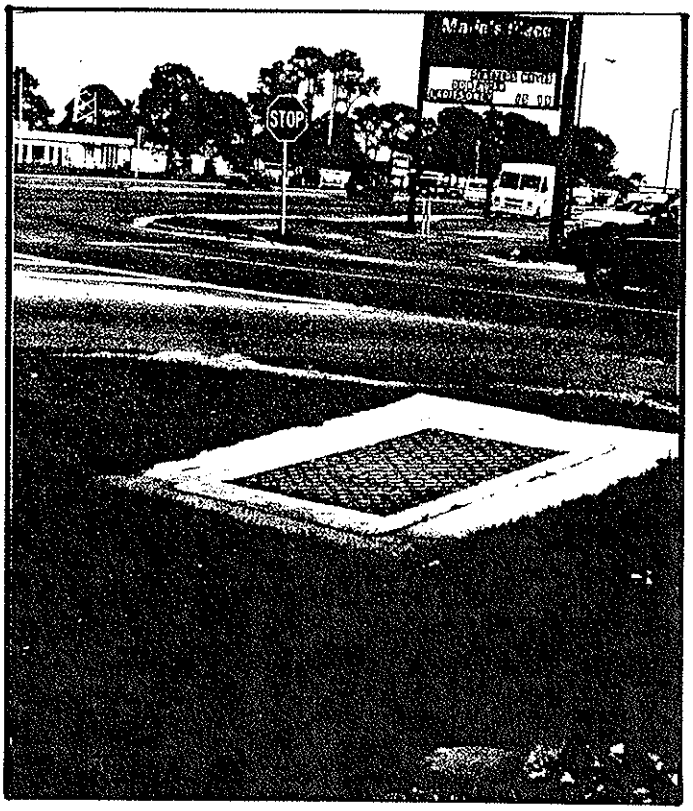
CONDITION: East side - fairly clear, some debris.
West side - drop box - also collects flow from north parallel drainage.

VEGETATION: East side - cattail, pennywort, lizards tail, red ludwigia, softrush, arrowhead, maidencane, and Brazilian pepper.
West side - no vegetation

REMARKS: East side - structure 15' from E.P.



SITE A-1A East Side of U.S. 19 Looking West



SITE A-1A West Side of U.S. 19 Looking Southeast

U.S. 19 PROJECT DEVELOPMENT
AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

Florida Department of Transportation

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site A-1B
Inspection Date: March 29, 1988

LOCATION: 140'± north of 84th Avenue

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

WATERWAY: WIDTH: **DEPTH:** **FLOW DIRECTION:**

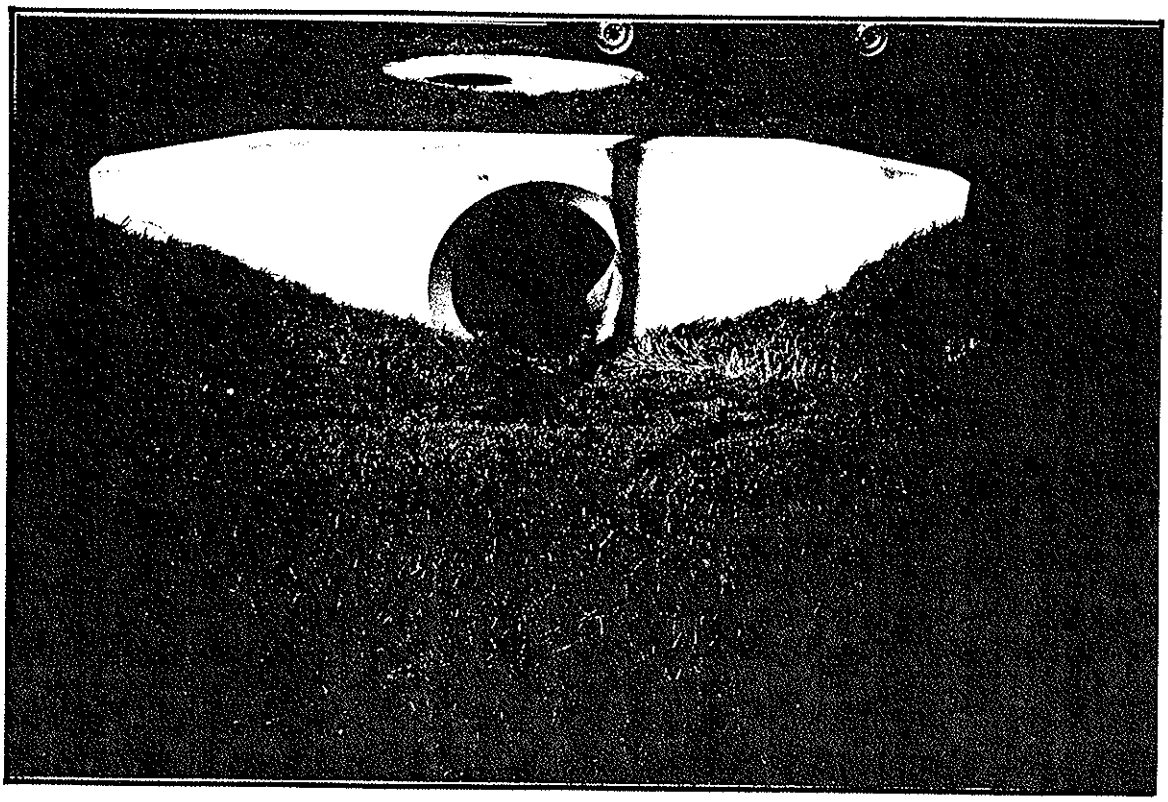
TYPE OF CROSSING: East side - 36" R.C.P. culvert
West side - 36" R.C.P. culvert

CONDITION: East side - algae, some debris.
West side - no standing water.

VEGETATION: East side - cattail, willow, water primrose, arrowhead, pennywort, eclipta alba, dog fennel, ragweed, algae.
West side - maidencane, sedges, cattail, cyperus sp.

REMARKS: East side - headwall 17' wide and 27' from E.P.
East side - headwall 17' wide and 15' from E.P.

SITE A-1B East of U.S. 19 Looking West



SITE A-1B West of U.S. 19 Looking East

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

STATE PROJECT NO. 15150-1585

PERMIT COORDINATION REPORT

Florida Department of Transportation

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site A-2
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 1,600'± north of 82nd Avenue north, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

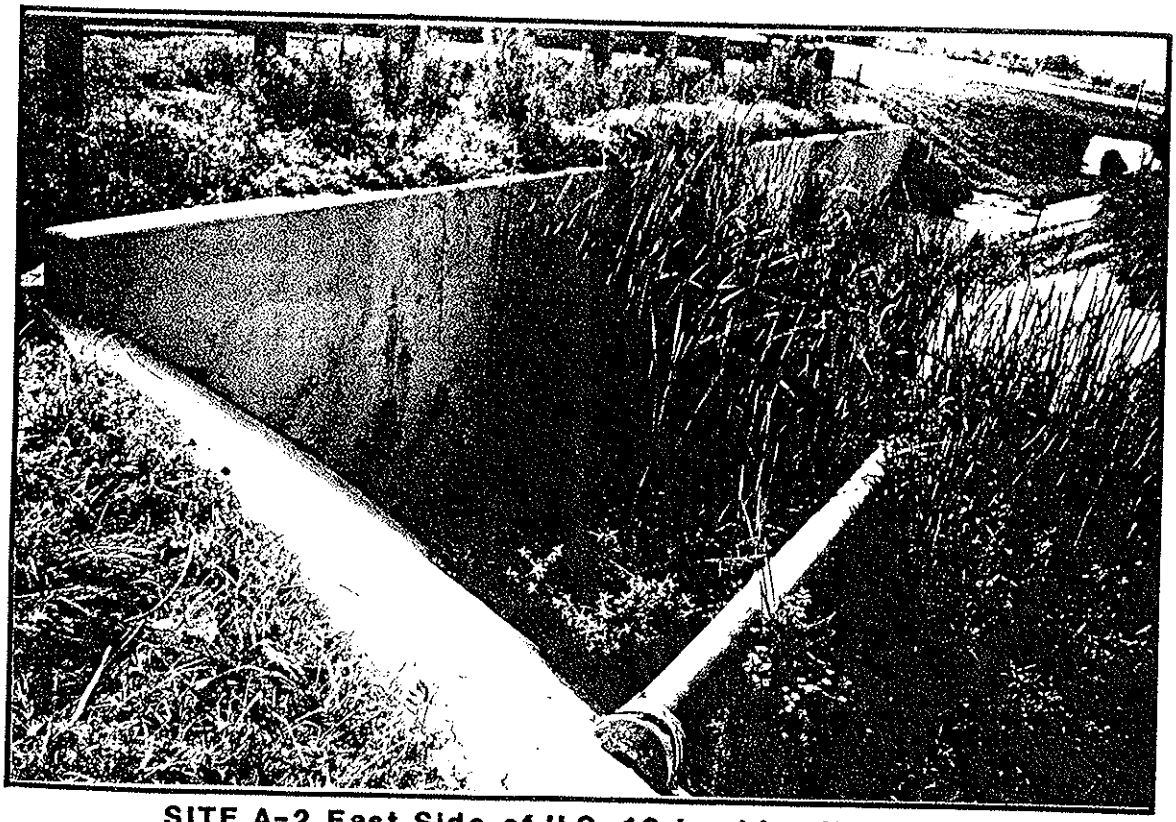
WATERWAY: WIDTH: 8'± **DEPTH:** 1'± **FLOW DIRECTION:** East

TYPE OF CROSSING: Two 42" R.C.P. and one 60" R.C.P. culverts.

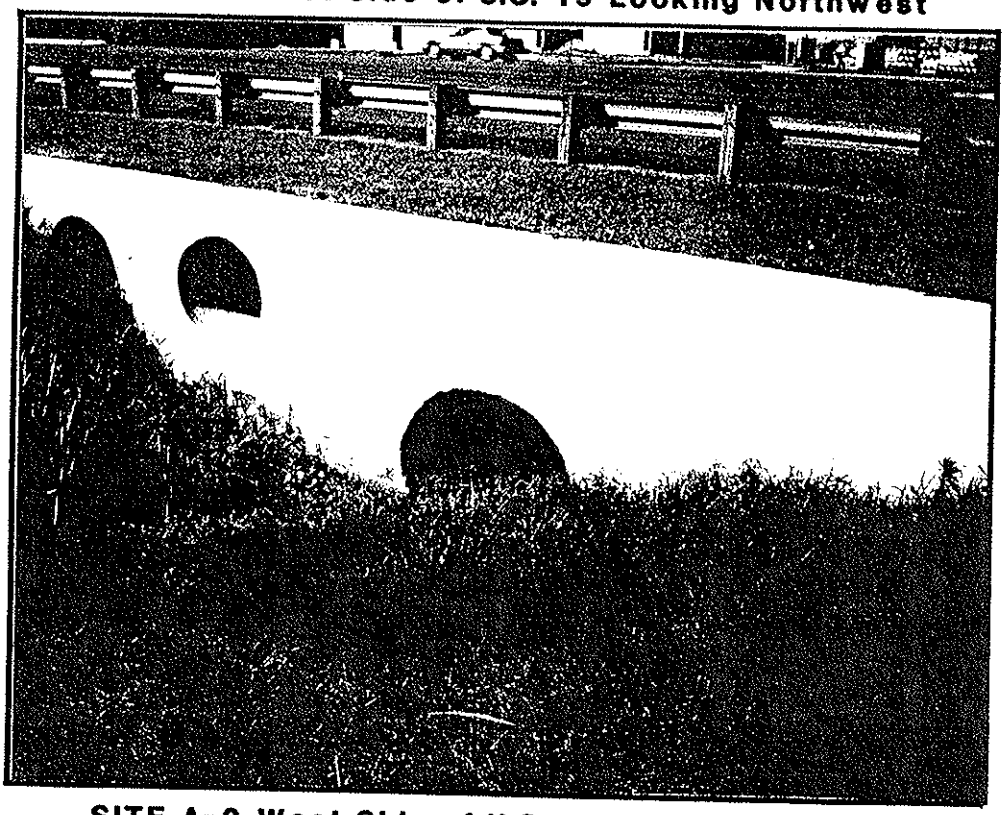
CONDITION: East side - structures clean, west side - construction debris, water fairly clear.

VEGETATION: East side - alligator weed, barnyard grass, maidencane 240 ft^2.
West side - alligator weed, willow 120 ft^2

REMARKS: Structures were under construction, during inspection in 1986 for the extension of pipes and headwall (both sides).
East side - headwall 56' wide and 15'± from E.P. Gas pipeline present.
West side - headwall 56' wide and 27'± from E.P.



SITE A-2 East Side of U.S. 19 Looking Northwest



SITE A-2 West Side of U.S. 19 Looking Northeast

U.S. 19 PROJECT DEVELOPMENT
AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

Florida Department of Transportation

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site A-3
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 2,000'± north of 82nd Avenue on east side of U.S. 19, Pinellas County.

TYPE OF WATERWAY: Wetland area adjacent to right-of-way.

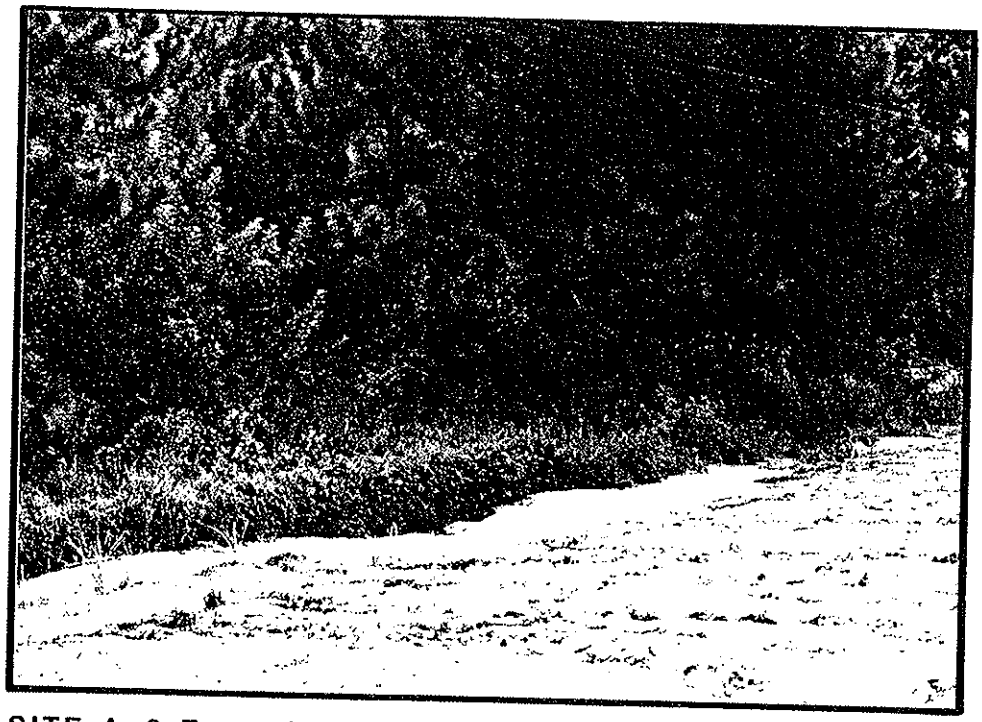
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

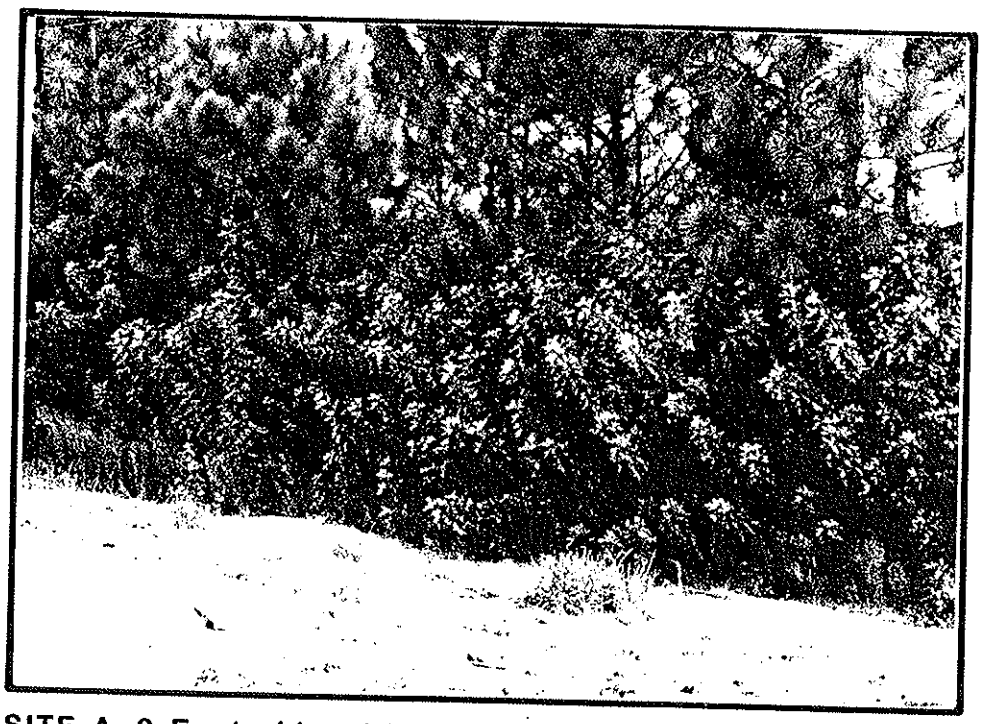
CONDITION: N/A

VEGETATION: Arrowhead, water primrose, dog fennel, Brazilian pepper.

REMARKS: Low lying area near right-of-way.



SITE A-3 East side of U.S. 19 looking southeast.



SITE A-3 East side of U.S. 19 looking northeast.

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Site A-3-1
Inspection Date: March 29, 1988

LOCATION: 2,050' south of 49th Street North

TYPE OF WATERWAY: Drainage ditch, class III waters, non-tidal

WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

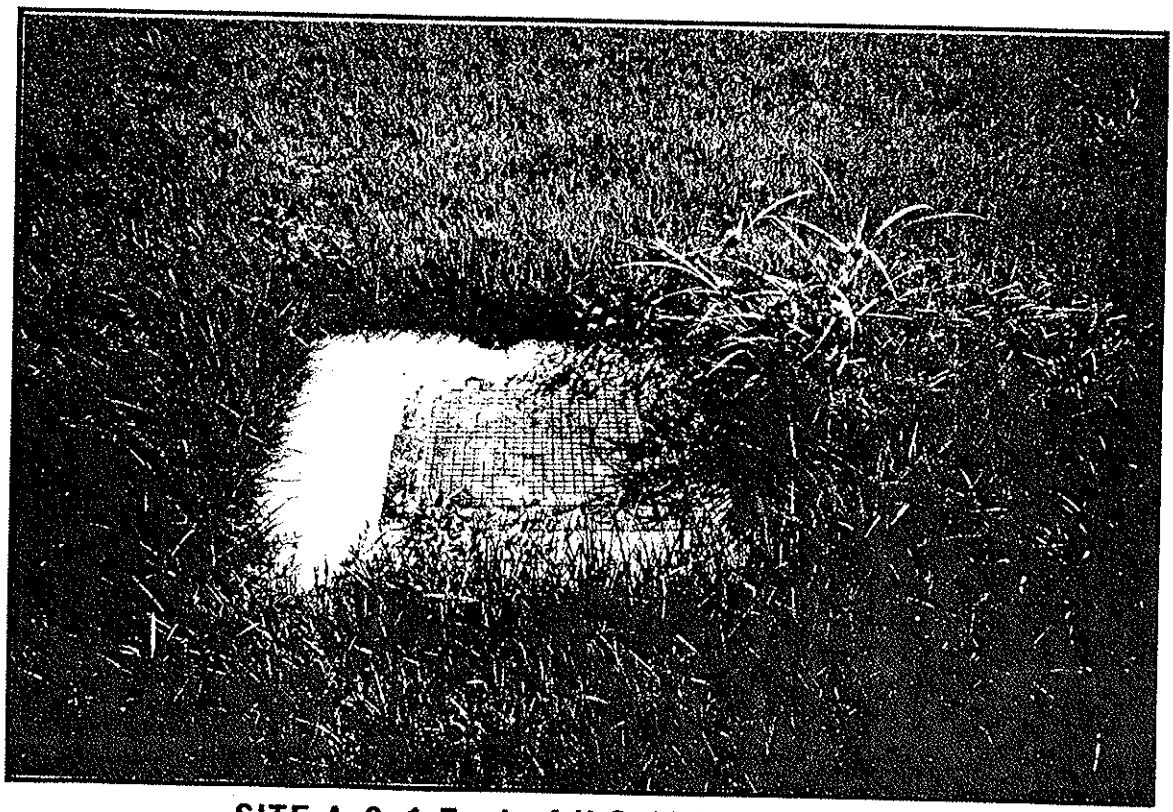
TYPE OF CROSSING: East side - junction box
West side - one 30" R.C.P. culvert

CONDITION: East side - densely vegetated, no standing water.

VEGETATION: East side - primrose willow, dog fennel, cattail, willow, Brazilian pepper

REMARKS: East side - headwall 12' wide

SITE A-3-1 West of U.S. 19 Looking East



SITE A-3-1 East of U.S 19 Looking West

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Site A-3A
Inspection Date: March 29, 1988

LOCATION: 49th Street access ramp, east of U.S. 19.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

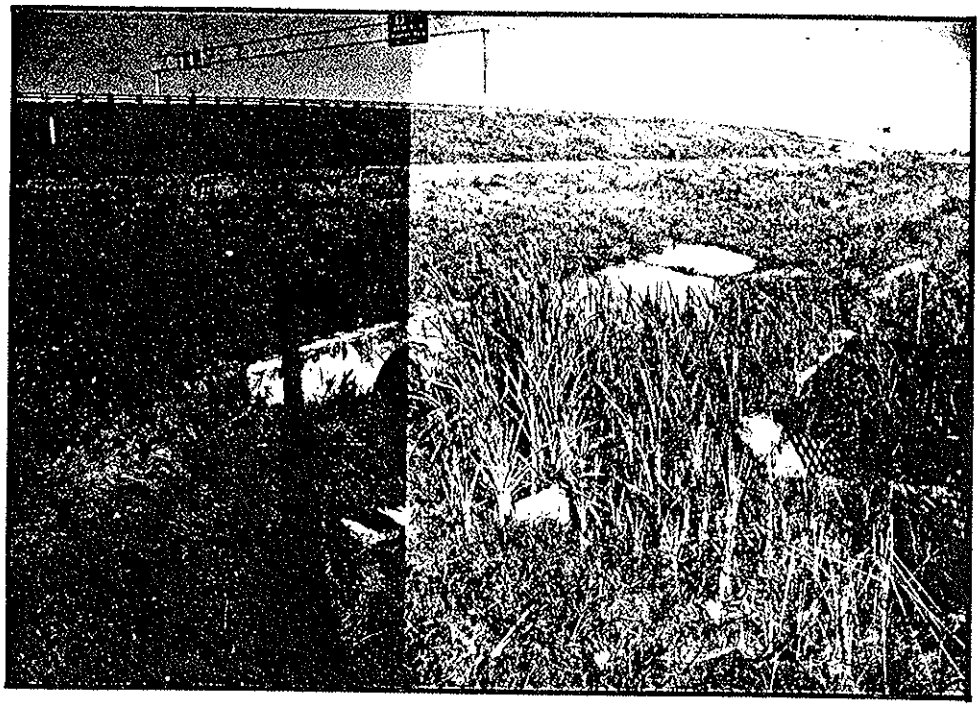
WATERWAY: WIDTH: 3'-5' **DEPTH:** 0.5'±- **FLOW DIRECTION:** East

TYPE OF CROSSING: East side 18" R.C.P. culvert covered with grate. No structure on west side.

CONDITION: East side - fairly clear, some debris.

VEGETATION: East side - cattail
West side - no vegetation

REMARKS: East side - headwall 18' wide and 35' from E.P.
West side - metal grate



SITE A3A East Side of U.S. 19 Looking West

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Site A-3B
Inspection Date: March 29, 1988

LOCATION: East of U.S. 19, north of its intersection with 52nd Avenue

TYPE OF WATERWAY: Retention Pond.

WATERWAY: WIDTH: N/A **DEPTH:** 1'-2' **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: Densely vegetated

VEGETATION: cattail, arrowhead, maidencane, eclipta alba

REMARKS: culvert crossing at 52nd Avenue

SITE A3B East From 52nd Ave. Looking West at U.S. 19

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Site A-3C
Inspection Date: March 29, 1988

LOCATION: 900'± south of 116th Avenue N.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

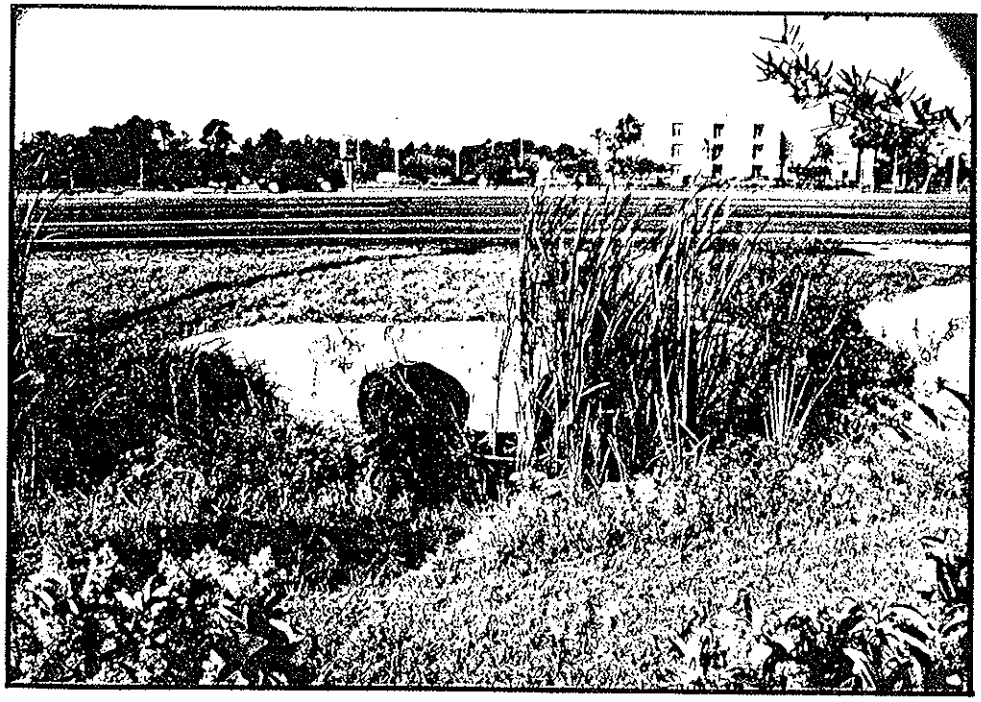
WATERWAY: WIDTH: 10'-15' **DEPTH:** 1'-2' **FLOW DIRECTION:** West

TYPE OF CROSSING: East side - Two 36" R.C.P. culvert
West side - Two 36" R.C.P. culvert

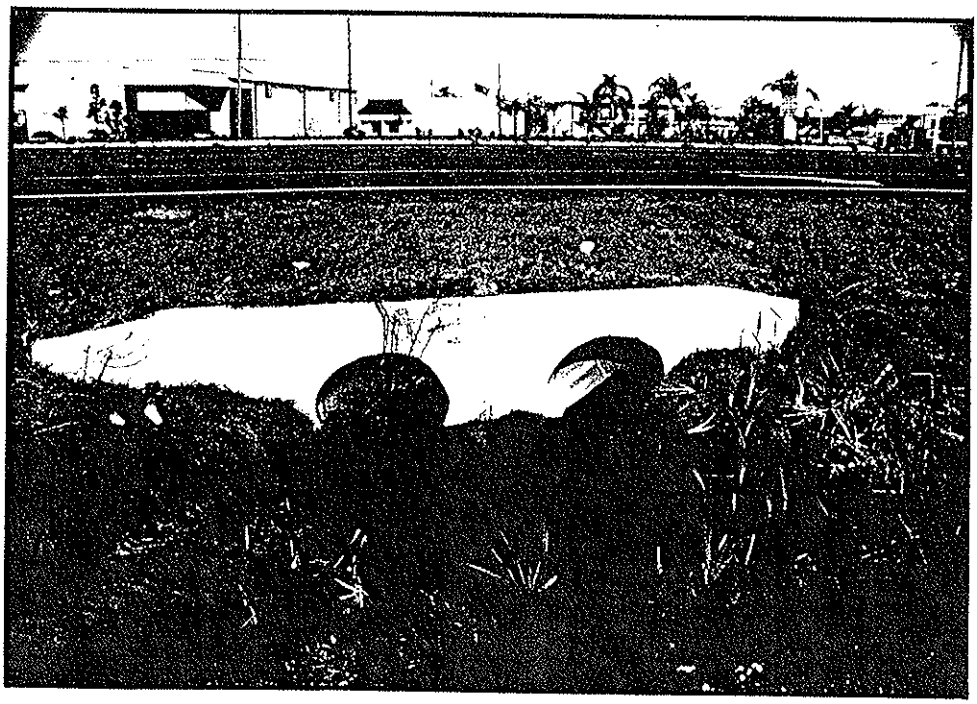
CONDITION: East side - clear
West side - some siltation

VEGETATION: East side - cattail, water primrose, willow, red ludwigia, maidencane.
West side - cattail.

REMARKS: East side - headwall 21' wide and 14' from E.P.
West side - headwall 21' wide and 14' from E.P.



SITE A3C East Side of U.S. 19 Looking West



SITE A3C West Side of U.S. 19 Looking East

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Site A-4
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 50'± north of 118th Avenue, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

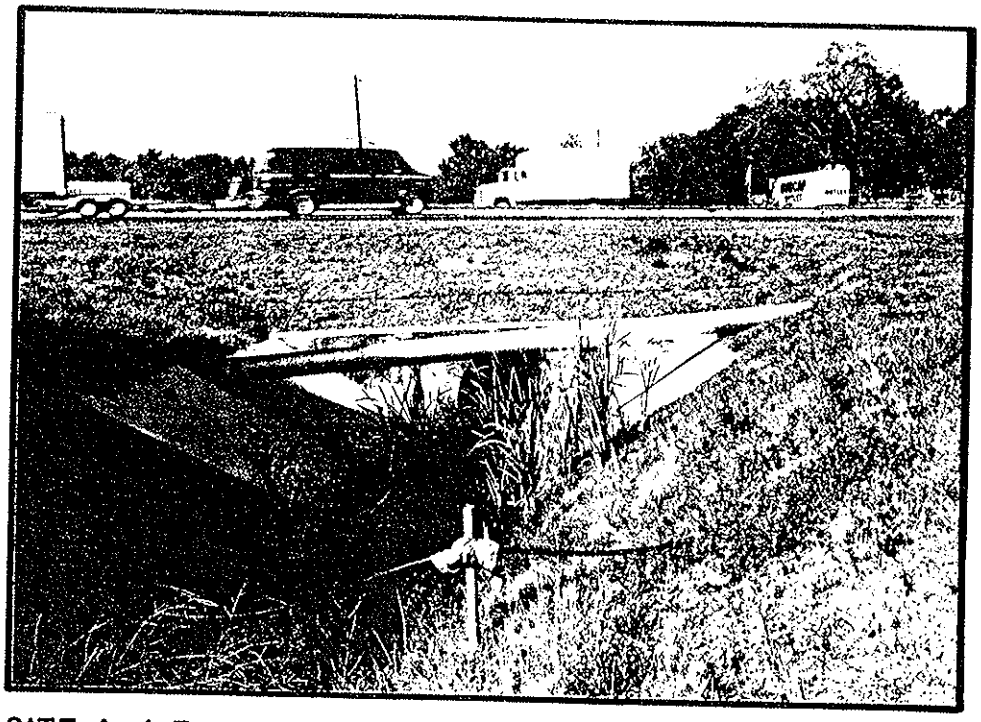
WATERWAY: WIDTH: 2'-3' **DEPTH:** 1'± **FLOW DIRECTION:** West

TYPE OF CROSSING: One 48" R.C.P. culvert

CONDITION: East side - water clean, recent slope improvements.
West side - blocked by debris eroding on edges, partially silted, during 1986 inspection; culvert improved March 1988.

VEGETATION: East side - cattail, water primrose.
West side - alligator weed.

REMARKS: East side - some vegetation appears to have been killed by a herbicide. Headwall ~ 27' from E.P.
West side - no headwall, pipe mouth 75'± from E.P.



SITE A-4 East side of U.S. 19 looking west.

SITE A-4 West side of U.S. 19 looking northeast.

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Site A-5
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: Cross Bayou Canal, Pinellas County.

TYPE OF WATERWAY: Navigable Waterway, Class III waters, tidal. FDOT bridge number 150080 northbound, 150035 southbound.

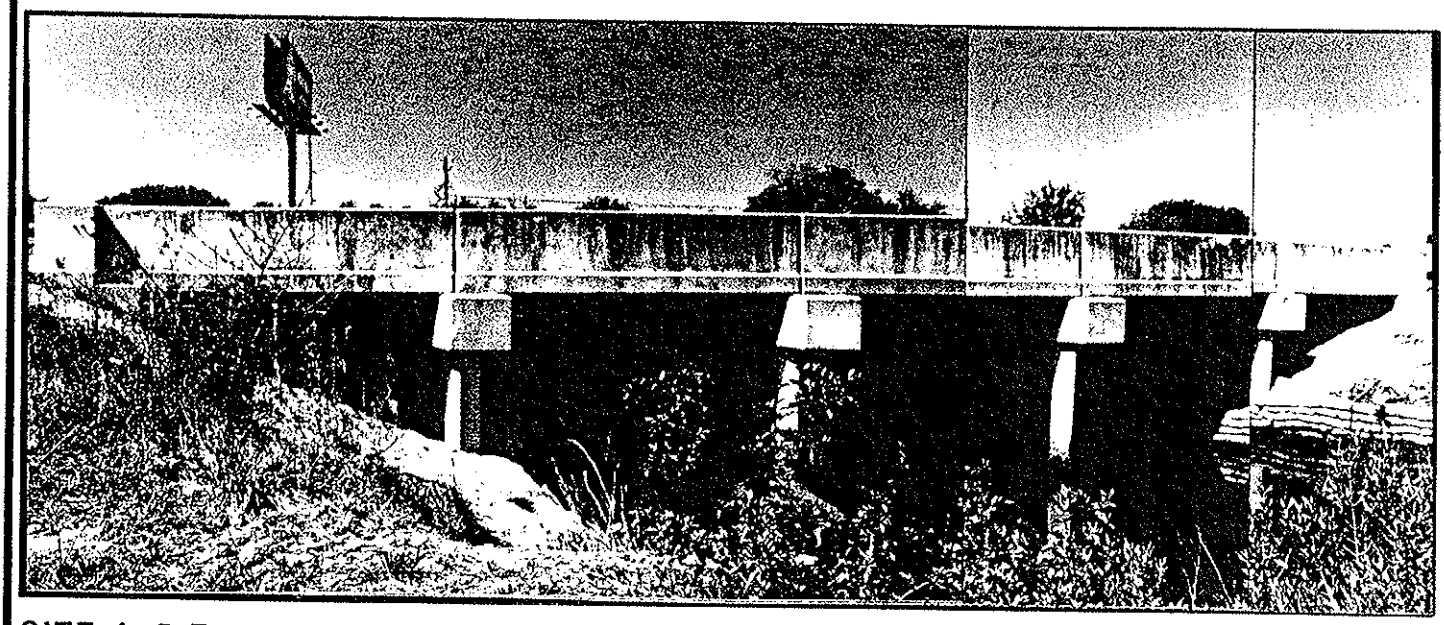
WATERWAY: WIDTH: 50'± **DEPTH:** 2'± below MLW **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: Divided bridge structure, 2 lanes each.

CONDITION: Open, vertical clearance 7'± above M.H.W.; horizontal clearance 10'±. (Clearance estimates approximate)

VEGETATION: Northeast quadrant - black mangrove, sea purslane, wax myrtle, Brazilian pepper, saltgrass.
Southeast quadrant - red mangrove, pennywort.
Northwest quadrant - black mangroves.
Southwest quadrant - red mangroves, Brazilian pepper.

REMARKS: Side slopes of structure protected on all sides by concrete sandbags. Only small draft vessels can navigate this waterway. No commercial use of this waterway occurs near the bridge at this time. There are no water dependent businesses in the vicinity of this site, although this site is in an area of commercial development. There are no wildlife and waterfowl refuges, public parks, recreational areas or historical sites in the vicinity of this site. However, recreational fishing does exist in the vicinity of the bridge structure. Tidal range is approximately 2.0 feet.



SITE A-5 East side of U.S. 19 at Cross Bayou Canal, looking west.

SITE A-5 West side of U.S. 19 at Cross Bayou Canal, looking northeast.

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Site B-1
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 1,350'± north of Whitney Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

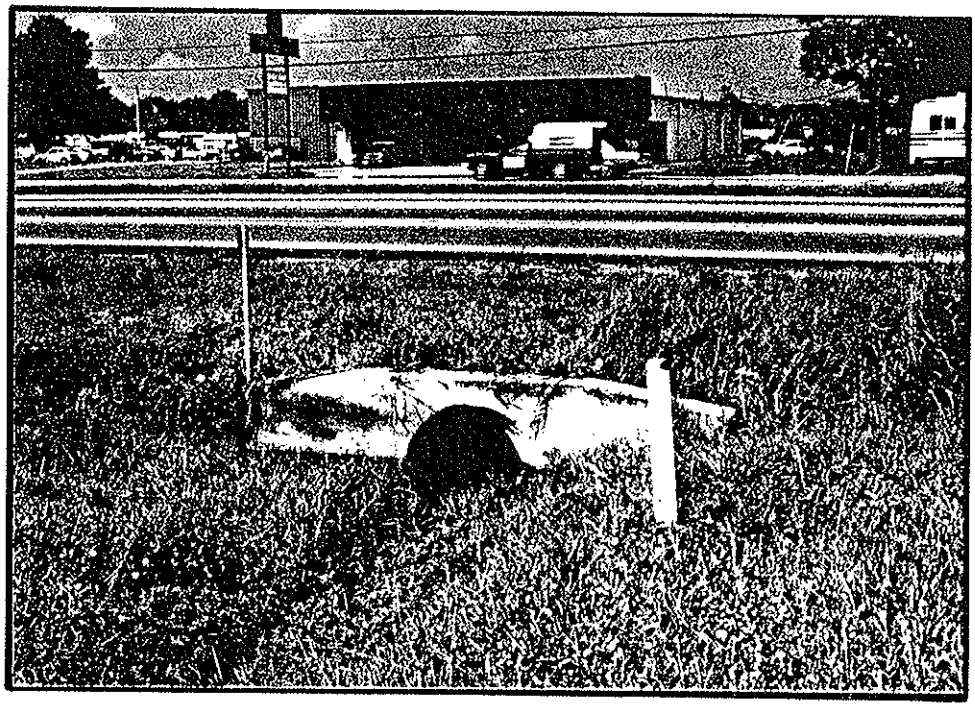
WATERWAY: WIDTH: 5'± **DEPTH:** 1'± **FLOW DIRECTION:** West

TYPE OF CROSSING: One culvert, 30" on east side, 42" on west side.

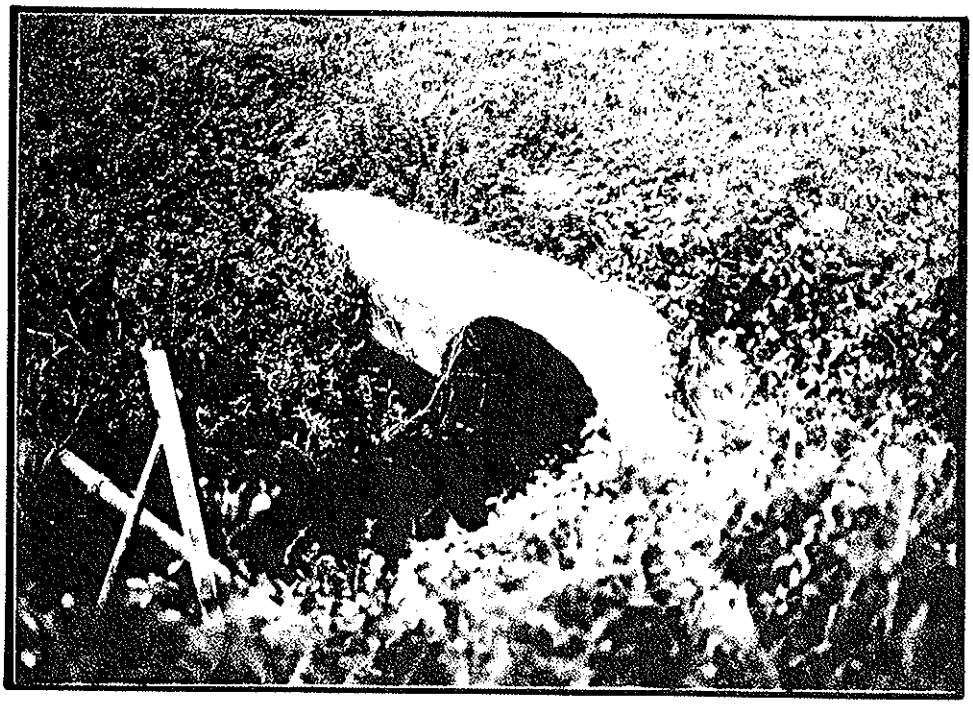
CONDITION: Open structure on both sides, water turbid

VEGETATION: East side - alligator weed, pennywort, sedge, pickerelweed, water primrose, maidencane.
West side - alligator weed.

REMARKS: East side - headwall 13' wide and 19'± from E.P.
West side - headwall 12' wide and 27'± from E.P.



SITE B-1 East side of U.S. 19 looking west.



SITE B-1 West side of U.S. 19 looking northeast.

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Site B-2
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 400-1,200' south of Allens Creek on the east side of U.S. 19, Pinellas County.

TYPE OF WATERWAY: Tidal flat adjacent to toe of slope, Class III waters.

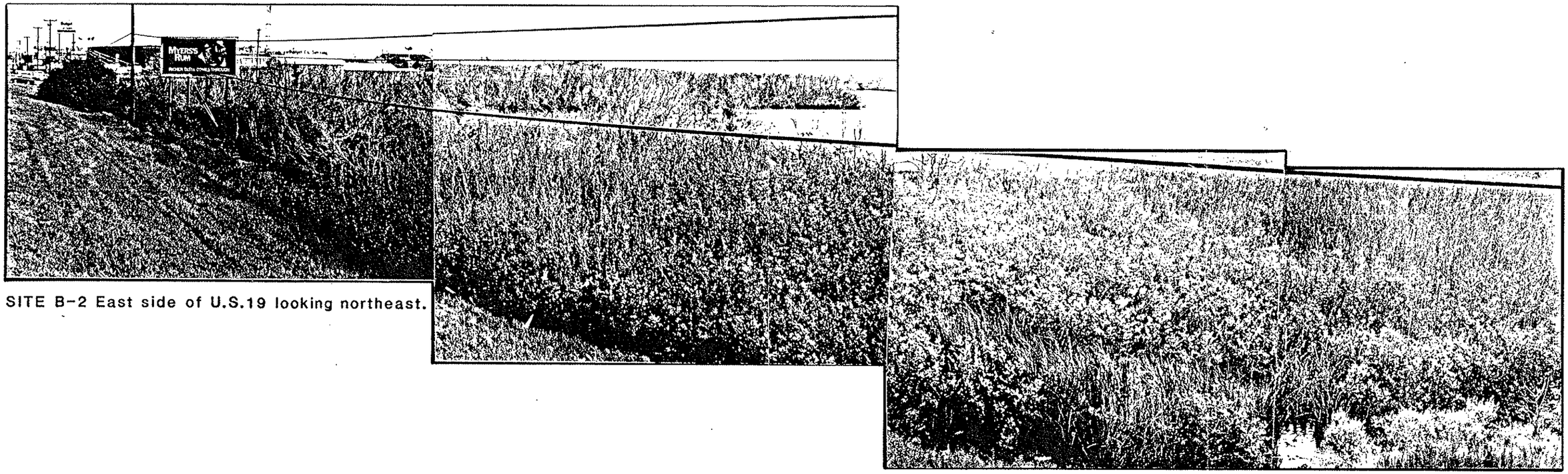
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: White and black mangroves growing back after hard freeze. Also present were Brazilian pepper, salt bush, cordgrass, soft rush, soft stem bulrush, goldenrod, and sea lavender.

REMARKS: Edge of wetland 38'± from E.P. at closest point. Area extends nearly 800' along U.S. 19.



SITE B-2 East side of U.S.19 looking northeast.

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Site B-3
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 700'-900' south of Allens Creek on the west side of U.S. 19, Pinellas County.

TYPE OF WATERWAY: Tidal flat adjacent to toe of slope, Class III waters.

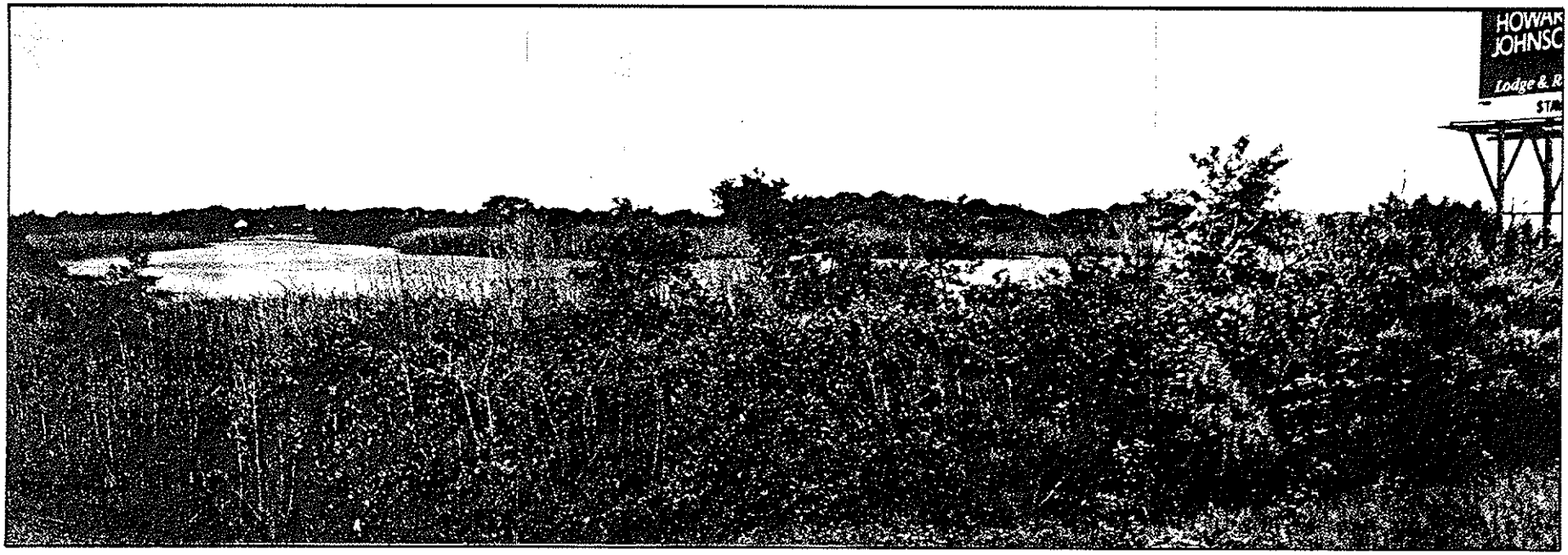
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: White mangroves returning from frost, caric sedge, various grasses.

REMARKS: Edge of wetland at toe of slope 35'± from E.P. at closest point. Area extends 200'± along U.S. 19.



SITE B-3 West side of U.S. 19 looking west.

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Site B-4
Inspection Date: August 26, 1986

LOCATION: Allens Creek, Pinellas County.

TYPE OF WATERWAY: Navigable waterway, Class III waters, tidal. FDOT bridge number 150081 northbound, 150036 southbound.

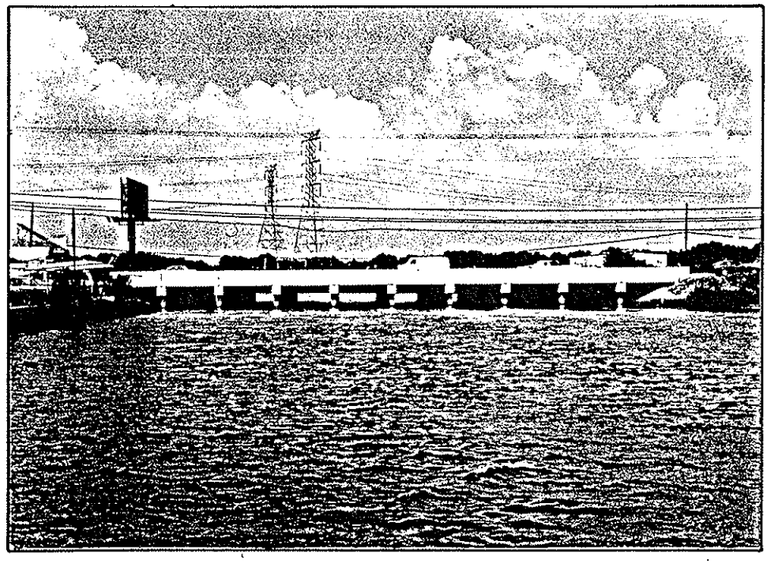
WATERWAY: WIDTH: 100'± **DEPTH:** 1.8'± below MLW **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: 6 lane bridge (3 lanes each direction).

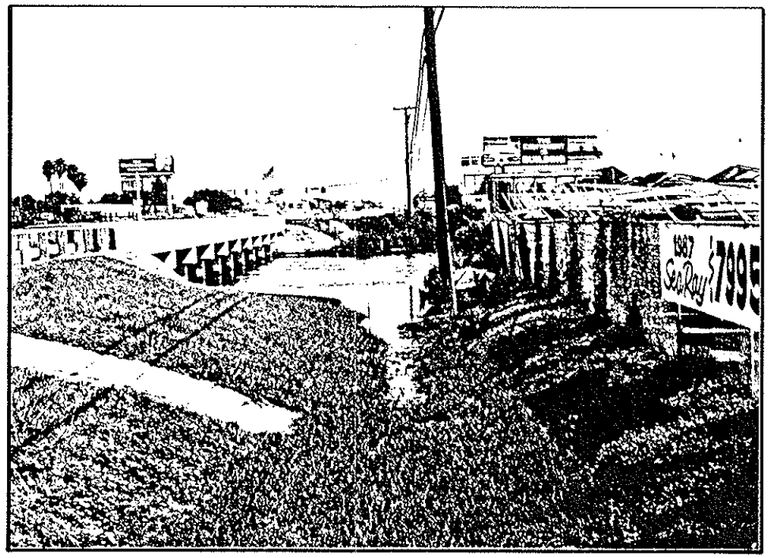
CONDITION: Open, vertical clearance 4.87' above M.H.W. and 7.67' above M.L.W. Horizontal clearance 13.8' between pilings. (clearance estimates from U.S. Coast Guard Bridge Permit 87-80).

VEGETATION: Northeast quadrant - the ditch parallel to U.S. 19 is heavily vegetated with red and black mangroves. Also present is white mangrove, sea purslane, saltgrass, and dog fennel.
Southeast quadrant - saltgrass, and a small red mangrove are found in a ditch parallel to U.S. 19.
Northwest quadrant - red mangroves, saltgrass.
Southwest quadrant - saltgrass.

REMARKS: The slopes on all sides of the bridge are protected by concrete sandbags. Small shallow draft vessels can navigate under the bridge. This site is located in an area of commercial development. A retail boat sales and service facility located on the southeast quadrant makes use of the creek. No wildlife refuges, public parks, recreational areas or historical sites are located in the vicinity of the site. A gas pipeline discharges at the northwest quadrant.

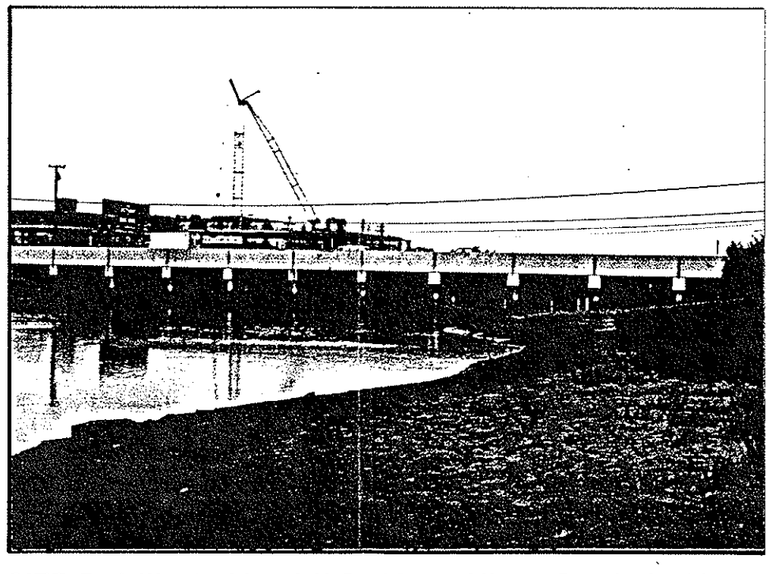


SITE B-4 East side of U.S. 19 at Allens Creek, looking west.



SITE B-4 East side of U.S. 19 at Allens Creek, looking north from south bank.

SITE B-4 East side of U.S. 19 at Allens Creek, looking north from north bank.



SITE B-4 West side of U.S. 19 at Allens Creek, looking northeast from south bank.

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Site B-5
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 200'± south of Nursery Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

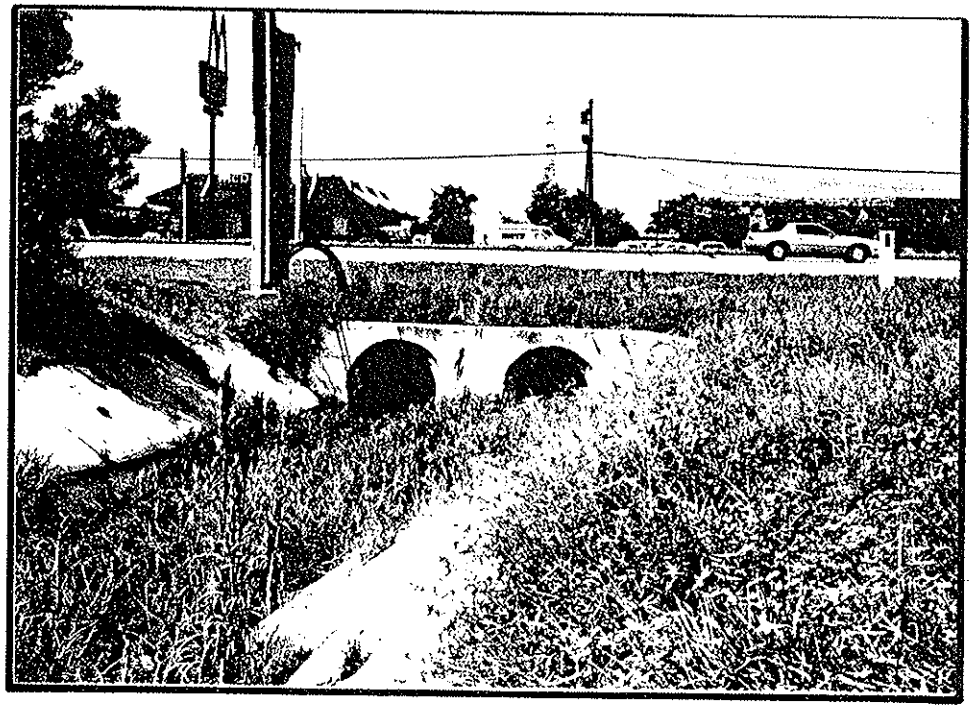
WATERWAY: WIDTH: 10'± **DEPTH:** 3"-6" **FLOW DIRECTION:** East

TYPE OF CROSSING: East side - two 36" R.C.P. culvert with concrete lined ditch.
West side - junction box with no open ditch.

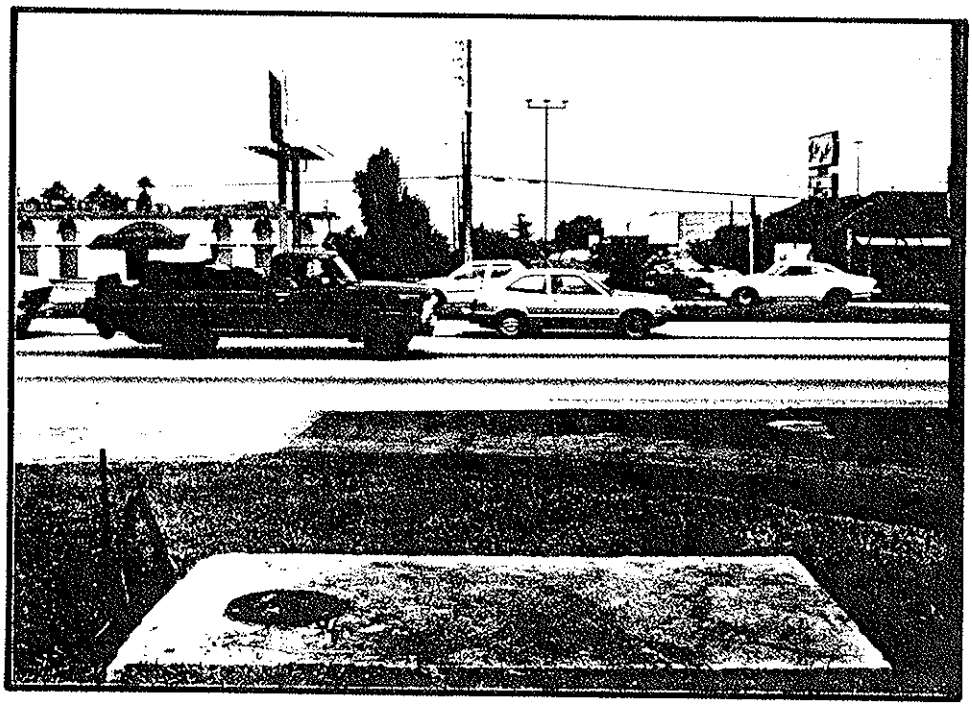
CONDITION: East side - structures open, water fairly clear.

VEGETATION: East side - hydrilla, alligator weed, maidencane, various grasses.
West side - no wetland vegetation.

REMARKS: East side - headwall 20'wide 40'± to E.P.
West side - no ditch, structure 15'± to E.P.



SITE B-5 East side of U.S. 19 looking west.



SITE B-5 West side of U.S. 19 looking east.

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Site B-6
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 300'± north of Harn Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

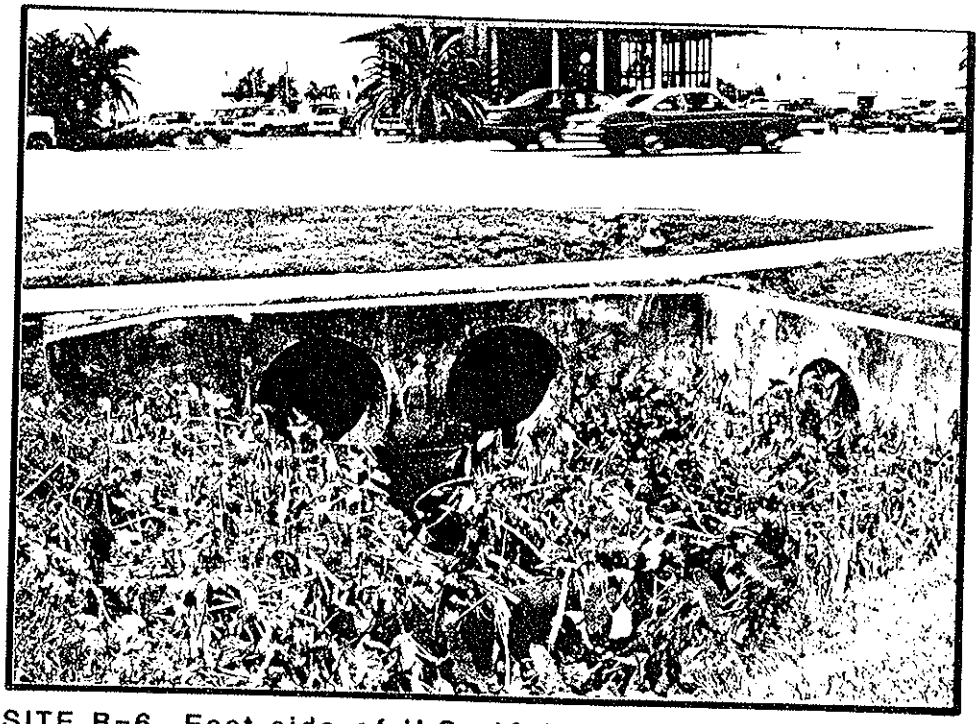
WATERWAY: WIDTH: 2'-6' **DEPTH:** 1'-2' **FLOW DIRECTION:** East

TYPE OF CROSSING: East side - two 36" R.C.P. culverts.
West side - mitered end section and ditch bottom inlet.

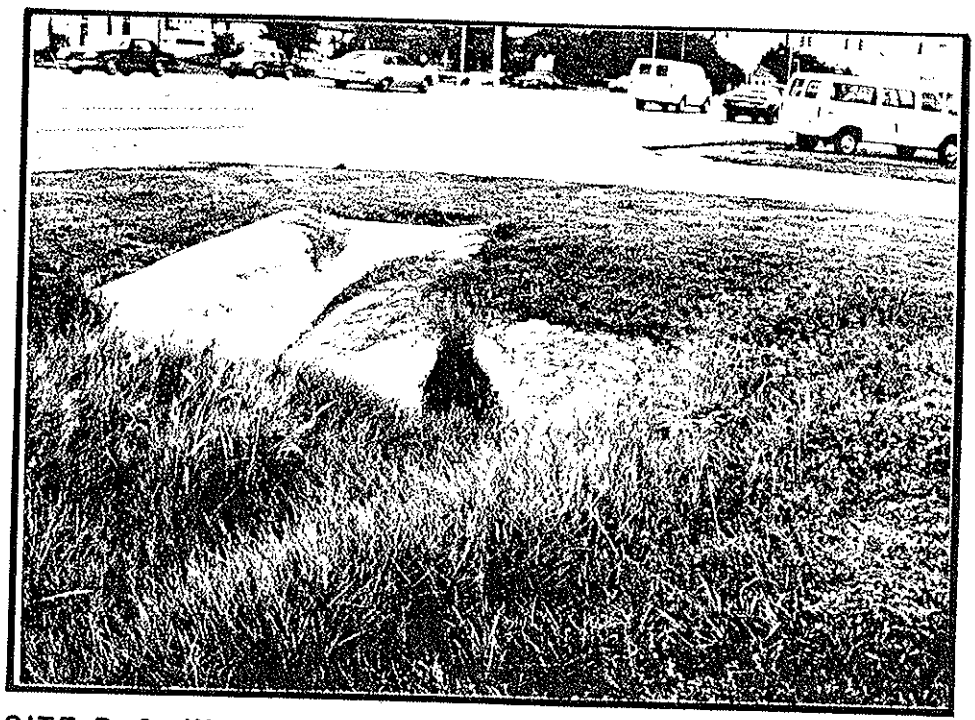
CONDITION: Structures open, water clear, good flow.

VEGETATION: East side - arrowhead, elephant ear, water primrose, algae.
West side - caric sedge, bladder pod, cattail, various grasses.

REMARKS: East side - headwall 20' wide and 16'± from E.P. Waterway 4'-6' wide. Gas pipeline across ditch.
West side - several small structures consolidate to the east side, closest point 10'± from E.P.



SITE B-6 East side of U.S. 19 looking west.



SITE B-6 West side of U.S. 19 looking southeast.

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Site B-7
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 350'± south of Seville Boulevard, Pinellas County

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal

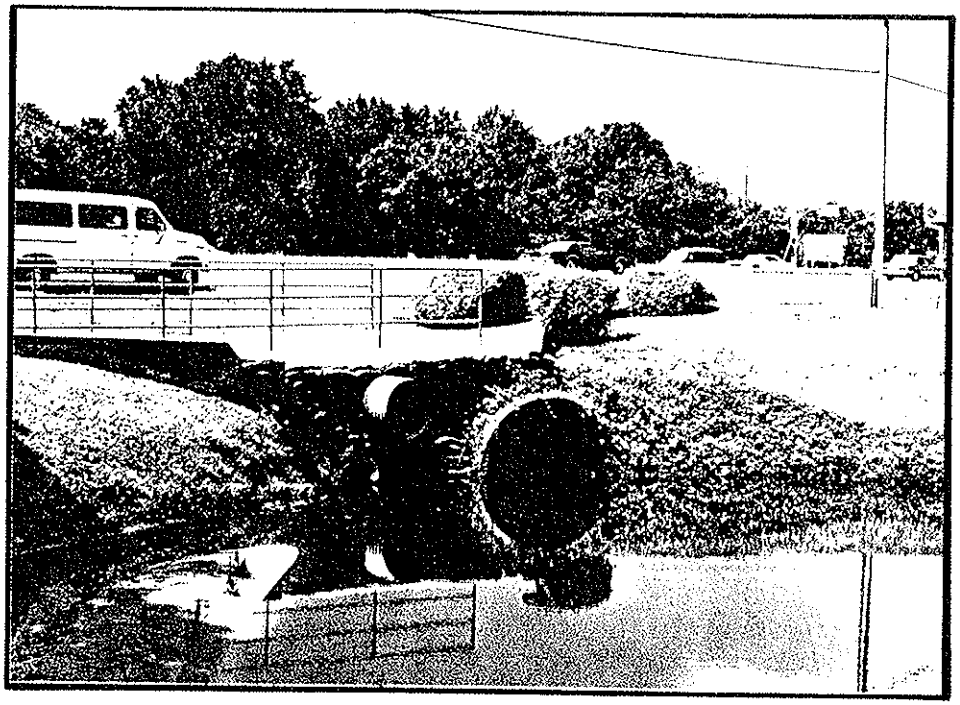
WATERWAY: WIDTH: East side 80' **DEPTH:** N/A **FLOW DIRECTION:** East
WIDTH: West side 2'

TYPE OF CROSSING: East side - one 60" C.M.P. culvert, one 30" C.M.P. culvert.
West side - one 42" R.C.P. culvert.

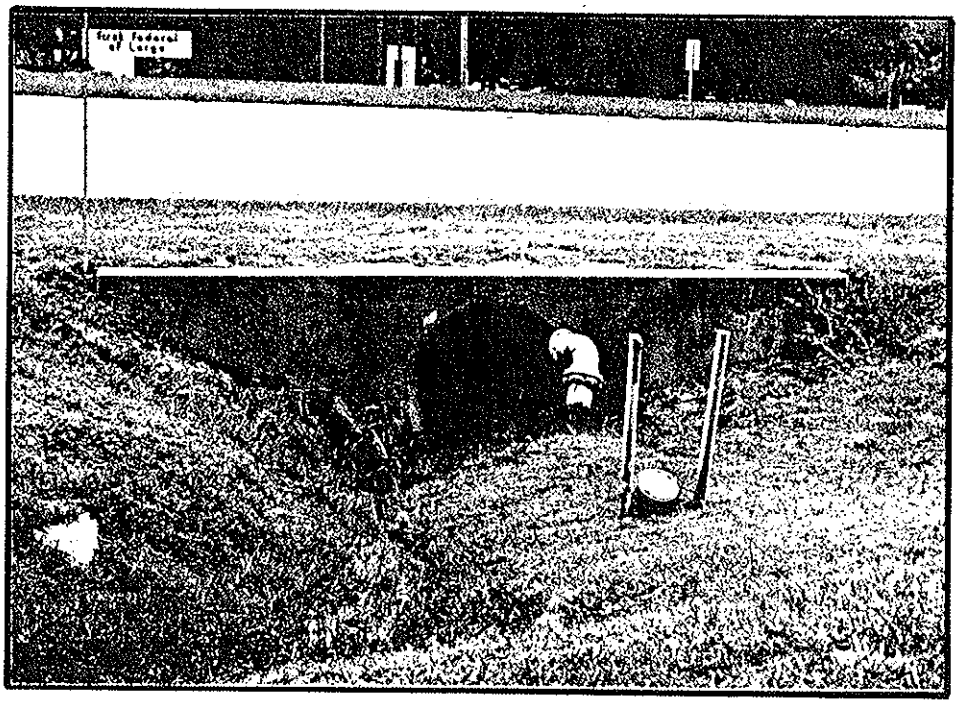
CONDITION: Structures open.

VEGETATION: East side - algae in pond
West side - saltgrass

REMARKS: East side - headwall 18' wide and 52' from E.P. discharges to retention basin.
West side - headwall 18' wide and 11' from E.P.



SITE B-7 East side of U.S. 19 looking northwest.



SITE B-7 West side of U.S. 19 looking east.

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Site B-8
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 700'± north of Drew Street, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

WATERWAY: WIDTH: 8'-9' **DEPTH:** 1'-1.5' **FLOW DIRECTION:** East

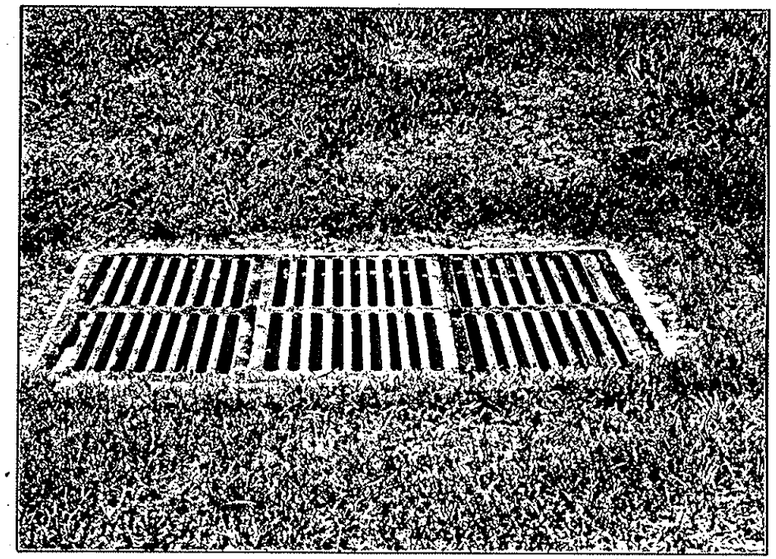
TYPE OF CROSSING: East side - drop/junction box with grate.
West side - 42" R.C.P. culvert.

CONDITION: West side - 70-80% blocked by sediments with erosion along headwall during 1986 inspection and has recently been converted to a retention pond for Lechmere.
East side - structure contains some debris.

VEGETATION: East side - no vegetation.
West side - pickerelweed, cattail, willow during 1986 inspection.
Some pickerelweed in 1988.

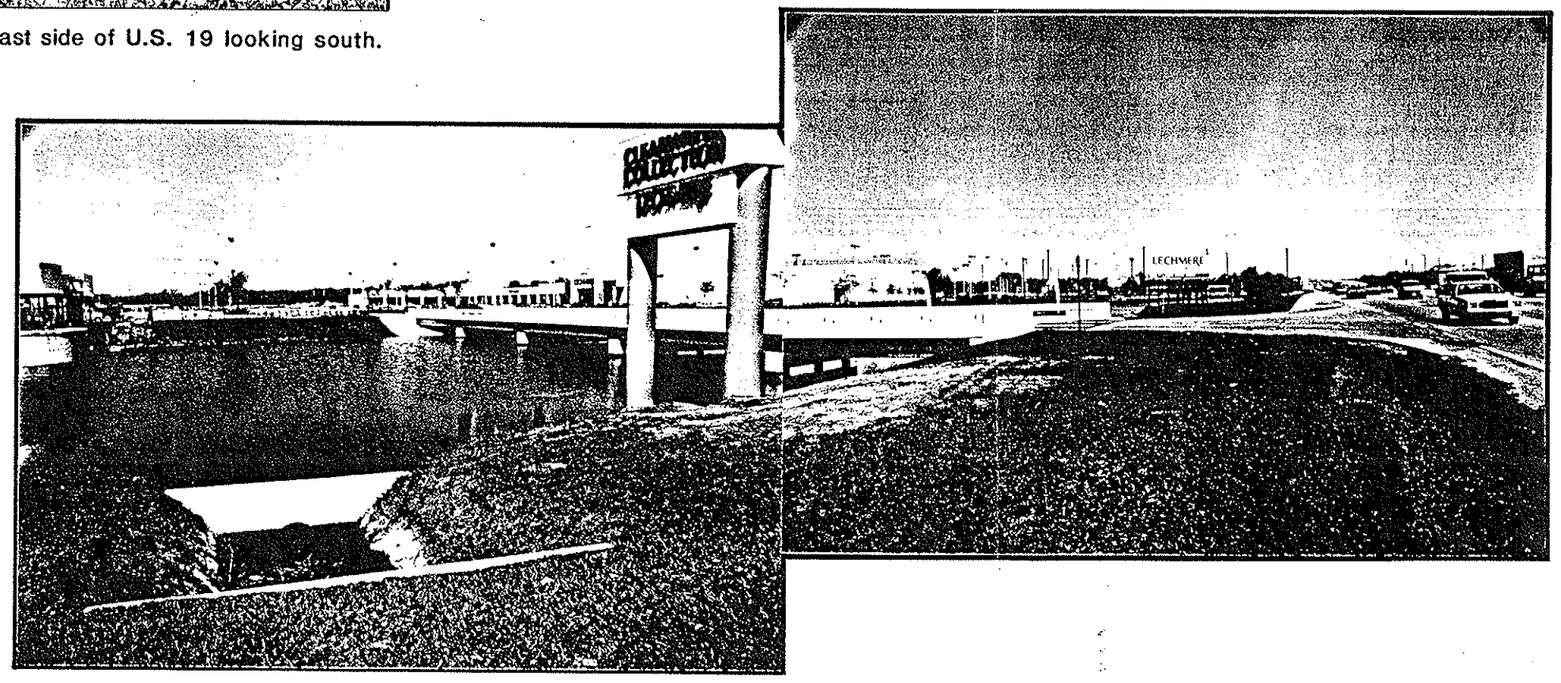
REMARKS: Drains wetland area from west side (Site B-9) throughout culvert to east side into catch basin with grate then into parallel ditches and recent fill along west side headwall during 1986 inspection.
East side - headwall 17' wide and 27' from E.P.

SITE B-8 East side of U.S. 19 looking south.



SITE B-8 East side of U.S. 19 looking west.

SITE B-8 East side of U.S. 19 looking north.



SITE B-8 West Side of U.S. 19 Looking Northwest

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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site B-9
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 450' to 1200' north of Drew Street on west side of U.S. 19, Pinellas County.

TYPE OF WATERWAY: Retention Pond for Lechmere

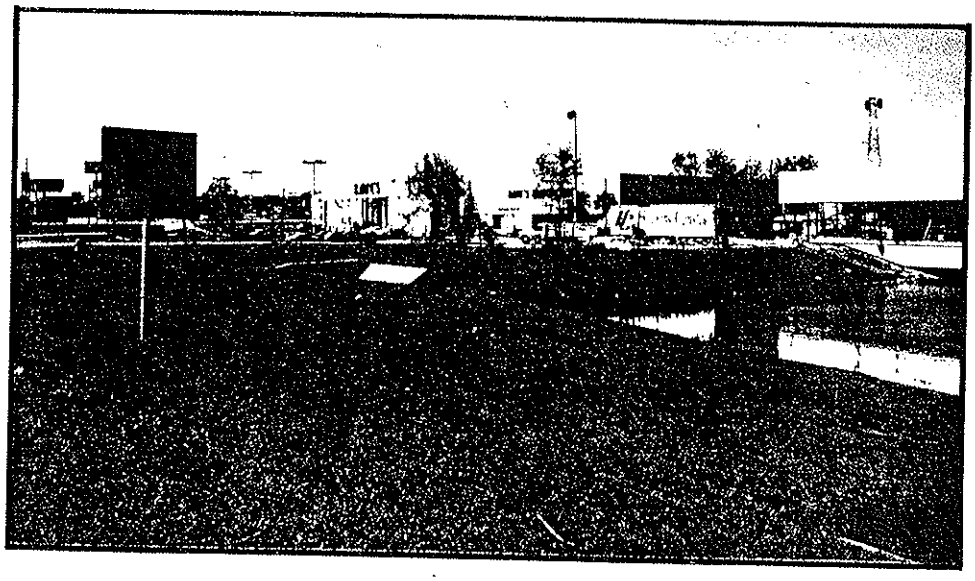
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: On east side of wetland along toe of slope - willow, water primrose, elderberry during 1986 inspection. 1988 inspection indicated some pickerelweed.

REMARKS: Wetland starts 25'± from E.P.



SITE B-9 West Side of U.S. 19 Looking Southwest

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
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SUMMARY OF FIELD NOTES

Site B-10
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: 1,900'± north of Drew Street, Pinellas County.

TYPE OF WATERWAY: Drainage canal, Class III waters, non-tidal.

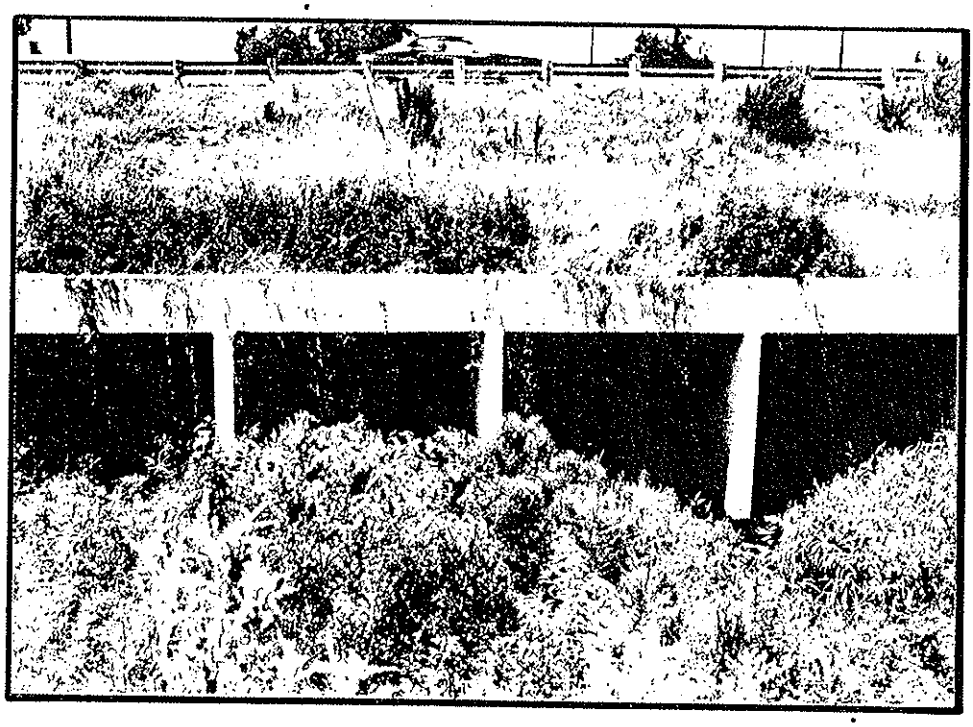
WATERWAY: WIDTH: 50'± **DEPTH:** N/A **FLOW DIRECTION:** East

TYPE OF CROSSING: Four approximately 10' x 9' concrete, box culverts.

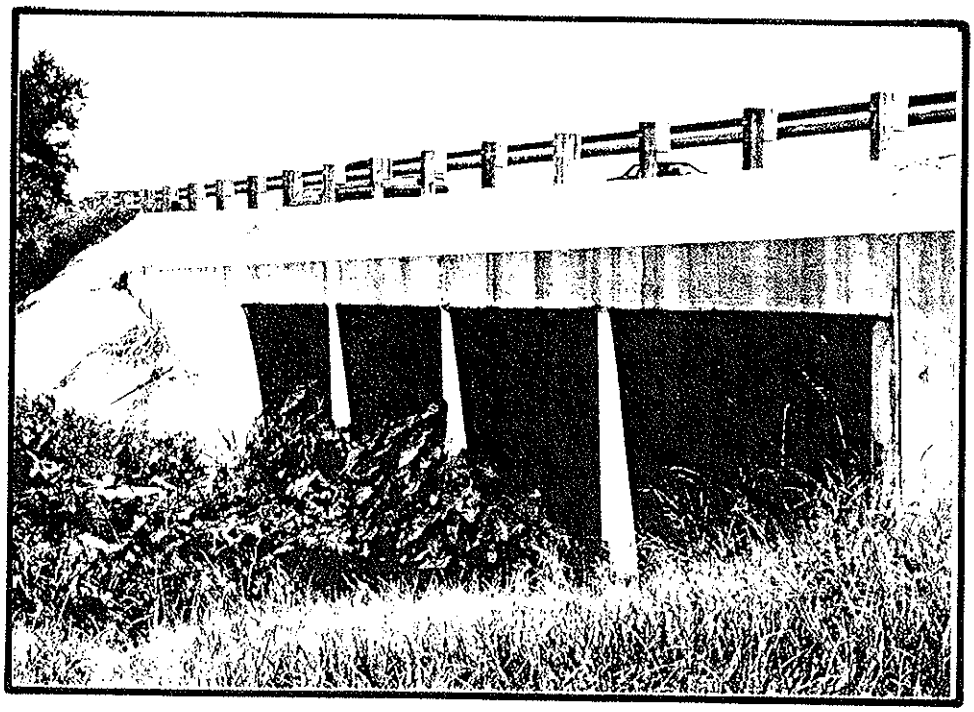
CONDITION: East side - fairly clear, some sedimentation.
West side - some blockage (sediment, debris, vegetation).

VEGETATION: East side - bladder pod, salt bush, water primrose, dog fennel, willow, castor bean, alligator weed, water hemlock.
West side - elephant ear, barnyard grass, water primrose, alligator weed.

REMARKS: East side - headwall 70'± wide and 55'± to E.P. at toe of slope of berm. Gas pipeline.
West side - headwall 70'± wide and 16'± from E.P.



SITE B-10 East side of U.S. 19 looking west



SITE B-10 West side of U.S. 19 looking northeast

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SUMMARY OF FIELD NOTES

Site B-11
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 1,100'± north of N.E. Coachman Road, Pinellas County.

TYPE OF WATERWAY: East side - Drainage ditch, class III waters, non-tidal.
West side - Wetland adjacent to toe of slope.

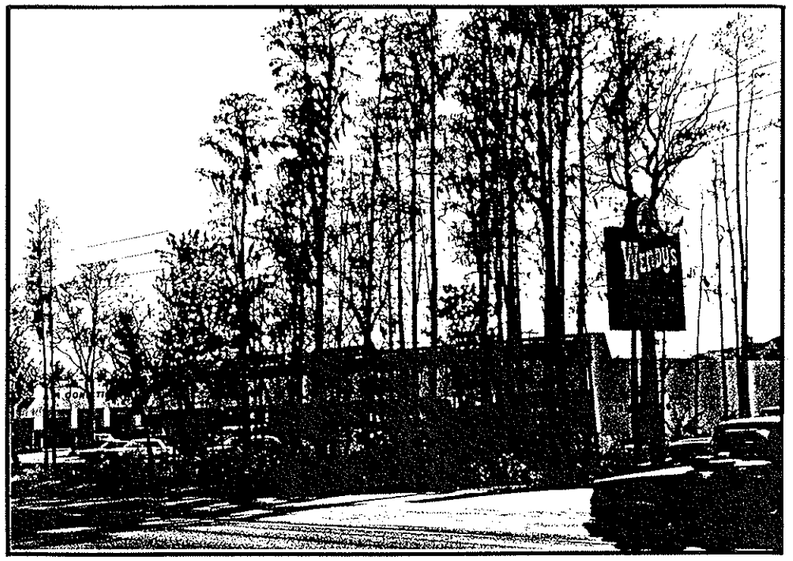
WATERWAY: WIDTH East side 10'-15' **DEPTH:** 4-6" **FLOW DIRECTION:** N/A

TYPE OF CROSSING: One 36" R.C.P. culvert

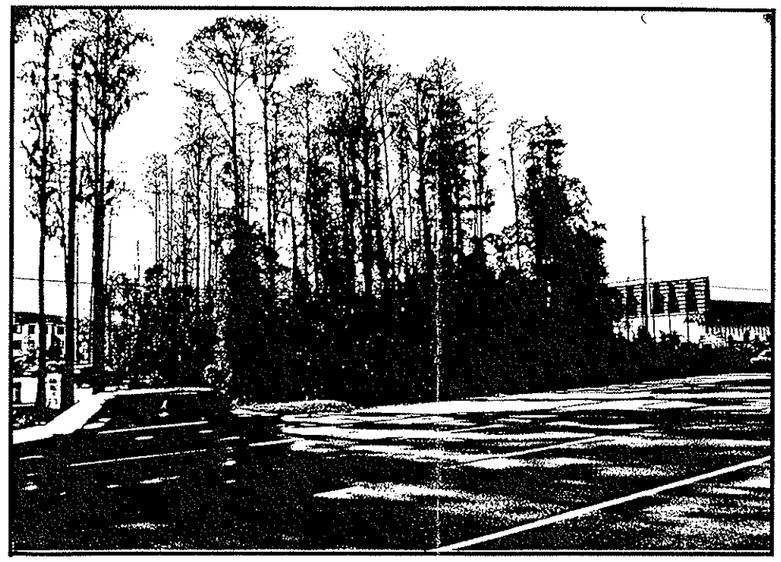
CONDITION: East side - heavily vegetated, some debris

VEGETATION: East side - heavily vegetated with parrots feather, pennywort, and water primrose.
West side - 10-15' Small isolated bald cypress stand with a few bay trees.

REMARKS: East side - headwall 6' wide and 29' to E.P.
West side - Wetland area 40± from E.P. Recent development into and around wetland.



SITE B-11 West Side of U.S. 19 Looking Southwest



SITE B-11 West Side of U.S. 19 Looking Northwest

SITE B-11 East Side of U.S. 19 Looking West

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SUMMARY OF FIELD NOTES

Site B-12
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 2,000'± north of Sunset Point Road, Pinellas County

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

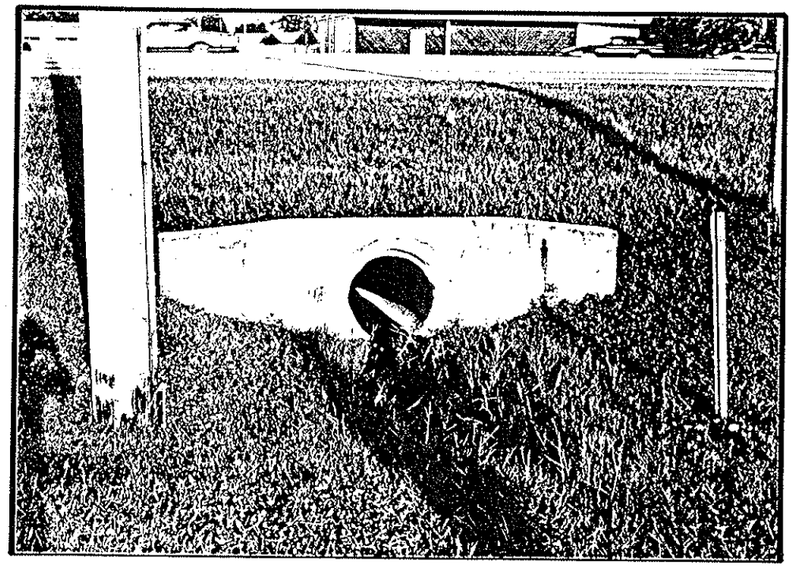
WATERWAY: WIDTH: East side 5'-6' **DEPTH:** 2"-3" **FLOW DIRECTION:** East

TYPE OF CROSSING: 30" R.C.P. culvert, headwall to ditch on east side, catch basin with grate in road on west side of U.S. 19.

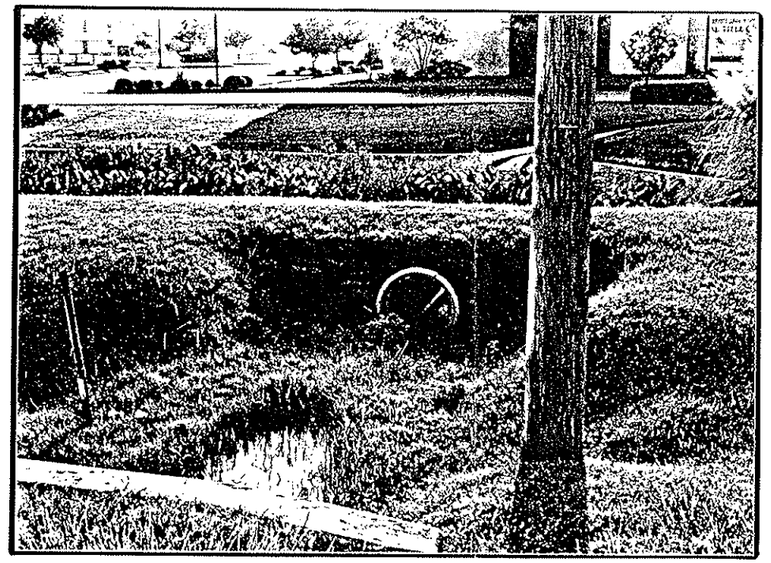
CONDITION: Structures clear.

VEGETATION: East side - pennywort, salt bush, bacopa, various grasses.
West side - no vegetation.

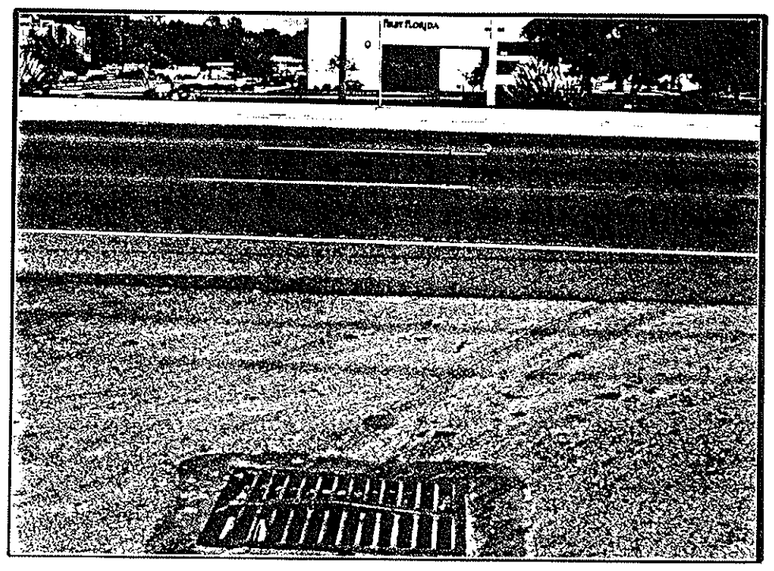
REMARKS: East side - headwall 13' wide and 31' from E.P. connects through ditch and 30" R.C.P. culvert to retention basin 39' from U.S. 19 E.P.
West side - installed in pavement.



SITE B-12 East side of U.S. 19 looking west.



SITE B-12 East side of U.S. 19 looking east.



SITE B-12 West side of U.S. 19 looking east.

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SUMMARY OF FIELD NOTES

Site B-13
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 2,600'± north of Sunset Point Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

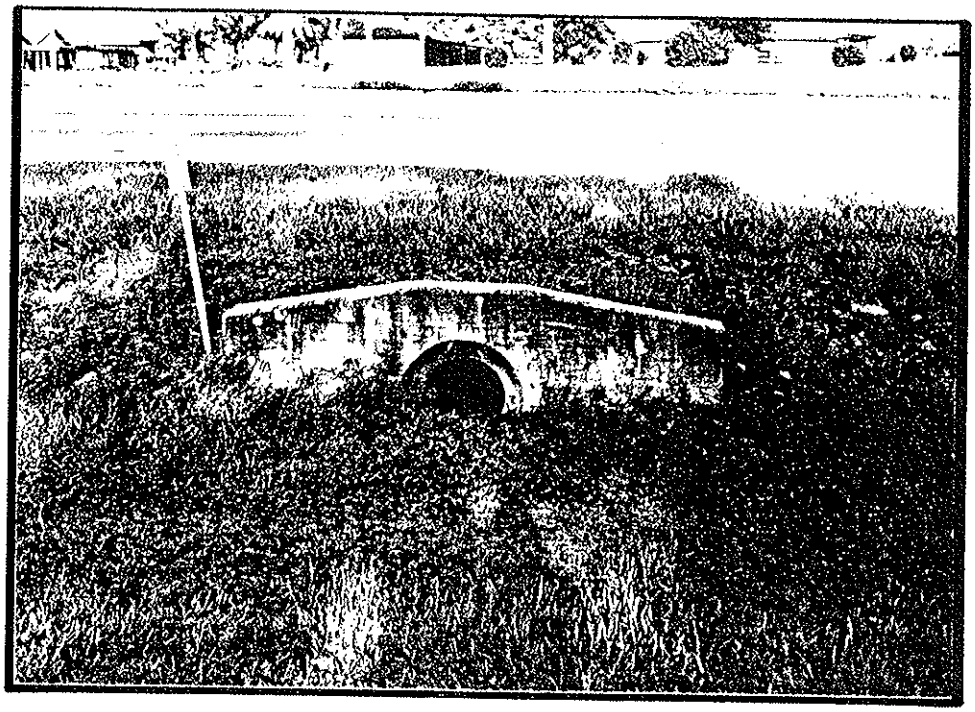
WATERWAY: WIDTH: 4'-5' **DEPTH:** 2"-3" **FLOW DIRECTION:** N/D

TYPE OF CROSSING: 18" R.C.P. culvert.

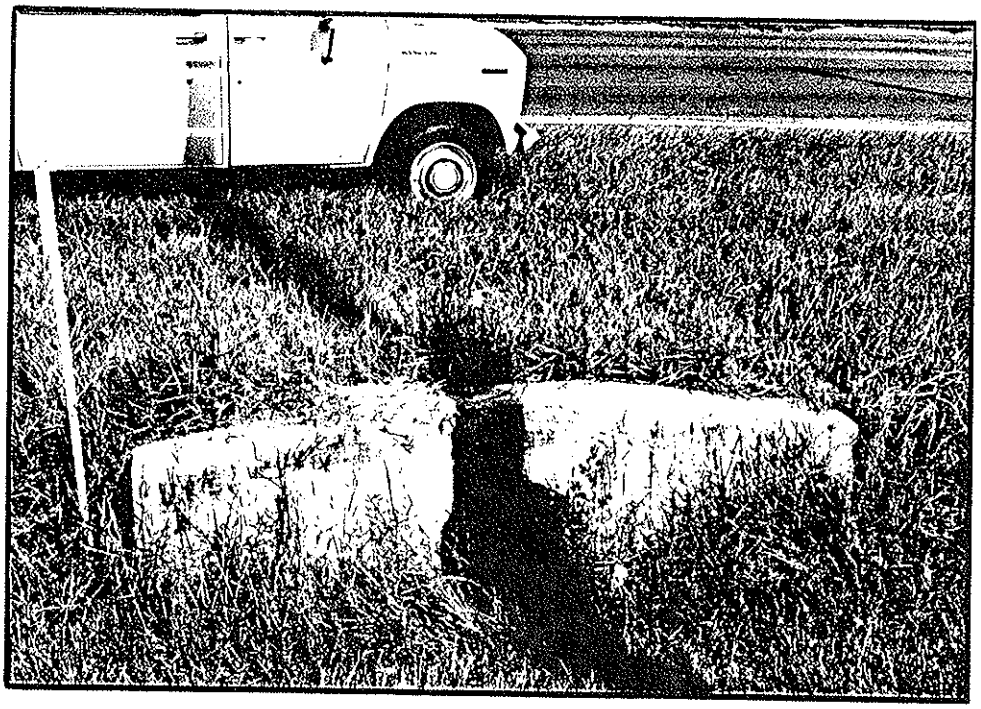
CONDITION: Structures fairly open, some blockage by vegetation.

VEGETATION: East side - sedge, alligator weed.
West side - saltgrass, pennywort, salt bush.

REMARKS: East side - headwall 9' wide and 19' to E.P.
West side - headwall 9' wide and 25'± to E.P.



SITE B-13 East side of U.S. 19 looking west.



SITE B-13 West side of U.S. 19 looking east.

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SUMMARY OF FIELD NOTES

Site B-14
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 3,300'± north of Sunset Point Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

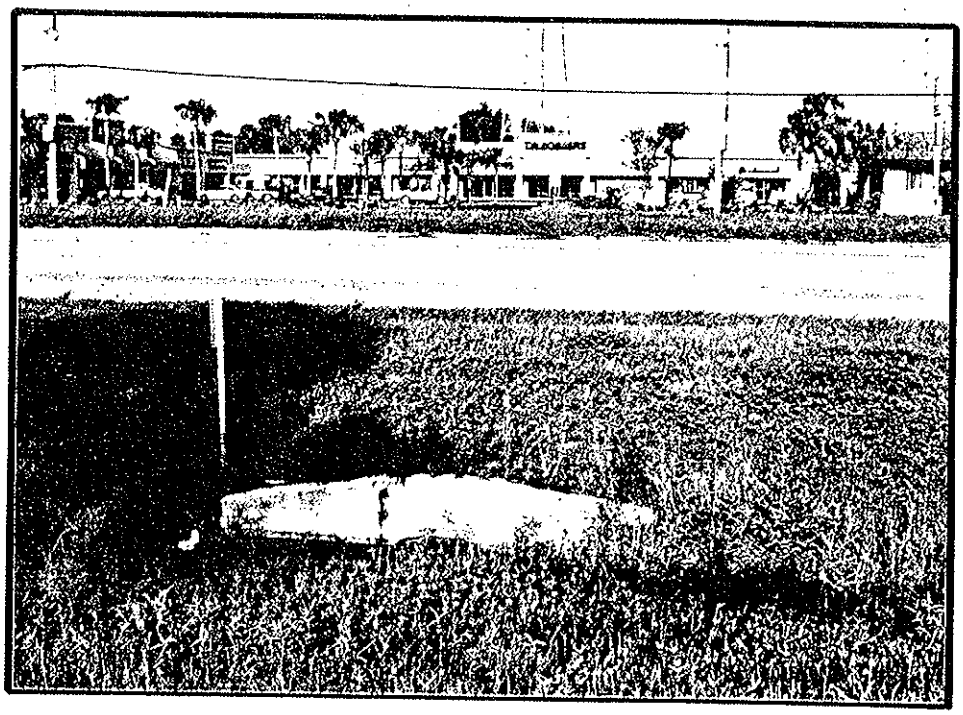
WATERWAY: WIDTH: 6'-7' **DEPTH:** 1'± **FLOW DIRECTION:** East

TYPE OF CROSSING: 30" R.C.P. culvert, ditch w/headwall on east side, ditch bottom inlet on west side.

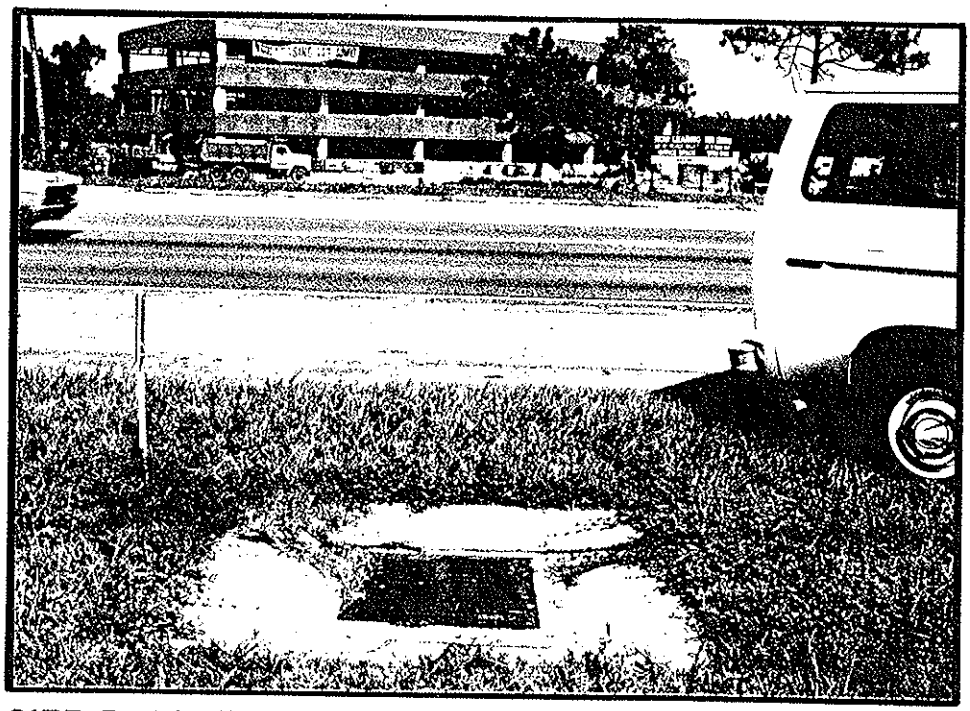
CONDITION: Partially blocked, little flow

VEGETATION: East side - alligator weed, bacopa, saltgrass, star rush, cassia.
West side - no vegetation.

REMARKS: East side - headwall 9' wide, 24' from E.P.
West side - structure 9' from E.P.



SITE B-14 East side of U.S. 19 looking west.



SITE B-14 West side of U.S. 19 looking east.

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SUMMARY OF FIELD NOTES

Site C-1
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 300'± south of Republic Drive, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

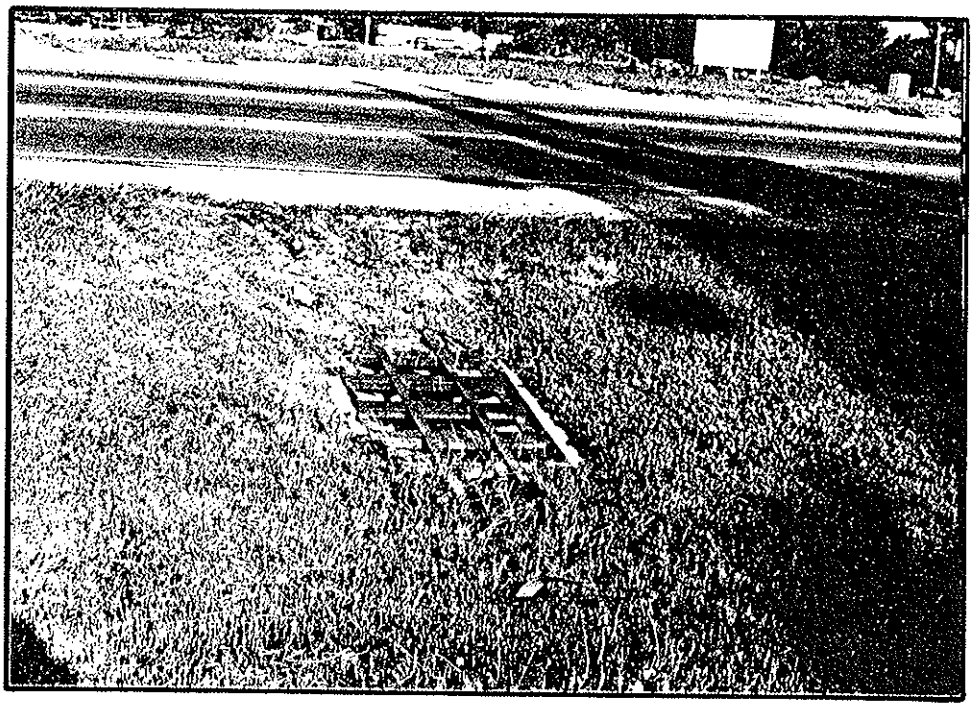
WATERWAY: WIDTH: 3'-8' **DEPTH:** 3"-5" **FLOW DIRECTION:** N/D

TYPE OF CROSSING: East side 18" R.C.P. culvert covered with grate. No structure on west side.

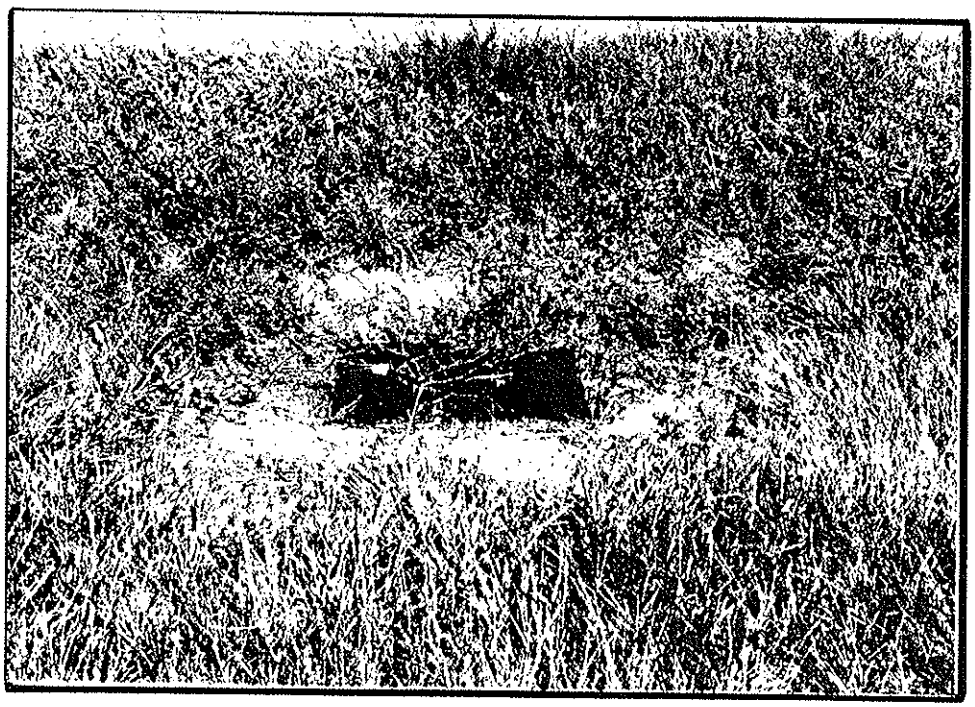
CONDITION: East side - approximately 1/2 silted in.

VEGETATION: East side - pennywort, saltgrass.
West side - no structure.

REMARKS: East side - structure 3.3' wide and 5' from E.P.



SITE C-1 East side of U.S. 19 looking west.



SITE C-1 from U.S. 19 median looking east.

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SUMMARY OF FIELD NOTES

Site C-1A
Inspection Date: March 29, 1988

LOCATION: East of US 19 South of Casa del Sol entrance road, Pinellas County

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

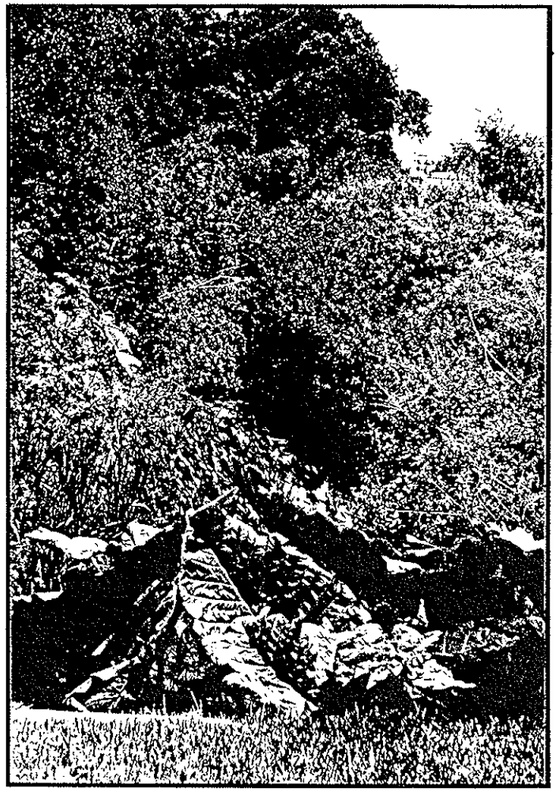
WATERWAY: WIDTH: 30'± **DEPTH:** 2' **FLOW DIRECTION:** North

TYPE OF CROSSING: Four 54" R.C.P. culverts, south of entrance road, same north of entrance road.

CONDITION: Good flow, water clear.

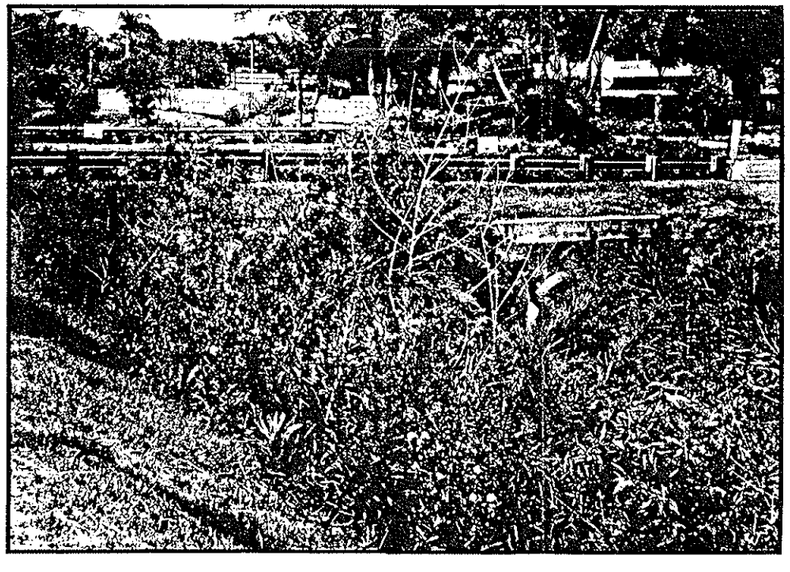
VEGETATION: Elephant ear, water primrose pickerelweed, arrowhead, willow, cattail

REMARKS: Tributary of Curlew Creek, parallel drainage extends into Site C-2.

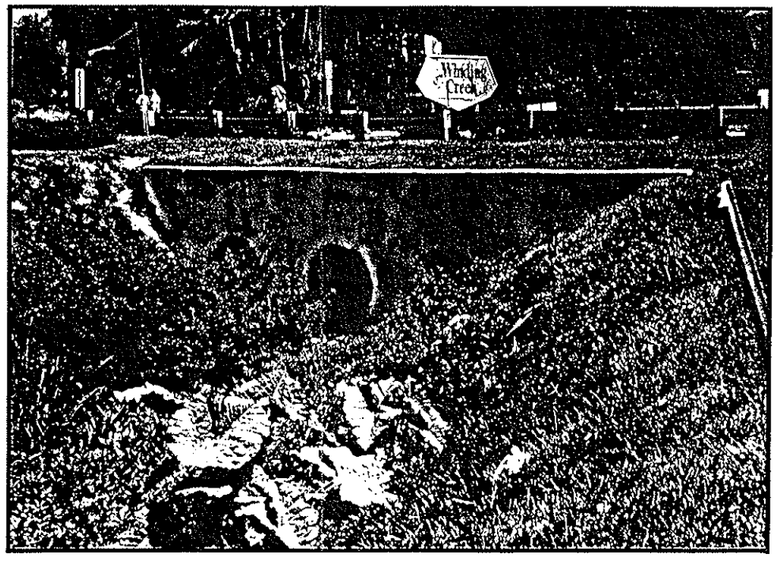


SITE C-1A East of U.S. 19 Looking South

SITE C-1A East of U.S. 19 Culvert West end



SITE C-1A East of U.S. 19 Looking North



SITE C-1A East of U.S. 19 Looking South

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SUMMARY OF FIELD NOTES

Site C-2
Inspection Date: August 26, 1986 and March 29, 1988

LOCATION: Curlew Creek, 250'± north of Casa del Sol entrance Road, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

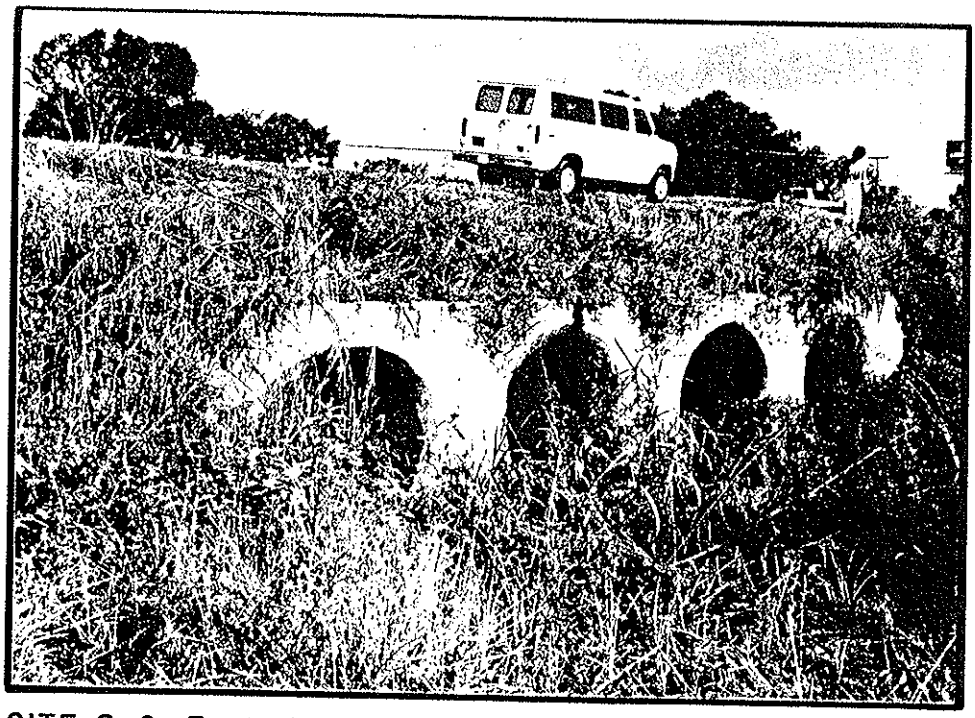
WATERWAY: WIDTH: 30'± **DEPTH:** 2' **FLOW DIRECTION:** West

TYPE OF CROSSING: Four 54" R.C.P. culverts, east side to ditch, west side to concrete spillway.

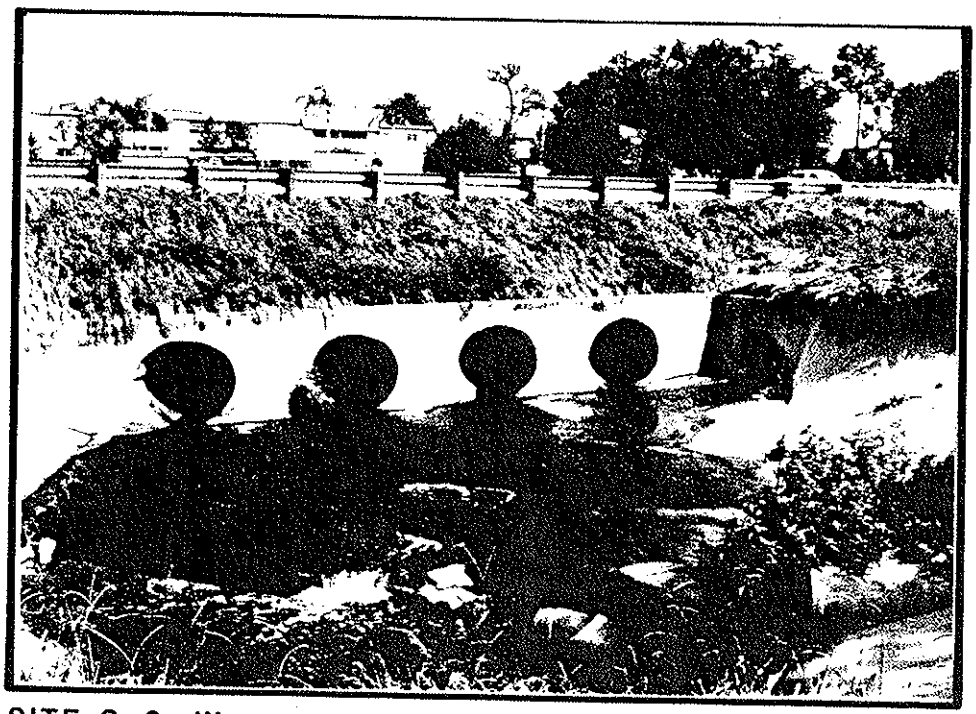
CONDITION: Good flow, although some blockage (sedimentation, vegetation).

VEGETATION: East side - smartweed, water primrose, alligator weed, arrowhead, pennywort, dog fennel, cassia, bladder pod.
West side - no significant vegetation.

REMARKS: East side - headwall 51' wide and 36' from E.P. erosion around headwall.
West side - headwall 52' wide and 16' from E.P.



SITE C-2 East side of U.S. 19 at Curlew Creek looking northwest.



SITE C-2 West side of U.S. 19 at Curlew Creek looking southeast.

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SUMMARY OF FIELD NOTES

Site C-3
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 800'± north of Casa del Sol entrance Road, tributary to Curlew Creek, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

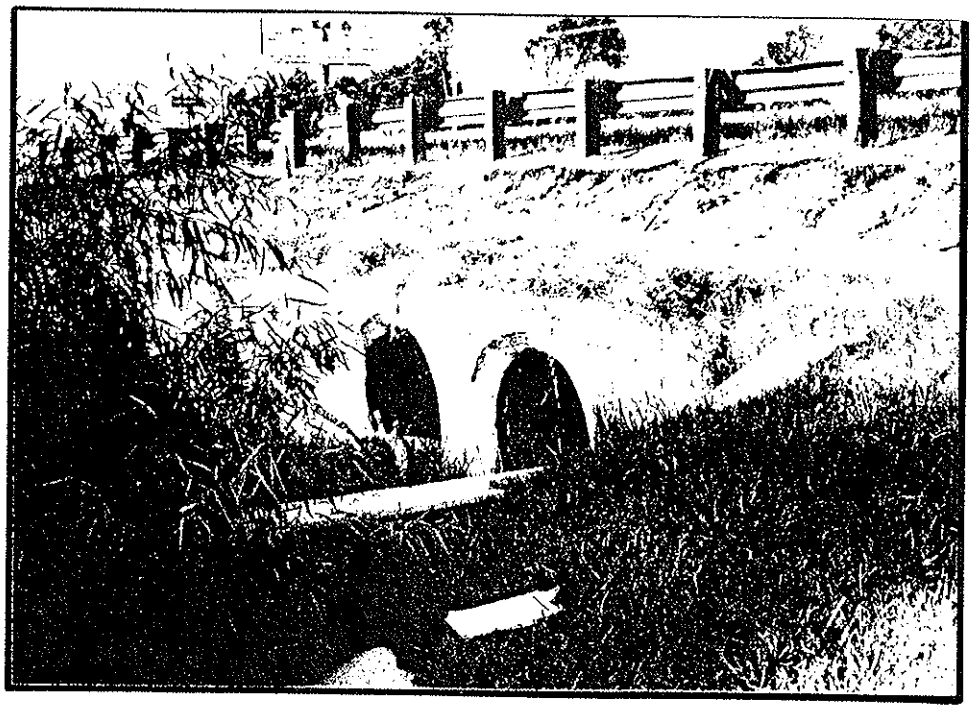
WATERWAY: WIDTH: 15' **DEPTH:** 6" **FLOW DIRECTION:** West

TYPE OF CROSSING: Two 48" R.C.P. culverts.

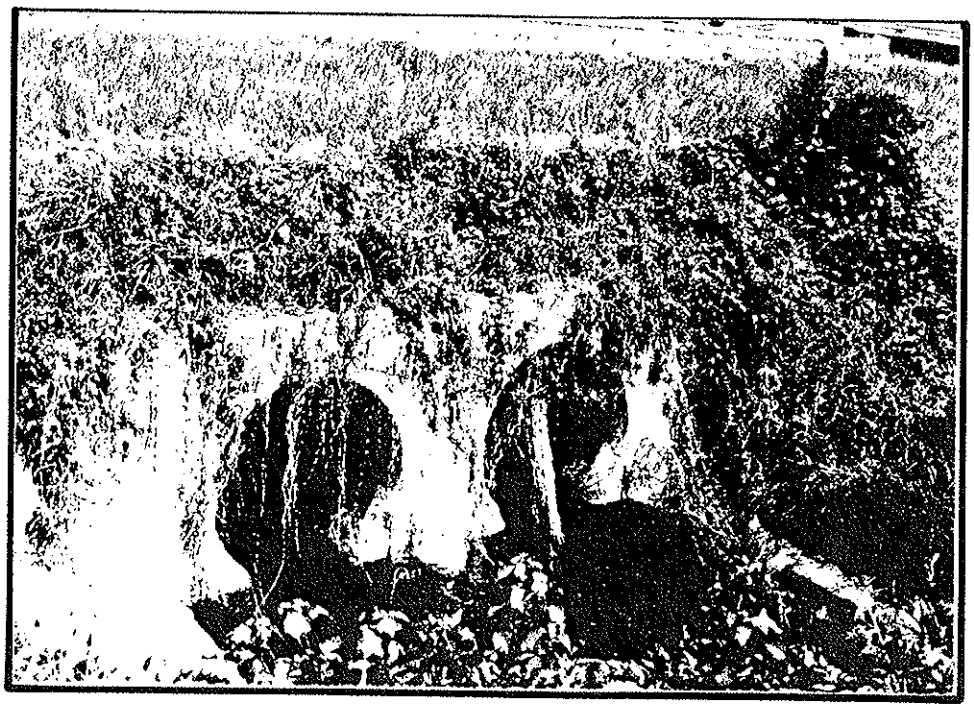
CONDITION: Good flow, some debris.

VEGETATION: East side - Maidencane, saltgrass, barnyard grass,water primrose, willow.
West side - saltgrass, castor bean.

REMARKS: East side - headwall 27' wide, 23' from E.P.
West side - 28' wide and 19' from E.P.



SITE C-3 East side of U.S. 19 looking southwest.



SITE C-3 West side of U.S. 19 looking southeast.

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Site C-4
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 450'± south of Northside Drive, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

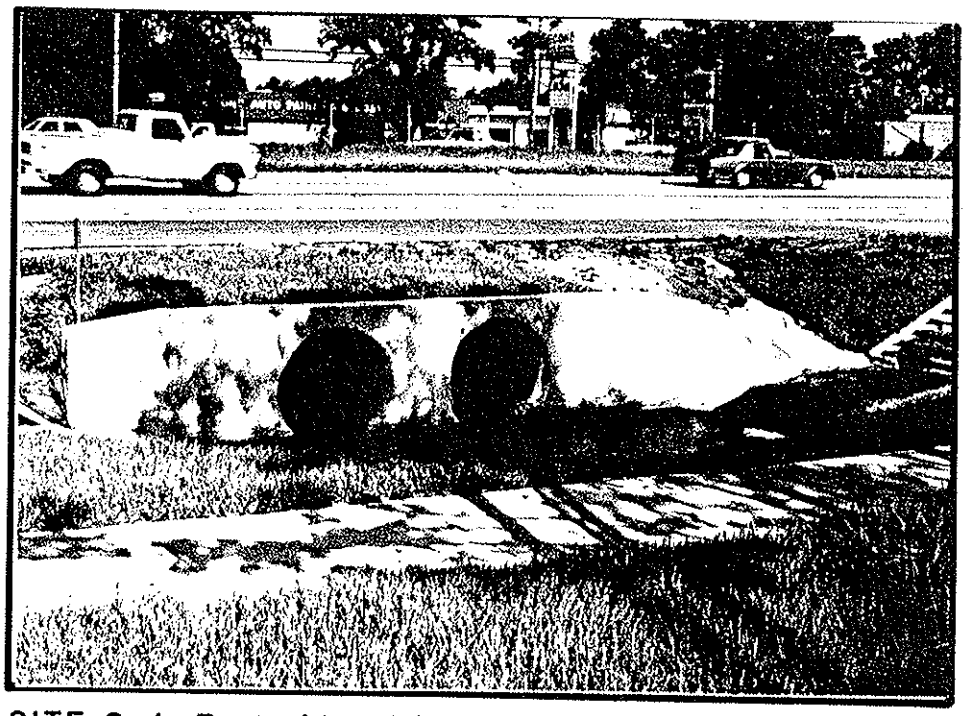
WATERWAY: WIDTH: 20'± **DEPTH:** 2'± **FLOW DIRECTION:** West

TYPE OF CROSSING: East side - two 54" R.C.P. culverts.
West side - two 72" wide x 48" high box culvert.

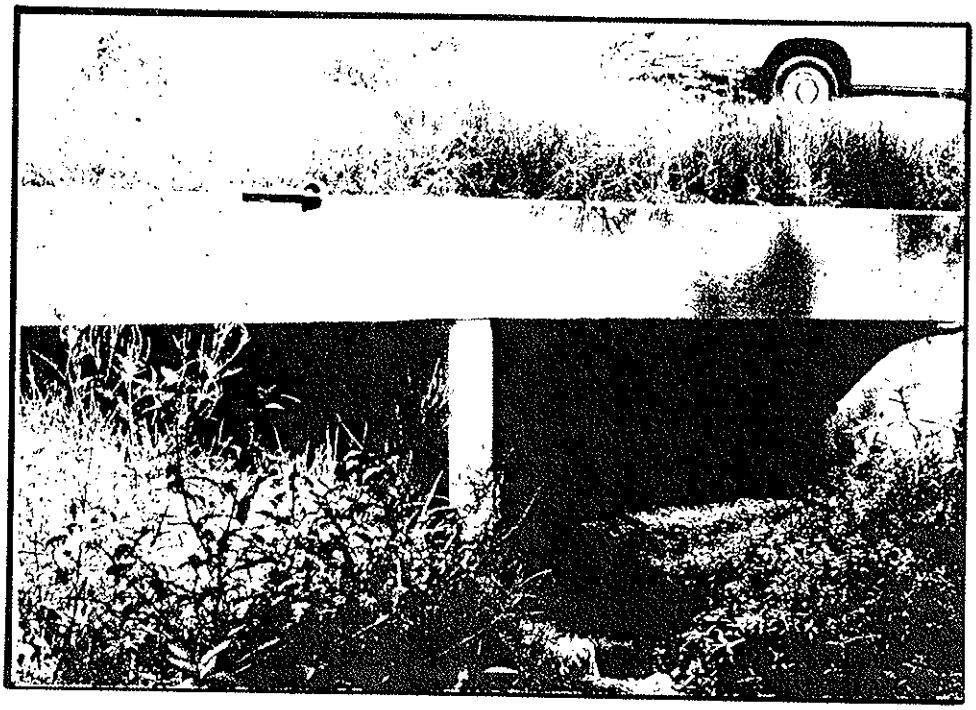
CONDITION: Structures open.

VEGETATION: East side - no significant vegetation.
West side - saltgrass, alligator weed, water primrose.

REMARKS: East side - headwall 29' wide and 17' from E.P.
West side - headwall 46' wide and 36' from E.P.



SITE C-4 East side of U.S. 19 looking northwest.



SITE C-4 West side of U.S. 19 looking east.

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Site C-5
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 140'± south of C.R. 95, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

WATERWAY: WIDTH: 16' **DEPTH:** 2'± **FLOW DIRECTION:** East

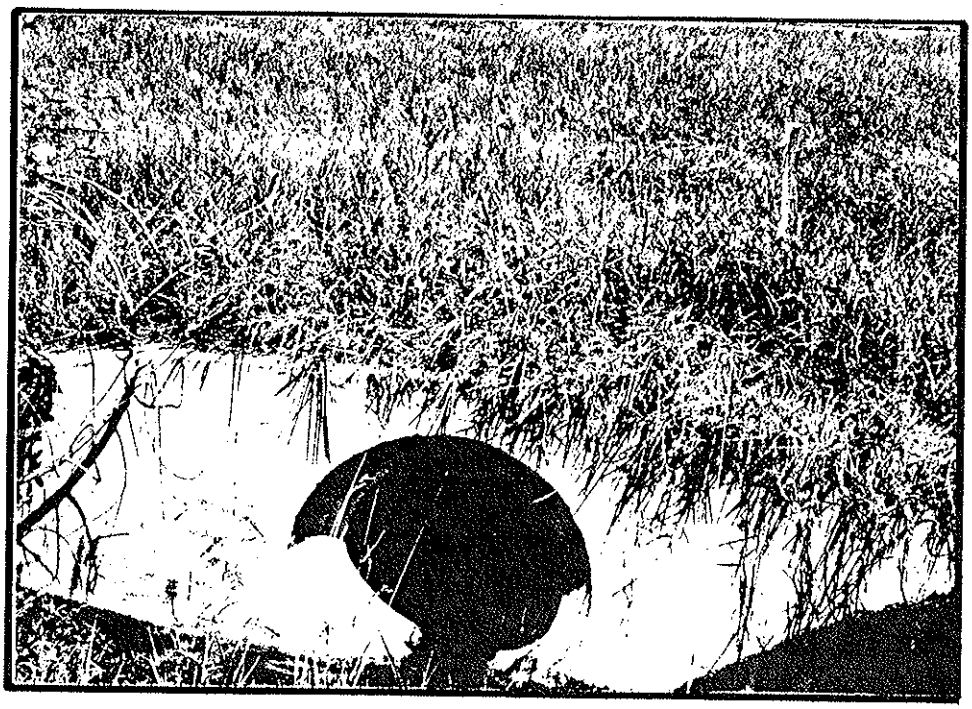
TYPE OF CROSSING: One 36" R.C.P. culvert.

CONDITION: Structure open.

VEGETATION: East side - heavily vegetated with willow, water primrose, bladder pod.
West side - mostly concrete spillway, little wetland vegetation.

REMARKS: East side - headwall 16' wide and 30' from E.P.
West side - headwall 15' wide and 40' from E.P.

SITE C-5 East side of U.S. 19 looking west.



SITE C-5 West side of U.S. 19 looking east.

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Site C-5A
Inspection Date: March 29, 1988

LOCATION: 1200'± north of C.R. 95, east of U.S. 19

TYPE OF WATERWAY: Retention Pond

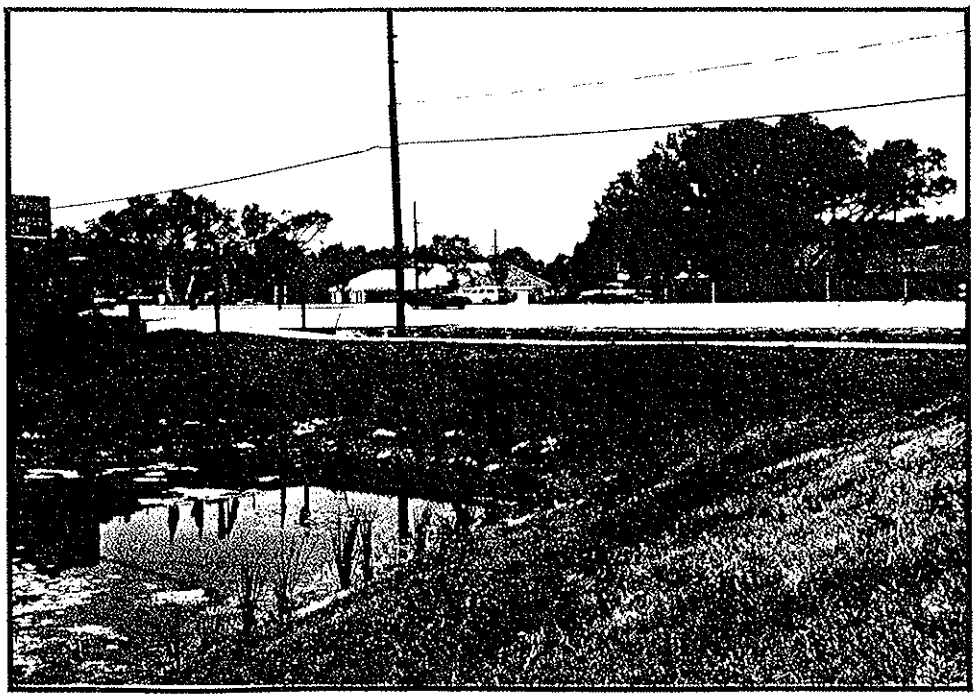
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING:

CONDITION: East side - recent pond construction and planting of softrush, pennywort, arrowhead, pickerelweed, and water lily. the water appeared stagnant with a dense algal growth.

VEGETATION:

REMARKS: East side - pond is 57' from E.P.



SITE C5A West Side of U.S. 19

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Site C5-A1
Inspection Date: March 29, 1988

LOCATION: 1400'-1800'± north of C.R. 95, west of U.S. 19

TYPE OF WATERWAY: Wetland adjacent to right-of-way.

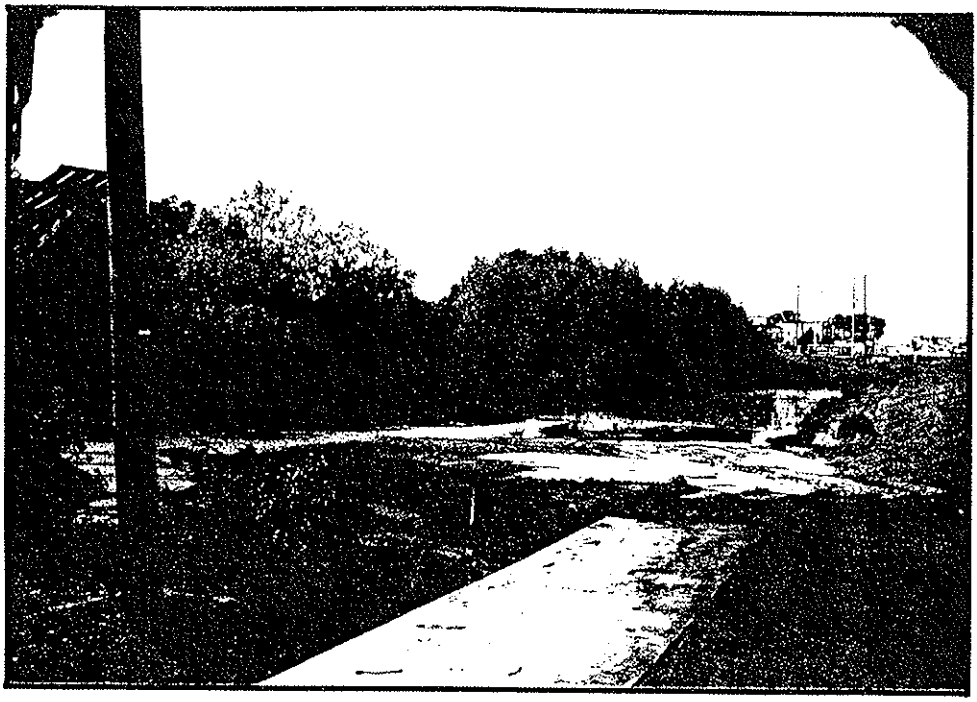
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: West side - much siltation, recent sidewalk construction and sodding

VEGETATION: West side - willow, water oak, primrose willow, duckweed, Brazilian pepper.

REMARKS: West side - structure 3.3' wide and 5' from E.P.



SITE C-5A1 West of U.S. 19 Looking Northwest

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Site C-6
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 1700'± north of CR 95

TYPE OF WATERWAY: Drainage ditch, Class III waters

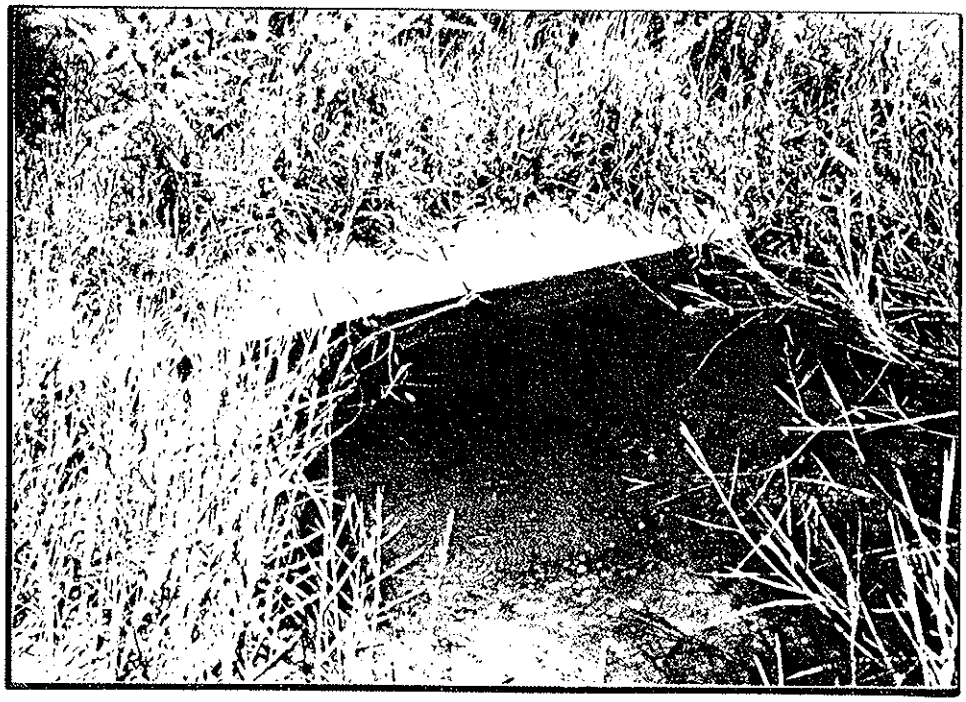
WATERWAY: WIDTH: 10'± **DEPTH:** 1'-2' **FLOW DIRECTION:** East

TYPE OF CROSSING: One 36" R.C.P. culvert. East side pipe with headwall discharge to ditch. West side - discharge control structure from retention pond.

CONDITION: East side 50% silted in, little flow.

VEGETATION: East side - smartweed, alligator weed, willow, water primrose.
West side - no vegetation; maintained grass side slope to retention pond.

REMARKS: East side - headwall 9' wide and 29'± from E.P.
West side - structure 75'± from E.P.



SITE C-6 East side of U.S. 19 looking west.

SITE C-6 West side of U.S. 19 looking southeast.

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PINELLAS AND PASCO COUNTIES, FLORIDA
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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site C-6A
Inspection Date: March 29, 1988

LOCATION: 2,500'± north of C.R. 95, east of U.S. 19.

TYPE OF WATERWAY: Wetland located adjacent to toe-of-slope.

WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: East side - red maple, water oak, willow, primrose willow, softrush, sweetbay, and redbay.

REMARKS:

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SUMMARY OF FIELD NOTES

Site C-6B
Inspection Date: March 29, 1988

LOCATION: 2,950'± north of C.R. 95.

TYPE OF WATERWAY: Drainag ditch, Class III water, non-tidal.

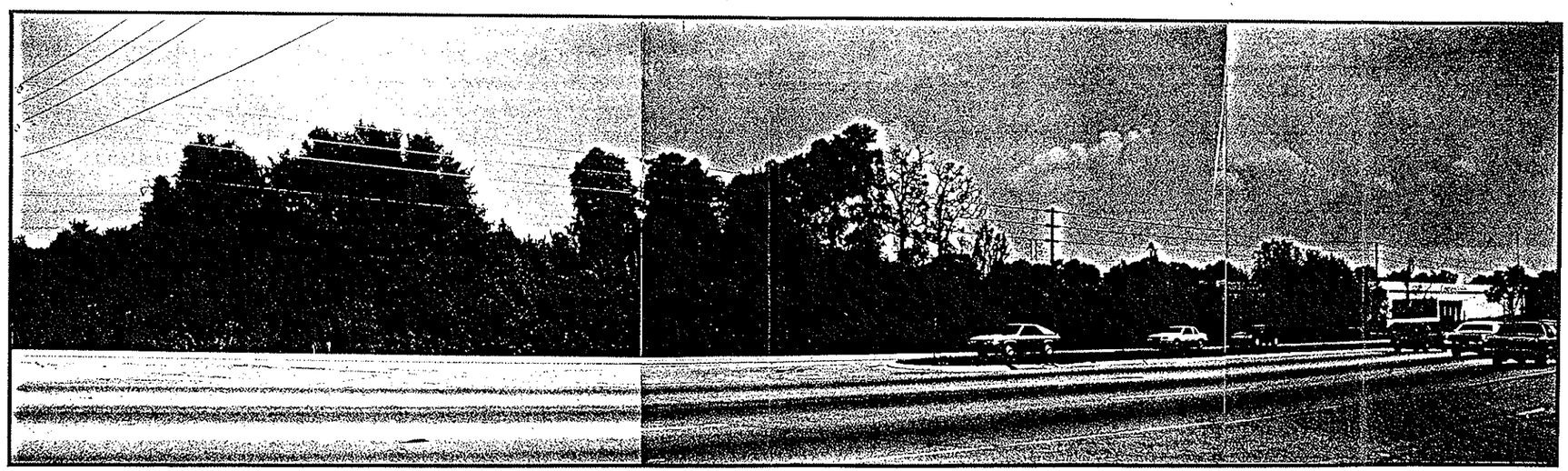
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: One 30" R.C.P. culvert

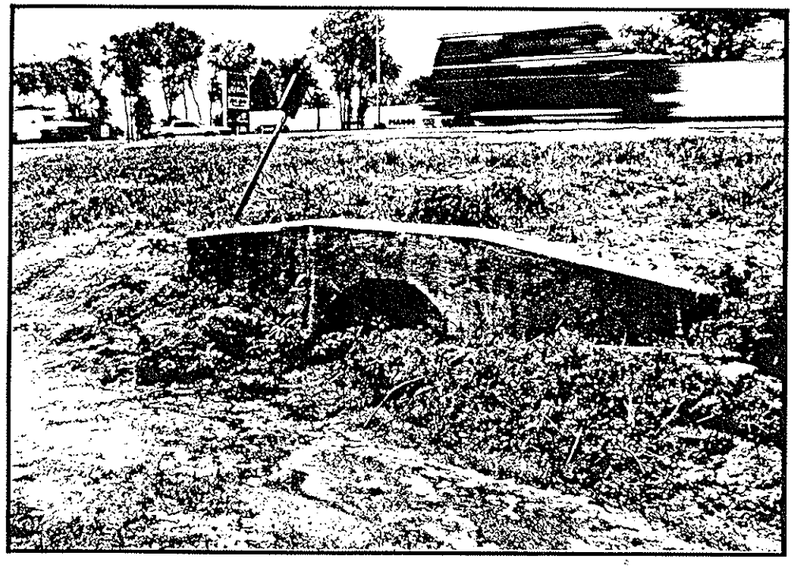
CONDITION:
East side - stagnant, no flow, erosion
West side - no standing water

VEGETATION:
East side - some algae, no major wetland vegetation
West side - no major wetland vegetation

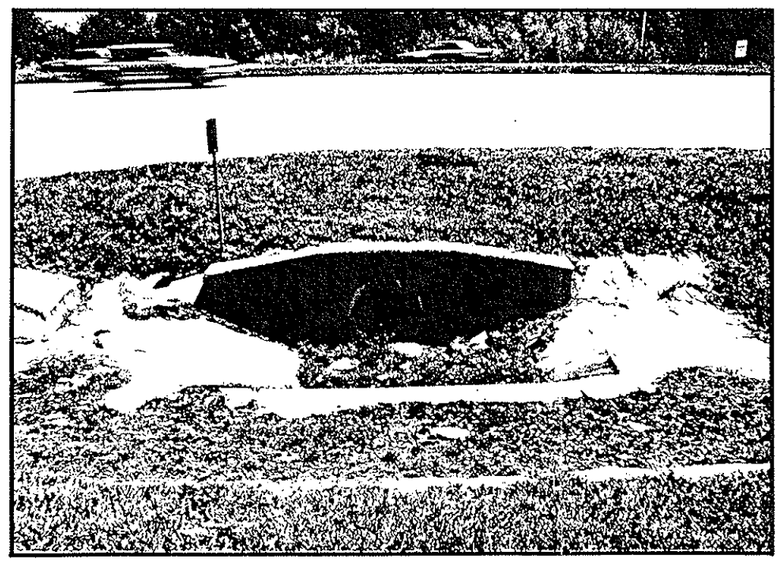
REMARKS:
East side - headwall 12' wide
West side - headwall 12' wide



SITE C-6A East of U.S. 19 Looking East



SITE C-6B East Side of U.S. 19 Looking West



SITE C-6B West Side of U.S. 19 Looking East

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SUMMARY OF FIELD NOTES

Site C-8
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 1,100'± south of SR 584A (Nebraska).

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

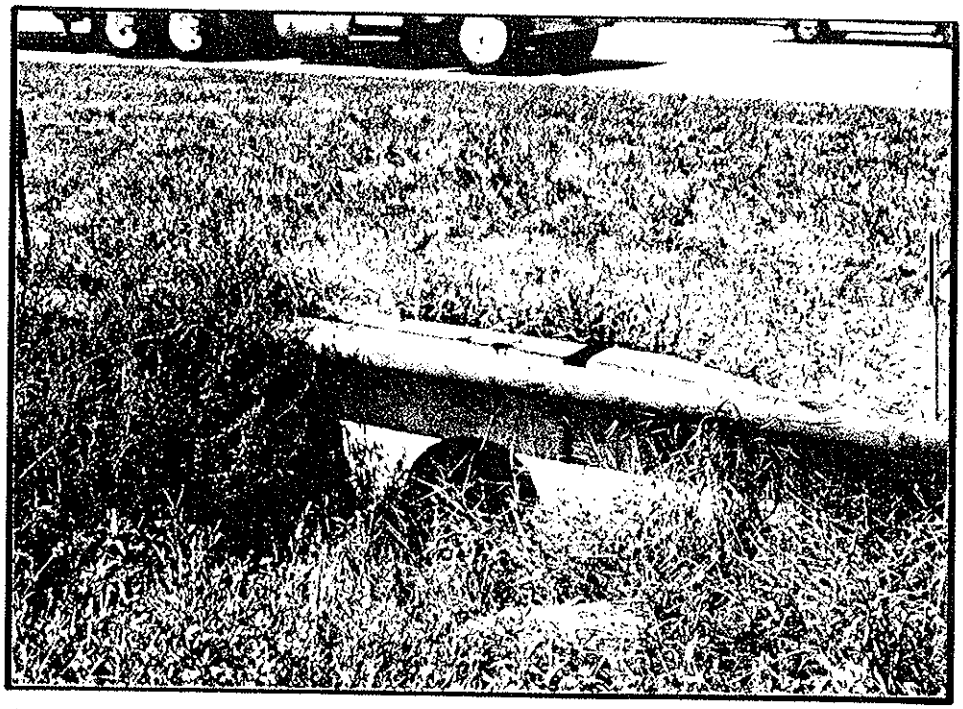
WATERWAY: WIDTH: 6'± **DEPTH:** 1'± **FLOW DIRECTION:** West

TYPE OF CROSSING: One 24" and one 30" R.C.P. culverts.

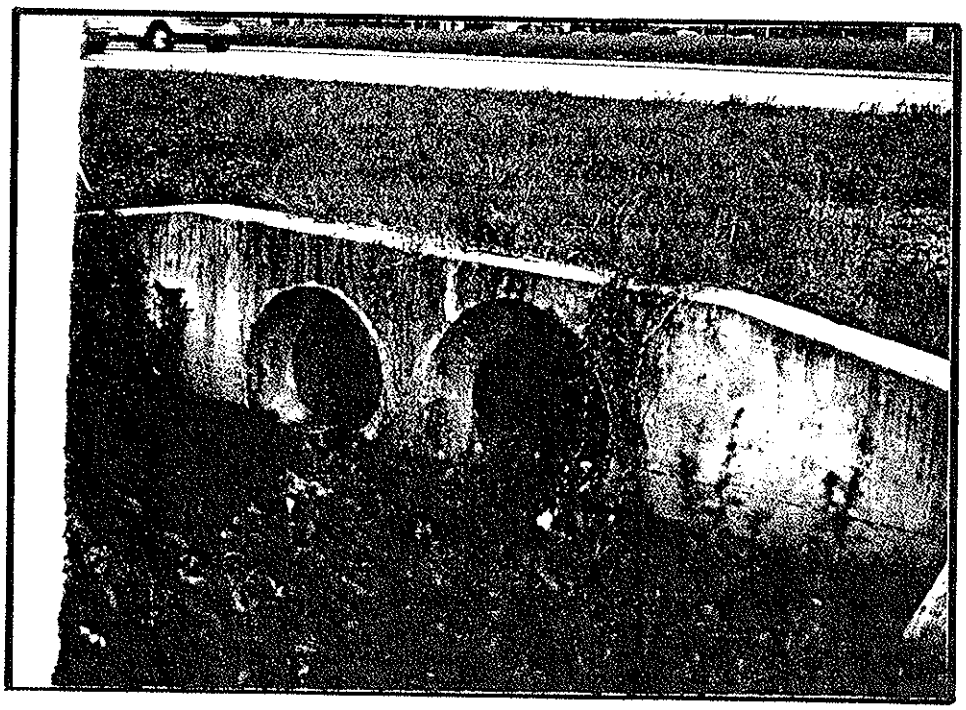
CONDITION:
East side - some siltation, heavy vegetation.
West side - structure open.

VEGETATION:
East side - alligator weed, water primrose, maidencane, saltgrass, cassia.
West side - no significant vegetation.

REMARKS:
East side - headwall 17' wide, 29' from E.P.
West side - headwall 17' wide, 27' from E.P.



SITE C-8 East side of U.S. 19 looking southwest



SITE C-8 West side of U.S. 19 looking northeast

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SUMMARY OF FIELD NOTES

Site C-8A
Inspection Date: March 29, 1988

LOCATION: 820'± north of S.R. 584A, east of U.S. 19.

TYPE OF WATERWAY: Retention Pond

WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: East side - no vegetation

REMARKS: N/A

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SUMMARY OF FIELD NOTES

Site C-8B
Inspection Date: March 29, 1988

LOCATION: 1040'± north of S.R. 584A.

TYPE OF WATERWAY: Retention Pond

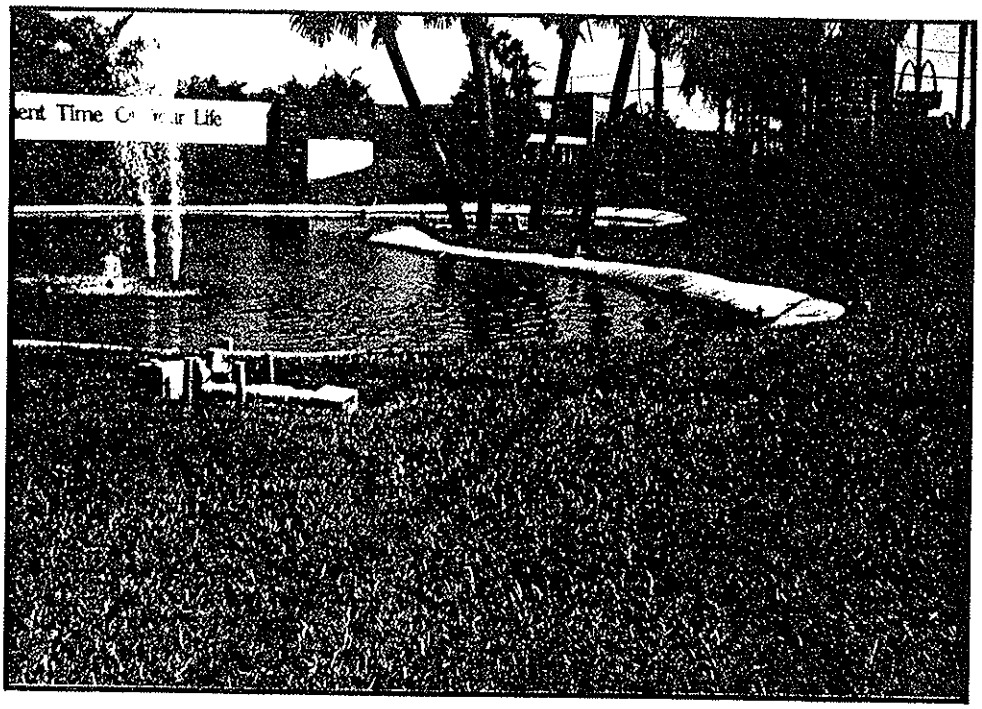
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

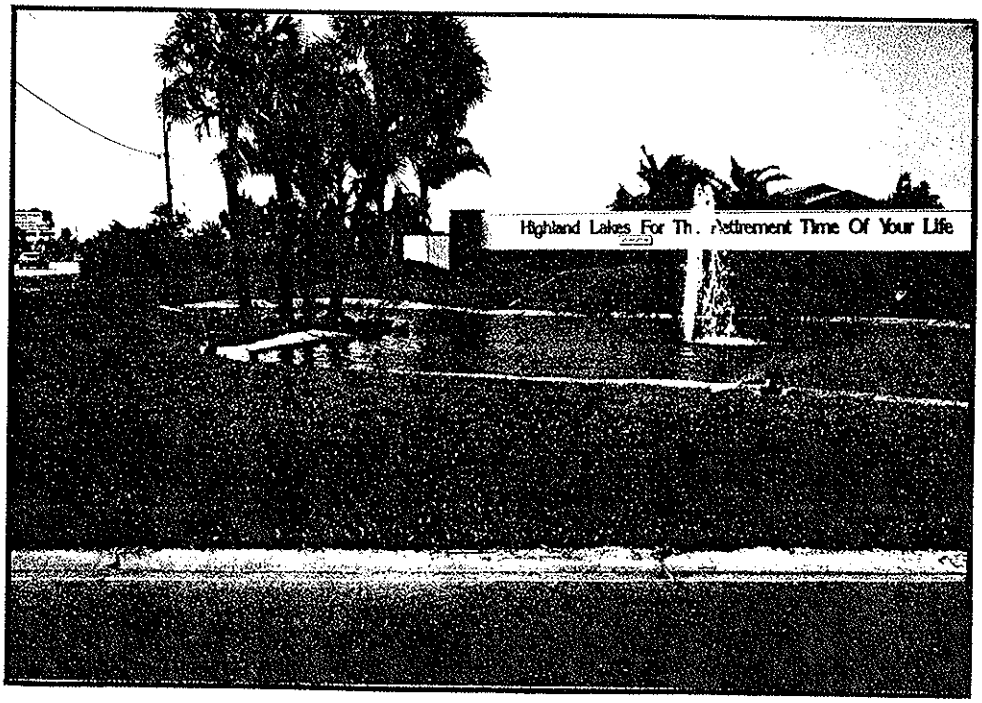
CONDITION: N/A

VEGETATION: East side - no vegetation

REMARKS: N/A



SITE C-8A Looking South



SITE C-8B Looking North

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

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SUMMARY OF FIELD NOTES

Site C-8C
Inspection Date: March 29, 1988

LOCATION: 1600'± north of Old Post Road, east of U.S. 19.

TYPE OF WATERWAY: Wetland adjacent to toe-of-slope.

WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: East side - bald cypress

REMARKS: N/A

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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site C-8D
Inspection Date: March 29, 1988

LOCATION: 700'-2400'± south of Klosterman Road, west of U.S. 19.

TYPE OF WATERWAY: Wetland area adjacent to toe-of-slope.

WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: N/A

VEGETATION: West side - bald cypress, willow

REMARKS:

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SUMMARY OF FIELD NOTES

Site C-7
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 800'± north of S.R. 584.

TYPE OF WATERWAY: Drainage ditch, Class III water, non-tidal.

WATERWAY: WIDTH: 6'± **DEPTH:** 1'± **FLOW DIRECTION:** East

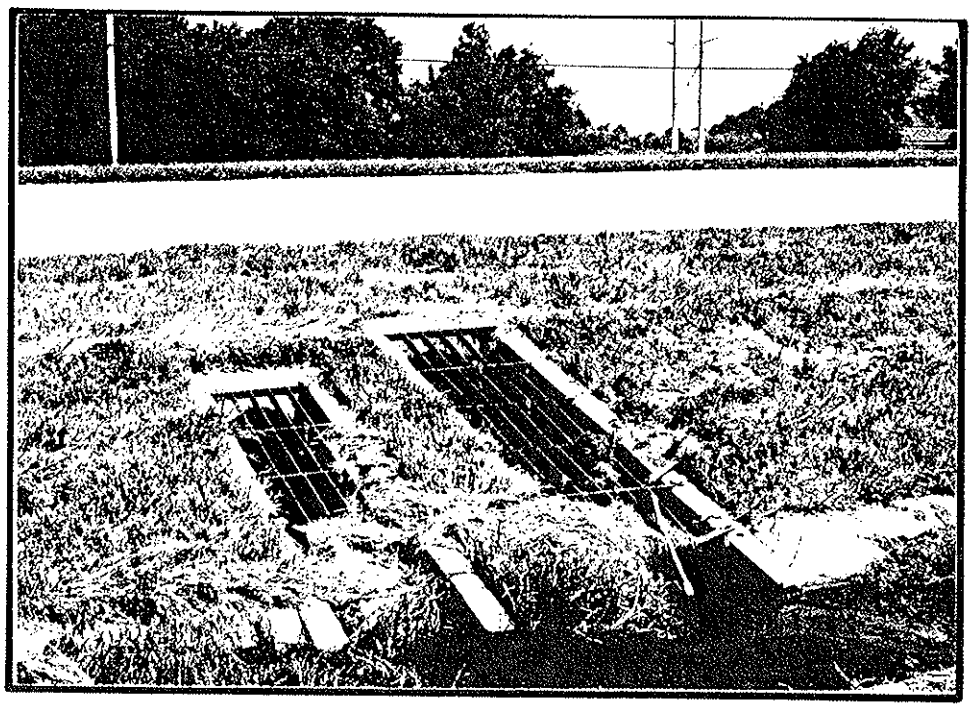
TYPE OF CROSSING: Two 30" R.C.P. culverts. East side with headwall, west side with mitered end sections and concrete ditch bottom.

CONDITION: East side - fairly open, some vegetation.
West side - debris on grate.

VEGETATION: East side - willow, wax myrtle, water primrose.
West side - saltgrass.

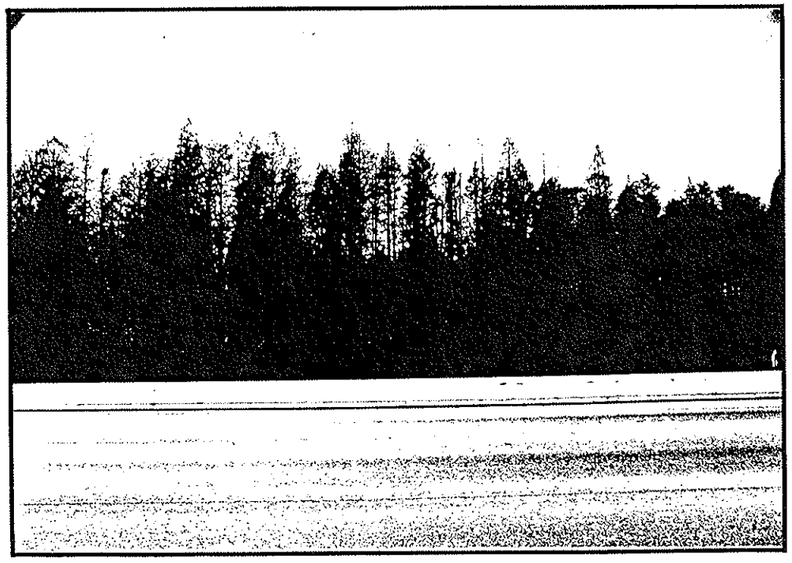
REMARKS: East side - headwall 32' from E.P.
West side - 12' from E.P.

SITE C-7 East side of U.S. 19 looking west.

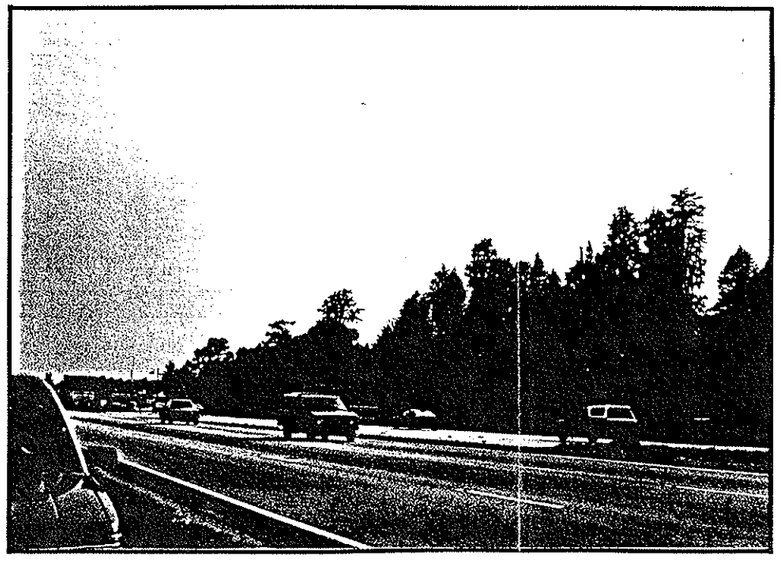


SITE C-7 West side of U.S. 19 looking southeast.

SITE C-8C East of U.S. 19 Looking East



SITE C-8D West of U.S. 19 Looking West



SITE C-8D West Side of U.S. 19 Looking Southwest

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SUMMARY OF FIELD NOTES

Site C-8E
Inspection Date: March 29, 1988

LOCATION: 1400'-2000'± south of Klosterman Road, east side of US 19.

TYPE OF WATERWAY: Wetland area adjacent to toe-of-slope.

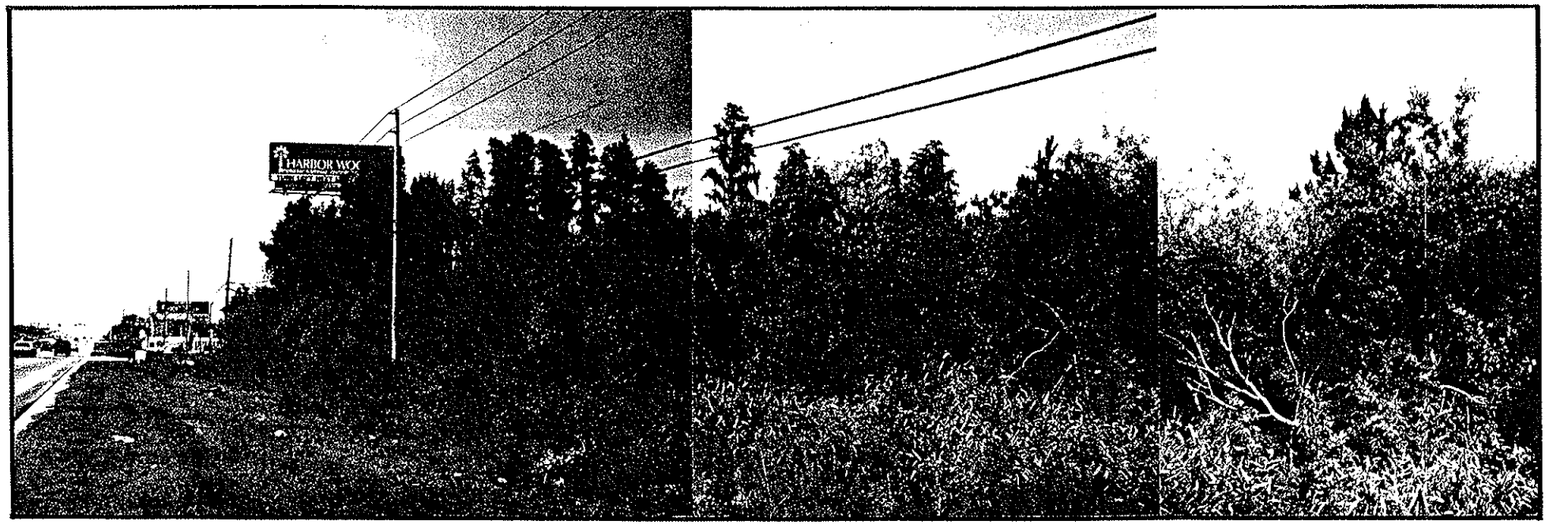
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: East side - N/A

VEGETATION: East side - bald cypress, willow

REMARKS: East side - structure 3.3' wide and 5' from E.P.



SITE C-8E East of U.S. 19 Looking Northeast to Southeast

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PINELLAS AND PASCO COUNTIES, FLORIDA
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SUMMARY OF FIELD NOTES

Site C-8F
Inspection Date: March 29, 1988

LOCATION: 150' to 1,400'± north of the Anderson Park entrance.

TYPE OF WATERWAY: Wetland area adjacent to toe-of-slope.

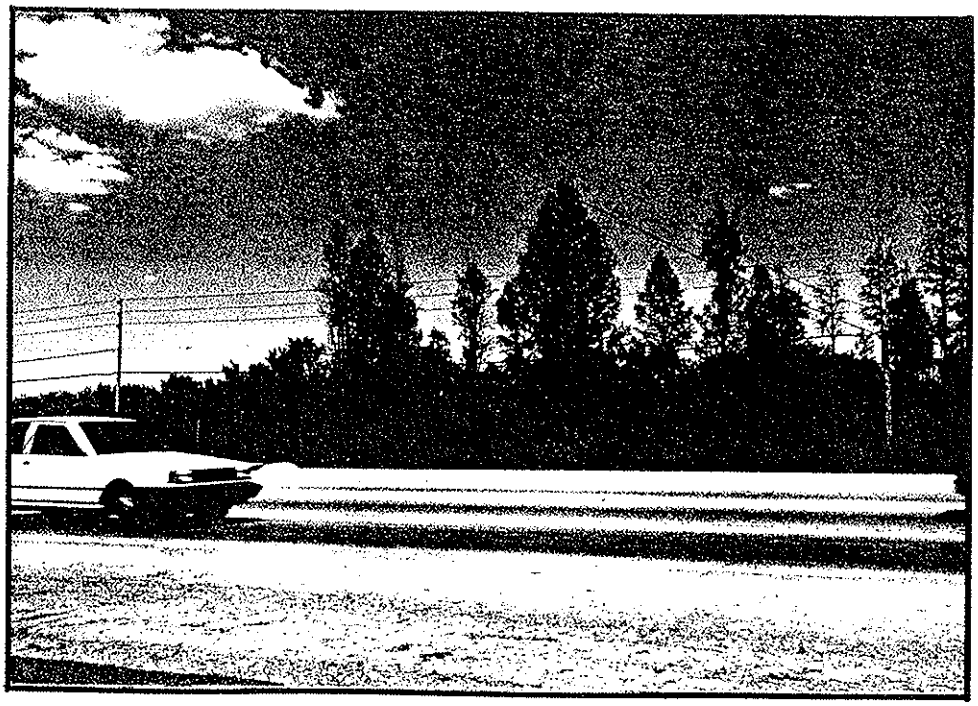
WATERWAY: WIDTH: N/A **DEPTH:** N/A **FLOW DIRECTION:** N/A

TYPE OF CROSSING: N/A

CONDITION: East side - dense vegetation of willow along parallel drainage

VEGETATION: East side - willow, cypress, red maple

REMARKS: N/A



SITE C-8F East of U.S. 19 Looking East

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site C-9
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 850'± north of Anderson Park entrance, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, non-tidal.

WATERWAY: WIDTH: 8'-10' **DEPTH:** 2' east side **FLOW DIRECTION:** East

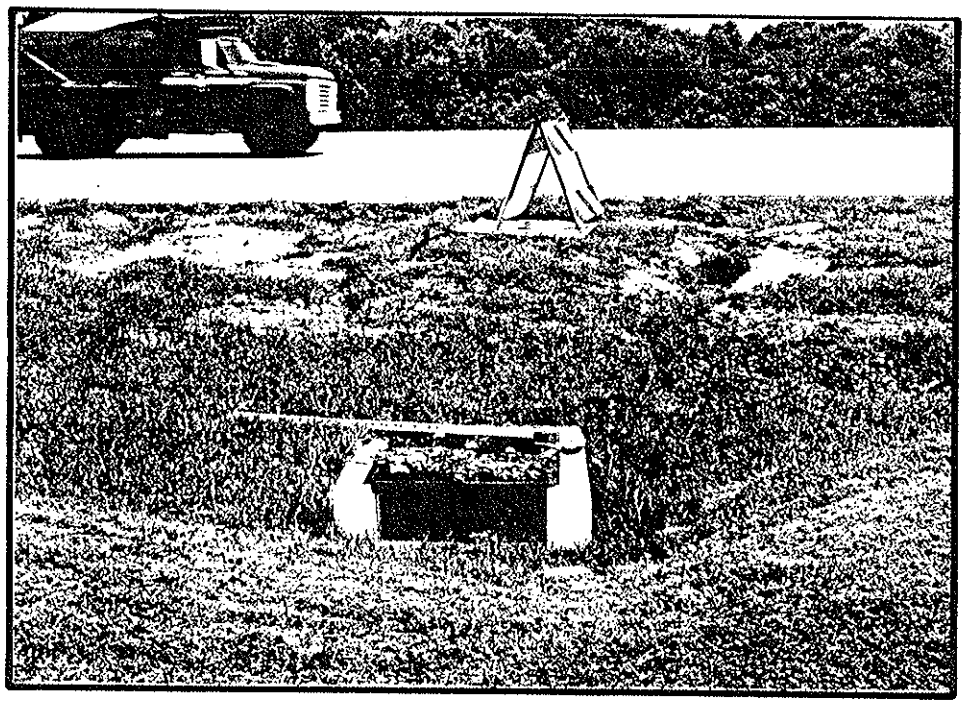
TYPE OF CROSSING: One 54" R.C.P. culvert. East side with headwall discharges to Lake Tarpon, west side with drop box structure at swale.

CONDITION: Structures open, some vegetation on east side, debris on west side during 1986 inspection. Dense vegetation and debris concealed both structures during 1988 inspection.

VEGETATION: East side - vegetation heavy, willow, alligator weed, water primrose.
West side - no vegetation.

REMARKS: East side - headwall 18' wide, 30' from E.P.
West side - Pipe mouth 24' from E.P.

SITE C-9 East side of U.S. 19 looking southwest



SITE C-9 West side of U.S. 19 looking east

U.S. 19 PROJECT DEVELOPMENT
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Pinellas and Pasco Counties, Florida
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PINELLAS AND PASCO COUNTIES, FLORIDA
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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site D-1
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: 1,600'± south of the Anclote River Bridge, Pinellas County.

TYPE OF WATERWAY: Drainage ditch, Class III waters, tidal.

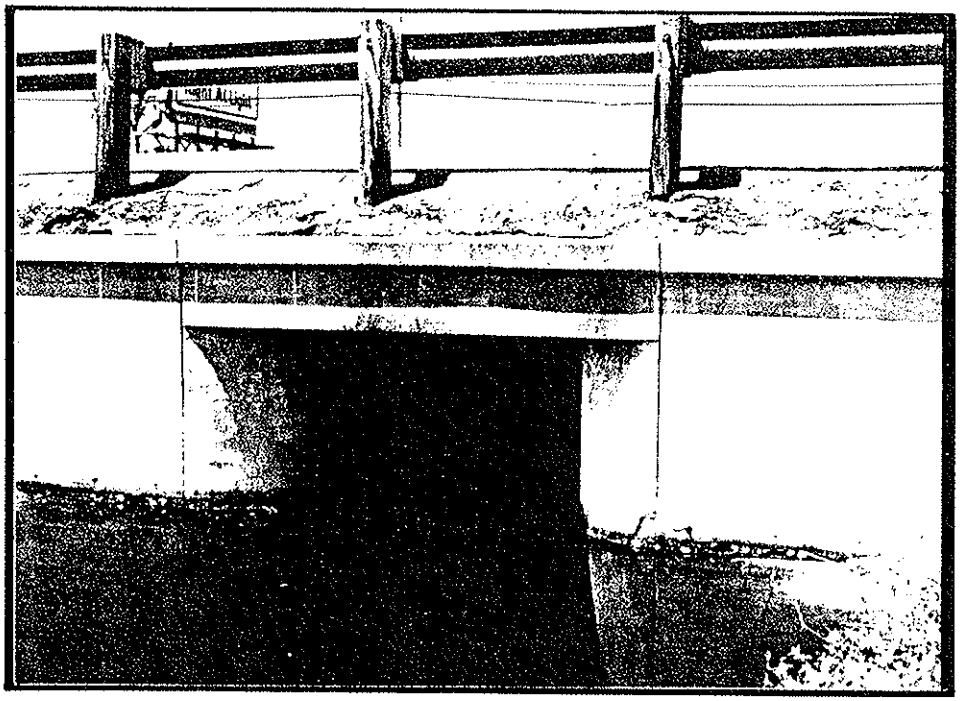
WATERWAY: WIDTH: 15'± **DEPTH:** 6"± **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: One box culvert, 6' wide x 4' high on east side, 6' wide x 5.5' high on west side.

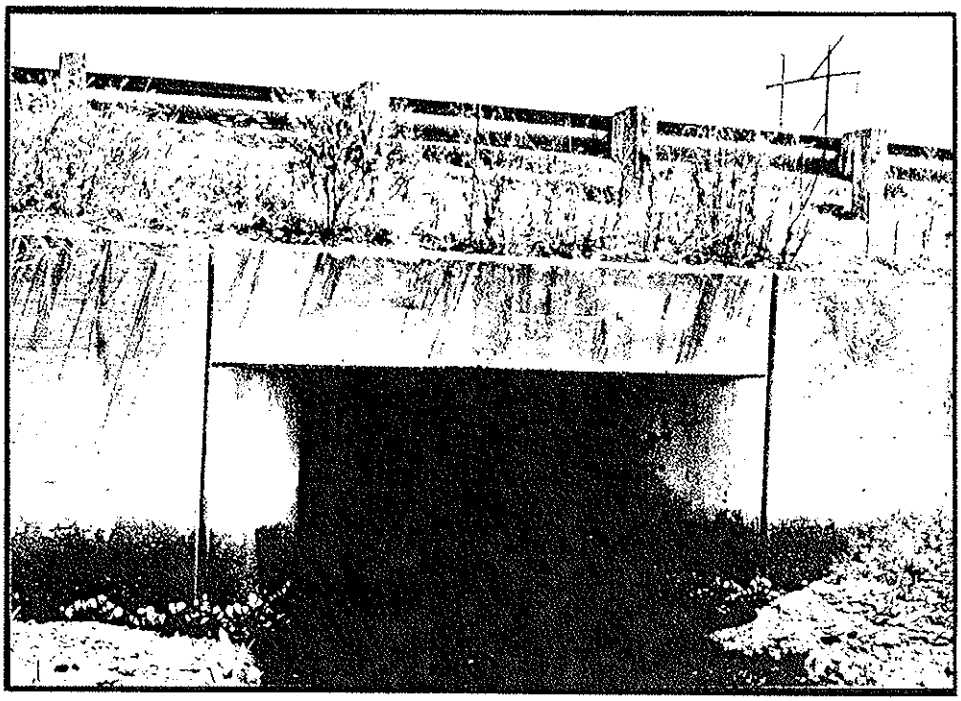
CONDITION: Structures open.

VEGETATION: East side - saltgrass, blackrush, cassia.
West side - saltgrass, sea purslane, black mangrove, red mangrove, brazilian pepper.

REMARKS: East side - headwall 31' wide, 8' from E.P.
West side - headwall 37' wide, 21' from E.P.
Non-navigable crossing.



SITE D-1 East side of U.S. 19 looking west.



SITE D-1 West side of U.S. 19 looking east

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PERMIT COORDINATION REPORT
SUMMARY OF FIELD NOTES

Site D-2
Inspection Date: August 27, 1986 and March 29, 1988

LOCATION: Anclote River Bridge, Pinellas County, FDOT Bridge number 150084 northbound, 150032 southbound.

TYPE OF WATERWAY: Navigable waterway, Class III waters, tidal.

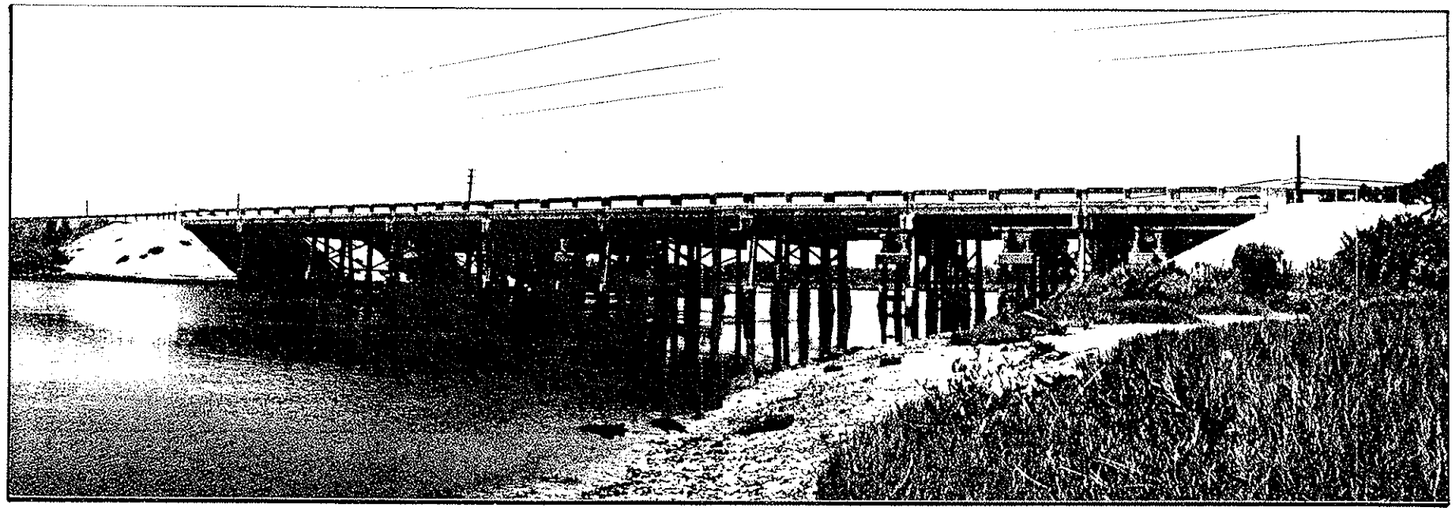
WATERWAY: WIDTH: 200'± **DEPTH:** 9'± below MLW **FLOW DIRECTION:** Tidal

TYPE OF CROSSING: Divided bridge structure, 2 lanes each direction.

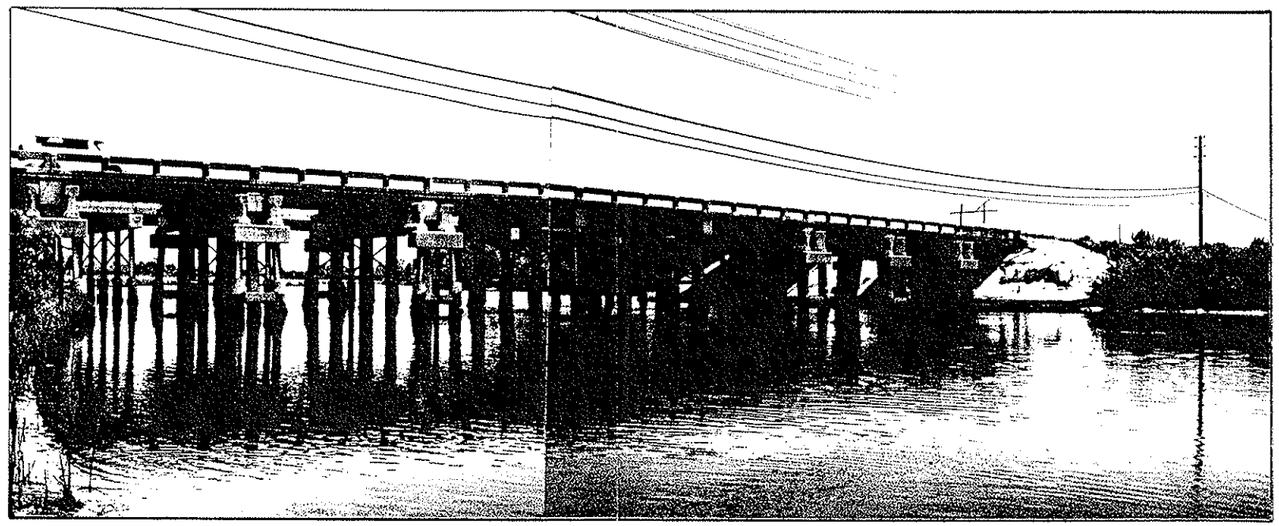
CONDITION: Open, vertical clearance 16' above M.H.W. Horizontal clearance 27' between pile caps. (clearance estimates approximate).

VEGETATION: Southeast quadrant - sparsly vegetated, some red, white, black mangrove.
Northeast quadrant - wax myrtle, Brazilian pepper.
Southwest quadrant - Brazilian pepper.
Northwest quadrant - Black mangrove, saltmarsh cordgrass.
Some black and white mangrove on north bank under the bridge.

REMARKS: Side slopes on all sides of the crossing are protected by concrete linings and headwall. This waterway is used primarily for pleasure by small powered craft. There are no marinas or water dependent commercial facilities in the vicinity of this structure. The site is located in an area of mixed residential and light commercial interests. There are no wildlife and waterfowl refuges, public parks, recreation areas, or historical sites in the vicinity of this site. However, the river is used for recreational fishing, and is designated as a water conservation area. Range of tide at the bridge structure is approximately 2.10'.



SITE D-2 East side of U.S. 19 at Anclote River, from north bank looking southwest.



SITE D-2 West side of U.S. 19 at Anclote River, from north bank looking southeast.

U.S. 19 PROJECT DEVELOPMENT
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APPENDIX B

OBSERVED PLANT SPECIES

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT
OBSERVED PLANT SPECIES

Common Name	Scientific Name
Algae	-
Alligator weed	Alternanthera philoxeroides
Arrowhead	Sagittaria lancifolia
Bacopa	Bacopa monnieri
Bald cypress	Taxodium distichum
Barnyard grass	Echinochloa crusgalli
Bladder pod	Sessbania vesiccaria, S. punicea
Black mangrove	Avicennia germinans
Black rush	Juncus roemerianus
Brazilian pepper	Schinus terebinthifolius
Buttonweed	Diodia virginiana
Cassia	Cassia sp.
Castor bean	Ricinus communis
Cattail	Typha spp.
Caric sedge	Carex spp.
Common salvinia	Salvinia rotundifolia
Cordgrass	Spartina bakeri
Dog fennel	Eupatorium capillifolium
Elderberry	Sambucus canadensis
Elephant ear	Colocasia esculentum
Goldenrod	Solidago spp.
Hydrilla	Hydrilla verticillata
Lemon bacopa	Bacopa caroliniana
Lizard's tail	Saururus cernus
Maidencane	Panicum hemitomon
Morning glory	Ipomoea spp.
Pennywort	Hydrocotyle umbellata
Pickerelweed	Pontederia lanceolata
Red mangrove	Rhizophora mangle
Red maple	Acer rubrum
Salt bush	Baccharis spp.
Saltgrass	Distichlis spicata
Saltmarsh cordgrass	Spartina alterniflora
Sea lavender	Limonium nashii
Sea purslane	Sesuvium portulacastrum
Sedge	Cyperus sp.
Soft rush	Juncus effusus
Soft-stem bulrush	Scirpus validus
Star rush	Dichromena colorata
Water hyacinth	Eichhornia crassipes
Water primrose	Ludwigia octovalis
Wax myrtle	Myrica cerifera
Willow	Salix spp.
Red ludwigia	Ludwigia repens
Parrots feather	Myriophyllum aquaticum

APPENDIX C

NATIONAL WETLANDS INVENTORY
CLASSIFIED WETLANDS

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES
PINELLAS AND PASCO COUNTIES, FLORIDA
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

NATIONAL WETLANDS INVENTORY CLASSIFIED WETLANDS

Permit Coordination Site	Code	System	Subsystem	Class	Subclass	Water Regime
A-3	PEM5C	Palustrine	None	Emergent	Narrow leaved persistent	Seasonal
A-5	EIOWL	Estuarine	Subtidal	Open Water	None	Subtidal
	POWH	Palustrine	None	Open Water		Permanent
	PSS3C	Palustrine	None	Scrub Shrub	Broad leaved evergreen	Seasonal
	PEM5C	Palustrine	None	Emergent	Narrow leaved persistent	Seasonal
B-2	E2SS3U	Estuarine	Itertidal	Scrub Shrub	Broad leaved evergreen	Unknown
B-3	E2SS3U	Estuarine	Itertidal	Scrub Shrub	Broad leaved evergreen	Unknown
B-4	EIOWL	Estuarine	Subtidal	Open Water	None	Subtidal
B-9	PF02F	Palustrine	None	Forested	Needle leaved deciduous	Semi-permanent
B-11	PF03C	Palustrine	None	Forested	Broad leaved evergreen	Seasonal
	PF01C	Palustrine	None	Forested	Broad leaved deciduous	Seasonal
C-8C	PFO2F	Palustrine	None	Forested	Needle leaved deciduous	Semi-permanent
C-8D	PFO2F	Palustrine	None	Forested	Needle leaved deciduous	Semi-permanent
D-2	E2EM1P	Estuarine	Intertidal	Emergent	Persistent	Irregular

Source: U.S. Department of the Interior, Fish and Wildlife Service, and National Wetlands Inventory Maps (St. Petersburg, Safety Harbor, Oldsmar, Elfers Quadrangle Maps).

APPENDIX D

U.S. COAST GUARD INFORMATION

Greiner

Letter of Transmittal

To: Seventh Coast Guard District
51 S.W. 1st Avenue
Miami, Fla
33130

From: Trudy Killeen
Greiner, Inc.
P.O. Box 31646
5601 Mariner St.
Tampa, Florida 33630-3416
(813) 286-1711

Re: Bridge Permits for the following:
Anclote River
Allens Creek
Cross Bayou Canal

The following items are being sent ☑ attached ☐ under separate cover by _____

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications ☐ Copy of Letter

Bridge project questionnaires, photographs, Location Map, Previous Permits

Copies	Date or Number	Description

Transmittals for reasons checked

☐ For Approval
For Your Use
☐ As Requested
For Review and Comment

☐ No Exceptions Taken
☐ Make Corrections Noted
☐ Amend and Resubmit

☐ Resubmit _____ copies for approval
☐ Submit _____ copies for distribution
☐ Return _____ corrected prints
☐ _____

Enclosed is a completed bridge project questionnaire for the following existing bridges: 1) Bridge over the Anclote River on US19, Tarpon Springs
2) Bridge over Allens Creek, Clearwater (US19)
3) Bridge over the Cross Bayou Canal on US19, Pinellas Park

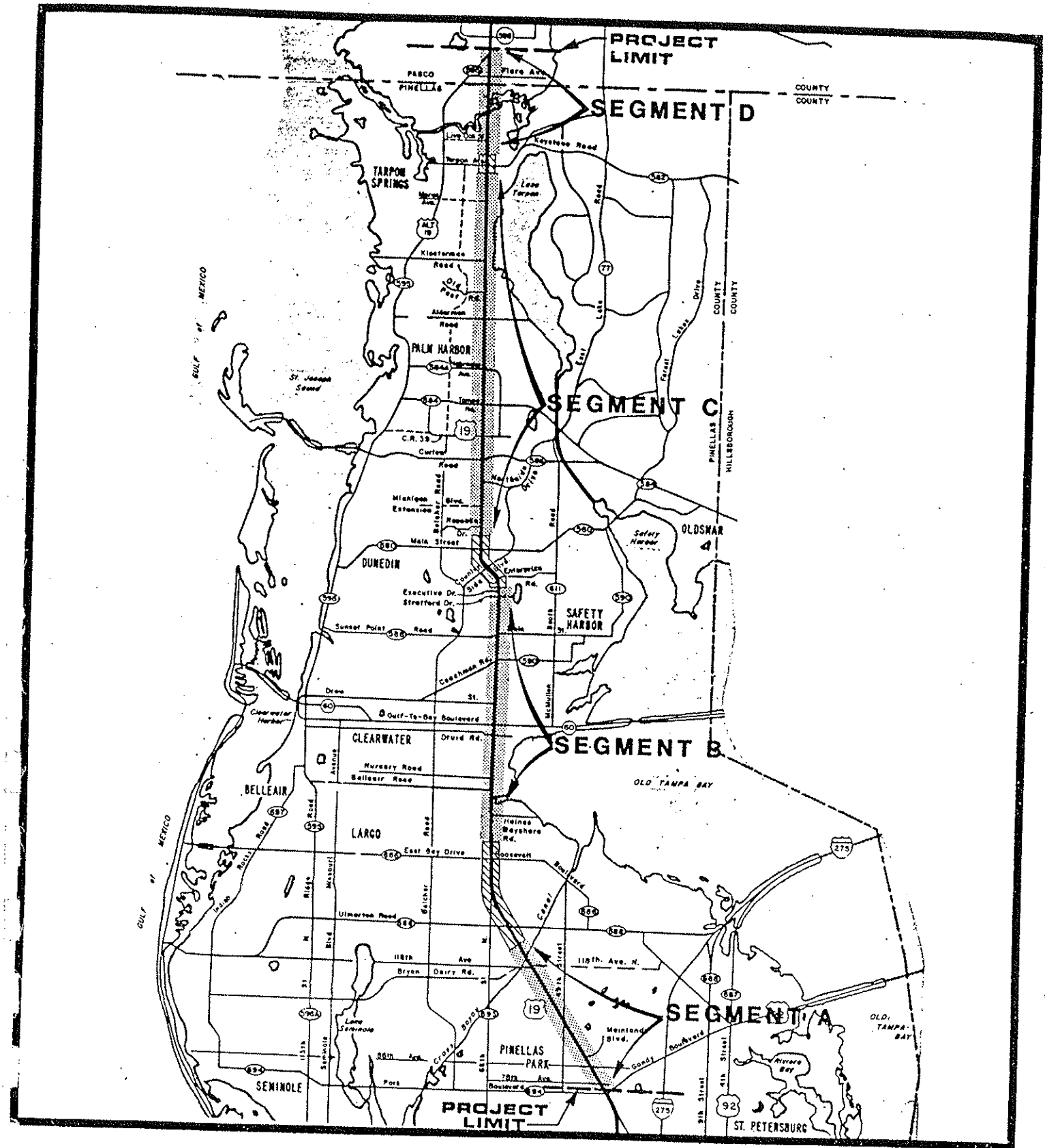
In addition previously approved permits are also attached.

enclosures are not as noted, kindly notify us at once.

Please contact me if you need any further information

Signed Trudy M. Killeen

ual Opportunity Employer M/F



N

0 0.5 1 2 3 4 Miles

SCALE

LEGEND

Previously Planned and Programmed Interchange Areas

Current Study Area

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

STATE PROJECT NO. 15150-1565

DESIGN SEGMENT LOCATION MAP

Florida Department of Transportation

Greiner Engineering Sciences, Inc.

EXHIBIT 1

U. S. COAST GUARD
Form CG-1103 (Rev. 9-85)

BRIDGE PROJECT QUESTIONAIRE

Please provide the following information:

1. Name of Waterway: Allens Creek Bridge # 150081 northbound, 150036 southbound

1a. Mileage along waterway measured from mouth or confluence 0.35

1b. Tributary of Tampa Bay at mile N/A.

2. Geographical Location: U.S. 19 Clearwater, Pinellas County, FL
(Road Number City County State)

3. Township, section and range, if applicable

4. Tidally influenced at proposed bridge site? Yes
Range of tide 2.8'

5. Depth and width of waterway at proposed bridge site:

	Depths	Widths
At Mean High Tide	4.6'±	102.8'±
At Mean Low Tide	1.8'±	100'±

6. Character of present vessel traffic on waterway. If none so state:
Canoe -X- Rowboat X Small Motorboat ____
Cabin Cruiser ____ Houseboat ____ Pontoon Boat ____
Sailboat ____ None ____

6a. Provide vertical clearance requirement for largest vessel using the waterway 4'±

6b. Provide photograph of each type vessel using the waterway N/A

7. Are these waters used to transport interstate or foreign commerce?
Yes ____ No X

7a. Are these waters susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce? Yes ____ No X

7b. Any planned waterway improvements to permit larger vessels to navigate (to your knowledge)? No If so what are they? ____

8. Any natural or manmade obstructions, bridges, dams, wiers, etc. downstream or upstream? Yes X No ____

ENCLOSURE (1)

8a. If yes provide upstream/downstream location with relation to the proposed bridge. Gas pippeline northwest quadrant.

8b. If bridges, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to axis of waterway.

8c. Provide a photograph of the bridge from the waterway showing channel spans.

9. Will the structure replace an existing bridge? Yes

9a. Provide permit number and issuing agencies of permits for bridge(s) to be replaced. U.S. Coast Guard permit 87-80 Bridge No. 150081 northbound, 150036 southbound

9b. Provide vertical clearance above mean high water and mean low water and horizontal clearance normal to axis of waterway. 4.87' alone M.H.W.; 7.67' above M.L.W.; Horizontal Clearance 13.8' between pili

9c. Provide a photograph of the bridge from the waterway showing channel span(s) Attached

10. List names and addresses of persons whose property adjoins bridge right-of-way.

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within 1/2 mile of site. Retail boat sales southeast quadrant

12. Attach location map and plans for the proposed bridge; include vertical clearances above mean high water and mean low water and horizontal clearance normal to axis of the waterway. Project is in preliminary stage and plans are not available; A typical bridge section is attached

13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site. Attached

DATE: _____ SIGNATURE: _____

Proposed Bridge Owner or Agent

ATTACHMENTS: Location Map
Bridge Plans
Photographs

U. S. COAST GUARD
Form D7-1103 (Rev. 9-85)

BRIDGE PROJECT QUESTIONAIRE

Please provide the following information:

1. Name of Waterway: Cross-Bayou Canal

1a. Mileage along waterway measured from mouth or confluence 2.8

1b. Tributary of Tampa Bay at mile N/A.

2. Geographical Location: U.S. 19 Largo Pinellas, FL
(Road Number City County State)

3. Township, section and range, if applicable

4. Tidally influenced at proposed bridge site? Yes
Range of tide 2'±

5. Depth and width of waterway at proposed bridge site:

	Depths	Widths
At Mean High Tide	4'	52' ±
At Mean Low Tide	2'±	50'±

6. Character of present vessel traffic on waterway. If none so state:
Canoe — X — Rowboat X Small Motorboat _____
Cabin Cruiser _____ Houseboat _____ Pontoon Boat _____
Sailboat _____ None _____

6a. Provide vertical clearance requirement for largest vessel using the waterway 4'+

6b. Provide photograph of each type vessel using the waterway N/A

7. Are these waters used to transport interstate or foreign commerce?
Yes ____ No X

7a. Are these waters susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce? Yes ____ No X

7b. Any planned waterway improvements to permit larger vessels to navigate (to your knowledge)? No If so what are they? _____

8. Any natural or manmade obstructions, bridges, dams, wiers, etc. downstream or upstream? Yes _____ No X

ENCLOSURE (1)

8a. If yes provide upstream/downstream location with relation to the proposed bridge.

8b. If bridges, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to axis of waterway.

8c. Provide a photograph of the bridge from the waterway showing channel spans.

9. Will the structure replace an existing bridge? Yes

9a. Provide permit number and issuing agencies of permits for bridge(s) to be replaced. FDOT bridge No.150080 northbound, 150035 southbound

9b. Provide vertical clearance above mean high water and mean low water and horizontal clearance normal to axis of waterway. 7'± above M.H.W. vertical clearance; horizontal clearance 10'±

9c. Provide a photograph of the bridge from the waterway showing channel span(s) Attached

10. List names and addresses of persons whose property adjoins bridge right-of-way.

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within 1/2 mile of site. None

12. Attach location map and plans for the proposed bridge; include vertical clearances above mean high water and mean low water and horizontal clearance normal to axis of the waterway. Project is in preliminary design and plans are not currently available.

13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site. Attached

DATE: _____ SIGNATURE: _____

Proposed Bridge Owner or Agent

ATTACHMENTS: Location Map
Bridge Plans
Photographs

Form D7-1103 (Rev. 9-85)

BRIDGE PROJECT QUESTIONAIRE

Please provide the following information:

1. Name of Waterway: Anclote River

1a. Mileage along waterway measured from mouth or confluence 4.7

1b. Tributary of _____ at mile _____.

2. Geographical Location: U.S. 19 Tarpon Springs, Pinellas County, FL
(Road Number City County State)

3. Township, section and range, if applicable

4. Tidally influenced at proposed bridge site? Yes
Range of tide 2.10'

5. Depth and width of waterway at proposed bridge site:

	Depths	Widths
At Mean High Tide	11.10'±	202.10
At Mean Low Tide	9.0'±	200'±

6. Character of present vessel traffic on waterway. If none so state:
Canoe X Rowboat X Small Motorboat X
Cabin Cruiser _____ Houseboat _____ Pontoon Boat _____
Sailboat _____ None _____

6a. Provide vertical clearance requirement for largest vessel using the waterway 4'±

6b. Provide photograph of each type vessel using the waterway N/A

7. Are these waters used to transport interstate or foreign commerce?
Yes ____ No X

7a. Are these waters susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce? Yes ____ No X

7b. Any planned waterway improvements to permit larger vessels to navigate (to your knowledge)? No If so what are they? _____

8. Any natural or manmade obstructions, bridges, dams, wiers, etc. downstream or upstream? Yes _____ No X

8a. If yes provide upstream/downstream location with relation to the proposed bridge.

8b. If bridges, provide vertical clearance at mean high water and mean low water and horizontal clearance normal to axis of waterway.

8c. Provide a photograph of the bridge from the waterway showing channel spans.

9. Will the structure replace an existing bridge? Yes

9a. Provide permit number and issuing agencies of permits for bridge(s) to be replaced. P(2-84-7) U.S. Coast Guard (attached). FDOT Bridge No. 150084 northbound; 150032 southbound.

9b. Provide vertical clearance above mean high water and mean low water and horizontal clearance normal to axis of waterway. 16'M.H.W. and 18.2' M.L.W.; horizontal clearance 27' between pile caps.

9c. Provide a photograph of the bridge from the waterway showing channel span(s) Attached

10. List names and addresses of persons whose property adjoins bridge right-of-way.

11. List names and addresses/location of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within 1/2 mile of site. None

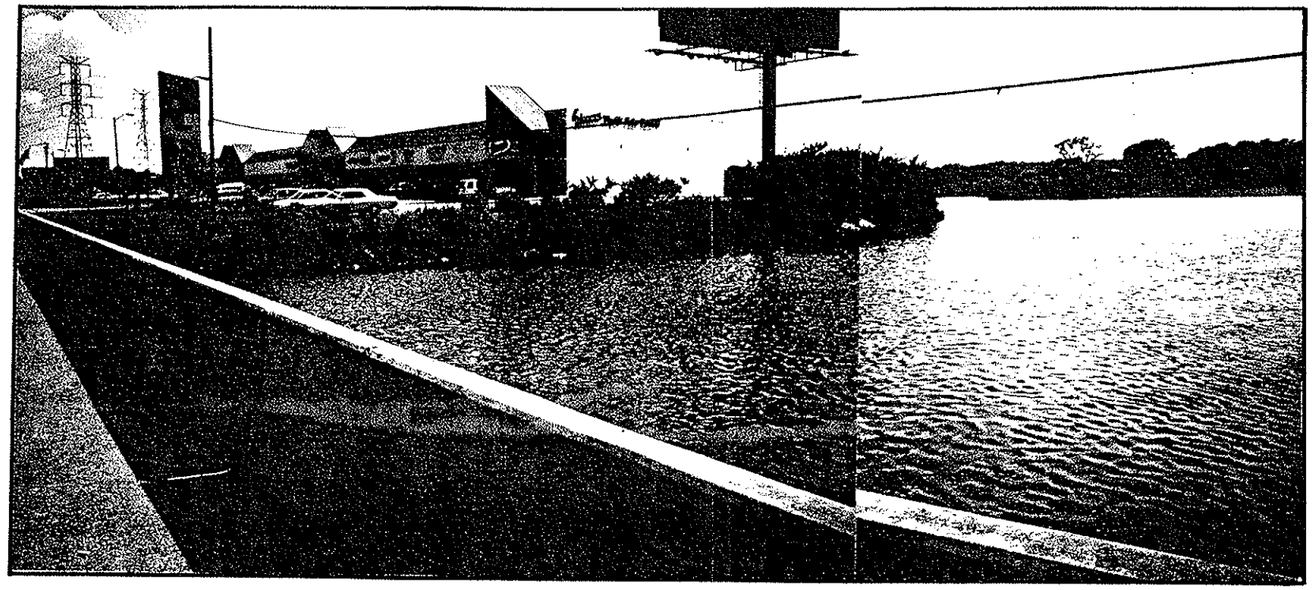
12. Attach location map and plans for the proposed bridge; include vertical clearances above mean high water and mean low water and horizontal clearance normal to axis of the waterway. Project is in preliminary stage and plans are not available.

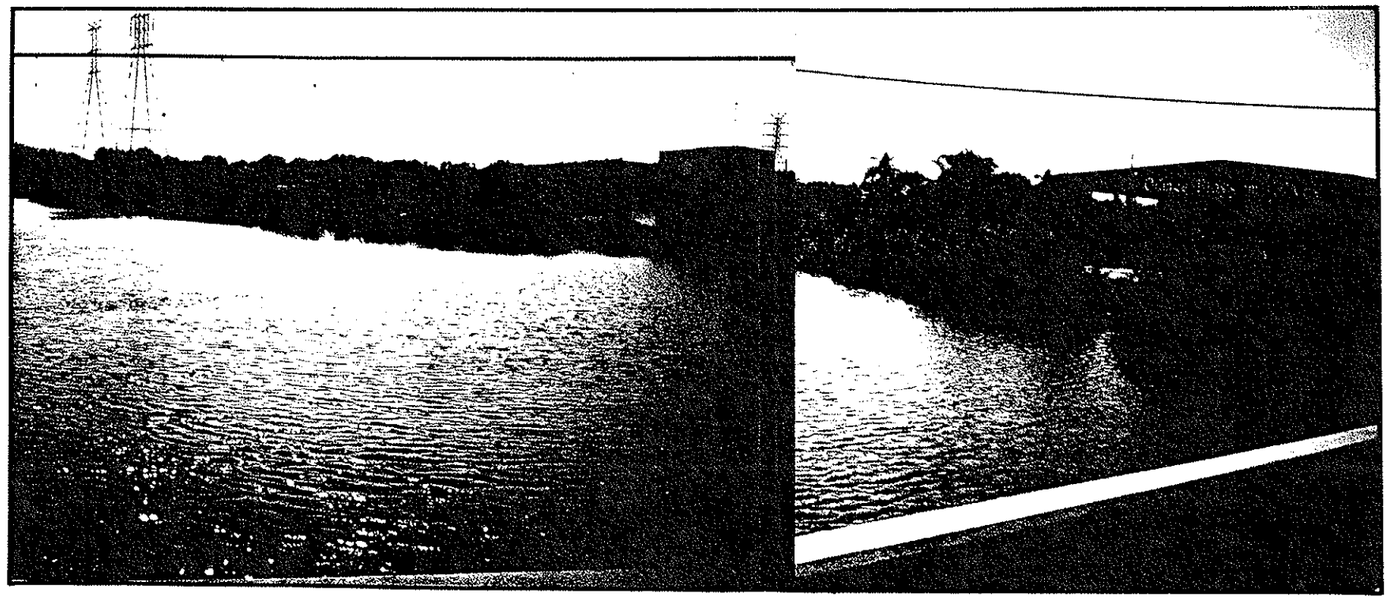
13. Attach three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site. Attached

DATE: _____ SIGNATURE: _____

Proposed Bridge Owner or Agent

ATTACHMENTS: Location Map
Bridge Plans N/A
Photographs



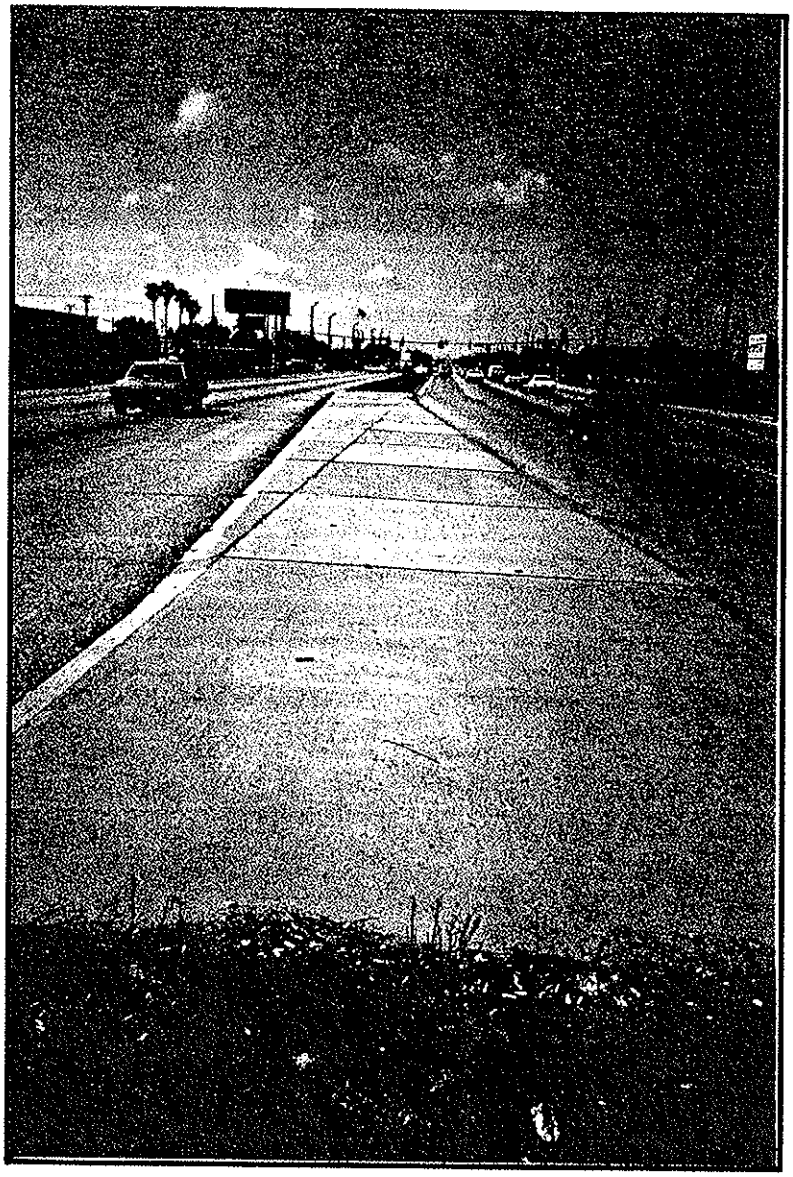


Allen Creek Looking Upstream

U.S. 19 PROJECT DEVELOPMENT
AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

Florida Department of Transportation



Allens Creek Looking North Along Bridge Centerline

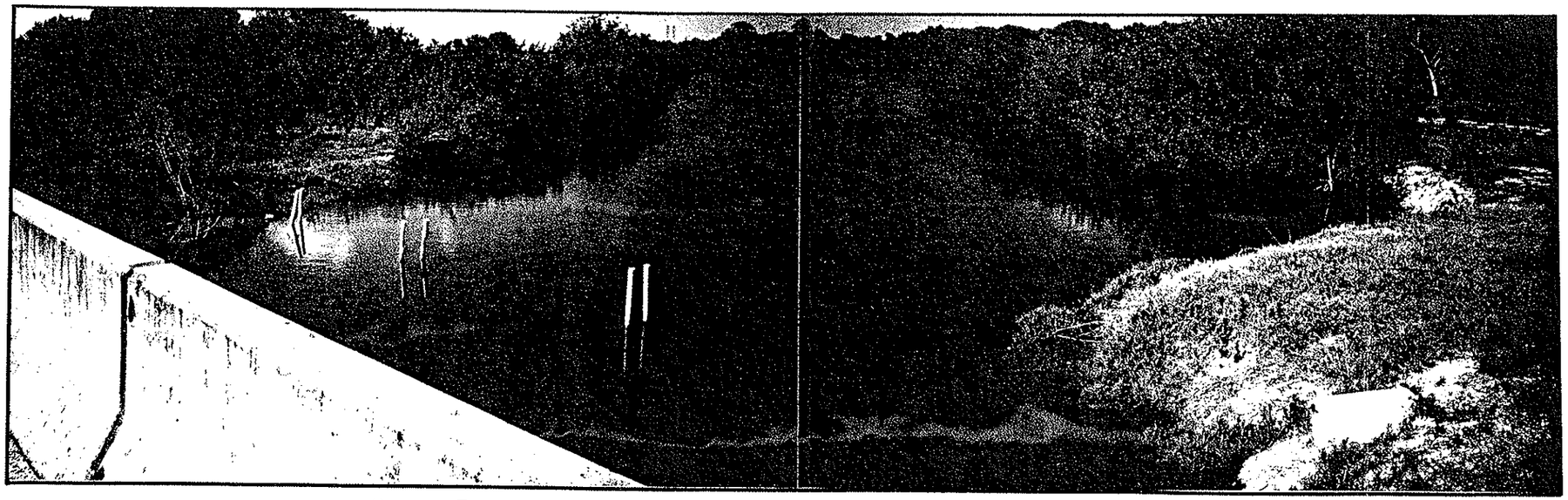
U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

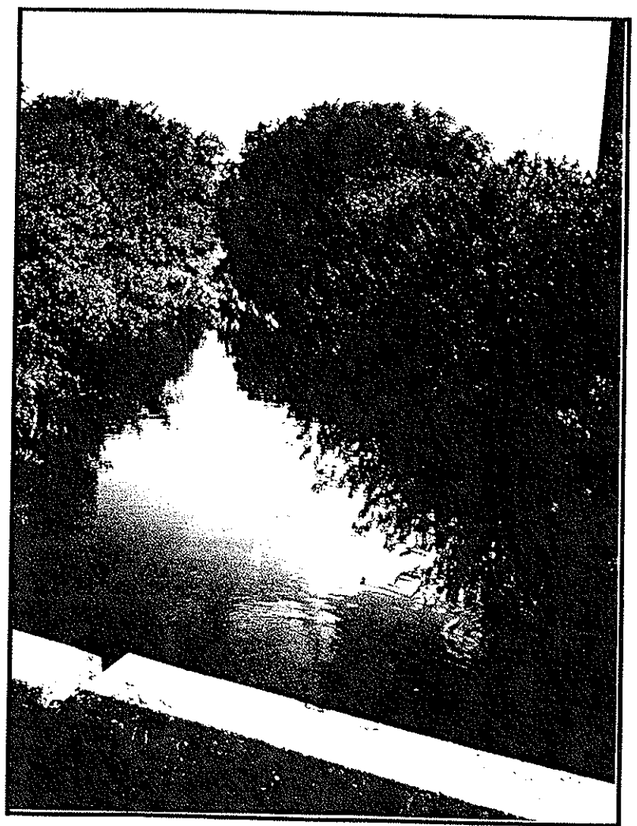
STATE PROJECT NO. 15150-1585

PERMIT COORDINATION REPORT

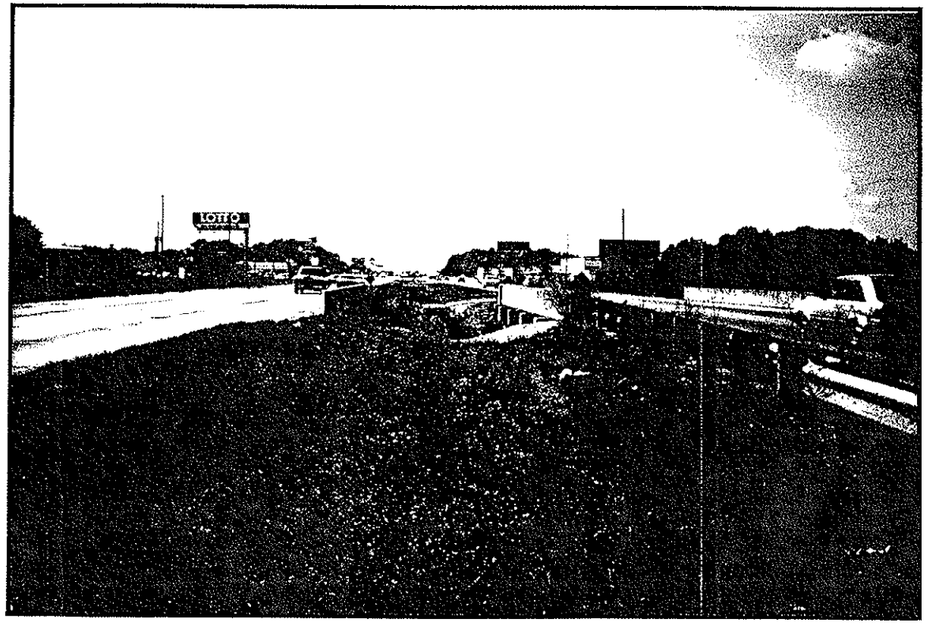
Florida Department of Transportation



Cross Bayou Canal Looking Northeast Towards Tampa Bay



Cross Bayou Canal Looking Southwest
Towards Boca Ciega Bay

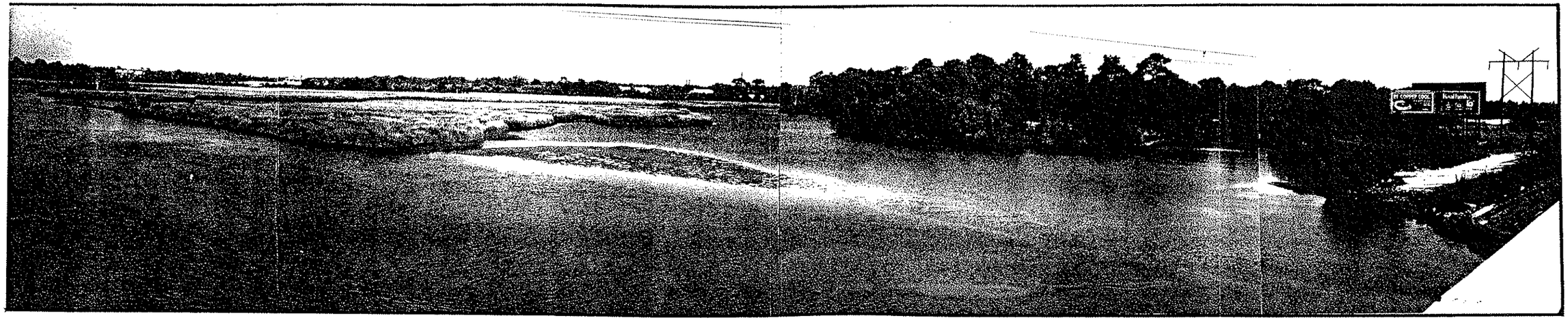


Cross Bayou Canal Looking North Along Bridge Centerline

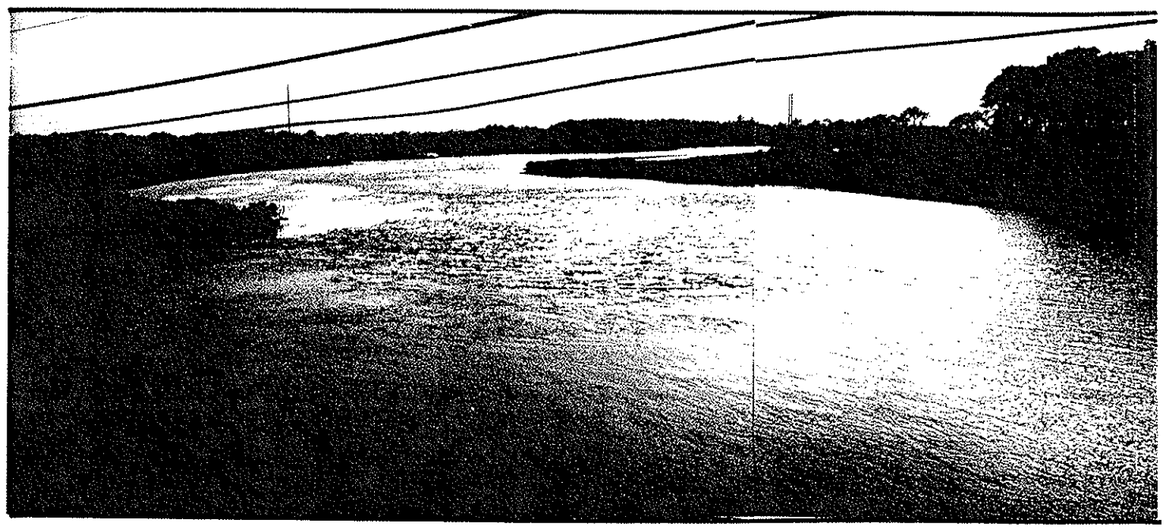
U.S. 19 PROJECT DEVELOPMENT
AND ENVIRONMENTAL STUDIES
Pinellas and Pasco Counties, Florida
STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

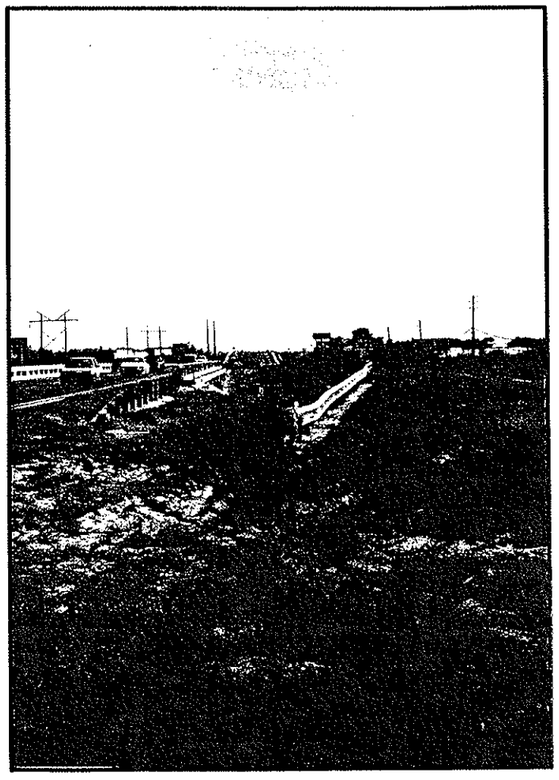
Florida Department of Transportation



ANCLOTE RIVER - East Of U.S.19 Looking Upstream



ANCLOTE RIVER - West Of U.S.19 Looking Downstream



ANCLOTE RIVER-Looking South Along Bridge Centerline

U.S. 19 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES

Pinellas and Pasco Counties, Florida

STATE PROJECT NO. 15150-1565

PERMIT COORDINATION REPORT

Florida Department of Transportation

Florida Department of Transportation

BOB GRAHAM
GOVERNOR

Haydon Burns Building, 605 Suwannee Street Tallahassee Florida 32301-8064 Telephone (904) 488-8841

PAUL N. PAPPAS
SECRETARY

5789.0000

~~RWG~~
GGF

District Bridge Inspection Files
P.O. Box 28
Mango, Florida 33550-0028
March 6, 1985

Mr. Jerry E. Roberts
Greiner Engineering Sciences, Inc.
P. O. Box 23646
Tampa, Florida 33630

RE: U.S. 19 Structure Appraisal, State Project No. 15150-1559
Pinellas County

Dear Mr. Roberts:

As per your request, attached are the S.I.A. sheets for bridges along your project. Several of these structures have already been widened. A review of these structures indicate that widening is feasible except in the case of Bridge No. 150032, U.S. 19, southbound over the Anclote River, built in 1964. Crutch bents added in 1970 would make widening this structure difficult. I would recommend that this structure be replaced.

I would also recommend that all structures that have design loads of less than HS-20 be rehabilitated to HS-20 loading (150035,150080,150036, and 150083).

If I can be of further assistance in this matter, please advise.

Sincerely,

C. D. Oliver

C. D. Oliver, P.E.
District Structures &
Facilities Engineer

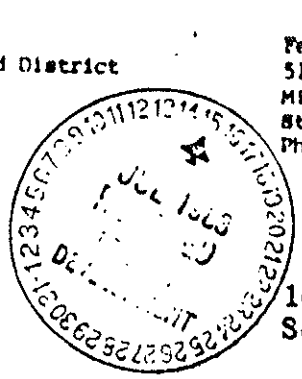
CDO:skb
Attachment
cc: Jim Kennedy

6✓

U.S. Department of Transportation
United States Coast Guard

Commander
Seventh Coast Guard District

Federal Building
51 S.W. 1st. Avenue
Miami, Fl. 33130
Staff Symbol: (oan)
Phone (305) 350-4108



16591/FLA
Serial: 0610

JUL 13 1983

Mr. James R. Wilt, Jr.
District Permit Coordinator
P.O. Box 1249
Bartow, FL 33830

Dear Mr. Wilt:

This responds to your application of 31 May 1983, for modification to the existing north and southbound bridges across the Anclote River and the existing box culvert on US-19, Tarpon Springs, Pinellas County, Florida (State Project No. 15150-3548).

Modification of the existing north and southbound fixed bridges will require prior Coast Guard approval. However, it has been determined that the tidal drainage area, at the site of the proposed box culvert modification is in the advanced approval category described in 33 CFR 115.70 and no further Coast Guard permitting action will be required.

Sincerely,

A. J. HAGSTROM
Captain, U. S. Coast Guard
Chief, Aids to Navigation Branch
Seventh Coast Guard District
By direction of the District Commander

Copy: District Engineer, U.S. Army Corps of Engineers, Jacksonville, FL
Department of Environmental Regulation, Tallahassee, FL
Department of Natural Resources, Tallahassee, FL
Fish & Wildlife Service, Vero Beach, FL
Division of Archives, History & Record Management, Tallahassee, FL
U.S. Department of Agriculture (SCS), Gainesville, FL
Mr. Edmond Burke, Jensen Beach, FL

Department of Transportation
United States Coast Guard

Commander
Seventh Coast Guard District

Federal Bldg.
51 S.W. 1st Ave
Miami, FL 33130
Staff Symbol: (oan)
Phone: (305) 350-4108

16591/ 2801/ 3122
Ser: 505
MAY 18 1984

Florida Department of Transportation
Attn: Mr. Jim Wilt
P.O. Box 1249
Bartow, Florida 33830

Bridge Permit/Amendment (2- 84- 7) is forwarded herewith.
Waterway: Anclote River Location: Tarpon Springs

When construction is finished, complete the enclosed "Certification of Bridge Completion" form and submit it promptly to us.

/_/ Enclosed are specifications for clearance gauges. Gauges shall be installed and maintained in a good and legible condition by and at the expense of the bridge owner.

/_/ Enclosed is a print of the approved navigational lights. Your attention is directed to 33 CFR 118 regarding your responsibilities for installation, operation, and maintenance of bridge lights. Please advise us when the lights are placed in operation.

/X/ Exemption is granted from the requirement for installation of navigational lights. However, if future conditions so dictate, the owner may be required to install and maintain lights at no expense to the government.

Sincerely,

R. W. BATSON
Lieutenant, U. S. Coast Guard
Chief, Aids to Navigation Branch, Acting
By direction of the District Commander

Encl: (1) Permit/Amendment 2-84- 7
(2) Certification of Bridge Completion
~~(3) Clearance Gauge~~

Copy: Coast Guard Group St. Petersburg

U.S. Department of Transportation
United States Coast Guard

BRIDGE PERMIT

MAY 4 - 1984

Amendment
(2-84-7)

WHEREAS by a permit amendment and a permit issued 2 May 1969, the Commandant of the Coast Guard approved plans indicating modification to an existing bridge, and the location and plans of an additional bridge, respectively, to be constructed by the State of Florida across the Anclote River at Tarpon Springs, Florida, under the authority of the General Bridge Act of 1946, and that the bridges were constructed;

AND WHEREAS condition 1 of those permits provide that no deviation from the approved plans shall be made either before or after completion of the structures unless the modification of said plans has previously been submitted to and received the approval of the Commandant and the - STATE OF FLORIDA - now has submitted for approval plans indicating modification to the bridges;

NOW THEREFORE, This is to certify that the location and plans dated May 1983 hereby approved supersede the plans previously approved and are subject to the following conditions:

1. No deviation from the approved plans shall be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

2. The construction of falsework, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, Seventh Coast Guard District prior to modification of the bridges. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during modification of the bridges. The channel or channels through the structures shall be promptly cleared of all obstructions placed therein or caused by the modification of the bridges to the satisfaction of the District Commander, when in his judgment the modification work has reached a point where such action should be taken.

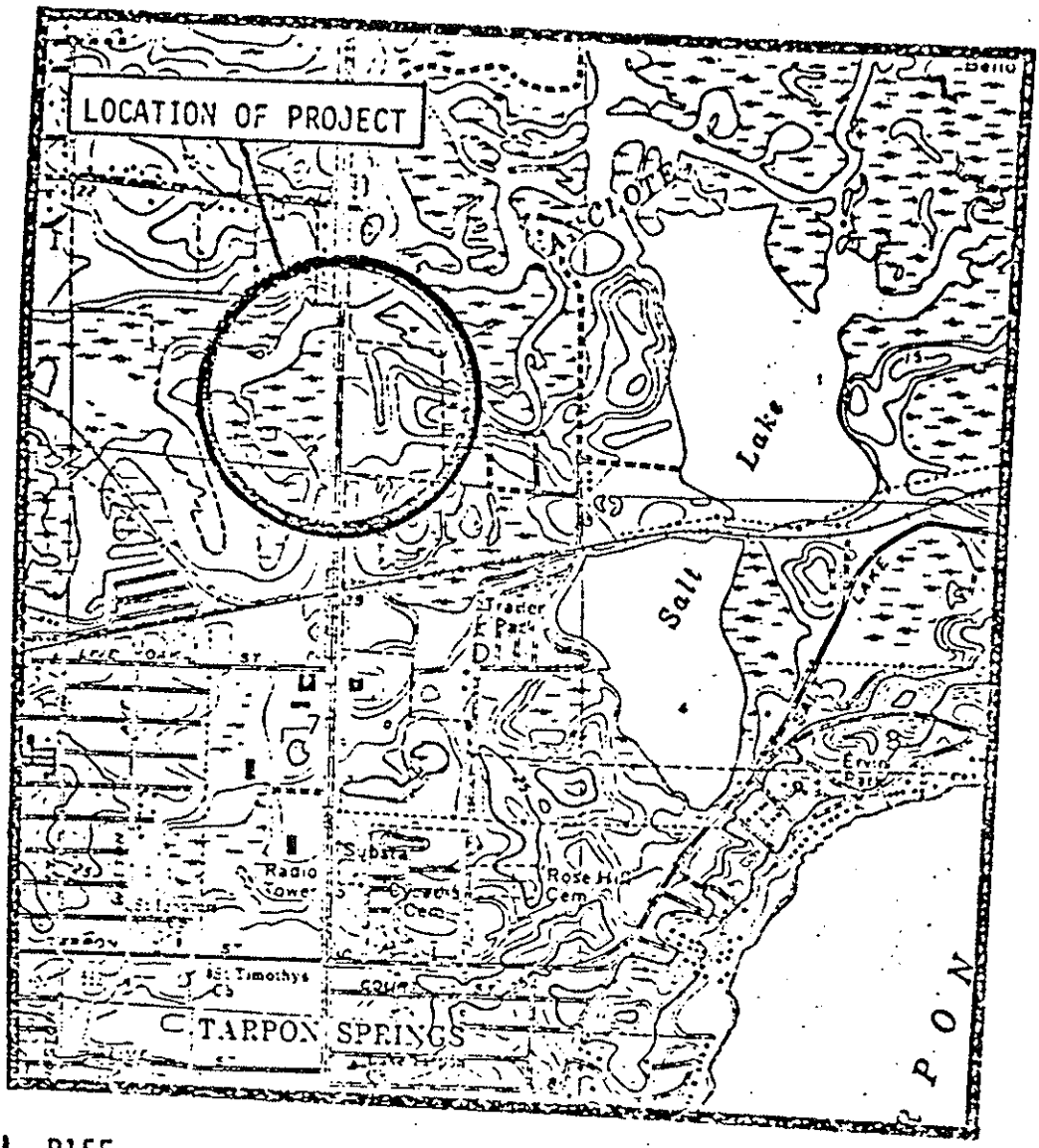
3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of any federal, state or local authority having cognizance of any aspect of the location, modification or maintenance of said bridge project.

4. All parts of the existing, to be modified, U.S. Highway 19 Bridges across the Anclote River, mile 4.7, not utilized in the new modified bridge project shall be removed down to or below the natural bottom of the waterway and the waterway cleared to the satisfaction of the District Commander. A period of 90 days subsequent to completing the modification of the bridge project will be allowed for such removal and clearance.

5. When the proposed bridge project is no longer used for transportation purposes, it shall be removed in its entirety or to an elevation deemed appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridge project upon due notice from the District Commander.

6. The approval hereby granted shall cease and be null and void unless modification of the bridges is commenced within five years and completed within nine years after the date of this permit amendment.

J. M. SEABROOKE
Captain, U. S. Coast Guard
Chief, Bridge Administration Division
By direction of the Commandant



R15E Sections 6&7 T27S

1"=2000'

APPROVED
MAY 4 - 1984
P(2-84-1)
U.S.
COAST GUARD

osed Improvements to US 19
e Project 15050-3548; Pinellas Co.
cation by: Florida Department of Transportation

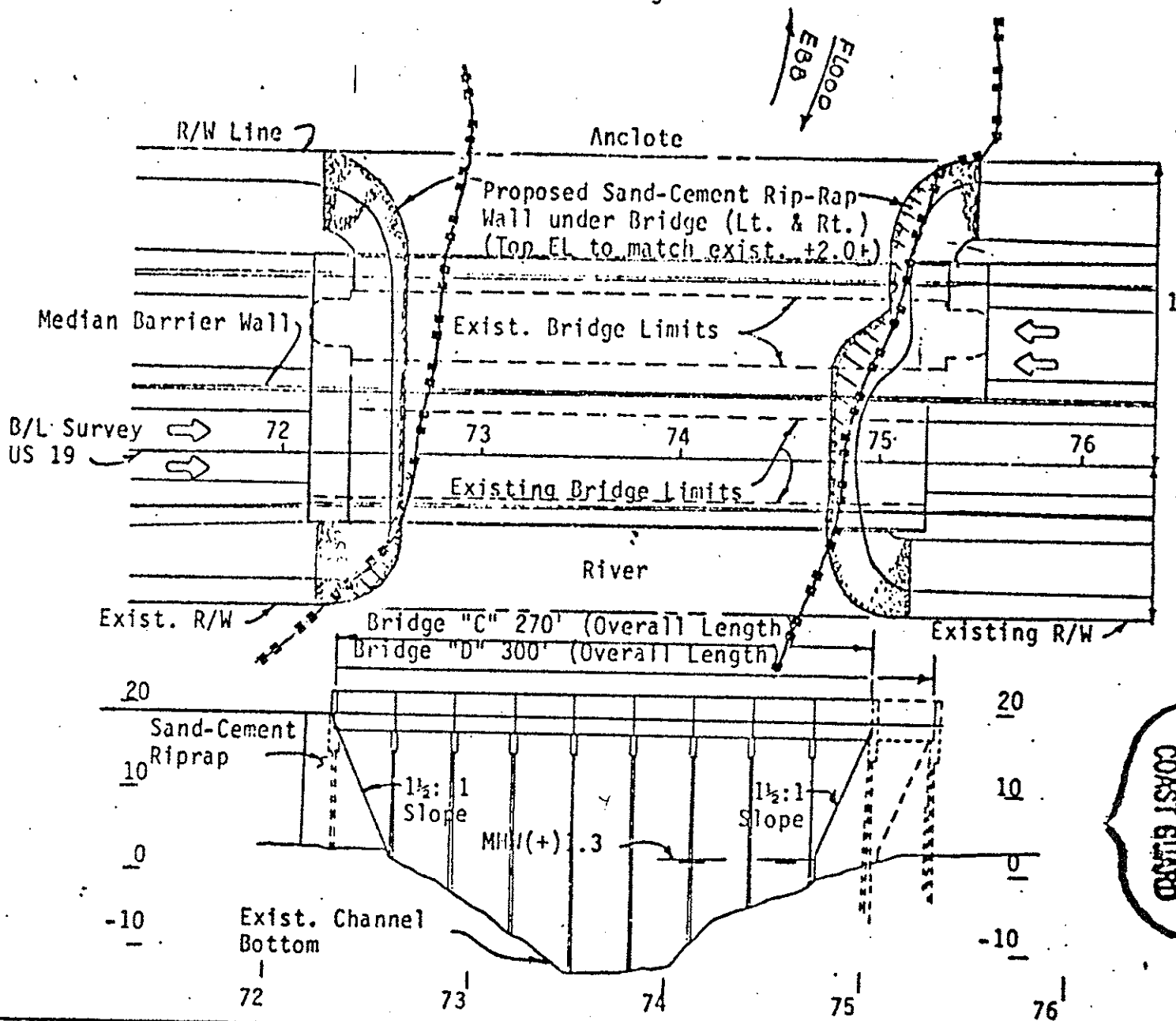
May 1983

= M.H.W. Line

= Fill Below M.H.W. Line

100 YEAR FLOOD ELEVATION
12.5 FEET MSL

Note: See sheet 8a and 8b for elevation view of bridges

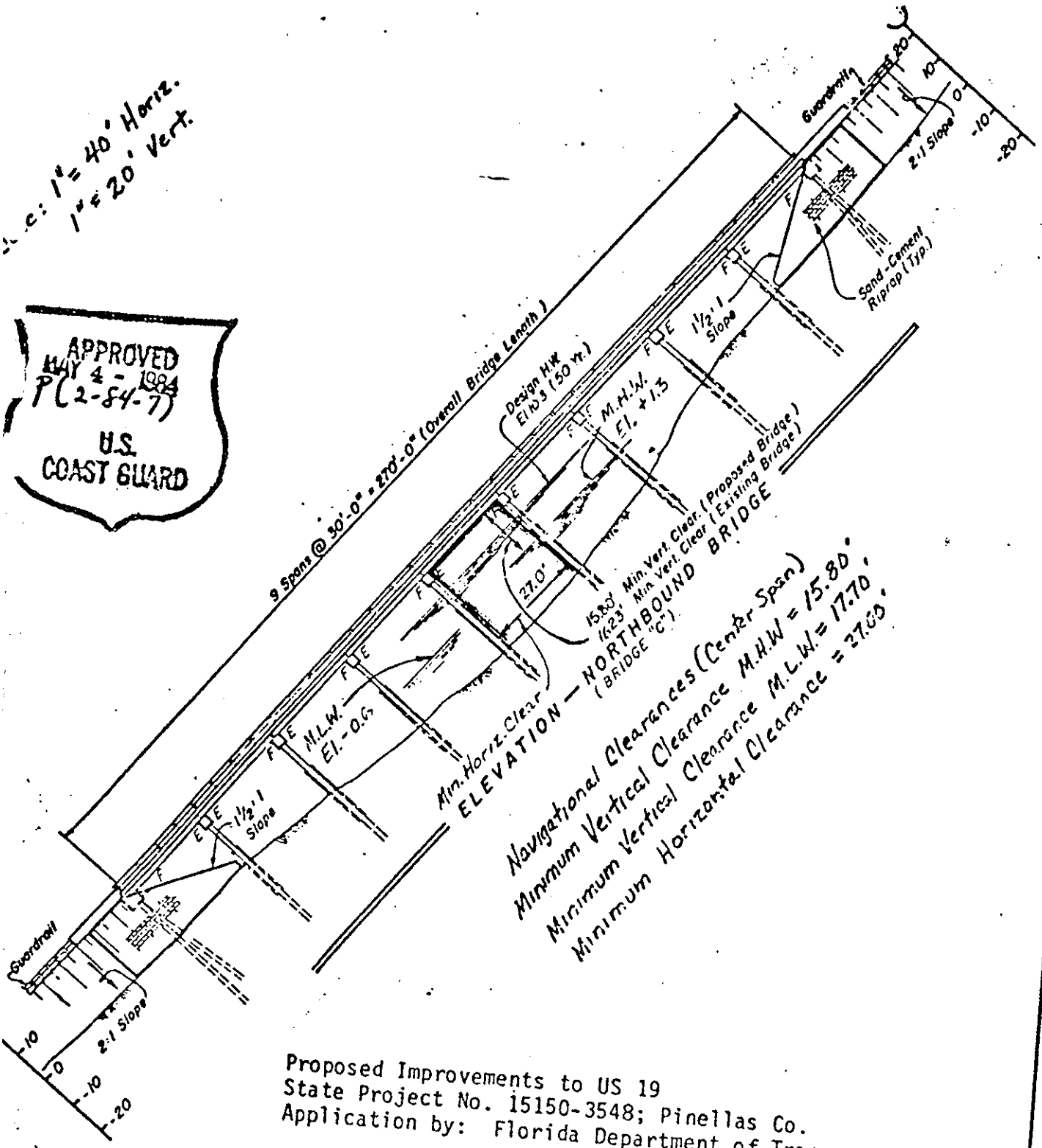


APPROVED
MAY 4 - 1984
P(2-84-7)
U.S.
COAST GUARD

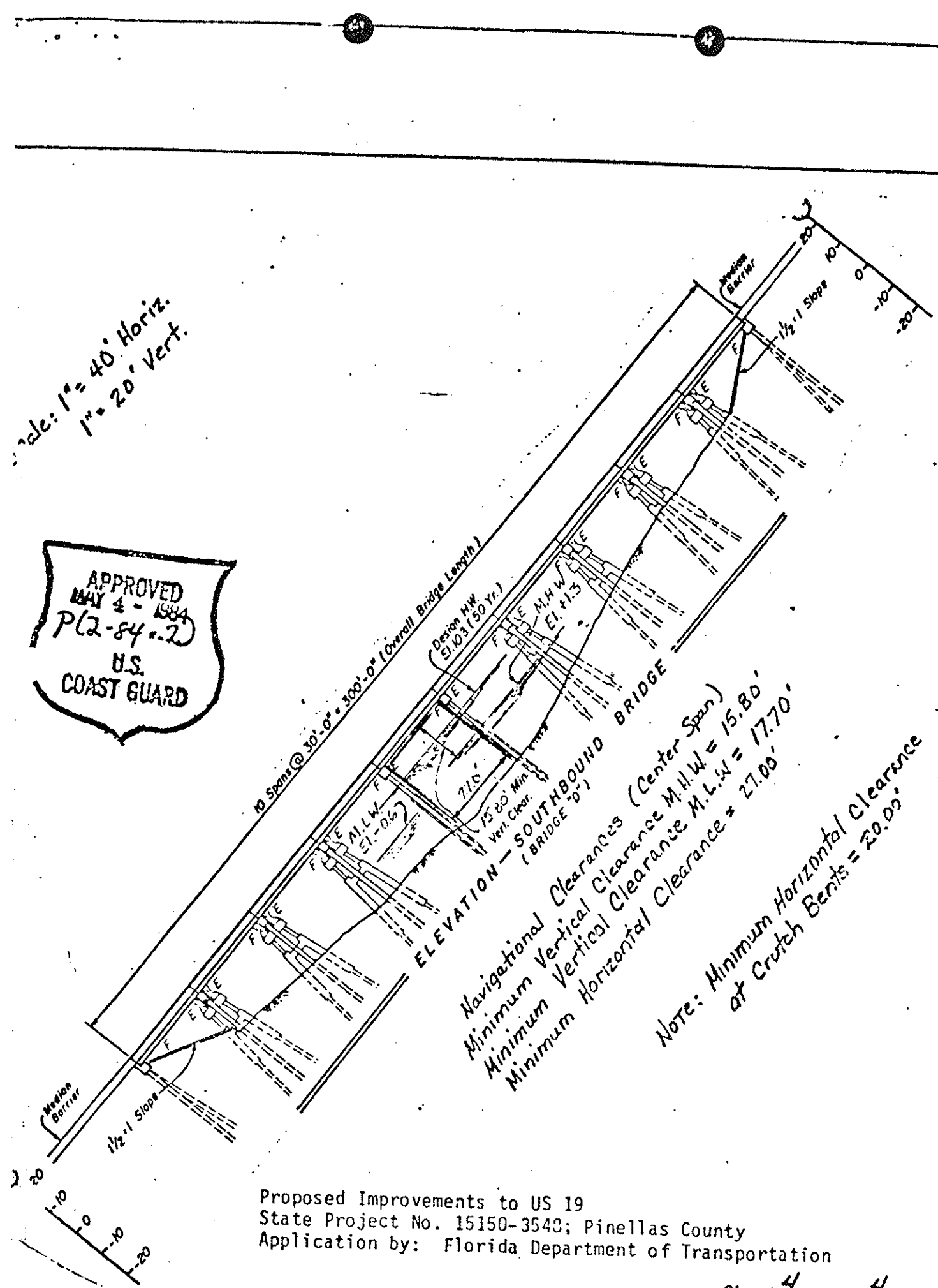
Proposed Improvements to US 19
State Project 15150-3543; Pinellas Co.
Application by: Florida Department of Transportation

May 1983

Sheet 2 of 4



Proposed Improvements to US 19
State Project No. 15150-3548; Pinellas Co.
Application by: Florida Department of Transportation



Proposed Improvements to US 19
State Project No. 15150-3543; Pinellas County
Application by: Florida Department of Transportation

May 1983

Sheet 4 of 4

OWNER'S CERTIFICATION OF BRIDGE COMPLETION

MAY 18 1984

Please complete this form and return to Commander (oan), Seventh Coast Guard District, 51 S.W. 1st Avenue, Miami, Florida 33130

COAST GUARD USE ONLY:

Bridge Name: ANCLOTE RIVER, Mile 4.7, US-19 PINELLAS Co. FL.

Permit Number: P(2-84-7)

Limiting Date for Commencement: 4 MAY 1989

Limiting Date for Completion: 4 MAY 1993

Extension of Time:

Permit Number: _____

Limiting Date for Commencement: _____

Limiting Date for Completion: _____

Date of Commencement: _____

Date of Completion: _____

Completion is in Compliance with Plans as approved in the above mentioned permit:
YES: _____ NO: _____ If no, include As-Built Plans.

As-Built Clearances: _____ M.H.W. _____ M.L.W. _____ HORIZONTAL

Clearance Gauges Have Been Installed in Accordance with the above mentioned Permit. YES _____ NO _____

Navigational Lights Have Been Installed in Compliance with the Approved Lighting Plan Dated: _____ YES _____ NO _____

Bridge Removal (If Applicable)

All parts of Existing Bridge Removed from the Waterway in Compliance with the above mentioned Permit. YES _____ NO _____

All Parts of Temporary Detour Bridge Removed from the Waterway in Compliance with Condition _____ of the Permit YES _____ NO _____

REMARKS:

Date Certified: _____ Signature: _____
Owner/Authorized Agent

SEP 22

DEVELOPMENT

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDER (oan)
Seventh Coast Guard District
51 S.W. 1st Avenue
Miami, Fla. 33130
Phone: (305) 350-4108

16591/3298
Serial: 1201
18 September 1980

Mr. James R. Wilt, Jr.
District Permit Coordinator
Florida Department of Transportation
Bartow, Florida 33830

Dear Mr. Wilt:

Reference is made to your permit application of 24 January 1980 for proposed modification of the existing twin fixed highway bridges across Allen Creek, mile 0.35, on U.S. Highway 19 (State Road 55) near Clearwater, Pinellas County, Florida.

Bridge Permit 87-80 is enclosed authorizing construction of the modification to the existing twin fixed highway bridges across Allen Creek, mile 0.35, on U. S. Highway 19 (State Road 55), near Clearwater, Pinellas County, Florida, subject to the conditions stated therein. Please advise this office immediately of the date of commencement. Upon completion of construction execute the enclosed "Certification of Bridge Completion" form and return promptly to this office.

In order to address the City of St. Petersburg Engineering Director concerns relative to the close proximity of a 48-inch subaqueous water transmission main on the east side of the proposed modification which may have to be relocated, coordination should be initiated with the Engineering Department prior to commencing construction.

Exemption is granted from the requirement for installation of navigational lights; however, if future navigation warrants, the owner will be required to install and maintain lights at no expense to the government, upon due notice from the Coast Guard.

Sincerely,

J. R. KRETSCHMER
Bridge Administrator
Aids to Navigation Branch
By direction of the District Commander

Encl: (1) Bridge Permit 87-80
(2) Certification of Bridge Completion Form

Copy: Coast Guard Group, St. Petersburg, Florida

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
U.S. COAST GUARD
WASHINGTON, DC 20593
PHONE:

BRIDGE PERMIT
(87-80)

AUG 25 1980

WHEREAS by Title V of an act of Congress approved August 2, 1946, entitled "General Bridge Act of 1946," as amended (33 U.S.C. 525-533), the consent of Congress was granted for the construction, maintenance and operation of bridges and approaches thereto over the navigable waters of the United States;

AND WHEREAS under Section 502(b) of that act, the authority of which was transferred to and vested in the Secretary of Transportation by Section 6(g)(6)(C) of the Department of Transportation Act (80 Stat. 931) and delegated by the Secretary to the Commandant, U.S. Coast Guard by Section 1.46(c) of Title 49 Code of Federal Regulations, it is required that the location and plans for such bridges be approved by the Commandant before construction is commenced and in approving the location and plans of any such bridge, the Commandant may impose any specific conditions relating to the construction, maintenance and operation of the structure which he deems necessary in the interest of public navigation, such conditions to have the force of law;

AND WHEREAS the - STATE OF FLORIDA - has submitted the location and plans indicating modification to twin bridges across Allen Creek near Clearwater, Florida;

NOW THEREFORE, This is to certify that the location and plans dated January 1980 are hereby approved by the Commandant, subject to the following conditions:

1. No deviation from the approved plans may be made either before or after completion of the structure unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

2. The construction of falsework, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved by the Commander, Seventh Coast Guard District prior to modification of the bridge project. All work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during modification of the bridge project. The channel or channels through the structure shall be promptly cleared of all obstructions placed therein or caused by the modification of the bridge project to the satisfaction of the District Commander, when in his judgment the modification work has reached a point where such action should be taken.

BRIDGE PERMIT:
(87-80)

Bridge project across Allen Creek near Clearwater, Florida

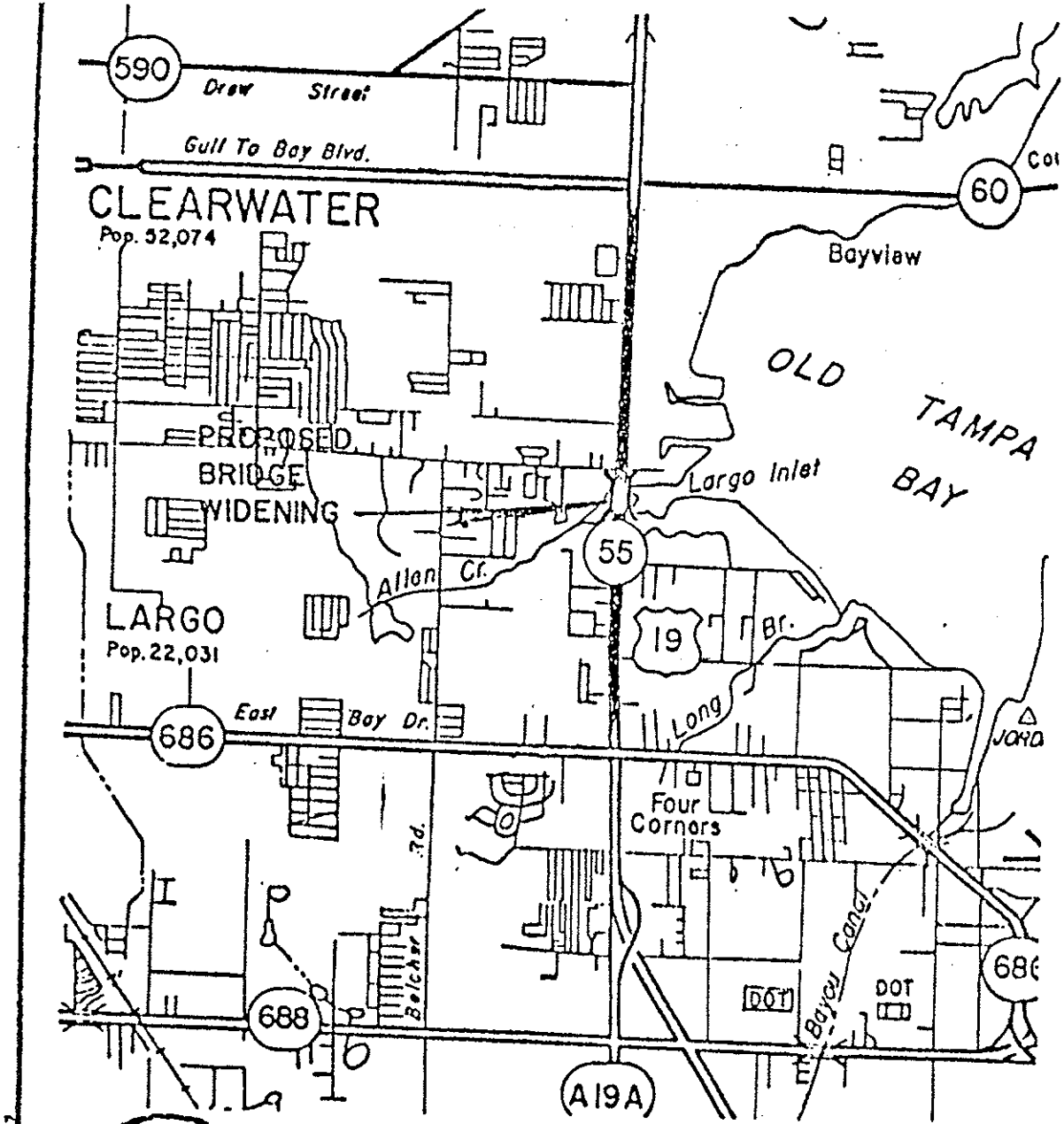
AUG 25 1980

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of the State of Florida, Department of Environmental Regulation; Pinellas County Water and Navigational Control Authority, or any other federal, state or local authority having cognizance of any aspect of the location, modification or maintenance of said bridge project.

4. When the existing to be modified bridge project is no longer used for transportation purposes, it shall be removed in its entirety and the waterway cleared to the satisfaction of the District Commander. Such removal and clearance shall be completed by and at the expense of the owner of the bridge project upon due notice from the District Commander.

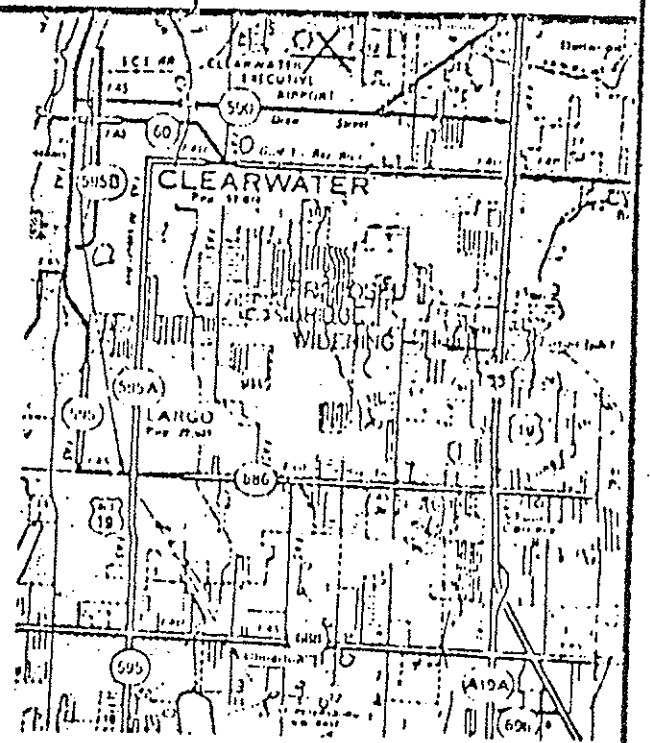
5. The approval hereby granted shall cease and be null and void unless modification of the bridge project is commenced within 3 years and completed within 5 years after the date of this permit.

J. WATT
Captain, U.S. Coast Guard
Chief, Bridge Administration Division
By direction of the Commandant



LOCATION MAP

0 1 2



VICINITY MAP

0 1 2

SCALE 1" = 2 MILE

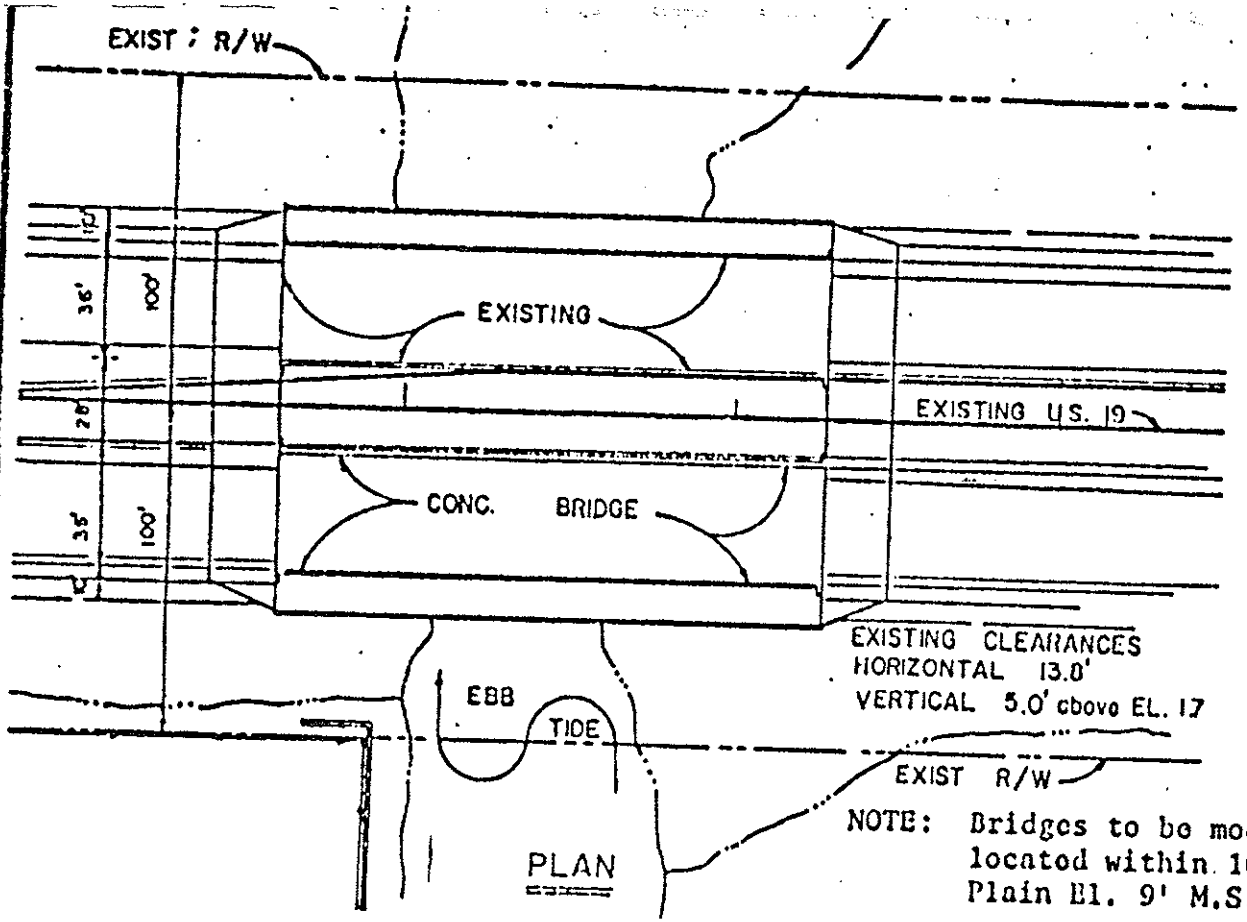
FROM THE G.I.M.

FEDERAL AID PROJECT NO. FFD-105-1 (27)
FLA. DOT PROJECT NO. 15150-3543

APPROVED
AUG 25 1980
P(87-80)
U.S.
COAST GUARD

PROPOSED BRIDGE WIDENING
OVER
ALLEN CREEK
COUNTY OF PINELLAS
STATE FLORIDA
FEDERAL AID PARTICIPATING
FLORIDA DEPARTMENT OF
TRANSPORTATION

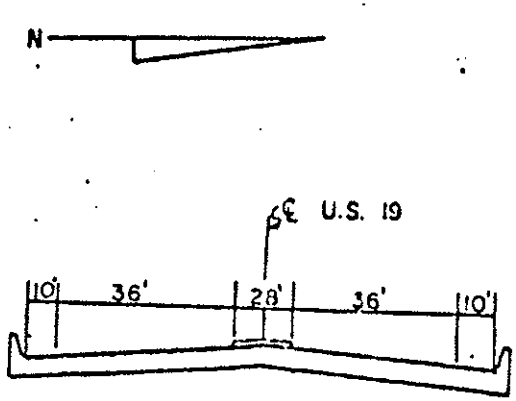
ary 30



PLAN

EXISTING CLEARANCES
HORIZONTAL 13.0'
VERTICAL 5.0' above EL. 17

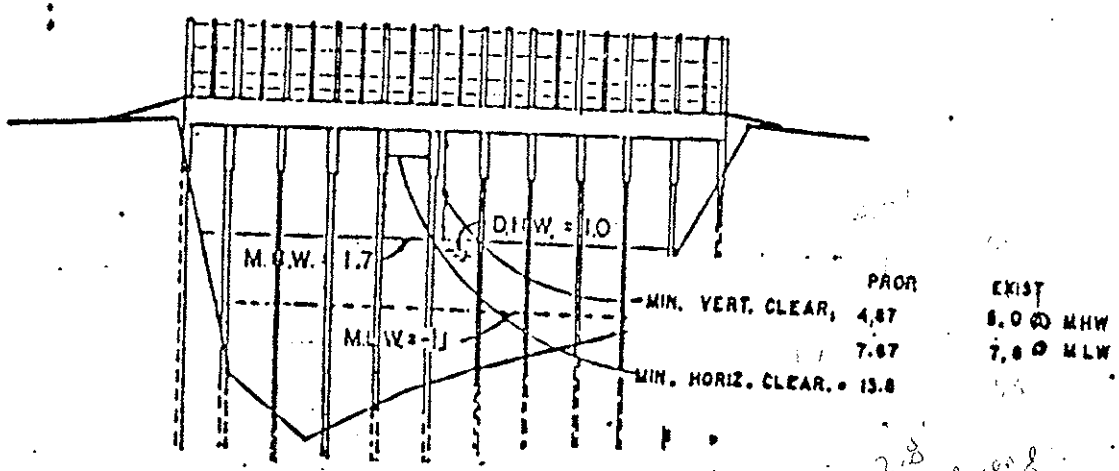
NOTE: Bridges to be modified are located within 100 year Flood Plain El. 9' M.S.L.



TYPICAL SECTION

APPROVED
AUG 25 1980
P(87-80)
U.S.
COAST GUARD

11 SPANS at 15'-0" = 165'-0"



ELEVATION

January 1980

FEDERAL AID PROJECT NO. FFO-185-1-(27)
FLA. DOT PROJECT NO. 15150-3543

PROPOSED BRIDGE WIDENING
OVER
ALLEN CREEK
COUNTY OF PINELLAS
STATE FLORIDA
FEDERAL AID PARTICIPATING
FLORIDA DEPARTMENT OF
TRANSPORTATIC

CERTIFICATION OF BRIDGE COMPLETION

16591/3298

Please complete applicable portion(s) of this form and return to this office at your earliest convenience.

Subject: Modification of the existing twin fixed highway bridges across Allen Creek mile 0.35, on U.S. Highway 19 (S.R. rr) near Clearwater, Pinellas County,

Permit Number: 87-80

Limiting Date for Commencement 25 AUG. 83

Limiting Date for Completion 25 AUG 85

Extension of Time: —

Permit Number: _____

Limiting Date for Commencement _____

Limiting Date for Completion _____

☒ Date of Commencement _____

☒ Date of Completion _____

☒ I Certify Completion in Compliance With Approved Plans Dated 25 AUG 80
Yes _____ No _____. If no, include As Built Plans.

☒ As Built Clearances: _____ M.H.W _____ M.L.W. _____ Horizontal

Bridge Removal

☐ All Parts of Existing Bridge Removed from the Waterway in Compliance with Condition _____ of the Permit. Yes _____ No _____

☐ All Parts of Temporary Detour Bridge Removed from the Waterway in Compliance with Condition _____ of the Permit. Yes _____ No _____

☐ Clearance Gauges Have Been Installed in Compliance with Condition _____ of the Permit. Yes _____ No _____

☐ Navigational Lights Have Been Installed in Compliance with the Approved Lighting Plan Dated _____. Yes _____ No _____

Remarks:

Date Certified: _____

Signature: _____
Authorizing Agent

Enclosure (2)