FINAL
WETLAND
EVALUATION REPORT

GANDY BOULEVARD (SR 694) PD&E STUDY
FROM WEST OF US 19 TO EAST OF 4th STREET
PINELLAS COUNTY

Work Program Item Segment No: 256931 1
Federal Aid Project No: N/A

This project evaluates improvement alternatives for Gandy Boulevard (SR 694) from west of US 19 to east of 4th Street Pinellas County, Florida.

Prepared for:

Florida Department of Transportation
District Seven
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Tampa, Florida 33612-6456

May 2002

EXECUTIVE SUMMARY

The Florida Department of Transportation is conducting a Project Development and Environment Study to evaluate improvement alternatives along Gandy Boulevard (SR 694) from west of US 19 to east of 4th Street in the cities of Pinellas Park and St. Petersburg in Pinellas County, Florida.

In compliance with Presidential Executive Order 11990, consideration was given to protect wetland resources. Assessments of wetland and environmental resources within the project corridor have been conducted. The primary goal of these tasks was to identify natural resources that occur within the proposed right-of-way. This information has aided project engineers in minimizing environmental impacts to the project corridor.

Wetlands within the project limits were initially identified through the review of mapping resources including the Natural Resources Conservation Service's (formerly the Soil Conservation Service) Soil Survey of Pinellas County, Florida (1972), National Wetlands Inventory mapping, and 1 inch = 100 feet scale project aerial photography. Wetlands were identified in the field utilizing the United States Army Corps of Engineers Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987). The wetlands were classified according to the United States Fish and Wildlife Service methodology (Cowardin, et al., 1979). Sizes of potential wetland impacts were determined graphically from project aerial photographs and project concept plans. Wetlands that may be impacted were assessed for functional significance using the Wetland Rapid Assessment Procedure as developed by the South Florida Water Management District and utilized by the United States Army Corps of Engineers.

Twenty-three wetlands and surface waters and 63 other surface waters were identified within and along the project limits. Wetland Rapid Assessment Procedure analyses were conducted for the 23 wetland and surface waters. These areas consisted primarily of scrub-shrub palustrine systems, palustrine forested systems, palustrine systems with emergent vegetation,

and estuarine and scrub-shrub systems. The highest rated wetland, an estuarine mangrove system, received a Wetland Rapid Assessment Procedure score of 0.60.

Potential impacts to existing man-made and natural wetlands associated with the proposed build project alternative were determined. Potential impacts would result from the placement of fill and the removal of vegetation, or the temporary impacts to wetland vegetation from construction activities. The proposed build alternative would affect approximately 4.93 acres of wetlands and surface waters, and 4.87 acres of other surface waters.

Mitigation for wetland impacts that will result from the construction of this project will be provided pursuant to Part IV Chapter 373, F.S. and 33 USC.s. 1344.

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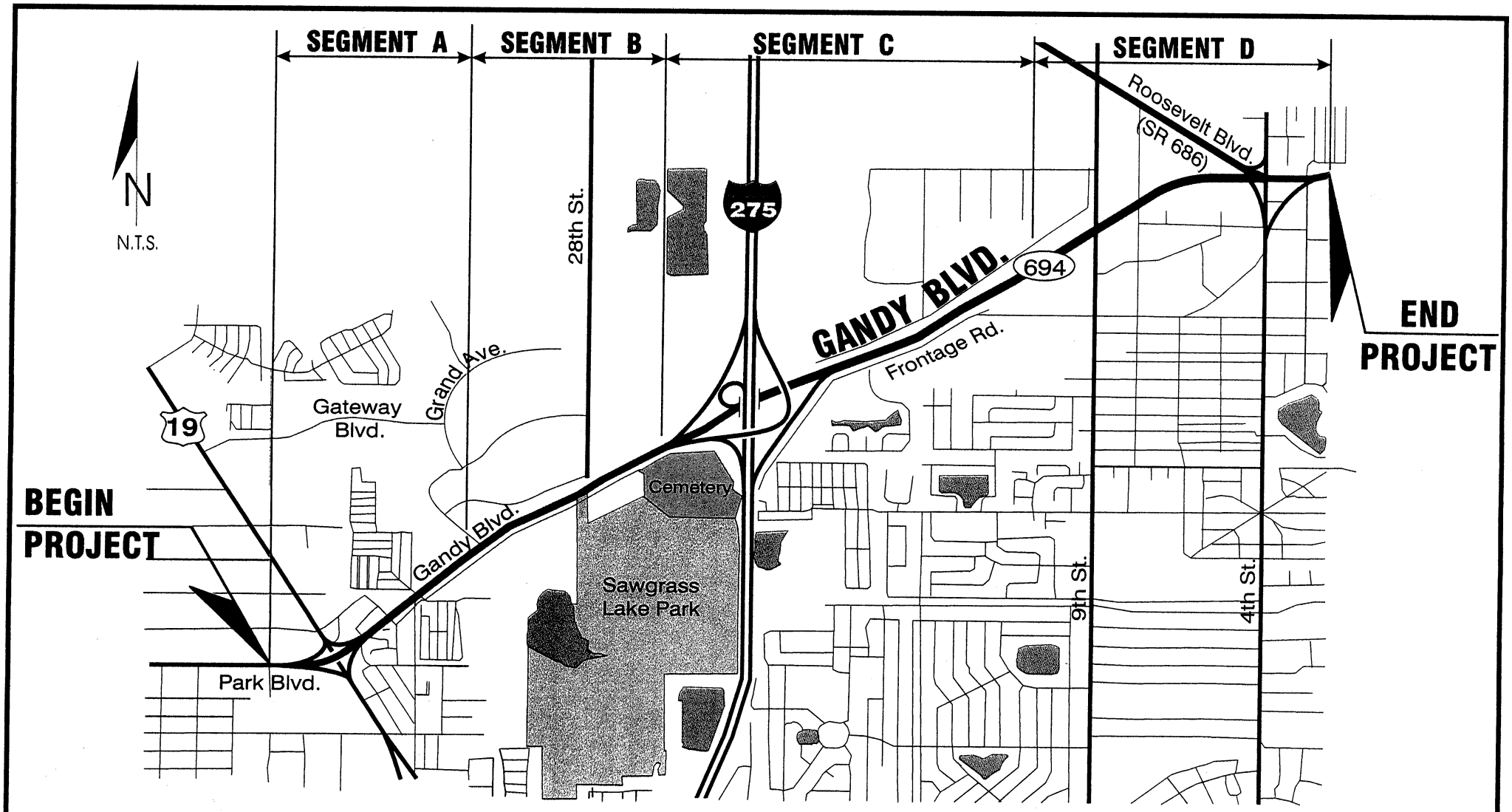
1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study to evaluate improvement alternatives along Gandy Boulevard (SR 694) from west of US 19 to east of 4th Street in the cities of Pinellas Park and St. Petersburg in Pinellas County, Florida. The project location map in Figure 1 illustrates the location and limits of the Study.

2.0 PURPOSE

The objective of the PD&E Study is to provide documented environmental and engineering analyses, which will help FDOT and the Federal Highway Administration (FHWA) reach a decision on the type, conceptual design, and location of the necessary improvements along the Gandy Boulevard corridor to accommodate future transportation needs in a safe and efficient manner.

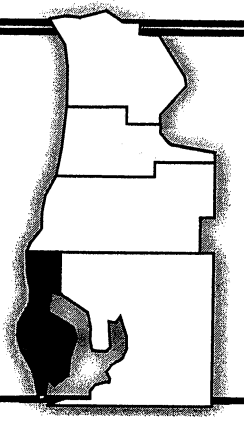
This report documents the need for the project and presents the procedures used to develop and evaluate various improvement alternatives as they relate to the transportation facility. Engineering data and information about the environmental characteristics of the area, which are essential to the alignment and analytical decision-making process, have been collected as part of the 1996 Gandy Major Investment Study (MIS) and are being updated as necessary. Once sufficient data are available, alignment criteria will be used to refine the alternatives. The comparison of alternatives is to be based on a variety of parameters using a matrix format outlined in the MIS Study Screen Two Evaluation Report and other factors identified during this study effort. The MIS Study identified the alternative that will have the least impact while providing the necessary improvements and is being refined into the PD&E Study phase along with the No-Build option.



LEGEND

Segment A: West of US 19 to west of Grand Ave.
Segment B: West of Grand Avenue to west of I-275
Segment C: West of I-275 to west of 9th Street
Segment D: West of 9th Street to east of 4th Street

PROJECT LOCATION MAP



FLORIDA DEPARTMENT OF TRANSPORTATION

GANDY BOULEVARD (SR 694)

PD&E STUDY

From West of US 19 to
East of 4th Street

Pinellas County, Florida

WPI SEG NO: 256931 1

FIGURE 1-1

3.0 PROJECT DESCRIPTION

Through the PD&E Study process, the FDOT is evaluating the improvement alternatives along the Gandy Boulevard (SR 694) corridor. The Gandy Boulevard (SR 694) corridor is primarily an east/west facility, which in its entirety, extends from a western terminus at Gulf Boulevard in Pinellas County to an eastern terminus at Bayshore Boulevard in Hillsborough County. The Gandy Boulevard (SR 694) corridor is functionally classified as an east/west principal urban arterial highway and is part of the Florida Intrastate Highway System (FIHS). The facility also serves as a major hurricane evacuation route for residents in Pinellas County. The proposed PD&E Study limits encompass the portion of Gandy Boulevard (SR 694) from west of the US 19/Gandy Boulevard (SR 694) interchange to east of 4th Street and include proposed interchanges at: 4th Street and Gandy Boulevard (SR 694); 9th Street and Gandy Boulevard (SR 694); and interchange improvements at I-275. The total length of the Study is approximately 3.9 miles. This project has been evaluated in the MIS, which was initiated in 1996.

For PD&E Studies, projects are divided into segments based on the existing land use, interchange locations, and projected traffic volumes for the design year. Because the portion of Gandy Boulevard (SR 694) from west of US 19 to east of 4th Street contains similar land use characteristics and projected traffic volumes, this project will be divided into four segments based on the new interchanges that are proposed in the corridor. The segments of the project are identified as follows:

- Segment A: West of US 19 to west of Grand Avenue
- Segment B: West of Grand Avenue to west of I-275
- Segment C: West of I-275 to west of 9th Street
- Segment D: West of 9th Street to east of 4th Street

4.0 EXISTING ENVIRONMENTAL CHARACTERISTICS

4.1 Existing Land Use

Generally, the existing land uses adjacent to the Gandy Boulevard corridor consist of commercial, residential, and industrial uses in an urban setting.

The project corridor has been divided into four segments to effectively assess and compare project impacts. The existing land use is described in the following paragraphs by study segment.

Segment A

Segment A, located west of US 19 to west of Grand Avenue, is heavily developed with little vacant land and features mixed land uses including residential, commercial, and public/semi-public. There are several residential facilities (mobile home parks or condominium units) and single-family residences in this area, some of which use Gandy Boulevard for primary access. Commercial uses include retail stores including the Parkside Mall and Home Depot, ANCO Anderson Nail Company, restaurants, automotive service establishments, storage facilities, a bike shop, an animal shelter, and a hotel. Public/semi-public uses include the Florida Highway Patrol office located on the east side of US 19, north of Gandy Boulevard.

Segment B

The existing land uses within Segment B, west of Grand Avenue to west of I-275, are mostly commercial and industrial uses with limited residential development. Commercial uses include Johnson Sails, Inc., a storage facility, a printing facility, an automotive establishment, and telephone service facilities. Light industrial uses include Taco Metals, Inc., Coca Cola, Lindab Sign, and R.V. Money, Inc. Sawgrass Lake Park is a 390-acre recreational and environmental educational park that lies to the south. The only part of the park adjoining the Gandy Boulevard corridor is a service entrance in the vicinity of 28th Street.

Segment C

The existing land uses within Segment C, located west of I-275 to west of 9th Street North, are commercial, light industrial, residential, public/semi-public, and public service/non-profit. Land uses in the I-275/Gandy Boulevard interchange area consist of the Florida Power Corporation northeast substation, an elementary school, a mobile home park, apartments, single-family residences, and the Royal Palm Cemetery and Funeral Chapel. The northwest quadrant of the interchange area is currently vacant, wooded land.

Commercial uses within this segment include the R'Club, corporate centers, a self storage facility, K-Mart, a bank, and a computer store. Light industrial uses include The Murray Company, Jabil Circuit (3 Line Manufacturing), and a power substation. Residential uses include multi-family residential facilities (i.e., apartments) as well as single-family residential developments. Public/semi-public uses include the US Post Office. Public service/non-profit uses include Florida Blood Services and American Heart Association. First Baptist Church of St. Petersburg is also located in this study segment.

Segment D

The existing land uses within Segment D, located west of 9th Street North to east of 4th Street, are mostly commercial and residential. Commercial uses are comprised of the Koger Executive Center office buildings, banks, restaurants, automotive service stations, insurance companies, retail shops, storage facilities, commercial centers (that house Primex Technologies, Paychex Business Solutions, MIDA Groups, Sunbelt Marketing Development Company, and Celotex), insurance offices, a shopping center, and a car wash. Residential uses include several multi-family facilities (condominium units, apartments, and mobile home parks). Bon Secours – Maria Manor, a retirement/nursing facility, is also located in this study segment. A Florida Power & Light power transmission line crosses the Gandy Boulevard corridor at 9th Street North.

Land uses in the vicinity of 4th Street and 9th Street consist of Koger Executive Center office buildings, Holy Cross Episcopal Church, automotive service stations, a GTE facility, restaurants, a bank, and shopping centers (which include Publix, Walgreens, etc.) as well as several multi-family residential developments.

4.2 Future Land Use

Any planned or proposed large-scale development projects must be consistent with the designated future land use for the property. If the proposed project is not consistent, then the applicant would be required to obtain a land use plan amendment. The Development of Regional Impact (DRI) process is governed by Chapter 380.06, Florida Statutes (FS) and Rules 9J-2.001 through 9J-2.0256, Florida Administrative Code (FAC). By definition, a DRI is a development, which, because of its character, magnitude, or location would have a substantial effect upon the health, safety, or welfare of citizens of more than one county. There are two large-scale planned development projects in the vicinity of the Gandy Boulevard/I-275 interchange. Both of these projects are undergoing the DRI process.

4.3 Natural and Biological Features

4.3.1 Upland Plant Communities

Reviews of aerial photographs for vegetative communities were conducted. Florida Land Use, Cover and Forms Classification System (FLUCFCS) land cover codes were assigned to the different vegetative communities. Subsequent field reviews were performed on June 6, 2000, September 29, 2000, and October 2, 2000 to confirm cover types and habitats within the study area.

Because of the highly urban nature of this project, few upland communities exist. The upland plant communities in the project corridor consist primarily of slash pine (*Pinus elliottii*) with an understory of saw palmetto (*Serenoa repens*) (FLUCFCS 411). Other upland communities in the corridor consist of live oaks (*Quercus virginiana*) (FLUCFCS 427). Identified wetland plant communities are discussed in Section 5.0.

4.3.2 Essential Fish Habitat

No Essential Fish Habitat occurs within the project study area.

5.0 WETLANDS

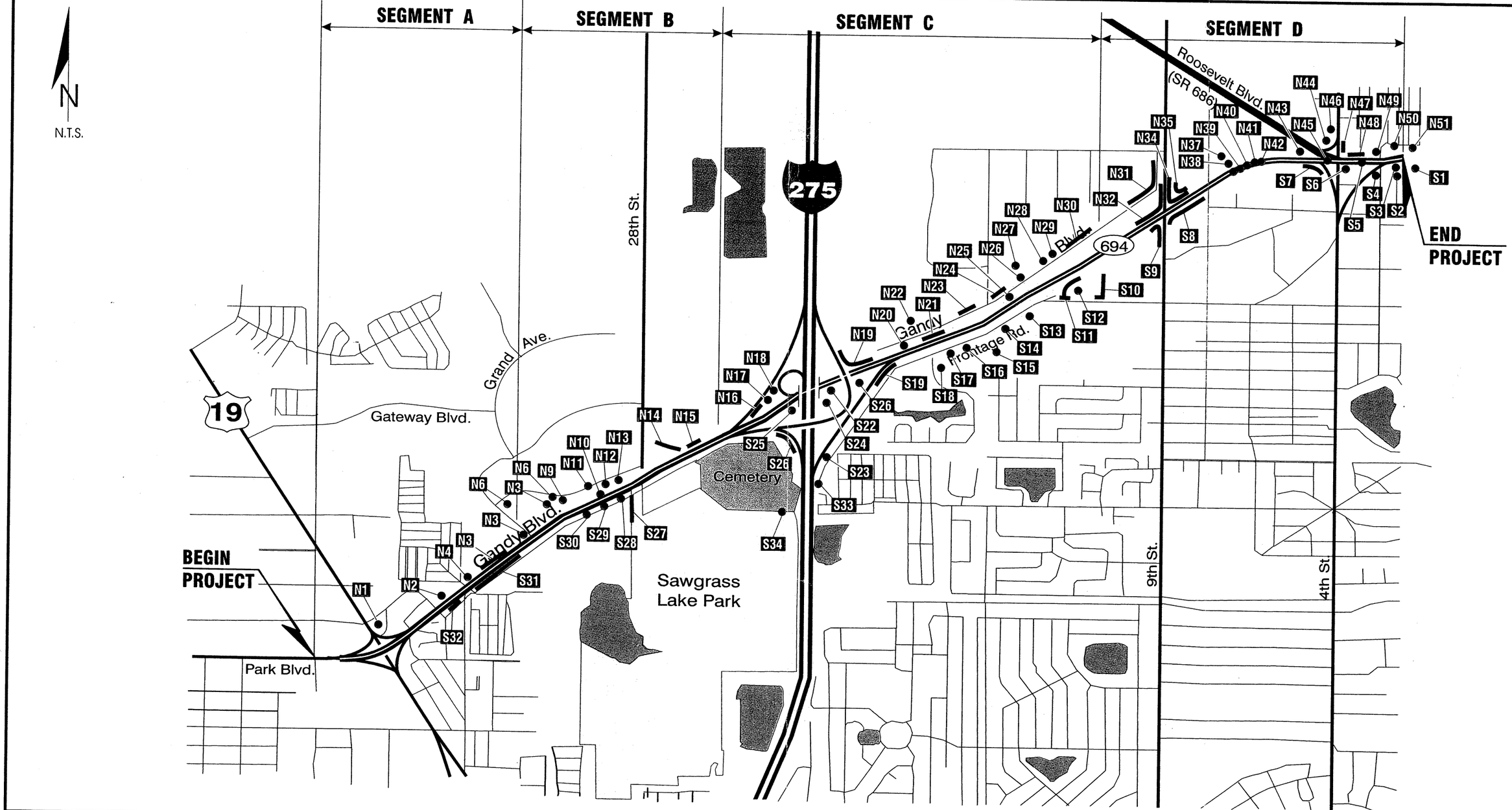
This section presents information regarding wetlands in the study area.

5.1 Wetland Methodology

In compliance with Presidential Executive Order 11990, consideration was given to protect wetland resources. Assessments of wetland and environmental resources within the project corridor have been conducted. The primary goal of these tasks was to identify natural resources that occur within the proposed right-of-way. This information has aided project engineers in minimizing environmental impacts to the project corridor.

Wetlands within the project limits were initially identified through a review of mapping resources including the Soil Survey of Pinellas County, Florida (1972), National Wetlands Inventory (NWI) mapping, and 1 inch = 100 feet scale project aerial photography. Wetlands were identified in the field utilizing the United States Army Corps of Engineers (USACOE) Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987). The dominant floral species, spatial area, hydrological contiguity, proposed impacts, and related observations are contained in the following sections. Figure 2 illustrates the approximate wetland and other surface water locations within the project area.

The wetlands were classified according to the US Fish and Wildlife Service (USFWS) methodology and with FLUCFCS codes. Sizes of wetlands and potential wetland impacts were determined graphically from project aerial photographs and the concept plans for the Preferred Alternative (Appendix C). Wetlands were assessed for functional significance using the Wetland Rapid Assessment Procedure (WRAP) as developed by the South Florida Water Management District (SFWMD) revised edition (1999), and utilized by the USACOE.



LEGEND

- ● Wetland Location

Segment A: West of US 19 to west of Grand Ave.
Segment B: West of Grand Avenue to west of I-275
Segment C: West of I-275 to west of 9th Street
Segment D: West of 9th Street to east of 4th Street

WETLANDS AND OTHER SURFACE WATER LOCATIONS MAP

FLORIDA DEPARTMENT OF TRANSPORTATION

GANDY BOULEVARD (SR 694)

PD&E STUDY

From West of US 19 to East of 4th Street

Pinellas County, Florida

PROPOSED ROADWAY TYPICAL SECTION 2

WPI SEG NO: 256931 1

FIGURE 2

5.2 Wetlands, Surface Waters, and Other Surface Waters

5.2.1 Wetlands and Surface Waters

Twenty-three wetlands and surface waters were identified within the study area. Table 1 lists the wetlands and their characteristics. The wetlands are within or adjacent to the existing Gandy Boulevard (SR 694) right-of-way. For the purposes of this report, identified wetlands were numbered from west to east on the north side of the road and from east to west on the south side of the road. Wetlands on the north side of the road were given an N designation and wetlands on the south were given an S designation. A summary of the characteristics of the wetlands in each category is presented and includes the USFWS classification, location, size, vegetation, hydrology, and relative quality. Representative wetland photographs are provided in Appendix A.

Table 1 Wetlands and Surface Waters Data Summary

Wetland	USFWS Classification Code	FLUCFCS Code	WRAP Score	Potential Impact Area acres
N1	PUBHx/PSS3C	534/619	0.24	0.11
N4	PSS3Cx	619	0.30	0
N6	PEM1Ax	641	0.44	0
N7	PEM1F/PSS3Fx/PEM1Fx/PUBHx	644/ 619/534	0.51	0.47
N8	PEM1F/PSS3Fx/PEM1Fx/PUBHx	644/ 619/534	0.51	0
N9	PEM1F/PSS3Fx/PEM1Fx/PUBHx	644/ 619/534	0.51	0
N14	PEM1Fx	641	0.53	0.04
N22	PFO3C/PEM1C	630/641	0.52	0
N27	PFO3C/PSS1C	619	0.33	0

Table 1 Wetlands and Surface Waters Data Summary

Wetland	USFWS Classification Code	FLUCFCS Code	WRAP Score	Potential Impact Area acres
N33	PSS3C/PUBHx	619/534	0.33	0
N37	PEM1Ch	641	0.29	0
N39	PFO3R	619	0.30	2.00
N40	E2EM3N/E2SS3N	642/612	0.60	0.06
N41	PFO3R	619	0.30	1.88
N42	PFO1/3C	617	*	0.34
N43	PUBH/PEM1F	534/641	0.46	0.02
S2	PSS1F/PUBH$_X$	619/534	0.32	0
S10	PUBHx/PSS3Fx/ PEM1Fx	534/641/ 617	0.25	0
S11	PUBHx/PSS3Fx/ PEM1Fx	534/641/ 617	0.25	0
S18	PSS3C	619	0.57	0
S24	PFO1/2C	617	0.31	0
S33	PEM1F$_x$	641	0.23	0.014
S34	PUBH$_X$	534	0.49	0

Notes: * Unable to determine based upon lack of site access

Wetland N1 is classified as an excavated, permanently flooded, palustrine wetland with an unconsolidated bottom with some areas dominated by shrubs (PUBHx/ PSS3C). It is located near the northeast corner of the intersection of US 19 and Gandy Boulevard (SR 694) and continues northeast of US 19 outside of the project study area. The dominant vegetation is dayflower (*Commelina diffusa*) and bahia grass (*Paspalum notatum*) and is surrounded by

small wooded and shrubby areas dominated by Brazilian pepper (*Schinus terebinthifolius*). The hydrology is controlled by seasonal rainfall and stormwater runoff from adjacent uplands. Wood storks (*Mycteria americana*) were observed on the south side of this wetland.

Wetland N4 is classified as a palustrine scrub-shrub, broad-leaved evergreen, seasonally flooded, excavated wetland (PSS3Cx) and is located east of the Sunset Palms Mobile Home Park. This wetland is dominated by Brazilian pepper and creeping ox-eye (*Wedelia trilobata*). The Sunset Palms Mobile Home Park and uplands dominated by pine flatwoods and Brazilian pepper surround this wetland. The hydrology is controlled by seasonal rainfall.

Wetland N6 is classified as a palustrine emergent, persistent, temporarily flooded, excavated marsh ($PEM1A_X$) and is located just east of the intersection of Grand Avenue and Frontage Road. This wetland is dominated by red-root (*Lachnanthes caroliniana*), spikerush (*Eleocharis* spp.) and laurel oak (*Quercus laurifolia*). This wetland is surrounded by pine flatwoods. The hydrology is controlled by seasonal rainfall.

Wetlands N7, N8, and N9 are classified as palustrine emergent, persistent, permanently flooded marsh; palustrine scrub-shrub, broad-leaved evergreen, excavated swamp; palustrine emergent, persistent, excavated marsh; and a palustrine unconsolidated bottom, permanently flooded pond (PEM1F/PSS3Fx/PEM1Fx/PUBHx). These wetlands are located in the south portion of the Gateway Center Business Park near the intersection of Grand Avenue and Frontage Road. These wetlands are dominated by pickerelweed (*Pontederia cordata*), duck-potato (*Sagittaria lancifolia*), torpedo grass (*Panicum repens*), and fragrant water-lily (*Nymphaea odorata*). Brazilian pepper is located within the stream banks in the ditch portion of these wetlands. These wetlands are surrounded by uplands consisting of pine flatwoods and Brazilian pepper. The hydrology is affected by seasonal rainfall and also regulated by a control structure at the southwest corner of the pond.

Wetland N14 is classified as a palustrine emergent, persistent, semi-permanently flooded, excavated creek ($PEM1F_X$). It is located north and south of Gandy Boulevard (SR 694) and is a major flood conveyance feature discharging into Sawgrass Lake to the south. This

wetland is dominated by cattail (*Typha* spp.), Mexican seedbox (*Ludwigia octovalvis*), duck-potato, frog-fruit (*Phyla nodiflora*), and pennywort (*Hydrocotyle umbellata*). Small patches of Brazilian pepper occur near the bank of the creek. This wetland is surrounded by pine flatwoods and Brazilian pepper uplands. The hydrology appears to be controlled by seasonal rainfall.

Wetland N22 is classified as a palustrine forested, broad-leaved evergreen, seasonally inundated swamp with an emergent component (PFO3C/PEM1C). It is located immediately east of the Florida Power Corporation (FPC) substation and north of Gandy Boulevard (SR 694). Dominant canopy species include punktree (*Melaleuca quinquenervia*), red maple (*Acer rubrum*), slash pine, sesbans (*Sesbania* spp.), saltbush (*Baccharis glomeruliflora*), Carolina willow (*Salix caroliniana*), and Brazilian pepper. Herbaceous vegetation includes water primrose (*Ludwigia peruviana*), spikerushes, Mexican seedbox, fire-flag (*Thalia geniculata*), buttonweed (*Diodia virginiana*), and frog-fruit. Ground cover within this wetland is likely mowed for right-of-way clearance. Natural areas, the FPC property and its commercial buildings surround this wetland. The hydrology appears to be controlled exclusively by natural rainfall, as no control structures were observed within this wetland.

Wetland N27 is classified as a palustrine forested, broad-leaved evergreen, seasonally inundated swamp with a palustrine scrub-shrub component (PFO3C/PSS1C) and is located immediately east of Compulink and west of the US Post Office, north of Gandy Boulevard (SR 694). This wetland is dominated by punktree, Carolina willow, saltbush, Brazilian pepper, torpedo grass, primrose willow, saw palmetto, pickerelweed, and red ludwigia (*Ludwigia repens*). This wetland is completely surrounded by commercial facilities and the frontage road of Gandy Boulevard (SR 694). The hydroperiod is controlled by stormwater runoff and seasonal rainfall.

Wetland N33 is classified as a palustrine scrub-shrub, broad-leaved evergreen, seasonally inundated swamp with an open water and emergent vegetation component (PSS3C/PUBHx). This wetland is located adjacent to the Primex and Paychex Buildings east of 9th Street. This wetland is dominated by Brazilian pepper, cattail, goldenrod (*Solidago* spp.), beggar-ticks

(*Bidens* spp.), and leather fern (*Acrostichum danaeifolium*). This wetland is completely surrounded by development. The hydroperiod has not been altered and the wetland is permanently inundated, with the exception of the grassy swale portion along 9th Street.

Wetland N37 is classified as a palustrine emergent, persistent, seasonally inundated marsh (PEM1Ch). This wetland is dominated by Brazilian pepper, pickerelweed, duck-potato, saltbush, cattail, broom sedge (*Andropogon* spp.), and leather fern. This wetland is bounded by Gandy Boulevard (SR 694) and business offices. The hydroperiod is controlled by culverts and the wetland appears to function as a stormwater detention pond.

Wetlands N39 and N41 are classified as palustrine forested, broad-leaved evergreen, seasonally inundated forests (PFO3R). These wetlands are located west of the intersection of Gandy Boulevard (SR 694) and Roosevelt Boulevard (SR 686) within the median dividing the eastbound and westbound lanes of Gandy Boulevard (SR 694). The dominant vegetation within these wetlands consists of punktree with a small amount of Brazilian pepper. These wetlands are bordered by uplands to the west and roads to the north, south and east. The hydroperiods for these wetlands appear to be controlled by seasonal rainfall and stormwater runoff.

Wetland N40 is classified as an estuarine intertidal, emergent, narrow-leaved, persistent marsh with a forested, broad-leaved evergreen and scrub-shrub component (E2EM3N/ E2SS3N). This wetland is located between the median of Gandy Boulevard (SR 694) and the Koger Executive Center complex. The dominant vegetation within this wetland includes white mangrove (*Laguncularia racemosa*), Brazilian pepper, cabbage palm (*Sabal palmetto*), sand cordgrass (*Spartina bakeri*), leather fern, and cattail. This wetland is surrounded by pine uplands, adjacent wetlands and developments south of Gandy Boulevard (SR 694). This wetland is tidal influenced and the hydrology is also affected by influxes of freshwater from seasonal rainfall and stormwater runoff from adjacent developments.

Wetland N42 is classified as a palustrine forested, broad-leaved deciduous/broad-leaved evergreen, seasonally flooded swamp (PFO1/3C). This wetland is located within the median

of Gandy Boulevard (SR 694) immediately west of the intersection of Gandy Boulevard (SR 694) and 9th Street. It is dominated by red maple, swamp fern (*Blechnum serrulatum)*, royal fern (*Osmunda regalis*), wax myrtle (*Myrica cerifera*), dahoon holly (*Ilex cassine*), slash pine, Elliott's love grass (*Eragrostis elliottii*), buttonbush (*Cephalanthus occidentalis*), and viburnum (*Viburnum obovatum*). Wetland N42 is an FDOT mitigation area (enhancement project SWFWMD permit number 441432.00) required for impacts associated with improvements made at the intersection of Gandy Boulevard (SR 694) and 4th Street. Hydrology is primarily controlled by seasonal rainfall and stormwater runoff from the adjacent uplands. This wetland is hydrologically connected to a disturbed wetland immediately to the east.

Wetland N43 is classified as a palustrine emergent, persistent, permanently flooded marsh (PUBH/PEM1F). This wetland is located at the northwest corner of the intersection of 9th Street and Gandy Boulevard (SR 694). This wetland is dominated by Carolina willow, Brazilian pepper, punktree with an understory of cattail, primrose willow, and water lettuce (*Pistia stratiotes*). This wetland is bordered by pine flatwoods on the north and northwest sides with roadways bordering the remaining sides. This wetland is a lake with a littoral shelf and is perennially inundated.

Wetland S2 is classified as a palustrine scrub-shrub, broad-leaved deciduous, semi-permanently flooded swamp with an unconsolidated bottom component (PSS1F/PUBHx). This wetland is located along the western boundary of Pelican Sound Apartments. Brazilian pepper with scattered white mangroves dominate this wetland. No herbaceous cover is present within the wetland. A road to the north, a mobile home park to the west, a lake to the east, and a natural wetland to the south bound this wetland. The hydroperiod for this wetland is primarily controlled by rainfall.

Wetlands S10 and S11 are classified as palustrine, open water, permanently flooded, excavated ponds with an emergent and scrub-shrub component (PUBHx /PSS3Fx/PEM1Fx). These wetlands are located south of the K-Mart Shopping Center and are dominated by Brazilian pepper, wax myrtle, cattail, seedling white mangroves, torpedo grass and primrose

willow. These wetlands are surrounded by the K-Mart Shopping Center to the north and west and roads on the other sides. The hydroperiod is primarily determined by seasonal rainfall.

Wetland S18 is classified as a palustrine scrub-shrub, broad-leaved evergreen, seasonally flooded swamp (PSS3C). This wetland is located along the frontage road south of Gandy Boulevard (SR 694) and is dominated by Brazilian pepper, Carolina willow, red maple, wax myrtle, pickerelweed, duck-potato, cattail, and cabbage palms. This wetland is surrounded by mostly urban development; however, there is a stormwater pond to the northwest. The hydroperiod probably fluctuates during the year with seasonal rainfall. This wetland had standing water in it at the time of inspection.

Wetland S24 is a palustrine seasonally flooded, needle-leaf and broad-leaf deciduous forested system (PFO1/2C) located on the south side of the Gandy Boulevard (SR 694) and I-275 exit ramps. Dominant vegetation includes red maple, bald cypress (*Taxodium distichum*), slash pine, water primrose, Virginia chain fern (*Woodwardia virginica*), and pennywort. No standing water was present during the field review; however, vegetation and hydric soil characteristics indicate that the area experiences seasonal inundation.

Wetland S33 is classified as a palustrine emergent, persistent excavated marsh (PEM1Fx). This wetland is located immediately west of Village Green Senior Mobile Home Park. The dominant vegetation within this wetland include torpedo grass, smartweed (*Polygonum* spp.), paragrass (*Urochloa mutica*), and fragrant water-lily. The hydroperiod appears to be controlled by rainfall and runoff from adjacent uplands and this wetland may drain into the Sawgrass Lake area located south of the project area.

Wetland S34 is classified as a palustrine wetland with an unconsolidated bottom system (PUBHx). This wetland is located in the Royal Palm North Cemetery and is dominated by cattail and torpedo grass. The hydroperiod for this wetland is controlled by seasonal rainfall. At the time of inspection, the wetland was inundated with water.

5.2.2 Other Surface Waters

Sixty-three other surface waters were identified within the study area. Table 2 lists these areas and their characteristics. These other surface waters are generally facilities, such as grassy swales, retention ponds and detention ponds, which are used for the attenuation and treatment of stormwater runoff. These areas are within or adjacent to the Gandy Boulevard (SR 694) right-of-way. One representative photo plate is provided in Appendix A.

Table 2 Other Surface Waters

Other Surface Water	Potential Impact Area acres
N2	0.10
N3	0.35
N5	0.04
N10	1.48
N11	0.02
N12	0.04
N13	0.04
N15	0.09
N16	0
N17	0
N18	0.04
N19	0.10
N20	0.02
N21	0
N23	0
N24	0
N25	0.09
N26	0
N28	0
N29	0
N30	0

Other Surface Water	Potential Impact Area acres
N31	0
N32	0
N34	0.02
N35	0
N36	0
N38	0.02
N44	0.07
N45	0.38
N46	0.09
N47	0.02
N48	0.17
N49	0.17
N50	0.06
N51	0.06
N52	0.008
S1	0.17
S3	0
S4	0
S5	0.32
S6	0.002
S7	0.06

Other Surface Water	Potential Impact Area acres
S8	0.05
S9	0.004
S12	0
S13	0
S14	0
S15	0
S16	0
S17	0
S19	0
S20	0.16
S21	0
S22	0
S23	0
S25	0
S26	0
S27	0
S28	0.08
S29	0.01
S30	0.02
S31	0.32
S32	0.20

5.3 Results of Wetland Rapid Assessment Procedure (WRAP)

WRAP analyses were conducted to assess wetland function and values for wetlands within the study area. WRAP incorporates concepts from the USFWS's "Habitat Evaluation Procedures" (HEP, 1980) and the Southwest Florida Water Management District's Save Our Rivers Project Evaluation Matrix (SOR, 1992). The WRAP assessment utilizes a holistic approach to evaluate ecological communities based on the following variables: wildlife utilization, wetland overstory/shrub canopy of desirable species, wetland vegetative groundcover of desirable species, adjacent upland/wetland buffer, field indicators of wetland hydrology, and water quality input and treatment systems. Four representative WRAP field data sheets are included in Appendix B and the results of the wetland analyses are summarized in Table 1 in Section 5.2.

Twenty-three wetlands and surface waters and 63 other surface waters were identified within the project study area. A WRAP analysis was conducted for each wetland. Four types of wetlands occurred within the project study corridor: palustrine marshes, palustrine swamps, lakes/ponds/reservoirs, and estuarine swamps. The wetland that received the highest WRAP score (0.60) was N40, an estuarine intertidal, marsh, and mangrove area. This area is located between the median of Gandy Boulevard (SR 694) and the Koger Executive Center complex.

5.4 Analysis of Potential Wetland Impacts

Potential impacts to existing man-made and natural wetlands associated with the proposed build project alternative were determined. Potential impacts would result from the placement of fill and the removal of vegetation, or the temporary impacts to wetland vegetation from construction activities.

Impact analyses were performed for the two alternatives for this project. A Build Alternative that will have the least impact while providing the necessary improvements was identified during the 1996 Gandy MIS. This Build Alternative along with the No-Build Alternative were analyzed in this Wetland Evaluation Report.

The No-Build Alternative would not impact wetlands or surface waters within the project study limits. The Build Alternative would impact 4.93 acres of wetlands and surface waters and 4.87 acres of other surface waters. Potential impacts for each wetland or other surface water range from less than 0.01 acres to 2.00 acres.

6.0 CONCEPTUAL MITIGATION ALTERNATIVES

Mitigation policies have been established by the USACOE, Florida Department of Environmental Protection (FDEP), and the water management districts. Options for mitigating the loss of wetlands include mitigation banking, upland and/or wetland preservation, wetland restoration, enhancement, and creation. Mitigation in the form of a transfer of $82,281 (FY 2001/2002) per acre of impact to the FDEP is also available. These funds are used to finance mitigation programs managed by the water management districts.

Under current Environmental Resource Permit Regulations, mitigation for wetland impacts may be accomplished through preservation of upland or wetland habitats. A maximum ratio of 60:1 (acreage preserved: acreage impacted) may be imposed (Basis of Review – SWFWMD). The amount of preservation required by the permitting agencies is dependent upon the quality of the system being impacted, versus the quality of the area being preserved. This measure would require purchase of a parcel of land by the FDOT and placement of the parcel into a perpetual conservation easement.

Mitigation for wetland impacts that will result from the construction of this project will be mitigated pursuant to Part IV Chapter 373, F.S. and 33 USC.s. 1344.

7.0 PERMITTING REQUIREMENTS AND COORDINATION

The USACOE and SWFWMD regulate wetlands within the project study area. Other agencies including the USFWS, the US Environmental Protection Agency (EPA), and Florida Fish and Wildlife Conservation Commission (FFWCC), review and comment on

wetland permitting. It is anticipated that the following permits will be required for this project:

- Environmental Resource Permit (ERP), SWFWMD
- Section 404 Dredge and Fill Permit, USACOE
- National Pollutant Discharge Elimination System Permit (NPDES), FDEP
- Dredge/Fill, Pinellas County Environmental Management

FDOT initiated early project coordination on March 22, 2000, by distribution of an Advance Notification (AN) Package to the Florida State Clearinghouse, Office of the Governor, Tallahassee, Florida, in accordance with Executive Order 83-150. Additional coordination of the project will be accomplished through the submittal of this document to the appropriate regulatory and review agencies.

8.0 CONCLUSIONS AND COMMITMENTS

During the course of the PD&E Study, extensive assessments of wetland and environmental resources within the project corridor have been conducted. The primary goal of these tasks was to identify resources that occur within the proposed project limits. This information has aided project engineers in refining the proposed Build Alternative that will minimize environmental impacts within the project corridor. As a part of the PD&E Study, 23 wetlands and surface waters and 63 other surface waters have been identified, classified, and characterized within the study corridor.

The estimated impacts to wetlands and surface waters are 4.93 acres and to other surface waters are 4.87 acres. All measures to avoid and minimize impacts to wetlands have been employed to the greatest extent practicable. The proposed Build Alternative includes all practicable measures to minimize impacts to the wetlands that may result from the project.

Mitigation for wetland impacts that will result from the construction of this project will be provided pursuant to Part IV Chapter 373, F.S. and 33 USC.s. 1344.

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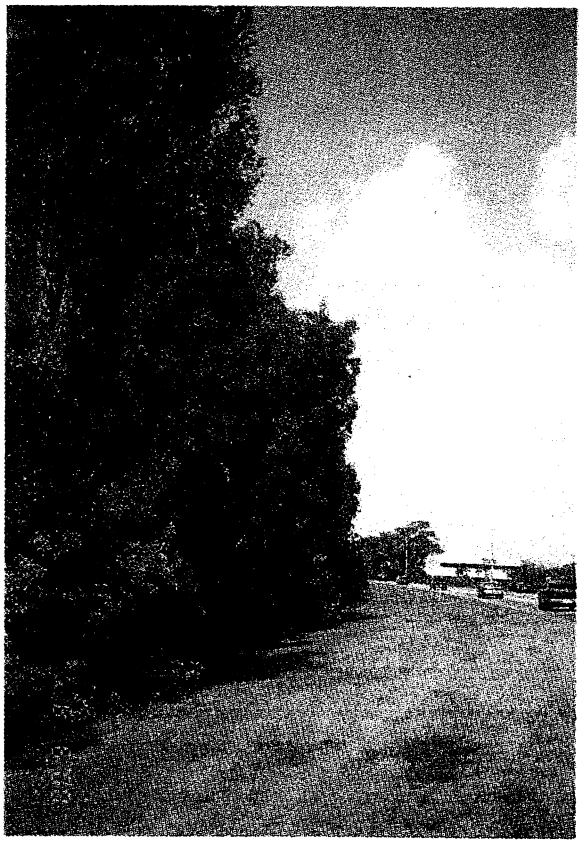
Appendix A: Wetland and Other Surface Water Photo Plates

Wetland N1
Facing North

Wetland N6
Facing Northeast

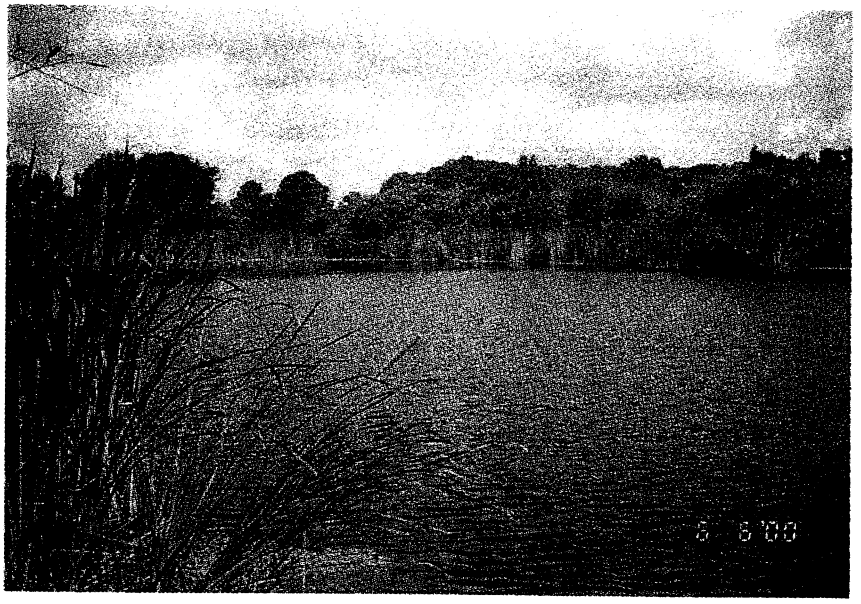
Wetland N7
Facing Southeast

Wetland N22
Facing Southeast



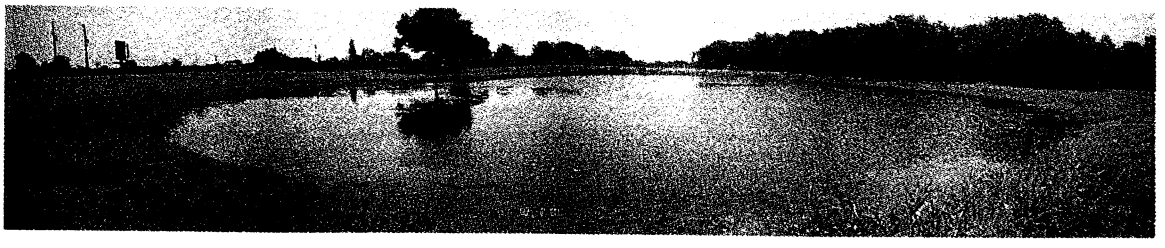
Wetlands N39 and N41
Facing East

Wetland N40
Facing South

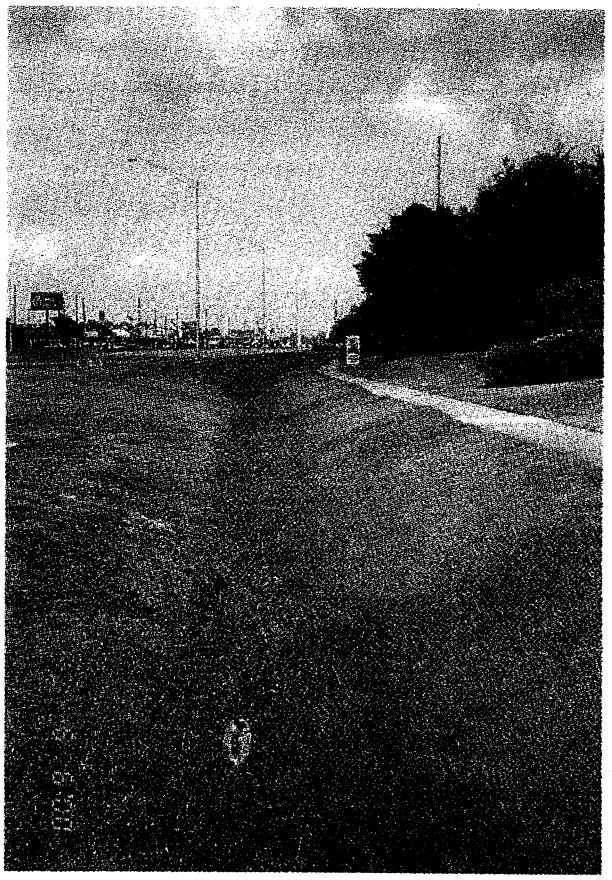


Wetland N43
Facing Northwest

Wetland S2
Facing Southeast



Wetland S34
Facing Southwest



Other Surface Water S1
Facing East

Appendix B: Representative WRAP Field Data Sheets

☑ Existing Conditions ☑ Directions ☐ Proposed Conditions (WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
	GANDY-US19 to 9th	9/29/00	YOUNG	R2OWHx / PEM1x

Land Use	FLUCCS Code	Description	Wetland Acreage
Residential	510	Streams + Waterways	

Wildlife Utilization (WU): 1.0

Wetland Canopy (O/S): 0.5

Wetland Ground Cover (GC): 1.0

Field Hydrology (HYD): 0.5

WQ Input & Treatment (WQ)*: 1.55

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
Natural	2.0	10%	0.2
SF Res	0.5	20%	0.1
MF Res	0.5	70%	0.35
		TOTAL	0.65

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3.0	10	0.3
SF Res	1.5	20	0.3
MF Res	1.0	70	0.7
		(LU) TOTAL	1.3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
Wet Det w/ swales	2.5	30	0.75
Wet part of treat	1.5	70	1.05
		(PT) TOTAL	1.80

WRAP Score: 0.29

Field Notes:

Wildlife Utilization (WU)

wood stork observed (south side)

Wetland Canopy (O/S)

Brazilian pepper ~ 20% of flowway

Wetland Ground Cover (GC)

Commelina diffusa on north end; south end pretty bare except bahia on edge

Habitat Support / Buffer

surrounded by small wooded areas immediately, but mostly SF residential and multifamily residential

Field Hydrology (HYD)

raised ditches with mostly open water

WQ Input & Treatment (WQ)

provides some stormwater "treatment" through wet detention but not totally

Wetland Rapid Assessment Procedure

☑ Check one: ☑ Existing Conditions ☐ Proposed Conditions

(WRAP)

Application Number	Project Name	Date	Evaluator	Wetland Type
	Gandy - US 19 to 4th		Young	PFO1C/PEM1C

Land Use	FLUCCS Code	Description	Wetland Acreage
Powerline easement	630/641	Wetland forested mixed / freshwater marsh	

Wildlife Utilization (WU): 2.0

Wetland Canopy (O/S): 1.5

Wetland Ground Cover (GC): 1.0

Field Hydrology (HYD): 1.5

WQ Input & Treatment (WQ)*: 2.4

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
Nat	2.0	50	1.0
FPL / road	0	50	0
		TOTAL	1.0

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Nat	3.0	50	1.5
Light comm	2.0	30	0.6
Road	1.0	20	0.2
		(LU) TOTAL	2.3

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
wet det	2.5	100	2.5
		(PT) TOTAL	2.5

WRAP Score: 0.52

Field Notes:

Wildlife Utilization (WU)

no birds were observed; however, several calls were heard in the project area. Wolf/dog tracks observed; suitable habitat for some roosting

Wetland Canopy (O/S)

Melaleuca quinquinervia   Pinus spp (probably slash)   Baccharis sp   Schinus terebinthifolius
Acer rubrum   Sesbania spp.   Salix caroliniana

Wetland Ground Cover (GC)

Lud peruviana   Thalia geniculata   Ground cover is most likely mowed
Eleocharis spp.   Diodea virginica   periodically for ROW clearance. Ruts
Lud octovalvis   Phyla nodiflora   observed in ROW

Habitat Support / Buffer

Natural areas surround approximately 50%
FPL / road / light commercial - 50%

Field Hydrology (HYD)

is inundated probably most of the year [illegible]
[illegible]; no control structures were observed

WQ Input & Treatment (WQ)

wet detention

Wetland Rapid Assessment Procedure (WRAP)

☑ Existing Conditions ☑ Direct one ☐ Proposed Conditions

N39, N41

Application Number	Project Name	Date	Evaluator	Wetland Type
	Vanda - US19 to 49th	6/6/00	Young	PFO3C

Land Use: Roads

FLUCCS Code: 617 Description: Mixed wetland hardwoods

Wetland Acreage:

Wildlife Utilization (WU): 1.0

Wetland Canopy (O/S): 0.5

Wetland Ground Cover (GC): N/A

Field Hydrology (HYD): 1.0

WQ Input & Treatment (WQ)*: 1.55

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
Natural	1.5	30	0.45
Roads	0	70	0
		TOTAL	0.45

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3.0	30	0.9
Roads	1.0	70	0.7
		(LU) TOTAL	1.6

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
wet as treat	1.5	100	1.5
		(PT) TOTAL	1.5

WRAP Score: 0.50

Field Notes:

Wildlife Utilization (WU)

none observed; maybe roosting habit for birds

Wetland Canopy (O/S)

Melaleuca quinquenervia

little bit Schinus terebinthifolius

Wetland Ground Cover (GC)

none - shaded by punk tree monoculture.

Habitat Support / Buffer

surrounded by adjacent uplands to west; roads to north, south and east

Field Hydrology (HYD)

rainfall/stormwater inundated

WQ Input & Treatment (WQ)

wetland as treatment

Wetland Rapid Assessment Procedure (WRAP)

Check one: [x] Existing Conditions [ ] Proposed Conditions

Application Number	Project Name	Date	Evaluator	Wetland Type
	Gandy – US 19 to 4th	6/6/00 + 10/2/00	Vizen	E2EM3/E2FO3 + E2SS1

N.40.

Land Use: Natural

FLUCCS Code: 612 & 642 Description: Mangroves / Saltwater marsh

Wetland Acreage:

Wildlife Utilization (WU): 2.0

Wetland Canopy (O/S): 2.0

Wetland Ground Cover (GC): 1.5

Field Hydrology (HYD): 2.5

WQ Input & Treatment (WQ)*: 1.85

* The value of WQ is obtained by adding the TOTAL scores of Land use Category and Pretreatment category then dividing by 2

Habitat Support / Buffer

Buffer type	(Score)	X (% of area)	=Sub Totals
Natural	2.0	50	1.0
Condos	0	40	0
Roads	0	10	0
0			
		TOTAL	1.0

Land use Category (LU)

Land use Category	(Score)	X (% of area)	=Sub Totals
Natural	3.0	50	1.5
Condos	1.5	40	0.6
Road	1.0	10	0.1
		(LU) TOTAL	2.2

Pretreatment Category (PT)

Pretreatment Category	(Score)	X (% of area)	=Sub Totals
wet no treat	1.5	100	1.5
		(PT) TOTAL	1.5

WRAP Score: 0.60

Field Notes:

Wildlife Utilization (WU)

none observed. Adequate habitat for roosting birds, nursery fishes, invertebrate larvae; and open area for feeding and foraging for birds

Wetland Canopy (O/S)

Laguncularia racemosa   Sabal palmetto
Schinus terebinthifolius

Wetland Ground Cover (GC)

Spartina bakeri   Typha spp.
Acrostichum sp.

Habitat Support / Buffer

Adequate habitat in northern portions - by wetlands adjacent to this area; as well as, pine uplands just south of east bound lanes of Gandy. South of east-bound Gandy; more development exists

Field Hydrology (HYD)

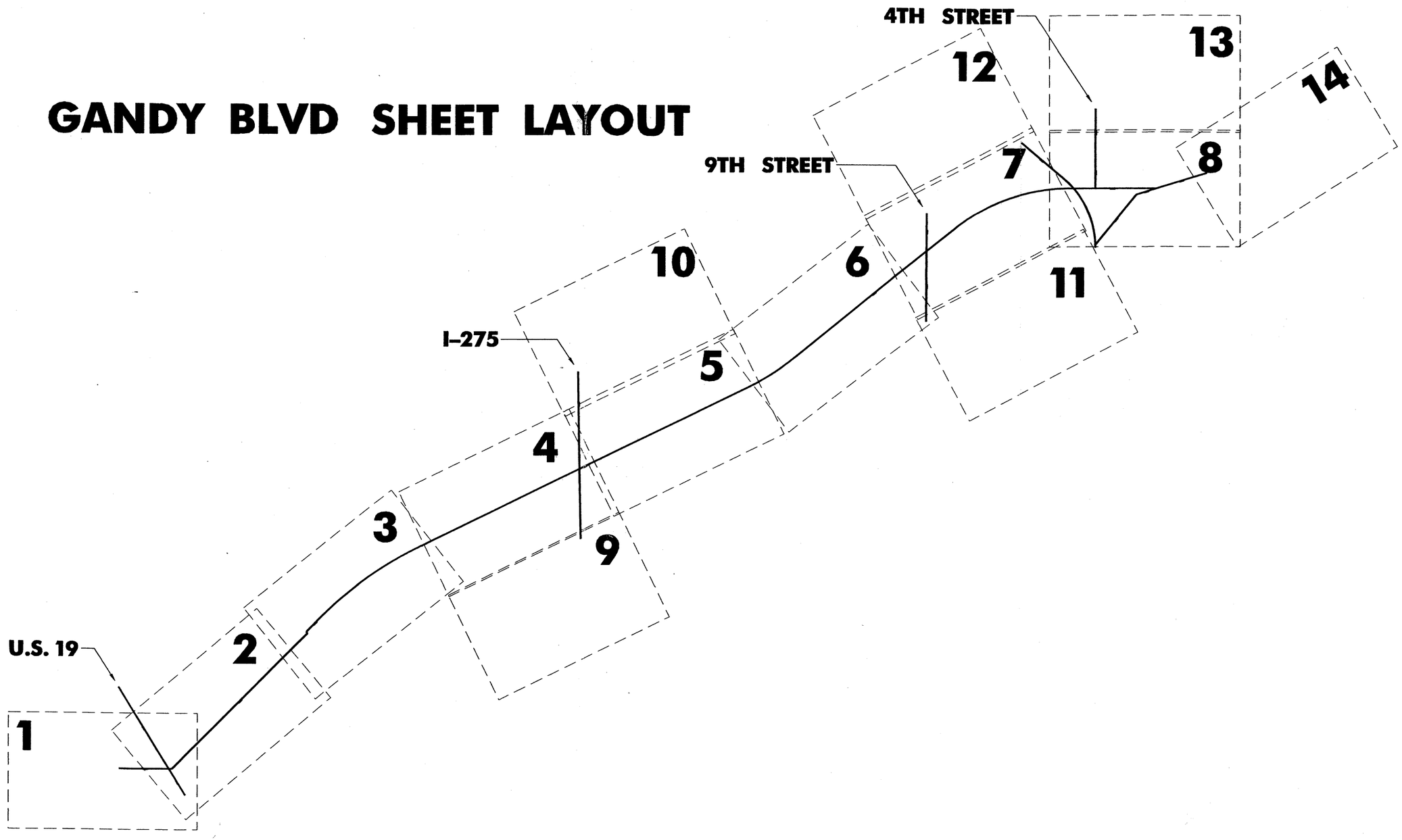
tidally influenced, adequate hydroperiod with influx of freshwater from season rainfall and stormwater runoff

WQ Input & Treatment (WQ)

wet no treatment

Appendix C: Project Aerials With Wetlands, Surface Waters and Other Surface Waters Identified

GANDY BLVD SHEET LAYOUT



5 PLAN SHEET LAYOUT

PBS&J ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY
FROM U.S. 19 TO EAST OF 4TH STREET
PINELLAS COUNTY, FLORIDA

SHEET NO. 00

15-MAY-2002 14:00
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FLIGHT DATE : FEBRUARY 10, 2000

EXISTING RIGHT OF WAY	PROPERTY LINES	WETLAND BOUNDARY AND OTHER SURFACE WATERS	AIR QUALITY RECEPTOR SITES
PROPOSED RIGHTOF WAY	CENTERLINE OF CONSTRUCTION	POND SITE	RECEIVER LOCATION
EDGE OF PAVEMENT	SIDEWALK	BRIDGE STRUCTURE OR RETAINING WALL	NOISE WALL
		RESIDENTIAL RELOCATION	
		EXISTING PAVEMENT	
		POTENTIAL CONTAMINATION SITE	

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 1

FLIGHT DATE : FEBRUARY 10, 2000

EXISTING RIGHT OF WAY
PROPOSED RIGHTOF WAY
EDGE OF PAVEMENT
PROPERTY LINES
CENTERLINE OF CONSTRUCTION
SIDEWALK
WETLAND BOUNDARY AND OTHER SURFACE WATERS
BRIDGE STRUCTURE OR RETAINING WALL
EXISTING PAVEMENT
POND SITE
RESIDENTIAL RELOCATION
POTENTIAL CONTAMINATION SITE
AIR QUALITY RECEPTOR SITES
RECEIVER LOCATION
NOISE WALL

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

SR. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

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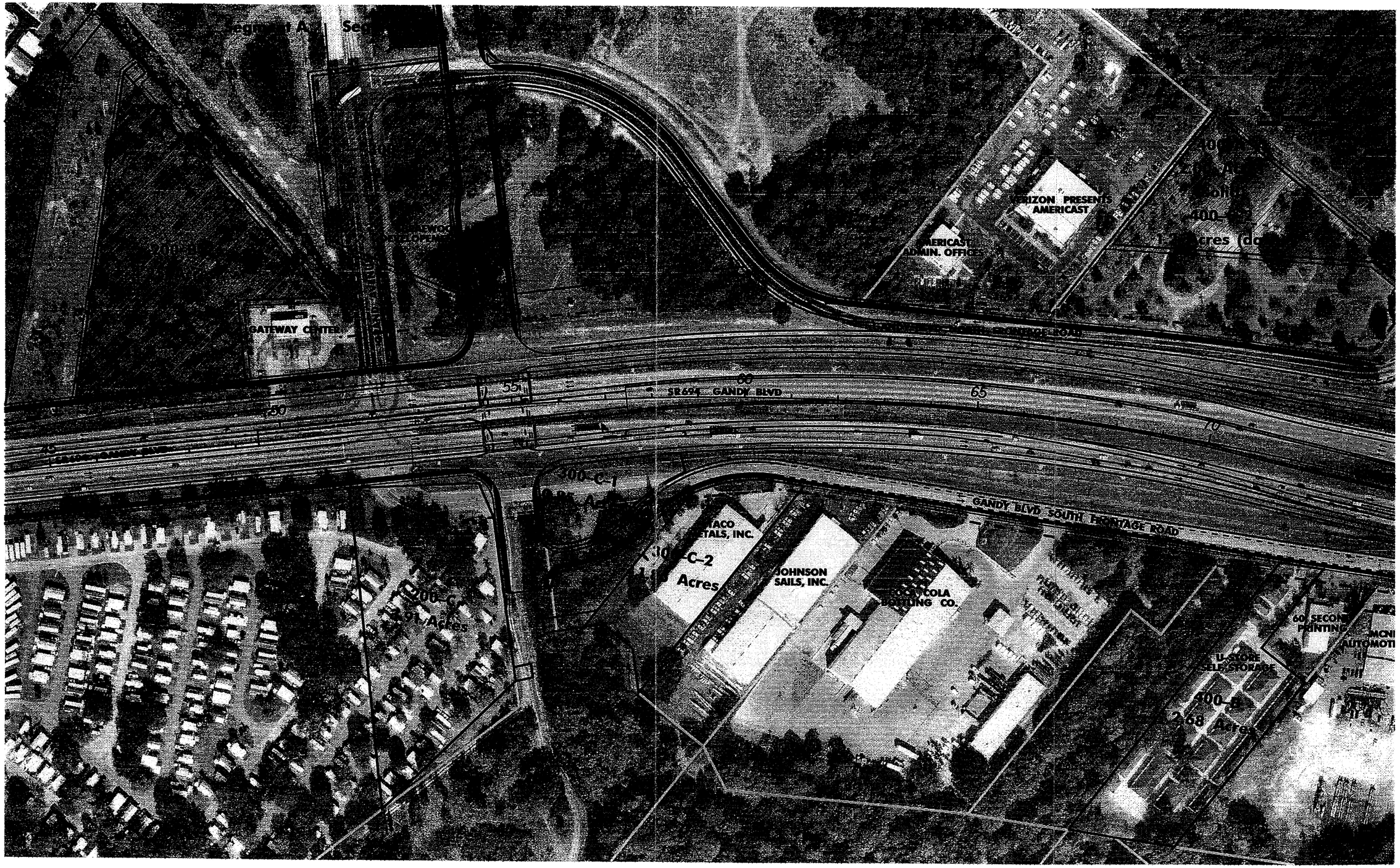


FLIGHT DATE : FEBRUARY 10, 2000

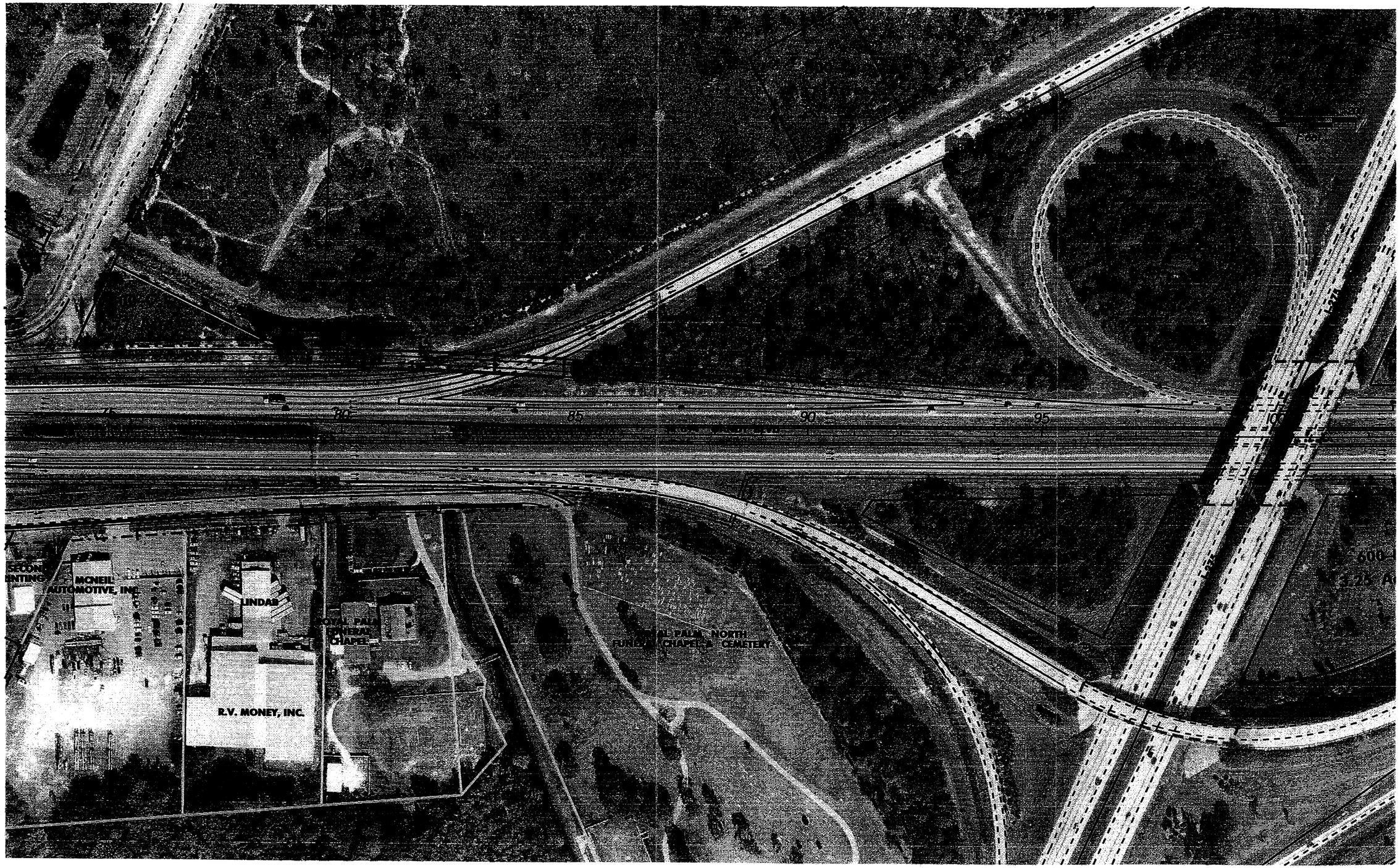
- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL/BUSINESS RELOCATION
- POTENTIAL CONTAMINATION SITE
- NOISE WALL

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	25693I-I

SR. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 3



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- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

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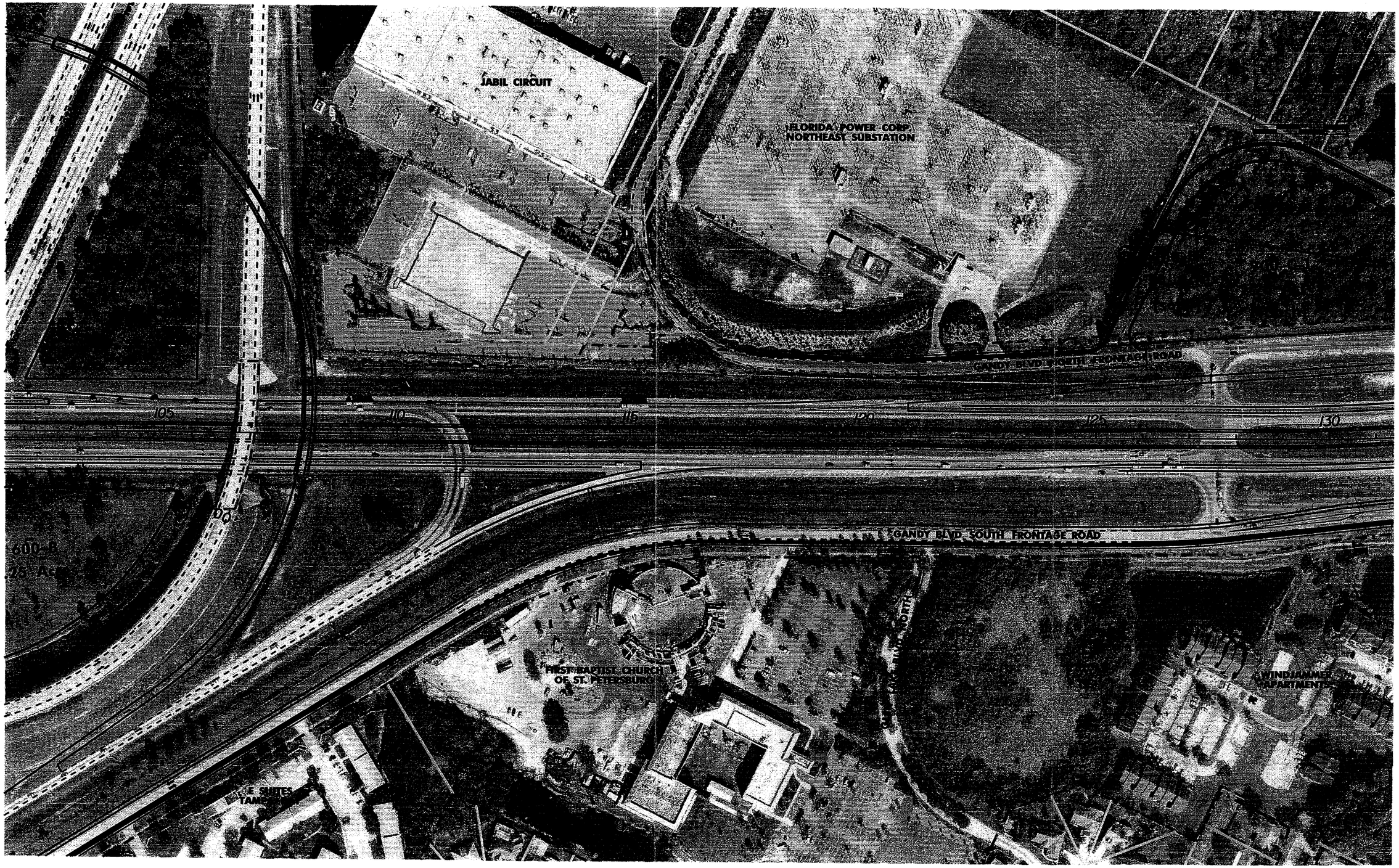
PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY
FROM U.S. 19 TO EAST OF 4TH STREET
PINELLAS COUNTY, FLORIDA

SHEET NO. 4



FLIGHT DATE : FEBRUARY 10, 2000

- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

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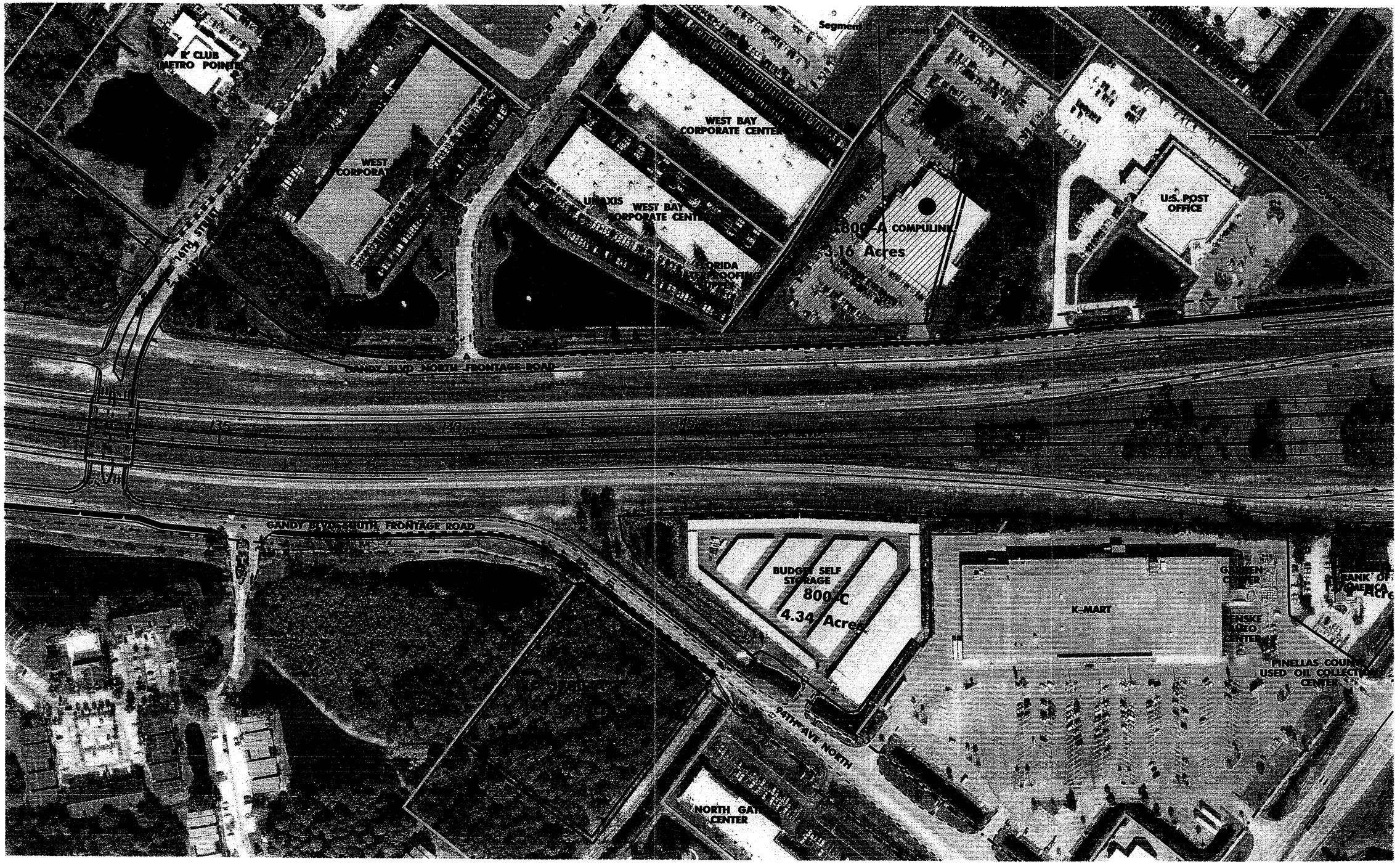

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- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	25693I-I

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

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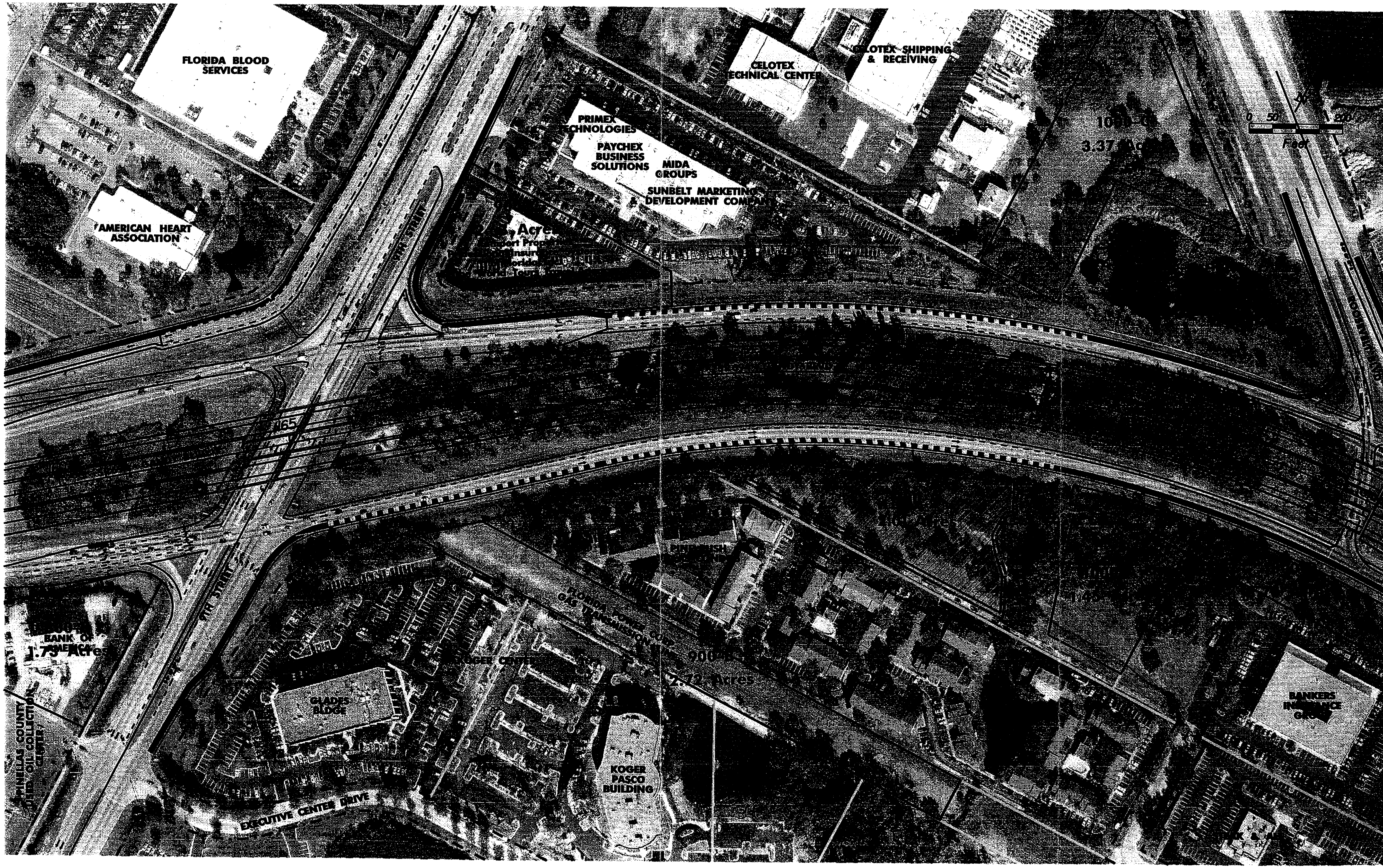

FLIGHT DATE : FEBRUARY 10, 2000

EXISTING RIGHT OF WAY	PROPERTY LINES	WETLAND BOUNDARY AND OTHER SURFACE WATERS	POND SITE	AIR QUALITY RECEPTOR SITES
PROPOSED RIGHTOF WAY	CENTERLINE OF CONSTRUCTION	BRIDGE STRUCTURE OR RETAINING WALL	RESIDENTIAL RELOCATION	RECEIVER LOCATION
EDGE OF PAVEMENT	SIDEWALK	EXISTING PAVEMENT	POTENTIAL CONTAMINATION SITE	NOISE WALL

15-MAY-2002 13:57
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PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 7

FLIGHT DATE : FEBRUARY 10, 2000

- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

15-MAY-2002 13:56
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PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	25693I-I

S.R. 694 (GANDY BLVD) PDE STUDY
FROM U.S. 19 TO EAST OF 4TH STREET
PINELLAS COUNTY, FLORIDA

SHEET NO. 8

FLIGHT DATE : FEBRUARY 10, 2000

- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

15-MAY-2002 10:58
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PBSJ ENGINEERING PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 9

FLIGHT DATE : FEBRUARY 10, 2000

EXISTING RIGHT OF WAY | PROPERTY LINES | WETLAND BOUNDARY AND OTHER SURFACE WATERS | POND SITE | AIR QUALITY RECEPTOR SITES
PROPOSED RIGHTOF WAY | CENTERLINE OF CONSTRUCTION | BRIDGE STRUCTURE OR RETAINING WALL | RESIDENTIAL RELOCATION | RECEIVER LOCATION
EDGE OF PAVEMENT | SIDEWALK | EXISTING PAVEMENT | POTENTIAL CONTAMINATION SITE | NOISE WALL

15-MAY-2002 13:59
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PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY
FROM U.S. 19 TO EAST OF 4TH STREET
PINELLAS COUNTY, FLORIDA

SHEET NO. 10

FLIGHT DATE : FEBRUARY 10, 2000

EXISTING RIGHT OF WAY	PROPERTY LINES	WETLAND BOUNDARY AND OTHER SURFACE WATERS	POND SITE
PROPOSED RIGHTOF WAY	CENTERLINE OF CONSTRUCTION	BRIDGE STRUCTURE OR RETAINING WALL	RESIDENTIAL RELOCATION
EDGE OF PAVEMENT	SIDEWALK	EXISTING PAVEMENT	POTENTIAL CONTAMINATION SITE
AIR QUALITY RECEPTOR SITES	RECEIVER LOCATION	NOISE WALL	

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 11

FLIGHT DATE : FEBRUARY 10, 2000

15-MAY-2002 13:59
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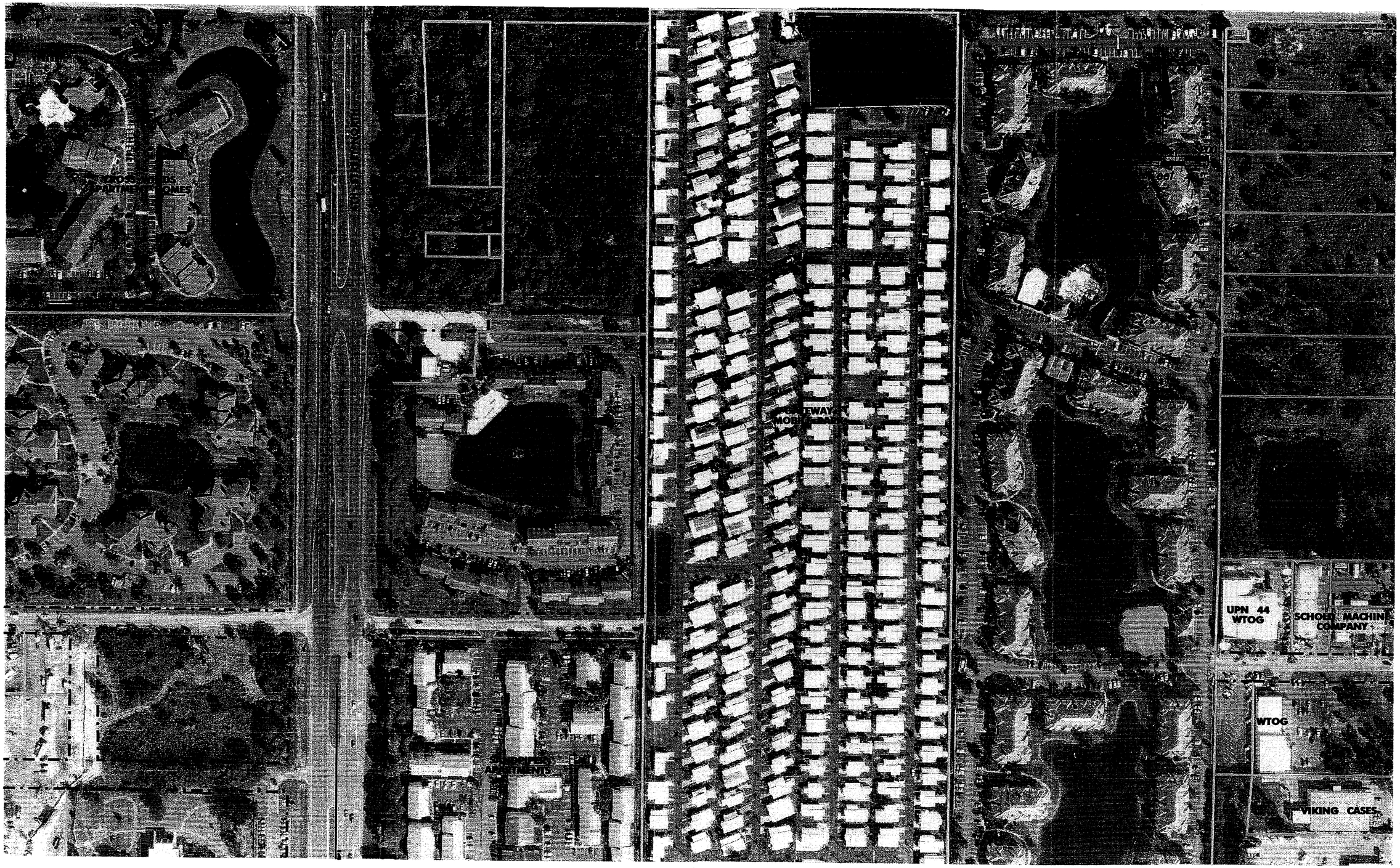
- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

PBSJ ENGINEERING PLANNING

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA	SHEET NO.
ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
SR 694	PINELLAS	256931-1		12



FLIGHT DATE : FEBRUARY 10, 2000

- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- (R) RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- R1 AIR QUALITY RECEPTOR SITES
- R2N RECEIVER LOCATION
- NOISE WALL

15-MAY-2002 14:00
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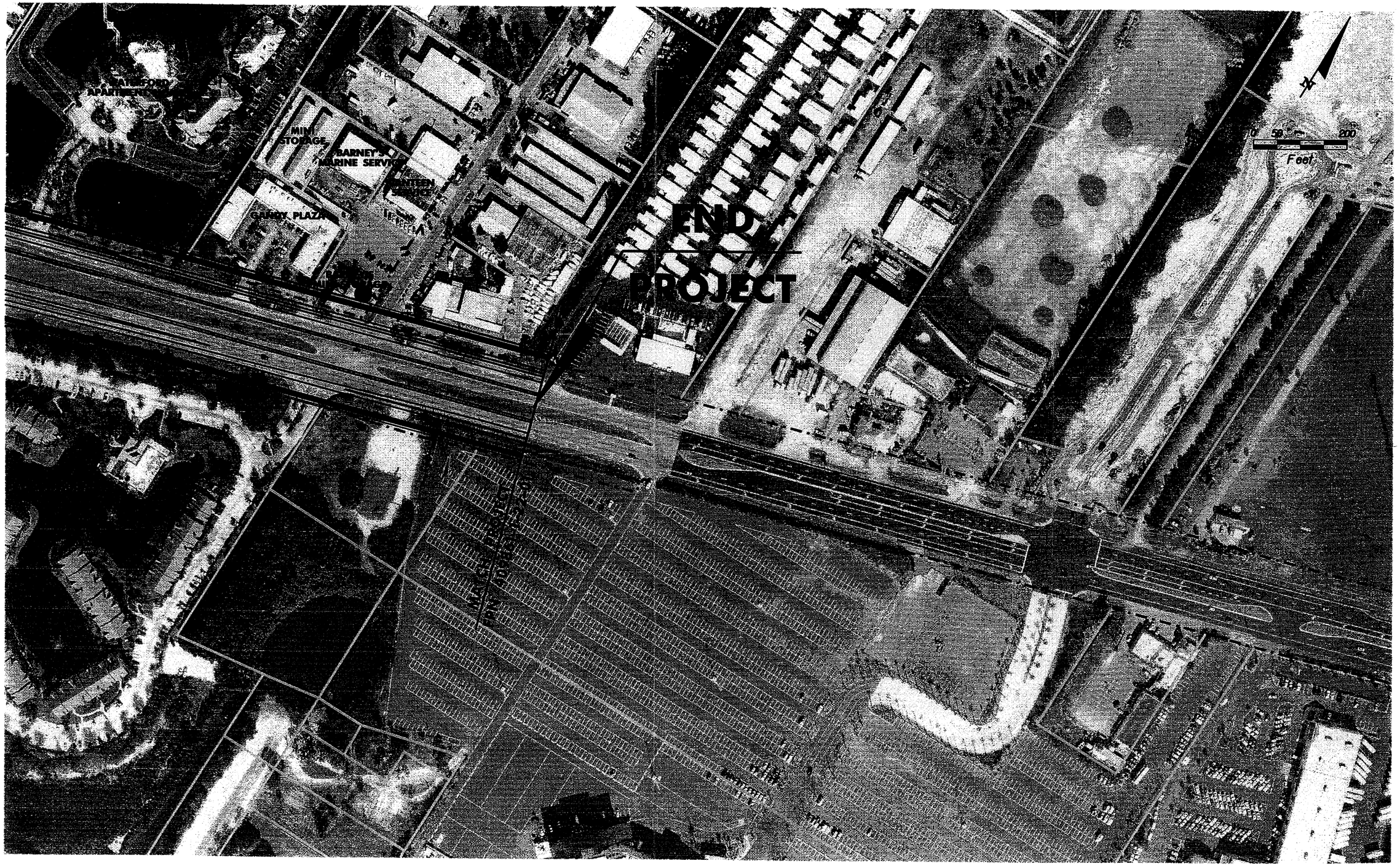
PBSJ ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 13



FLIGHT DATE : FEBRUARY 10, 2000

- EXISTING RIGHT OF WAY
- PROPOSED RIGHTOF WAY
- EDGE OF PAVEMENT
- PROPERTY LINES
- CENTERLINE OF CONSTRUCTION
- SIDEWALK
- WETLAND BOUNDARY AND OTHER SURFACE WATERS
- BRIDGE STRUCTURE OR RETAINING WALL
- EXISTING PAVEMENT
- POND SITE
- RESIDENTIAL RELOCATION
- POTENTIAL CONTAMINATION SITE
- AIR QUALITY RECEPTOR SITES
- RECEIVER LOCATION
- NOISE WALL

15-MAY-2002 11:00
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PBS&J ENGINEERING PLANNING

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 694	PINELLAS	256931-1

S.R. 694 (GANDY BLVD) PDE STUDY FROM U.S. 19 TO EAST OF 4TH STREET PINELLAS COUNTY, FLORIDA

SHEET NO. 14