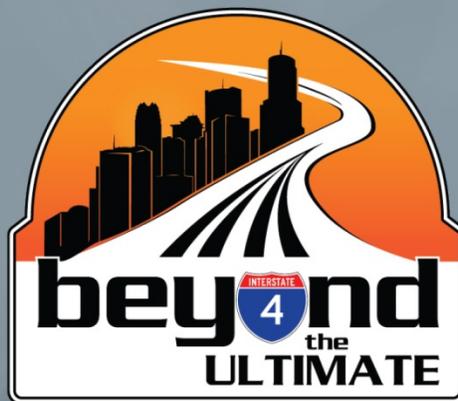




SR 400 (I-4) Project Development and Environment (PD&E) Study
FM No.: 432100-1-22-01



Contamination Screening Evaluation Report

**Segment 2: State Road 400 (SR 400) / Interstate 4 (I-4)
from West of SR 528 (Beachline Expressway)
to West of SR 435 (Kirkman Road)**

Orange County (75280), Florida

July 2016



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1.0 Summary of Project

The Florida Department of Transportation (FDOT) is conducting an update/ reevaluation of the Project Development and Environment (PD&E) studies for the extension of proposed express lanes for State Road 400 (SR 400)/Interstate 4 (I-4). The project limits in the original PD&E studies were:

- West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line, (29.5 miles)
- CR 532 (Polk/Osceola County Line) to West of SR 528 Beachline Expressway (13.7 miles), and
- West of SR 528 Beachline Expressway to SR 472 (43 miles).

The corresponding environmental documents associated with these PD&E studies include: Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for SR 400 (I-4) from West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line [Financial Project Number (FPN) 201210 (December 1998)] and from CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) [FPN 242526 and 242483 (December 1999)] and Final Environmental Impact Statement (FEIS) for I-4 from SR 528 (Beachline Expressway) to SR 472 [FPN 242486, 242592 and 242703 (August 2002, Record of Decision Pending)].

The project limits of the current SR 400 (I-4) PD&E reevaluation, herein referred to as I-4 Beyond the Ultimate (BtU) PD&E Reevaluation Study, include a total of approximately 43 miles of roadway sections east and west of the 21-mile, I-4 Ultimate project. The I-4 Ultimate project, which began in early 2015, is reconstruction to include new express lanes, \of the section of I-4 that extends from west of SR 435 (Kirkman Road) to east of SR 434. For analysis purposes, the current I-4 BtU PD&E study has been divided into the following five segments:

- Segment 1: SR 400 (I-4) from West of CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) - Osceola County (92130) and Orange County (75280)
- Segment 2: SR 400 (I-4) from West of SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road) - Orange County (75280)
- Segment 3: SR 400 (I-4) from 1 Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line) - Seminole County (77160)
- Segment 4: SR 400 (I-4) from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to ½ Mile East of SR 472 - Volusia County (79110)
- Segment 5: SR 400 (I-4) from West of SR 25/US 27 to West of CR 532 (Polk/Osceola County Line) Polk County (16320)

Since no record of Decision has been issued by the Federal Highway Administration (FHWA) for Segments 2, 3 and 4, the current PD&E BtU study for these three segments will update the original PD&E study. This contamination screening evaluation report was prepared for Segment 2 of the SR 400 (I-4) BtU PD&E Reevaluation Study and contains detailed information that fulfills the purpose and need for the SR 400 (I-4), from West of 528 (Beachline Expressway) to West of SR 435 (Kirkman Road), PD&E study.

The purpose of this report is to present the findings of a contamination screening evaluation for the proposed improvements in support of the PD&E update for the I-4 BtU Segment 2 portion of the FEIS for I-4 from SR 528 (Beachline

Expressway) to SR 472 (FPN 242486-1, 242592-1, 242703-1, August 2002, Record of Decision pending). This update includes environmental analysis of the original design concept, which showed six general use lanes (GULs) and two high occupancy vehicles (HOV) lanes (6+2), to the current proposed design, which includes six GULs and four express lanes (EL) operating under a variable price toll plan (6+4). Other changes being reanalyzed include stormwater management, access plan and interchange configurations.

1.1 Description of Proposed Action

FDOT is proposing to reconstruct and widen I-4 as part of the I-4 BtU concept. This involves the build-out of I-4 to its ultimate condition through Central Florida, including segments in Polk, Osceola, Orange, Seminole and Volusia Counties. The concept design proposes the addition of two new express lanes in each direction, resulting in a total of ten dedicated lanes. The project limits for the segment analyzed in this report are within a 3.9-mile segment of I-4 which extends from west of SR 528 (MP 5.650) to west of SR 435 (Kirkman Road) [MP 9.528] in Orange County (herein referred to as I-4, Segment 2), as shown in **Figure 1.1**. Although, the interstate is a designated east-west corridor, the alignment follows a north-south orientation through the majority of Segment 2. The study area in this section from west of SR 528 to west of SR 435 (Kirkman Road) includes the interchanges at SR 528, Sand Lake Road, and Universal Boulevard.

Two mainline typical sections are proposed for I-4, Segment 2. The typical section from the begin project limits east of Central Florida Parkway to SR 528 includes a 44-foot rail envelope in the median within a minimum 300 foot right of way (6+4 with rail envelope). The typical section from SR 528 to west of SR 435 does not include the rail corridor and also has a proposed minimum 300 foot right of way (6+4 without rail envelope). Both typical sections have a design speed of 70 miles per hour (mph) and will include three 12-foot general use lanes with a 10-foot inside shoulder and a 12-foot outside shoulder (10-foot paved) and two 12-foot express lanes with a 4-foot inside shoulder and a 10-foot outside shoulder, in each direction. A barrier wall between adjacent shoulders will separate the express lanes from the general use lanes. Additionally, up to three auxiliary lanes in either direction of travel will be provided in some areas. **Figure 1.2** and **Figure 1.3** illustrate the proposed mainline typical sections for I-4 Segment 2.

While the overall typical section remains consistent throughout Segment 2, there are some areas along the I-4 BtU corridor that will have special sections. Special cross sections were developed to meet the needs of the project due to right of way constraints, existing utility easements or other design considerations along the corridor. These special sections may include C-D roads, braided ramp systems, elevated express lanes or elevated general use lanes. Additionally, the median width may vary in certain locations to accommodate changes in the horizontal alignment due to crossroad support structures or other design features. The special sections within the Segment 2 corridor include a C-D system between Central Florida Parkway and SR 528; the eastbound C-D Road is at grade and the westbound C-D Road is elevated. The eastbound C-D road extends approximately 1.9 miles between SR 528 in Segment 2 and the Daryl Carter Parkway interchange located within Segment 1 of the I-4 BtU corridor. The westbound C-D Road extends approximately 5.9 miles between SR 528 in Segment 2 and the Osceola Parkway interchange located within Segment 1 of the I-4 BtU corridor.

1.2 Purpose and Need

The proposed improvements to I-4 include widening the existing six lane divided urban interstate to a ten lane divided highway in order to improve traffic operations, enhance connectivity and improve mobility by providing travel choices to the motoring public. I-4 is an east-west limited access freeway which links the west and east coasts of Florida, from I-275 in Tampa to I-95 in Daytona Beach. I-4 spans across six counties in Central Florida, traversing through many cities including

Lakeland, Celebration, Orlando, Altamonte Springs, Sanford and DeLand. I-4 is a critical component of Florida's Strategic Intermodal System (SIS) which links seaports, rail, airports and other intermodal facilities. This aspect of I-4's significance is evidenced through connectivity provided by major junctions with I-275, I-75, SR 429 (Daniel Webster Western Beltway), SR 417 (Southern Connector/Central Florida Greenway/Seminole Expressway), SR 528 (Martin Andersen Beachline Expressway), SR 91 (Florida's Turnpike), SR 408 (Spessard Lindsay Holland East-West Expressway) and I-95 on the east coast.

I-4 serves as the primary corridor in the movement of people and freight between major population, employment and activity centers in the Central Florida region. When the entire Interstate was fully opened in the early 1960's, it was designed to serve intrastate and interstate travel by providing a critical link between the east and west coasts of Central Florida. Although this role continues to be a crucial transportation function of I-4, the highway also serves large volumes of local and commuter traffic with shorter trip distances. Today, the highway serves as the primary link between hotel/resort complexes and tourist attractions such as Walt Disney World, Universal Studios, Sea World, the International Drive Resort Area and downtown Orlando. Since I-4 is the only north-south limited access facility that is centrally located between the predominant employment centers and the major suburbs to the north, it has become the primary commuting corridor in the Central Florida metropolitan area.



Figure 1.1: Project Location Map

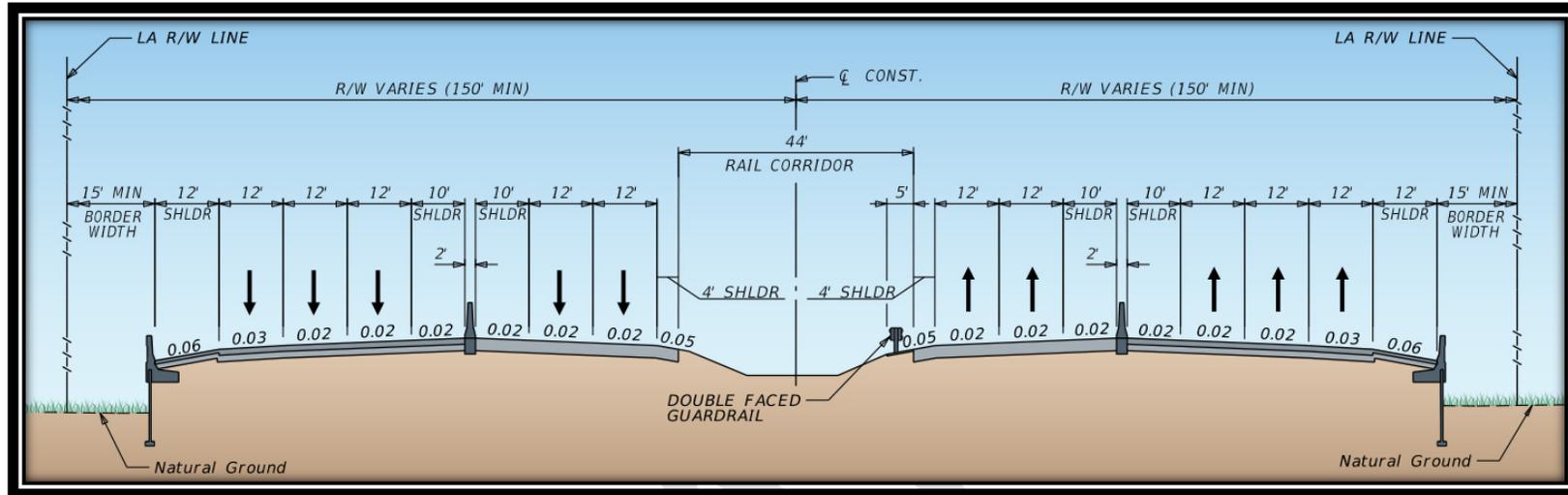


Figure 1.2: Proposed Typical Section (6+4 with rail envelope) – E. of Central Florida Parkway to SR 528

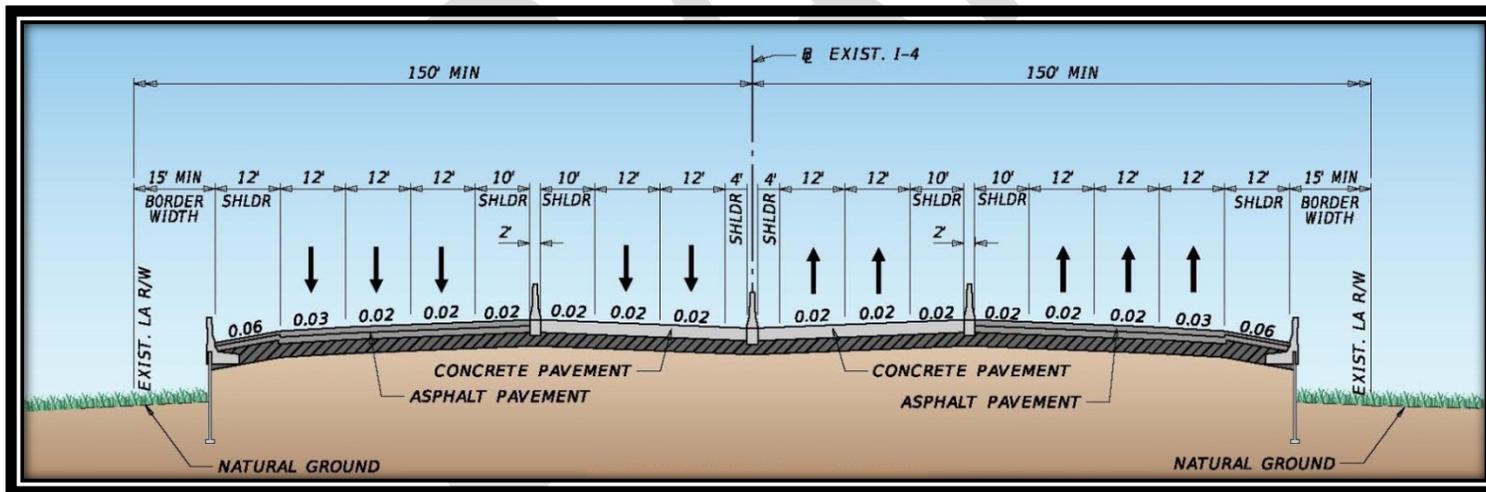


Figure 1.3: Proposed Typical Section (6+4 without rail envelope) – SR 528 to W. of SR 435

Growth in Central Florida over the past decades has made it difficult for the transportation system to accommodate travel demand. Additionally, traffic congestion and crash incidents have resulted in major delays on the Interstate as well as other arterials surrounding the corridor. Increased congestion levels are experienced outside of the typical morning and afternoon rush-hour periods, affecting mobility levels for more hours of the day and impacting other non-commuter/non-weekday travel. The congestion on I-4 is further evidenced by the less than desirable levels of service on the Interstate as well as the crossroads.

Projections of future population and employment in the region indicate that travel demand will continue to increase well into the future. The ability to accommodate the new travel patterns resulting from growth must be provided to sustain the region's economy. Without the improvements, extremely congested conditions are expected to occur for extended periods of time in both the morning and evening peak periods. Due to these congested conditions, user travel times will continue to increase, the movement of goods through the urban area will be slower, and the deliveries of goods within the urban area will be forced to other times throughout the day.

The need for improvements to I-4 is illustrated by the important transportation roles I-4 serves to the Central Florida region and the State of Florida. If no improvements are made to the Interstate, a loss in mobility for the area's residents, visitors, and commuters can be expected, resulting in a severe threat to the continued viability of the economy and the quality of life.

This PD&E update involves revising the original design concept showing 6 GULs + 2 HOV lanes, as recommended in the FEIS for I-4 from SR 528 to SR 472 (FPN No. 242486, 242592 & 242703, August 2002, Record of Decision Pending), to the current proposed design of 6 GUL + 4 EL. The express lanes are tolled lanes and will extend the full length of the project. The access to/from the tolled lanes will be evaluated as part of this effort to determine if changes are needed from the previously approved concept for access to/from the HOV Lanes.

The original I-4 PD&E Studies involved physical separation between the general use lanes and the HOV lanes on I-4, with demand management in the HOV lanes. The original demand management strategy was to control the use of the lanes by requiring a minimum number of occupants per vehicle to maintain an acceptable level of service (Level of Service D). This update also addresses revising the demand management tool to convert the HOV lanes to tolled express lanes. The express lanes will be separated from the general use travel lanes by two shoulders with a barrier wall between the shoulders. A variable pricing tolling plan is proposed for the express lanes. The tolls will vary by time of day and day of week to maintain acceptable levels of service in the express lanes. The tolls will be collected electronically through existing E-Pass, SunPass and other systems currently in place in the Central Florida area. The conversion to express lanes will maintain the same right of way limits as documented previously and will not change the impacts to the social, natural or physical environment. An Update to the Systems Access Modification Report (SAMR) prepared in January 2013 is being completed in conjunction with this effort.

The purpose of this contamination screening evaluation report (CSER) is to present the findings of a contamination screening evaluation for the proposed improvements. This report identifies and evaluates known or potential contamination problems, presents recommendations concerning these problems, and discusses possible impacts to the proposed project. The discovery of all contamination problems as early in the project development process as possible is done in order to limit or avoid FDOT liability, establish remediation costs, prevent delay claims during construction, identify appropriate worker safety protocols, and supply information for the property valuation during the acquisition process. If the discovery is early enough, the problem may be avoided entirely. If avoidance is not possible, early discovery will allow

proper handling in a logical, timely manner. The FDOT can be held liable for the acquisition of contaminated properties or the exacerbation of contamination due to its activities, even if the contamination source is not acquired.

The FHWA Technical Advisory T6640.8A, dated October 30, 1987 provides the following guidelines for conducting a contamination screening:

“Hazardous waste sites are regulated by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). During early planning, the location of permitted and non-regulated hazardous waste sites should be identified. Early coordination with the appropriate Regional Office of the EPA and the appropriate State agency will aid in identifying known or potential hazardous waste sites. If known or potential waste sites are identified, the locations should be clearly marked on a map showing their relationship to the alternatives under consideration. If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts and public health concerns of the affected alternative(s) and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the Draft EIS. If the recommended alternative impacts a known or potential hazardous waste site, the Final EIS should address and resolve the issues raised by the public and government agencies.”

This CSER, completed in accordance with Part 2, Chapter 22 (January 17, 2008 revision) of the PD&E Manual contains results from a physical site investigation of the project corridor, a limited investigation of properties along the corridor adjacent to the ROW as viewed from areas of public access, a review of Florida Department of Environmental Protection (FDEP) files, Orange County records, and available environmental databases.

This CSER is a professional opinion of the possibility of contamination impacts to the I-4 corridor resulting from direct visual observation and review of available file information compiled by others. The report is limited to conditions that existed at the time of the investigation and does not address such environmental issues as naturally occurring toxic substances in the subsurface soils, rocks, water and/or toxicity of on-site flora; toxicity of common household products, building materials or consumables; contaminants or contaminant concentrations that are not now a concern but may be under future regulations; contamination by asbestos-containing materials, radon gas, or lead in drinking water or paint.

This level of environmental investigation does not include intrusive testing or analysis of soils or groundwater to verify any suspected contamination. This report recommends whether any further investigative action may be prudent to confirm suspected contaminants.

Dewatering/excavation activities adjacent to known or suspect contamination sites could potentially cause a contamination plume to migrate into the ROW.

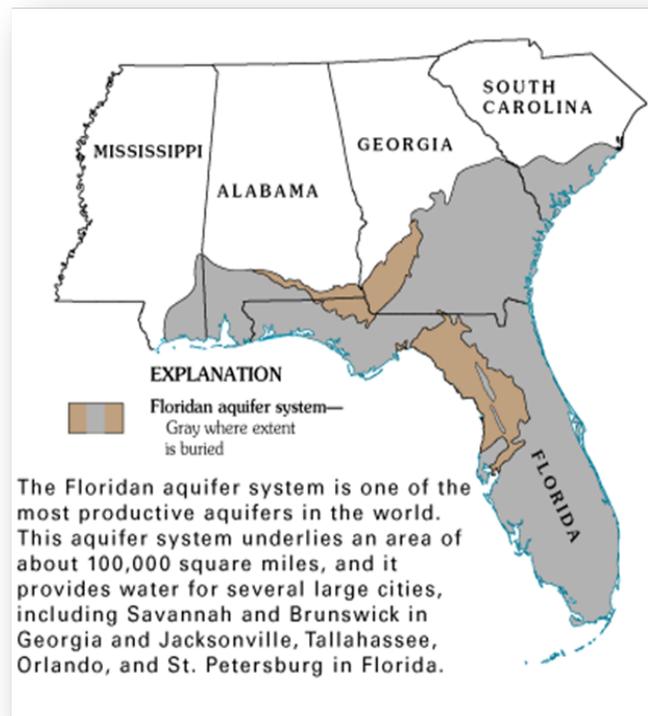
2.0 Land Use

The land use adjacent to I-4 within the proposed project limits consists of primarily Commercial and Services, with some Residential, a hospital, and a limited amount of natural lands. Some undeveloped natural areas are located at the interchange with I-4 and SR 528, along portions west of Turkey Lake Road, and in the median areas between Sand Lake Road and Kirkman Road. The majority of the corridor along Turkey Lake Road, Sand Lake Road, and International Drive is commercial, retail, hotel and restaurants, and includes the Orange County Convention Center and Universal Studios Orlando (see Land Use and Habitat Coverage Map, **Figure A** in **Appendix A**).

3.0 Hydrologic Features

The project corridor is within Orange County, Florida (Orange County) and is underlain by the Upper and Lower Floridan aquifer. The Upper Floridan Aquifer is generally located from the surface to a depth of approximately 350 to 900 feet where it interfaces with the Lower Floridan Aquifer. This carbonate-rock aquifer consists of layers of limestone and dolomite. The Floridan aquifer spans most of Florida, Alabama, Georgia, and some of South Carolina (**Figure 3.1**). The transmissivity is 25,000 to greater than 1,000,000 feet squared per day in areas where the upper confining material of the aquifer is less than 100 feet thick. Groundwater flow in this portion of Orange County is generally north to northeast within the Floridan Aquifer. According to the U.S. Department of the Interior Topographic Quadrangle map for Lake Jessamine, the project corridor is relatively flat (see USGS Topographical Map, **Figure B**, in **Appendix A**). Elevations along the project corridor generally range from between 100 to 125 feet (NGVD) above mean sea level.

Figure 3.1 Floridan Aquifer Map



According to the Soil Survey of Orange County, Florida (1989), the proposed project area (I-4 with 500 ft. buffer) consists of fourteen mapped soil types including Archbold fine sand, 0 to 5 percent slopes (2), Basinger fine sand, depressional (3), Candler-Apopka fine sands, 5 to 12 percent slopes (6), Immokalee fine sand (20), Ona fine sand (26), Ona-Urban land complex (27), Pomello fine sand, 0 to 5 percent slopes (34), Pomello-Urban land complex, 0 to 5 percent slopes (35), St. Johns fine sand (37), St. Lucie fine sand, 0 to 5 percent slopes (38), Sanibel muck (42), Smyrna fine sand (44), Tavares fine sand, 0 to 5 percent slopes (46), and Urban land (50). No intrusive soil investigation was conducted to verify soil types.

A brief description of each of the mapped soil types occurring within the project site is provided in the following section.

Archbold fine sand, 0 to 5 percent slopes (2) – Archbold fine sand soils are moderately well drained, nearly level to gently sloping soils found on low ridges and knolls within flatwoods. Typically, the surface layer is dark gray fine sand about 2 inches thick. The underlying material is usually white fine sand to a depth of about 80 inches.

The water table during extended wet periods can rise to a depth of 24 inches; however its seasonal fluctuation is between 42-80 inches deep; stabilizing between 42-60 inches for approximately six months and 60-80 inches for the remainder of the year. Extended drought conditions can drive the water table below 80 inches. Natural canopy vegetation consists of scattered slash pine, sand pine, and sand live oak. The understory and ground cover includes pineland threawn, prickly pear cactus, saw palmetto, and various weeds and grasses.

This soil type occurs directly adjacent to the current placement of I-4.

Basinger fine sand, depressional (3) – Basinger fine sand soils, depressional, are poorly drained, nearly level sandy soils found mainly in depressions, sloughs, and along the edges of freshwater marshes and streams. Typically, the surface layer is black fine sand nearly 7 inches thick. The underlying layers are sand to a depth of 80 inches. The upper subsurface layer is gray fine sand to a depth of 32 inches; dark brown and light brownish gray fine sand comprise the next 15 inches, and the substratum is pale brown fine sand.

The water table is above the surface for 6 to 9 months or more each year and is within 12 inches of the surface for the rest of the year under natural conditions. The natural canopy vegetation is mixed stands of pond cypress, sweet gum, and scattered pond pine. The understory and ground cover includes chalky bluestem, blue maidencane, sedges, and other water tolerant grasses.

This soil type occurs directly under and within 500 feet of the current placement of I-4.

Candler-Apopka fine sand, 5 to 12 percent slopes (6) – Candler-Apopka fine sands soils are excessively drained, sloping and strongly sloping soils found in uplands, occurring in a regular repeating pattern. Candler soil is sloping and occurs on lower side slopes of summits. Apopka soil is strongly sloping and occurs on upper side slopes of summits. Typically, the surface layer of Candler soil is very dark grayish brown fine sand about 6 inches thick. The upper part of the subsurface layer, to a depth of about 38 inches is yellowish brown fine sand. The lower part is pale brown fine sand to a depth of about 69 inches, and the subsoil is light gray fine sand that has thin, discontinuous strong brown loamy sand lamellae to a depth of about 80 inches. Typically, the surface layer of Apopka soil is dark grayish brown fine sand about 5 inches thick. The subsurface layer is very pale brown sand to a depth of about 69 inches, and the subsoil is reddish yellow sandy clay loam to a depth of about 80 inches.

The water table is seasonally high at a depth of 72 inches for the Apopka soils and at a depth greater than 80 inches in the Candler soil. Natural canopy vegetation is scattered sand pine, slash pine, longleaf pine, bluejack oak, Chapman oak, live oak and turkey oak. In addition, scattered loblolly pine is common for Apopka soil. The understory and ground cover includes grassleaf goldaster, eastern bracken, lopsided Indian grass, dwarf huckleberry, creeping bluestem, pineland threawn, and various weeds and grasses.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

Immokalee fine sand (20) – Immokalee fine sand soils are poorly drained, nearly level sandy soils found in broad flatwoods. Typically, the surface layer of this soil is black fine sand about 5 inches thick. The upper part of the subsurface layer is grayish brown fine sand to a depth of about 35 inches. The upper part of the subsoil is black fine sand to a depth of

about 41 inches, the middle part is dark brown fine sand to a depth of about 48 inches, and the lower part is brown fine sand to a depth of about 67 inches. The substratum is light brownish gray fine sand to a depth of about 80 inches.

The water table is within 10 inches of the surface for 1 to 3 months of the year and recedes to a depth of 10 to 40 inches for more than 6 months. The natural canopy vegetation is slash pine. The understory and ground cover is saw palmetto, running oak, inkberry, fetterbush, creeping bluestem, lopsided Indian grass, pineland threeawn, chalky bluestem, and wax myrtle.

This soil type occurs directly under and within 500 feet of the current placement of I-4.

Ona fine sand (26) – Ona fine sand soils are poorly drained, nearly level sandy soils found in broad areas on the flatwoods. Typically, this soil has a surface layer of black fine sand about 6 inches thick. The subsoil is dark reddish brown fine sand to a depth of about 15 inches. The upper part of the substratum is grayish brown fine sand to a depth of about 42 inches, the middle part is light gray fine sand to a depth of about 60 inches, and the lower part is very pale brown fine sand to a depth of 80 inches or more.

The water table is seasonally high at a depth no greater than 10 inches for 1 to 2 months a year. It recedes to a depth between 10 and 40 inches for periods of 6 months or more. Natural canopy vegetation consists of longleaf pine and slash pine. The understory and ground cover includes inkberry, running oak, saw palmetto, wax myrtle, fetterbush, pineland threeawn, bluestem, panicum, and other grasses.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

Ona-Urban land complex (27) – Ona-Urban land complex soils consists of Ona soil that is nearly level and poorly drained typically occurring in flatwoods but has been converted to urban land. Typically, the surface layer of Ona soil is black fine sand about 3 inches thick. The subsoil is dark reddish brown fine sand to a depth of about 16 inches. The upper part of the substratum is gray fine sand to a depth of about 31 inches, and the lower part is light gray fine sand to a depth of about 80 inches.

Drainage systems have been established in most areas with Ona-Urban land complex soils, but the seasonal high water table is within 10 inches of the surface for 1 to 2 months in un-drained areas.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

Pomello fine sand, 0 to 5 percent slopes (34) – Pomello fine sand soils are moderately well drained, nearly level to gently sloping soils found mainly in low ridges and knolls within flatwoods. The surface layer is gray fine sand about 3 inches thick. The subsurface layer is white fine sand to a depth of about 40 inches. The upper part of the subsoil is black fine sand to a depth of about 48 inches, and the lower part is dark reddish brown fine sand to a depth of about 55 inches. The substratum is pale brown fine sand to a depth of about 80 inches.

The water table is at a depth of 24 to 40 inches for 1 to 4 months a year, and recedes to 40 to 60 inches deep during dry periods. Longleaf pine, sand pine, and slash pine commonly comprise the canopy structure. The understory and ground cover includes creeping bluestem, lopsided Indian grass, running oak, saw palmetto, and pineland threeawn.

This soil type occurs directly under and within 500 feet of the current placement of I-4. It is the most prevalent soil type currently under I-4 besides Urban Land (50).

Pomello-Urban land complex, 0 to 5 percent slopes (35) – Pomello-Urban land complex soils consist of Pomello soil that is moderately well drained, nearly level to gently sloping found on low ridges and knolls within flatwoods but has been converted to urban land. The surface layer is typically dark gray fine sand to a depth of 5 inches. The subsurface layer is fine white sand to a depth of about 42 inches. The upper part of the subsoil is dark reddish brown fine sand to a depth of about 48 inches, and the lower part is dark brown fine sand to a depth of about 80 inches.

The water table is at a depth between 24 and 40 inches for 1 to 4 months and recedes to a depth between 40 and 60 inches during dry periods. The water table may be at a greater depth where drainage systems have been installed.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

St. Johns fine sand (37) – St. Johns fine sand soils are poorly drained, nearly level sandy soils found on broad flats within flatwoods. Typically, the upper part of the surface layer is black fine sand to a depth of about 7 inches, and the lower part is very dark gray fine sand to a depth of about 12 inches. The subsurface layer is gray fine sand to a depth of about 24 inches. The upper part of the subsoil is fine black sand to a depth of about 30 inches, the middle part is dark reddish brown fine sand to a depth of 36 inches, and the lower part is pale brown fine sand to a depth of about 44 inches. The upper part of the substratum is light gray fine sand to a depth of 58 inches, and the lower part is pale brown sand to a depth of about 80 inches.

The water table is within 10 inches of the surface for 6 to 12 months a year and between 10 and 40 inches deep for the rest of the year. During wet periods, the water table may rise to the surface for brief amounts of time. The natural canopy vegetation includes longleaf pine, slash pine, and laurel oak. The understory and ground cover is wax myrtle, inkberry, saw palmetto, pineland threeawn, bluestem, and various weeds and grasses.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

St. Lucie fine sand, 0 to 5 percent slopes (38) – St. Lucie fine sand soils are sandy excessively drained, deep, nearly level to gently sloping found in the uplands. Typically, the surface layer is gray fine sand about 2 inches thick. The upper part of the underlying material is light gray fine sand to a depth of about 6 inches, and the lower part is white fine sand to a depth of 80 inches or more.

The water table extends to a depth no shallower than 72 inches, however may recede deeper during dry periods. Sand pine, Chapman oak, scrub live oak, and sand live oak commonly dominate the canopy. The understory and ground cover is scattered saw palmetto, prickly pear cactus, gold-leaf goldaster, deer moss, bluestem, and pineland threeawn.

This soil type occurs directly under the current placement of I-4 at the southern end of the Segment.

Sanibel muck (42) – Sanibel muck soils are very poorly drained, nearly level soils occurring in depressions, freshwater swamps and marshes, and in poorly defined drainage ways. Typically, this soil has an organic surface layer of black muck about 11 inches thick with a layer of black fine sand below it to a depth of about 15 inches. The upper part of the underlying material is gray fine sand to a depth of about 28 inches, and the lower part is light gray fine sand to a depth of 80 inches or more and has brown mottles.

The water table is ponded at the surface for 6 to 9 months a year and no deeper than 10 inches below the surface for 2 to 6 months a year in un-drained areas. The organic material will rapidly lose thickness when soils are drained or during extended dry periods. The natural canopy is commonly mixed stands of bald cypress, red maple, sweet gum, and black

tupelo. The understory and ground cover includes cattail, St. Johns wort, pickerelweed, sawgrass, maidencane, ferns, sedges, and other water-tolerant grasses.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

Smyrna fine sand (44) – Smyrna fine sand soils are poorly drained, nearly level sandy soils found within broad flatwoods. Typically, the surface layer is black fine sand about 4 inches thick. The subsurface layer is gray fine sand to a depth of about 17 inches. The upper part of the substratum is pale brown fine sand to a depth of about 53 inches, and the lower part is light gray fine sand to a depth of 80 inches or more.

The water table is within 10 inches of the surface for 1 to 4 months a year and recedes to a depth of 10 to 40 inches for the rest of the year. Longleaf pine and slash pine dominate the canopy vegetation. The understory and ground cover includes lopsided Indian grass, inkberry, saw palmetto, pineland threeawn, wax myrtle, bluestem, panicum, and other grasses.

This soil type occurs directly under and within 500 feet of the current placement of I-4.

Tavares fine sand, 0 to 5 percent slopes (46) – Tavares fine sand soils are moderately well drained, nearly level to gently sloping soils found on low ridges and knolls in uplands. Typically, the surface layer is very dark gray fine sand about 6 inches thick. The upper part of the underlying material is brown fine sand to a depth of about 16 inches, the middle part is pale brown fine sand to a depth of about 41 inches, and the lower part is fine white sand to a depth of about 80 inches.

The water table is at a depth between 40 and 80 inches during the seasonally high period of 6 months or more. It recedes to a depth greater than 80 inches during extended dry periods. The natural canopy vegetation is water oak, laurel oak, live oak, turkey oak, slash pine, and longleaf pine. The understory and ground cover includes creeping bluestem, lopsided Indian grass, and pineland threeawn.

This soil type occurs within 500 feet of the current placement of I-4, but not directly under.

Urban land (50) – Urban land is a miscellaneous area covered by urban facilities including shopping centers, parking lots, industrial buildings, houses, streets, sidewalks, and airports. The natural soil cannot be observed and the depth to seasonal high water table is dependent on the functionality of established drainage systems.

The current placement of I-4 is within this category for almost the entire northern half of this Segment.

4.0 Methodology

FDOT PD&E guidelines (Chapter 22, January 17, 2008 revision) were followed to assess potential contamination. Per these guidelines, current land use and potential contaminants were identified, and all available regulatory agency records were consulted.

A detailed site inspection was conducted of the I-4 corridor and proposed pond sites in April, May, and June 2013, and February 2015. Prior to the site inspection, a review of the FDEP Oculus Database was conducted to determine locations of contaminated sites. Sanborn Fire Insurance maps, were not reviewed since the project area was rural in nature during the time that they were printed. The corridor was inspected along the ROW via vehicular survey. The survey also included a limited visual inspection of the adjacent properties and properties within ½ a mile of the roadway. Pond sites were

inspected via pedestrian transects. Any observed potential hazardous or petroleum sources were noted and can be found in the Results section (**Section 5.0**). A comprehensive list of potential contamination sites is provided in **Table 1**.

Known and potential contamination sites along the I-4 project corridor were recorded on aerial maps (see Contamination Sites Maps, **Figure C**, in **Appendix A**). Photographs of properties within the 1.0 mile radius with reported contamination as well as properties with potential contamination were taken to document site conditions within the study area (see Contamination Site Photographs, **Appendix B**).

Aerial photos from 1947-2012 were reviewed to identify any potential activities that may have shown that contamination from hazardous or petroleum substance generation, storage, or transportation may have occurred within the project area. Historic aerial photographs were reviewed using the State University System of Florida, Publication of Archival Library & Museum Materials website. Examples of the aerial flights over the project corridor from 1947–1994 can be found in **Appendix C**.

This CSER incorporates the FDEP’s Oculus Database information to locate available regulatory agency information pertaining to hazardous materials. The following files were searched for any sites with hazardous or petroleum material records and/or violations: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Toxic Site Directory (TSD), Generators (GEN), Emergency Response Notification System (ERNS), National Priority List (NPL), Resource Conservation and Recovery Information System (RCRIS), Facility Index System (FINDS), RCRA Administrative Action Tracking System (RAATS), Registered Underground Storage Tanks (UST), Leaking Registered Underground Storage Tanks (LUST), Toxic Release Inventory (TRI), State Superfund Sites, Solid Waste Facilities, and Orange County records.

A contamination potential rating for each potential pond site is listed in **Table 2** and that of each property within the proposed project limits is listed in **Table 3 (Section 8.0)**. The contamination rating system is divided into four degrees of risk: No, Low, Medium, and High. This system expresses the degree of concern for potential contamination problems. Known problems may not necessarily present a high cause for concern if the regulatory agencies are aware of the situation and actions, where necessary, are either complete or are underway, and these actions will not have an adverse impact on the proposed project. Definitions of the risk ratings are as follows:

- **No risk:** This rating means that after review of available information, there was nothing to indicate that contamination would be a problem. It is possible that contaminants could have been handled on the property; however, all information indicates problems should not be expected.
- **Low risk:** This rating means that the former or current operation has a hazardous waste generator identification number, or deals with hazardous materials; however, based on all the available information, there is no reason to believe there would be any involvement with contamination in relation to the project.
- **Medium risk:** This rating means that after reviewing all available information, indications were found that identify known soil and/or water contamination and that the problem does not need remediation, is being remediated, or that continued monitoring is required.
- **High risk:** This rating means that after review of all available information, there is a potential for contamination problems. Further assessment would be required after alignment selection to determine the actual presence or absence and/or levels of contamination and the need for remedial action.

During the course of field investigations and research, interviews with available property owners, site managers, and a representative of the FDEP were conducted to ascertain any additional relevant information to assist with the evaluation of potential risk ratings.

5.0 Results

5.1 Corridor Land Uses

Residential (1000-1300) – This range of land use codes consists of areas containing low, medium, and high density residential housing. These areas are found west of Turkey Lake Road, between SR 528 and Kirkman Road. The most densely populated areas are in the Toscana Development north of Sand Lake Road, and in the Sand Lake Town Homes and Sand Lake Residences near the Dr. P. Phillips Hospital.

Commercial and Services (1400) – This land use was observed throughout the project corridor along Turkey Lake Road, International Drive, Sand Lake Road, and Kirkman Road. It includes numerous types of businesses in strip malls and as stand-alone establishments throughout the corridor.

Retail Sales and Services (1410) – This land use was observed throughout the project corridor which consisted of office complexes, shopping centers, and other service/retail oriented businesses along the adjacent roadways. Big-box stores like Wal-Mart and Whole Foods are located on Turkey Lake Road, and numerous other stores and restaurants can be found along the corridor.

Professional Services (1430) – Medical offices, dental offices, banks, and other professional offices are located along Turkey Lake Road and Sand Lake Road in the project area.

Tourist Services (1450) – There are a number of hotels and resorts located along the corridor, especially along International Drive to the east of I-4. The Westgate Lakes Resort is located on Turkey Lake Road near the SR 528 interchange, and there are three resort hotels associated with Universal Studios Orlando on Kirkman Road.

Institutional (1700) – This land use consisted of the Orange County Convention Center located at the SR 528 / I-4 Interchange in the northeast quadrant. The convention center is a large sprawling complex, with numerous parking lots and limited natural habitat.

Medical and Health Care (1740) – The Dr. P. Phillips Hospital is located on the western side of Turkey Lake Road north of the SR 528 interchange. The hospital is set back off the road, and is composed of a number of buildings with multiple parking lots.

Community Recreational Facilities (1860) – The YMCA Aquatic and Family Center is located on the western side of International Drive south of Sand Lake Road and abuts I-4. The complex is enclosed by a roof and has several pools, though sections of the roof are open or removed.

Other Recreational (1890) – The Air Florida Helicopter facility is a tourist attraction offering helicopter rides over the local area and is located on the western side of International Drive, adjacent to I-4, south of Sand Lake Road. Helicopters are taking off and landing several times per hour every day of the week.

Inactive land (1920) – This land use consists of undeveloped open land. There are several hundred acres of inactive land on the Universal Studios property between Turkey Lake Road and I-4.

Herbaceous- Dry Prairie (3100) – This land use consists of open, dry treeless areas containing grasses, forbs, sedges, rushes and other herbaceous vegetation. This habitat was observed within the central median between Kirkman Road and Sand Lake Road, and at the SR 528 interchange.

Pine Flatwoods (4110) – This land use consists of natural pine flatwoods, and is located at the SR 528 interchange on the southeast side of I-4. Dominant vegetation in this community consists of slash pine and saw palmetto.

Sand Pine (4130) – This pine community grows on deep, infertile deposits of marine sands and clays. It consists of densely-stocked, pure, even-aged stands of sand pine, with no other canopy species. The sand pine found within the project corridor occurs at the interchange of I-4 eastbound with SR 528, along the right-of-way in the southeastern corner and within the center of interchange.

Upland Hardwood Forests (4200) – Vegetation within this land use consisted of oaks, pine, and other shrubs. This habitat was mostly observed on the west side of Turkey Lake Road south of Sand Lake Road.

Live Oak (4270) – The dominant vegetation within this land use consisted of live oaks and was observed along the western side of Turkey Lake Road near the residential and hospital areas.

Ditches (5130) – These man-made water retention and conveyance areas were observed along the right-of-way throughout most of the project area.

Reservoirs (5300) – This land use designates all retention ponds and other artificial impoundments used for irrigation and flood control along the project corridor and within residential developments.

Willow and Elderberry (6180) – This community has willow as the pure or predominant species and was observed between Turkey Lake Road and the on-ramp to SR 528 from westbound I-4.

Exotic Wetland Hardwoods (6190) – The category is a wetland with a dominant exotic species present. In the areas surrounding the Kirkman Road interchange, Brazilian Pepper wetlands were observed within the median and right-of-way.

Cypress (6210) – Dominate vegetation consisted of cypress and was observed at the northwest corner of the Orange County Convention Center, and rimming Big Sand Lake on the western side of Turkey Lake Road.

Roads and Highways (8140) – This land use designates all major and minor roads throughout the project corridor.

5.2 Site Observations

Detailed field reviews were conducted within the I-4 right-of-way and, the proposed pond sites to determine if illicit dumping had occurred. The existing and proposed pond sites were reviewed to determine if any adjacent properties had caused contamination impacts to those sites. Site reconnaissance of properties within and adjacent to the corridor up to ½ mile away were inspected and photographed.

The existing unpaved right-of-way within the project corridor consists primarily of areas of maintained grass. The median widens considerably between Sand Lake Road and Kirkman Road, and contains some patches of landscaped vegetation, as

well as smaller areas of natural vegetation. Some forested areas occur within the interchanges around Kirkman Road and SR 528, but these are not connected to systems outside of the right-of-way.

The project is developing alternatives for the proposed expansion, all of which will be assumed to impact the existing right-of-way in its entirety. In order to achieve the goals of the project (expansion to 6 general use lanes plus 4 express lanes), the designers must utilize as much of the existing right-of-way as possible, though the potential for the need to acquire minimal amounts of additional right-of-way for the improvements remains. New right-of-way for pond sites will be required as the existing right-of-way does not contain sufficient areas to provide the necessary treatment and retention, along with the capacity expansions. The project right-of-way is depicted on the Land Use and Habitat Coverage Map (see **Figure A**, in **Appendix A**).

Twenty (20) potential stormwater management facilities were evaluated for this segment, six (6) are existing facilities which were previously permitted and are being modified or enlarged to meet the requirements of the project. Eleven (11) new pond sites (Ponds 200B, 205C, 205D, and 206A are outside of the right-of-way; Ponds 201, 202A, 202B, 202C, 202D, 206, and 206B are within the existing right-of-way) are proposed. These ponds, along with three (3) alternative ponds (Ponds 200A, 205A, and 205B) are described in detail below. The proposed pond sites are depicted on the Land Use and Habitat Coverage Map (see **Figure A**, in **Appendix A**). A contamination potential rating for each pond site within the proposed project limits is given in the following descriptions and listed in **Table 2 (Section 8.0)** using the same system for ranking other contamination sites as described in the methodology in **Section 4.0**. Four future pond sites outside of the project limits at the Kirkman Road Interchange will be developed by others and are not included in this analysis.

Pond Site 200A

Pond Site 200A is located south of the SR 528 Interchange and west of Turkey Lake Road just south of the Post Office. This is an alternative pond site. This pond site is located on an abandoned development site, where some existing paved paths/roads were identified, and the vegetation had been recently mown. Vegetation observed included pasture grasses, prickly pear cactus, long leaf pine, and cabbage palm. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 200B (Recommended)

Pond Site 200B is located adjacent to Pond Site 200-A to the south along Turkey Lake Road. This is a recommended pond site. The terrain is sloping from south to north, with a depressional wetland in the northeast corner. The remainder of the site, which has been previously cleared, consists of scattered sand pine, saw palmetto, and a wide variety of opportunistic pioneer species. Soil composition in some areas, based upon field observations, appear to be drier fine sands, with prickly pear cactus occurring. These observations were further supported by Natural Resource Conservation Service (NRCS) mapped soil units. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 201

Pond Site 201 is located along the east side of Turkey Lake Road adjacent to the SR 528 flyover on-ramp to I-4 westbound. The pond is located at the bottom of the fill slope supporting the on-ramp at the SR 528 / I-4 interchange. The area is primarily wetland, with a mix of pines, red maple, bay, and Brazilian pepper as the dominant vegetation. The area becomes drier at the north and south ends, though a heavy cover of vines dominates the herbaceous vegetation. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 202A

Pond Site 202A is located within the SR 528 / I-4 interchange, between the eastbound SR 528 off-ramp from I-4 eastbound and the through lanes on I-4 eastbound. It is currently a densely covered upland consisting of longleaf pine, live oak, saw palmetto, scrub oak, and yaupon holly. The clear zones for the roadway are mown grasses, with drainage swales along the edges. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 202B

Pond Site 202B is located within the infield of the same interchange just to the east of Pond Site 202-A. It consists of mown grasses, with no other habitat types identified. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 202C

Pond Site 202C is an existing wet pond within the SR 528 / I-4 interchange that will be reconfigured to meet the needs of this project. This pond was already permitted. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 202D

Pond Site 202D is located within the SR 528 / I-4 interchange in the area below the existing ramp from SR 528 westbound to I-4 westbound. The site consists entirely of mowed grass which is bisected by the asphalt ramp. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 203A

Pond Site 203A is located within the interchange of SR 528 at International Drive, on the south side of SR 528 adjacent to the off ramp from SR 528 to International Drive. This pond site was permitted during the construction of this interchange and is being slightly reconfigured to meet the needs of this project. It is primarily a forested system, with a mixture of pines, palmetto, bays, and a thick edge of Brazilian Pepper. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 203B

Pond Site 203B is located within the same interchange as Pond 203-A, only slightly east between the off-ramp from SR 528 and the on-ramp to SR 528 from International Drive. This pond was permitted during the construction of the interchange and will be slightly reconfigured to meet the needs of this project. Much of the pond is covered in pine, with a heavy edge of Brazilian pepper surrounding the site. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 204A

Pond Site 204A is located within the interchange of SR 528 at International Drive, on the north side of SR 528 adjacent to the on-ramp to SR 528 westbound from International Drive. This pond was permitted during the construction of the interchange and will be slightly reconfigured to meet the needs of this project. The pond is primarily pines, though there is an area of open water in the southwestern corner of the site. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 204B

Pond Site 204B is located within the same interchange as Pond 204-A, only slightly east between the off-ramp from SR 528 westbound to International Drive and the on-ramp to SR 528 from International Drive. This pond was permitted during the construction of this interchange and will be slightly reconfigured to meet the needs of this project. The pond is a mixture of pine, saw palmetto, wax myrtle, and bays with a heavy edge of Brazilian pepper, especially on the south and western sides. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 205A

Pond Site 205A is located along the western side of Turkey Lake Road, north of the SR 528 interchange, in an undeveloped parcel near Boo Boo's Lake. This is an alternative pond site. The site is primarily composed of live oak, with some overgrown herbaceous species such as dog fennel and various pasture grasses making up most of the ground cover. This pond has been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB). In addition to this, discarded debris such as building materials and shingles were found in the vicinity of this pond site that could be a potential source of contamination, therefore, this pond site is rated as **MEDIUM RISK**. The potential contamination impacts associated with this pond site are described further in Section 6.4 (Site 37).

Pond Site 205B

Pond Site 205B is located northwest of Pond Site 205-A, on the north side of Boo Boo's Lake. This is an alternative pond site. The site is primarily composed of live oak, with a ground cover of pioneer species, such as dog fennel and ragweed, and numerous species of pasture grasses. Cogon grass was also present over a large area on the site. This pond has been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB). In addition to this, discarded debris such as building materials and shingles were found in the vicinity of this pond site that could be a potential source of contamination, therefore, this pond site is rated as **MEDIUM RISK**. The potential contamination impacts associated with this pond site are described further in Section 6.4 (Site 37).

Pond Site 205C (Recommended)

Pond Site 205C is located along the western side of Turkey Lake Road, north of the SR 528 interchange, in an undeveloped parcel near Boo Boo's Lake. This is a recommended pond site. The site is primarily composed of live oak, with some overgrown herbaceous species such as dog fennel and various pasture grasses making up most of the ground cover. This pond has been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB). In addition to this, discarded debris such as building materials and shingles were found in the vicinity of this pond site that could be a potential source of contamination, therefore, this pond site is rated as **MEDIUM RISK**. The potential contamination impacts associated with this pond site are described further in Section 6.4 (Site 37).

Pond Site 205D (Recommended)

Pond Site 205D is located to the west of I-4 and Turkey Lake Road, south of Wal-Mart Supercenter #4332 (Site 47). This is a recommended pond site. The site is primarily composed of live oak and laurel oak, with numerous Brazilian pepper and saw palmetto with some ear pod trees. A single-family house is located along Turkey Lake Road within the pond site. Several piles of discarded or abandoned materials, primarily metals and plastics, were observed in the vicinity of this residence. The remains of a wooden structure to the north of this building were observed in an area overgrown with vegetation. Several paint cans, an empty rusted 55-gallon drum, a small gas can, and numerous piles of discarded household materials were also observed at the site. This pond has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB). This pond site is rated **MEDIUM RISK** due to the

discarded materials, containers, vegetation which is indicative of past disturbances, structures present at the site, and it being within a known contamination plume for EDB.

Pond Site 206

Pond Site 206 is located at the interchange of I-4 and Sand Lake Road in the northwestern quadrant, adjacent to the on-ramp to I-4 westbound from Sand Lake Road, and the off-ramp from I-4 westbound to Sand Lake Road. This is an existing dry pond that was permitted during the design of this interchange, and will be converted to a wet pond for the purposes of this project. The site is primarily open grass, though a rim-ditch is found along the perimeter to convey run-off, and the area in the southeastern portion contains wetland vegetation such as Carolina willow, primrose willow, and Brazilian pepper. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 206A

Pond Site 206A is located to the southwest of the interchange of I-4 and Sand Lake. This is a proposed new pond site. The site is primarily open grass with some slash pine and cabbage palm along the northeastern portion of the site. Buried utilities are located at the site, but no obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 206B

Pond Site 206B is located at the interchange of I-4 and Sand Lake Road in the northwestern quadrant, partially overlapping the existing ramp from westbound I-4 to Sand Lake Road. This is a proposed new pond site. The site is primarily open grass which is bisected by paved asphalt. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 207

Pond Site 207 is an existing pond site located on the west side of the off-ramp from I-4 westbound to Sand Lake Road. The pond contains some natural vegetation along its edges such as primrose willow, Carolina willow, and cattail, as well as landscaped plantings including pine, bald cypress, maple, and live oak. This pond site is not being reconfigured for the project. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

Pond Site 208

Pond Site 208 is an existing pond site located west of I-4, between the off-ramp from I-4 westbound to Universal Studios, and the on-ramp from Universal to I-4. The pond site contains some natural vegetation along its edges such as cattail and arrowhead, and planted cypress ringing the entire edge of the pond. This pond site is not being reconfigured or altered for this project. No obvious signs of contamination were observed in the field for this site. Therefore, this pond site was given a **LOW RISK** rating.

5.3 Adjacent Properties

A total of one hundred twenty four (124) sites or properties within 0.50 miles of the current I-4 right-of-way were identified by searches in the FDEP contamination database or by field inspections. **Table 1** lists an assigned site number corresponding with the facility name and location. The sites are numbered on the Contamination Sites maps (see **Figure C**, in **Appendix A**) and pictured in their present condition (**Appendix B**) in order of south to north, west to east.

TABLE 1 – POTENTIAL CONTAMINATION SITES LISTING

Site #	Facility Name	Location
1	Marriot Cyprus Pines Golf Course Maintenance Facility	11206 Westwood Blvd.
2	Dr. Phillips Community Park, formerly Orange County Trap and Skeet Club	10625 Smith Bennett Rd.
3	7-Eleven Store #35277	6700 Central Florida Pkwy.
4	CVS Pharmacy #5400	6790 Central Florida Pkwy.
5	Hilton Garden Inn	6850 Westwood Blvd.
6	Renaissance Resort SeaWorld	6677 Sea Harbor Dr.
7	Places of Learning SeaWorld Orlando Marketing	6825 Academic Dr.
8	SeaWorld Parks and Entertainment Administration Office	6675 Westwood Blvd.
9	SeaWorld of Florida Inc., Florida Festival	6295 Sea Harbor Dr.
10	Newkirk Skoob LP, formerly Houghton Mifflin Harcourt	6277 Sea Harbor Dr.
11	Double Tree International, formerly Sheraton World Resort	10100 International Dr.
12	Cell Tower with Diesel Generator A	6109 Westwood Blvd.
13	Texaco Redimart	6177 Westwood Blvd.
14	Ciao Italia Restaurant	6149 Westwood Blvd.
15	Westwood Dry Clean Inc.	6145 Westwood Blvd.
16	FDOT Diesel Power Generator A	SR 528 at I-4
17	Groundwater Contamination Plume #48263254	See Site 17 Photo, Appendix B
18	Orange County Convention Center West Building	9800 International Dr.
19	Days Inn Civic Center	9990 International Dr.
20	7-Eleven Store #34881, formerly Exxon RAS #44417	6026 Canadian Ct.
21	Walgreens #12340, formerly Mobil #11220	9858 International Dr.
22	GT Specialists Spill Site	WB I-4 500' East of SR 528
23	Westgate Lakes Resort and Spa	10000 Turkey Lake Rd.
24	Peabody Orlando	9801 International Dr.
25	Nasir Alar MD	7328 Stone Rock Cr.
26	Sand Lake Cancer Center	7301 Stone Rock Cr.
27	OHPG Orlando Heart Center	7236 Stone Rock Cr.
28	S A Neurology LLC	7376 Stone Rock Cr.
29	Gowani Medical Associates MD	7224 Stone Rock Cr.
30	Multiple Doctors' Offices A	9430 Turkey Lake Rd.
31	Dr. P. Phillips Hospital	9400 Turkey Lake Rd.
32	Rosen Plaza Hotel	9700 International Dr.
33	Multiple Doctors' Offices B	7300 Sand Lake Commons Blvd.
34	Sand Lake Imaging, Quest Diagnostics	9350 Turkey Lake Rd.
35	Multiple Doctors' Offices C	7350 Sand Lake Commons Blvd.
36	Central Florida Investments Inc. Sand Lake	7450 Sand Lake Commons Blvd.

Site #	Facility Name	Location
37	Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, 205C	9278 and 9200 Turkey Lake Rd.
38	Ming Court, listed as Top Tree Service	9200 International Dr.
39	Pizza Hut	9100 International Dr.
40	Wonderworks	9067 International Dr.
41	Rosen Inn at Pointe Orlando	9000 International Dr.
42	FDOT Diesel Power Generator B	I-4 EB at Rosen Inn at Pointe Orlando
43	Air Florida Helicopter Inc.	8990 International Dr.
44	Former Debernardi Printing	7605 Pissaro Dr.
45	Embassy Suites	8978 International Dr.
46	Lakeside Medical	8723 International Dr.
47	Wal-Mart Supercenter #4332	8990 Turkey Lake Rd.
48	Sonesta ES Suites, formerly Summerfield Suites Hotel	8480 International Dr.
49	Former site of the Butcher Shop Steakhouse	8445 International Dr.
50	Radisson hotel	8444 International Dr.
51	YMCA	8422 International Dr.
52	Paris Nails and Spa	8956 Turkey Lake Rd.
53	Ramada Inn	8342 Jamaican Ct.
54	Former site of Dream Cars Unlimited Inc.	8229 International Dr.
55	Embassy Suites Hotel	8250 Jamaican Ct.
56	Image Nails	8081 Turkey Lake Rd #500
57	Comfort Inn	8134 International Dr.
58	Walgreens #3254	8050 International Dr.
59	Wyndham Orlando Resort	8001 International Dr.
60	Cell Tower with Diesel Fueled Generator B	7212 Sand Lake Rd.
61	Whole Foods Market Bay Hill	8003 Turkey Lake Rd.
62	Faesch Enterprises LLC	7380 Sand Lake Rd.
63	Vinod Arora CPA	7232 Sand Lake Rd.
64	Multiple Doctors' Offices D	7208 Sand Lake Rd.
65	Circle K #2708960	6942 Sand Lake Rd.
66	Checkers Restaurant, former Chevron #42157	6908 Sand Lake Rd.
67	International Bazaar Row Stores, former Haji A Inc.	8000 International Dr. #1
68	Orange County Utilities Dr. Phillips PS #3151	7379 Sand Lake Rd.
69	Offices at Rialto, formerly Days Inn	7335 Sand Lake Rd.
70	Chevron Sand Lake MCS PC #136	7331 Sand Lake Rd.
71	7-Eleven Food Store #29682	7329 Sand Lake Rd.
72	FDOT Right-of-way, former 7-Eleven Food Store #21315	7957 Turkey Creek Rd.
73	Circle K #2709741, former Texaco #24-025-0073	6941 Sand Lake Rd.

Site #	Facility Name	Location
74	Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941	6877 Sand Lake Rd.
75	Orlando Trade Center	6221 Sand Lake Rd.
76	Southeast Great Health Solution	7345 Sand Lake Rd.
77	Drury Inn Hotel	7301 Sand Lake Rd.
78	Rosen Medical Center	7656 International Dr.
79	Vacant Lot, former Fun'n Wheels Family Fun Park	6739 Sand Lake Rd.
80	Quality Inn International	7600 International Dr.
81	Former Rock on Ice!, W P Pallis Company	7500 Canada Ave.
82	Majestic Gift Shop	7663 International Dr.
83	Discount Club Cleaners	7645 Turkey Lake Rd.
84	Bay Hill First Nail	7627 Turkey Lake Rd.
85	Tire Kingdom #956	7601 Majorca Pl.
86	Gift Galley, formerly Gala Gifts	7535 International Dr.
87	K Mart #3478	7603 Turkey Lake Rd.
88	24 Hour Dentist Inc.	7259 International Dr.
89	Fantasy Nails	7235 International Dr.
90	Former USA Films Brasil Inc.	6536 Carrier Dr.
91	Taj Punjabi Indian Restaurant, former International Dry Cleaners	6524 Carrier Dr.
92	Loews Hotels at Universal Studios Escape	6800 Lakewood Plaza Dr.
93	Magical Midway, former Wonderworks	7001 International Dr.
94	Orlando City Lift Station #29	5998 Precision Dr.
95	World Café	6582 International Dr.
96	Wet 'n Wild, former Site of Power Concrete Products Company	5955 Precision Dr.
97	International Palms Resort	6515 International Dr.
98	Multiple Shops, formerly E Z Food Mart and Mr. Grocer	6400 International Dr.
99	Rosen Inn	6327 International Dr.
100	International Golf	6351 International Dr.
101	Wet 'N Wild	6200 International Dr.
102	Orlando Monumental Movieland Hotel	6233 International Dr.
103	Days Inn International	5858 International Dr.
104	Chevron International, former Shell	6932 S Kirkman Rd.
105	Walgreens #2839	6201 International Dr.
106	Alamo Rent A Car	5905 International Dr.
107	Office Depot #533	6855 Kirkman Rd.
108	Del Taco, formerly Exxon #40262	6855 Grand National Dr.
109	Hess #09328	5365 International Dr.
110	Orlando Utility Commission SW Water Plant	6755 Manlie Smith Rd.

Site #	Facility Name	Location
111	I-Fly	6805 Visitors Cr.
112	Universal Shops	6809 Visitors Cr.
113	Buffalo-Orlando 3 LLC Parcel	5910 American Way
114	Super 8 Motel	5900 American Way
115	Homewood Suites and Hilton Garden Inn, formerly Orlando Malibu Grand Prix	5901 American Way
116	Fun Spot Attraction Park	5551 Del Verde Way
117	Former International Station	5253 International Dr.
118	Irving Mechanical	6505 Adventure Way
119	Prime Outlets	5401 Oakridge Rd.
120	Hyatt Place Orlando	5895 Caravan Ct.
121	Double Tree by Hilton Universal	5780 Major Blvd.
122	In Charge Institute	5750 Major Blvd.
123	Former Delta Orlando Resort	5715 Major Blvd.
124	Major Plaza	5728 Major Blvd.

*NOTE: Information regarding these facilities was obtained from the FDEP files and available databases. This information and limited visible inspection of these facilities was used to determine the contamination ratings in Table 3 (Section 8.0).

5.4 Regulatory Agency Review

A records review was conducted for any known contamination sites via the FDEP OCULUS electronic database site. Using the FDEP Map DIRECT database and field verified business names and addresses, available information for each site was reviewed to determine the nature of hazardous material(s) involvement. Records were reviewed for materials manufactured, stored, generated, or transported on the site. Each identified site will be discussed in terms of whether contamination or violations have occurred on the site, the extent of contamination present in the soil and/or groundwater, groundwater direction, and clean-up status of any known contamination issues. Photographs of all potential contamination sites are provided in **Appendix B**. Site diagrams including direction of groundwater flow for medium risk sites are provided in **Appendix D**, where available.

Site 1 – Marriott Cypress Pines Golf Course Maintenance Facility (FLR000108118) – This site is located at 11206 Westwood Boulevard; it is listed as a non-handler. In March, 2004, an anonymous complaint from a guest at the hotel directly behind the facility reported that they had observed employees on several occasions rinsing tanks on trucks in the maintenance area resulting in blue water running down a hill and into a swale. An inspection of the site revealed that various pesticide and herbicide liquids had been being discharged into the storm drain, which appeared to drain to a small retention area, which outfalls to the other side of the fence north of the property. These chemicals are not considered hazardous waste so the site was referred to the waste cleanup program. There are no documents available that detail the cleanup or content of the discharges. This site is rated **LOW RISK** due to there being no other complaints or records regarding contamination associated with this facility.

Site 2 – Dr. Phillips Community Park, formerly Orange County Trap & Skeet Club (FLR000097584) – This relatively new park, listed as a non-handler, is located at 10625 Smith Bennett Road. It sits on the former site of a shooting range that was in operation from 1977 to 1996. Heavy metal contamination was present at the site, primarily in the form of lead shot. Approximately 200,000 lbs. and 246,000 lbs. of shot were recovered in 1992 and 1997, respectively, but it is estimated that

200,000 to 300,000 lbs. of shot remain at the site, primarily in Big Sand Lake. The site was listed for a short time as a large quantity generator in 2003 when a Remedial Action Plan was accepted by the FDEP. Orange County met the terms of an Agreed Authorization for Remediation that established acceptable alternative cleanup target levels, and filled the contaminated portion of soil at the site with clean soil to a depth of two feet. This area where contamination still exists under the fill is known as Grid 128 and is at the present site of the shade pavilion at the park. Due to the continued presence of contaminated soils, there should not be any dewatering or pond building activities at that site without additional measures being taken. However, the presence of that contamination should not impact excavation or construction activities outside the boundary of the contaminated soils, according to the reports consulted. While this site still has some heavy metal contamination in the soils around Grid 128, the extent to which Big Sand Lake has been impacted is unknown. The area of Big Sand Lake that contains the shot, known as the south lobe, is approximately 0.60 miles southwest of the right-of-way, and the shade pavilion area is approximately 0.77 miles southwest of the right-of-way. Despite the continued presence of heavy metal contamination, the distance from the right-of-way gives this site a **LOW RISK** rating.

Site 3 – 7-Eleven Store #35277 (48/9812949) – This UST site is located at 6700 Central Florida Parkway. Two 20K gallon tanks were installed in November, 2011 and are currently in compliance as of December, 2011. No obvious signs of contamination were observed at the site. This site is rated as **LOW RISK** due to it being in compliance, has no records of contamination, and is a fairly new facility.

Site 4 – CVS Pharmacy #5400 (FLR000191544) – This site is located at 6790 Central Florida Parkway. It is listed as a small quantity generator because of the type of pharmaceuticals it distributes. This site is rated **LOW RISK** due to there being no records of contamination associated with this site and the industry in which it is involved.

Site 5 – Hilton Garden Inn (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6850 Westwood Boulevard. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 6 – Renaissance Resort SeaWorld (48/9100915) – This former LUST and current AST site is located at 6677 Sea Harbor Drive. The site has always had an AST for an emergency diesel generator, but the UST was eventually replaced with an additional AST. In June, 2003, a containment vault was installed around the suction port to the 550 gallon UST and modifications were made to the fuel lines. During excavation, petroleum sheen was observed on rain water that had collected in the trench that was dug to make modifications to the tank. Soil and water samples were taken and analyzed. Contamination was present but below acceptable levels for both. Contamination levels were measured with a monitoring well at the UST, but contamination levels never reached a higher level. A Limited Groundwater Assessment Report was accepted in May, 2004, releasing the site from further obligation to remediate the spill. The site was in compliance as of May, 2006. In June, 2008, the UST was closed in-place and replaced with an AST in the same area as the emergency generator. The site has been out of compliance several times for not having insurance for the tank but is in compliance as of August, 2012. Despite a history of several noncompliance issues and a minimal spill, this site is rated **LOW RISK** due to it currently being in compliance and its distance (0.27 miles east) from the right-of-way.

Site 7 – Places of Learning SeaWorld Orlando Marketing (48/9046692) – This AST site is located at 6825 Academic Drive. The site currently has a very small AST located at the south side of the building, but there may still be an 850 gallon diesel UST located on the property. A UST was installed at the site by a previous owner in 1974. The tank was discovered and registered in December, 1990, when SeaWorld bought the property. There are no available records of the tank ever being

closed, removed, or monitored. During the site visit, the AST seemed to be in good condition with no obvious signs of contamination, but a UST port could not be found. It is unlikely that the current use of the facility (offices) would require a large fuel tank, and the adjacent property, an Orange County Sheriff's Department station, did not show any signs of a UST being present. Due to the age of the tank and there being no records of the tank being inspected, removed, or closed and the site's proximity (0.02 miles east) to the right-of-way, this site has the potential to be contaminated and is rated **MEDIUM RISK**.

Site 8 – SeaWorld Parks and Entertainment Administration Office (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6675 Westwood Boulevard. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 9 – SeaWorld of Florida Inc., Florida Festival (FLR000149609) – This site, listed as a small quantity generator, is located at 6295 Sea Harbor Drive. Despite minor noncompliance incidents in the past regarding failure to correctly label containers, no contamination incidents have been reported. This facility is rated as **LOW RISK** due to it being currently in full compliance and the distance from the right-of-way (0.42 miles southeast).

Site 10 – Newkirk Skoob LP, formerly Houghton Mifflin Harcourt (48/8627980) – This AST site and former LUST site is located at 6277 Sea Harbor Drive. In May, 2006, the site was out of compliance as a result of the UST not being equipped with overfill protection and having expired insurance. A limited subsurface investigation was performed and found that contamination was present in the soil but was limited to the immediate vicinity of the fill port and UST and had not impacted groundwater. A Remedial Action Plan was accepted and the site was treated using direct injection techniques. The site was cleaned to acceptable levels and was in compliance as of March, 2008, when the UST was filled with inert foam and closed in-place. The site was released from further obligation to remediate the spill in May, 2010. The current AST was installed in April, 2008 but was out of compliance in July, 2012 and still is as of July, 2013 for having out of date insurance. During the site visit the tank looked to be in good condition with no obvious signs of contamination, but there are no containment walls present should there be a discharge. Despite currently being out of compliance, the site has been cleaned up to acceptable levels and is far (0.47 miles southeast) from the right-of-way, therefore, the site is rated **LOW RISK**.

Site 11 – Double Tree International, formerly Sheraton World Resort (FLD984242701) – This site is located at 10100 International Drive. It is listed as a conditionally exempt small quantity generator, but there are no records of contamination associated with this site. This site is rated **LOW RISK** due to there being no records of contamination and its distance (0.32 miles southeast) of the right-of-way.

Site 12 – Cell Tower with Diesel Generator A (no FDEP #s found) – No records were found for this site located at 6109 Westwood Boulevard. The generator with a small AST is located behind several shops and close to the Texaco Redimart (Site 13). The generator appears to be in good condition with no noticeable stains. This site is rated as **LOW RISK** due to there being no records or visible signs of contamination.

Site 13 – Texaco Redimart (48/9102998, 29496696) – This UST and former LUST site is located at 6177 Westwood Boulevard. Three USTs were installed at the site in January, 1987. There are no records of a specific discharge, but in September, 1992, groundwater monitoring at the site detected that a discharge had occurred sometime in the past. The levels of contamination were below acceptable levels and the site received a very low Priority Ranking Score of 7. The spill was attributed to suspected historical overfill and the site was granted a no cleanup required status for the discharge.

In May, 2005, another discharge was detected during a site inspection. A small crack in the UST spill bucket was observed and contamination from that crack was reported. A very limited unspecified amount of source removal was conducted at the site immediately after the discharge was reported. Soil samples were collected and revealed contamination, but the source of the contamination in the samples could not conclusively be attributed to either the current discharge or the 1992 discharge, which was granted no cleanup required status despite the site being contaminated. Therefore, the 2005 discharge was granted no cleanup required as well. The site was in compliance as of November, 2006, shortly before the three USTs were closed, removed, and replaced with a 20,000 gallon compartmentalized tank. The Source Removal Report indicated that 428 tons of impacted soil was removed and 300,000 gallons of groundwater was treated. In January, 2008, the site received a Priority Ranking Score of 60 due to petroleum contamination still being present in the wells and two potable wells being in the survey perimeter. The groundwater at the site was monitored from July to September, 2008, which revealed that contamination levels were rising. The probable cause for this increase was attributed to anaerobic conditions in the soil, making the decomposition of petroleum take longer than usual. A Limited Scope Remediation Plan was accepted in July, 2011. A combination of the additional source removal of 40 tons of impacted soil was conducted using a vacuum truck and hand tools along with the installation of biosparge wells and equipment for increasing dissolved oxygen levels in the soil around the site. Records indicate that biosparging has been successful in raising dissolved oxygen in the soils and allowing the decomposition of petroleum to accelerate. The biosparge equipment has been used for several periods and then monitored since it was installed and is still present at the site. This site is not considered clean and the extent of the contamination remaining at the site, although improving, is still unclear. This site is close (0.07 miles south) to SR-528 but is relatively far (0.32 miles southeast) from the I-4 right-of-way. This site should be considered **MEDIUM RISK** if construction activity or dewatering occurs for ramp improvements as part of the SR-528/International Drive interchange. If ramp improvements are not performed, the site should be rated **LOW RISK** due to the distance from the I-4 right-of-way. Therefore, this site is being rated as **LOW/MEDIUM RISK**.

Site 14 – Ciao Italia Restaurant (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6149 Westwood Boulevard. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 15 – Westwood Dry Clean Inc. (FLD982148629, 48/9500191, 29571250) – This site is located at 6145 Westwood Boulevard. It has been registered as a small quantity generator since 1989. The facility uses petroleum solvents but no records of contamination have been documented. This site is rated **LOW RISK** due to its distance (0.33 miles southeast) from the right-of-way and having no records of contamination.

Site 16 – FDOT Diesel Power Generator A (no FDEP #s found) – No records were found for this site. The generator with a small AST is located within the I-4/SR-528 interchange median on the east side where SR-528 splits. The generator appears to be in good condition with no noticeable stains. This site is rated as **LOW RISK** due to there being no record of contamination but is located within the current right-of-way.

Site 17 – Groundwater Contamination Plume #48263254 – The contaminant associated with this plume is the agricultural pesticide ethylene dibromide (EDB), which is usually associated with citrus growing. According to FDEP Map Direct, the contamination plume is under approximately 0.72 miles of the current right-of-way from the approximate vicinity of Dr. P. Phillips Hospital to Wal-Mart Supercenter #4332 and in the surrounding area (see Site 17 photo in **Appendix B** for location). FDOT Pond Sites 205A, 205B, 205C (Site 37) and 205D are the only potential pond sites within the identified contamination plume. There are fifteen additional contamination sites located within this plume that are given individual

ratings. This plume is rated **MEDIUM RISK** due to the potential for contamination to be present. Further investigation, including soil and groundwater tests, should be conducted within the right-of-way, at Pond Sites 205A, 205B, 205C (Site 37), and 205D, and wherever demolition or dewatering activities will occur within the EDB contamination plume.

Site 18 – Orange County Convention Center West Building (FLD132980335, 48/9101508) – This former LUST and current AST facility is also listed as a small quantity generator as well as an inactive solid waste disaster debris staging area. The facility is located at 9800 International Drive. An unknown amount of contamination was documented in October, 1998 resulting in the closure of three USTs and the installation of monitoring wells. In November, 2004 the site was approved for No Further Action status. The AST associated with an emergency generator was found to be out of compliance as some product had leaked into the secondary containment in April, 2009, but it is unlikely that any discharge to the soil occurred as a result of this incident. The AST was closed and replaced in October, 2011 and the facility is in compliance as of May, 2012. There are no records of any violations or contamination regarding hazardous or solid waste for this facility. This facility is rated as **LOW RISK** because of past cleanup activities, and having no current reported contamination.

Site 19 – Days Inn Civic Center (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 9990 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 20 – 7-Eleven Store #34881, formerly Exxon RAS #44417 (FLR000054916, 48/9801643) – This UST site was also listed as a conditionally exempt small quantity generator when it was an Exxon Station. It is located at 6026 Canadian Court. Three 12,000 gallon USTs were installed in July, 1998. The site was out of compliance in May, 2006 for having petroleum contacted water present in spill buckets. There was no discharge reported and the site was in compliance up until August 1st, 2013 when a city water line broke and the tank bed at the site flooded. The incident was initially recorded as a discharge, but after water was cleaned out of the system there was no evidence to confirm a discharge. This site is rated **LOW RISK** due to there being no record of contamination present at the site and its distance (0.49 miles northeast) from the right-of-way.

Site 21 – Walgreens #12340, formerly Mobil #11220 (FLD984203992, 48/8521731, 29499002) – This former LUST site is located at 9858 International Drive. Four gasoline tanks, one vehicular diesel tank and a used oil tank were installed at the site in November, 1984. In December, 1988, a discharge was reported due to the detection of petroleum odor in the site's wells. The site was eligible for cleanup as a result of this discharge but there are no documents showing that any action was taken to clean the site at the time. Another two discharges were reported in April, 1991 but were for the same issue regarding petroleum odor in the wells. These two discharges were given no cleanup required status because the site was still awaiting cleanup. In February, 1992, a Remedial Action Plan was approved and soil and groundwater remediation systems were installed at the site. Actuated carbon treatment was used to treat the groundwater and the vadose zone of the soil. In August, 2005, elevated levels of petroleum were detected in the groundwater and another discharge was reported. Source removal was conducted in June, 2007 when the USTs and their components were closed and removed. A total of 1,832 tons of soil was removed as part of this activity, but contamination is still present at the site. The site became a Walgreens in September, 2009 and has a Site Priority Ranking of 31. Despite this site still having contamination present, it is rated as **LOW RISK** due to its distance (0.38 miles northeast) from the right-of-way.

Site 22 – GT Specialists Spill Site (48/9806206) – This was the site of an emergency response spill cleanup as the result of a trucking accident located within the I-4 right-of-way, westbound, approximately 500 feet east of the ramp to SR-528. In

March, 2003, the truck accident resulted in a discharge of about 30 gallons of crank case oil and diesel fuel. The spill was reported by the on-site cleanup crew and did not require further assistance, nor was there any reported discharge to a waterway. A No Further Action Proposal (NFAP) was accepted September, 2004. This site is rated as **LOW RISK** due to the regulatory status given to the site, the relatively low volume of product discharged, and the timeliness of contamination source removal.

Site 23 – Westgate Lakes Resort and Spa (no FDEP #s found) – No records were found for this site located at 10000 Turkey Lake road but it is on Orange County’s list of small quantity generators but is not a generator of hazardous waste. During a site visit, two unleaded gasoline and one diesel AST were located on the north side of the property. They are used for fueling vehicles and not associated with any emergency generators. They appeared to be in very good condition and had concrete containment walls in place. The maintenance building area uses and stores many different cleaning products and solvents, as well as paints. This site is rated **LOW RISK** due to there being no records or visual signs of contamination associated with this site.

Site 24 – Peabody Orlando (FLD982156143, 48/9202658, 29432255) – This LAST site has two ASTs for emergency generators; it is also listed as a small quantity generator. It is located at 9801 International Drive. An unknown amount of diesel fuel was discharged to the soil from overfill of a tank in February, 2011. Soil in the immediate vicinity was removed promptly, but upon further excavation contamination was found at depths greater than four feet. A Remedial Action Plan was still being modified as of July, 2013 and further cleanup is likely necessary. No other records of hazardous waste or contamination were reported. Due to the distance from the right-of-way (0.36 miles east) and actions being taken to clean up the contamination, this site is rated **LOW RISK**.

Site 25 – Nasir Alar, MD (no FDEP #s found) – This site is listed as a Small Quantity Generator by Orange County but is not a generator of hazardous waste. It is located at 7328 Stone Rock Circle. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 26 – Sand Lake Cancer Center (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7301 Stone Rock Circle. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 27 – OHPG Orlando Heart Center (FLR000196501) – This site is located at 7236 Stone Rock Circle. It is listed as a conditionally exempt small quantity generator because of the type of pharmaceuticals it uses. This site is rated **LOW RISK** due to there being no records of contamination associated with this site and the industry in which it is involved.

Site 28 – S A Neurology, LLC (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7376 Stone Rock Circle. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 29 – Gowani Medical Associates, MD (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7224 Stone Rock Circle. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 30 – Multiple Doctors’ Offices A (no FDEP #s found) – These facilities are listed as small quantity generators by Orange County but they are not generators of hazardous waste. They are located at 9430 Turkey Lake Road and include Orlando Urology Associates, Dr. Phillips Ancillary Services, Central Florida Gastroenterology, Central Florida Arthritis & Osteoporosis Center, Ignacio Salzman MD PA, Dr. Phillips Hospital Clinical Nutrition, Sunil M Kakkar MD, Syed Ahmed, Baker Heard & Osteen MD PA, Surgical Group of Orlando, Fernando Hernandez, and the MD Anderson Cancer Center at Dr. Phillips Hospital. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 31 – Dr. P. Phillips Hospital (FLR000176305, 48/9101769) – This UST site is also listed as a small quantity generator. It is located at 9400 Turkey Lake Road. Three diesel UST tanks totaling 50,000 gallons were installed in March, 2007 for emergency generators. Minor violations regarding pollution liability insurance expiration were reported but the facility is in compliance as of October, 2011. Lead lined walls are likely used in the x-ray rooms, but there is no reason that these would present any issue for the project because there have been no reports of contamination discharges or hazardous materials violations reported. Due to the distance from the right-of-way and no reports of contamination discharge, this site is rated **LOW RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 32 – Rosen Plaza Hotel (no FDEP #s found) – No records were found for this site located at 9700 International Drive. This site has an emergency diesel generator with a small (40 gallon) AST. No visible staining was observed around the generator and it appeared to be in good condition. Due to its proximity to the current right-of-way and no reports of any contamination discharge, this site is rated as **LOW RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 33 – Multiple Doctors’ Offices B (no FDEP #s found) – These facilities are listed as small quantity generators by Orange County but they are not generators of hazardous waste. They are located at 7300 Sand Lake Commons Boulevard and include Florida Psychiatric, Glen A Pfaff MD, Michael J Tortorella MD PA, Moon Family Practice, Physician Associates of Florida PA, Jewett Orthopedic Clinic PA, James A Matas MD, John L Meisenheimer MD PA, and the Diabetes and Endocrine Center of Florida. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 34 – Sand Lake Imaging, Quest Diagnostics (no FDEP #s found) – No records were found for this site. This facility is located at 9350 Turkey Lake Road and includes a Quest Diagnostics in the same building. This site may generate hazardous waste as a medical facility and have lead lined walls in an x-ray room, but there is no record of any contamination associated with the site. No obvious signs of contamination were observed. This facility is rated **NO RISK** due to no records of contamination or use of petroleum. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 35 – Multiple Doctors’ Offices C (no FDEP #s found) – These facilities are listed as small quantity generators by Orange County but they are not generators of hazardous waste. They are located at 7350 Sand Lake Commons Boulevard and

include Kendrick A Spence MD PA, former Orofacial & Dental Implant, Orlando Orthopedic Center, Florida Spine Sports & Rehabilitation Inc., Southwest Orlando Family MED, and Metplex Dental. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 36 – Central Florida Investments Inc. Sand Lake (48/9046035) – This site is located at 7450 Sandlake Commons Boulevard. An emergency diesel generator with a small AST is located on site but does not have any record of contamination. This site is rated as **LOW RISK** due to the distance (0.42 miles west) from the right-of-way and lack of any reported or observed contamination. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 37 – Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, and 205C (no FDEP #s found) – This site has been proposed for the future site of FDOT ponds 205A, 205B, and 205C. They are located at 9278 and 9200 Turkey Lake Road. Boo Boo Lake is located on the property and surrounded by overgrown vegetation that used to be the site of a campground. There are no records of contamination associated with this site, but several areas of concern were identified during a site visit. There are several piles and scattered clusters of discarded roofing tiles throughout the site, a demolished building that was left in a pile, and discarded trash debris and old tires. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB). This site is rated **MEDIUM RISK** due to the potential for discarded materials to contain asbestos or lead based paint and the site being within a contamination plume with plans to build ponds on the site. Tests for asbestos containing materials and lead based paint should be performed in addition to soil and groundwater testing for EDB before proceeding with construction.

Site 38 – Ming Court, listed as Top Tree Service (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 9200 International Drive. The site is currently a Chinese food restaurant and there is nothing to indicate it is or ever was a tree service. The site is probably not listed correctly in the FDEP database and no reports were found. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 39 – Pizza Hut (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 9100 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 40 – Wonderworks (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 9067 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene

dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 41 – Rosen Inn at Pointe Orlando (no FDEP #s found) – No records were found for this site located at 9000 International Drive. Two diesel emergency generators with small ASTs and one natural gas emergency generator are located at this facility. The natural gas generator is inside a maintenance building on the north side of the property. One diesel generator is located on ground level between buildings C and D, and the largest diesel generator is on top of building F, a ten story building. No records of contamination discharges have been reported and no obvious signs of stained soils were observed. Therefore, this site is rated **LOW RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 42 – FDOT Diesel Power Generator B (no FDEP #s found) – No records were found for this site. The generator with a small AST is located within the current I-4 right-of-way, just west of the Rosen Inn at Pointe Orlando (Site 41). The generator appears to be in good condition and there are no noticeable stains. This site is rated as **LOW RISK** due to there being no record of petroleum contamination. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), any demolition or dewatering activities within the right-of-way will require soil and groundwater testing before proceeding with construction.

Site 43 – Air Florida Helicopter Inc. (no FDEP #s found) – No records were found for this site located at 8990 International Drive. This facility uses temporary mobile fuel storage tanks instead of having permanent storage tanks. No obvious staining or signs of contamination were observed at the site. This site is rated **LOW RISK** due to there being no records of a contamination discharge or signs of contamination. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 44 – Former Debernardi Printing (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7605 Pissaro Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 45 – Embassy Suites (no FDEP #s found) – No records were found for this site located at 8978 International Drive. This facility has an emergency diesel generator with a small AST located at the southwest corner of the building. The generator appears to be rusting, but stains in the vicinity appear to be coming from the trash compactor and not the AST. Hydraulic oil drums were being stored outside, close to the trash compactor and generator but seemed to be in good condition and not leaking. This site is rated **LOW RISK** due to there not being any reported contamination discharges. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 46 – Lakeside Medical (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 8723 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 47 – Wal-Mart Supercenter #4332 (FLR000138677, 48/9809167) – This site is located at 8990 Turkey Lake Road and includes Da-Vi Nails within the store. This facility has an 800 gallon used oil AST and is also listed as a small quantity generator. The AST was installed in May, 2007 and had a minor, non-spill related violation. This facility is in compliance as of May, 2012. There are no contamination discharges or reports of hazardous waste at this facility, including Da-Vi Nails. This site is rated **LOW RISK** due to the facility being in compliance and no records of contamination. This site has also been identified as being within Groundwater Contamination Plume #48263254 (Site 17) for ethylene dibromide (EDB), but this should have no impact on the project unless the site is purchased for the right-of-way in the future.

Site 48 – Sonesta ES Suites, formerly Summerfield Suites Hotel (FLR000011213) – This site is located at 8480 International Drive. It is listed as a small quantity generator, but only has one reported incident in October, 1995. The incident was the result of an anonymous complaint regarding forty to fifty discarded fluorescent light bulbs being left in the site's dumpster for a month and had been an ongoing problem. The problem was addressed in November, 1995 when the hotel began recycling the bulbs. It is unknown how much, if any, mercury was released as a result of this improper disposal. No other reports documenting contamination were found in association with this site and no fluorescent light bulbs were observed in the dumpster during a site visit, thus giving this site a **LOW RISK** rating.

Site 49 – Former Site of the Butcher Shop Steakhouse (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It was located at 8445 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 50 – Radisson Hotel (no FDEP #s found) – No records were found for this site located at 8444 International Drive. The facility shares a large liquid propane gas generator with the YMCA facility (Site 51). The generator is located inside a maintenance room, accessible from the west side of the building, adjoining the YMCA. Lack of any records regarding contamination discharges and no obvious stains at the site give this site a **LOW RISK** rating.

Site 51 – YMCA (no FDEP #s found) – No records were found for this site located at 8422 International Drive. The facility shares a large liquid propane gas generator with the Radisson Hotel facility (Site 50). The generator is located inside a maintenance room, accessible from the east side of the building, adjoining the Radisson Hotel. This site also uses pool chemicals including chlorine, but there have been no reports of any spills or violations. Lack of any records regarding contamination discharges and no obvious stains at the site give this site a **LOW RISK** rating.

Site 52 – Paris Nails and Spa (no FDEP #s found) – No records were found for this retail nail salon located at 8956 Turkey Lake Road. This facility is rated as **LOW RISK** due to the lack of any documented records or observed signs of contamination.

Site 53 – Ramada Inn (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 8342 Jamaican Court. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 54 – Former site of Dream Cars Unlimited Inc. (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It was located at 8229 International Drive as part of the Wyndham Orlando Resort Complex. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 55 – Embassy Suites Hotels (48/9700998) – This former UST site is located at 8250 Jamaican Court. The UST was closed in-place without monitoring in June, 1999 with tests confirming no “excessively contaminated soil” was detected in the vicinity of the storage tank. A No Further Action Proposal was accepted for the site in February, 2000. However, there are no records of a 130 gallon AST which is currently present at the site. No known discharges have occurred at the site and there were no obvious signs of contamination in the vicinity of the AST, giving this site a rating of **LOW RISK**.

Site 56 – Image Nails (no FDEP #s found) – No records were found for this retail nail salon facility located at 8081 Turkey Lake Road #500. This facility is rated as **LOW RISK** due to the lack of any documented records or observed signs of contamination.

Site 57 – Comfort Inn (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 8134 International Drive. The facility uses a small gas-powered portable generator for emergencies, but no signs of contamination were observed during a site visit. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 58 – Walgreens #3254 (no FDEP #s found) – This site is located at 8050 International Drive. It is listed as a conditionally exempt small quantity generator by Orange County because of the type of pharmaceuticals it distributes. This site is rated **LOW RISK** due to there being no records of contamination associated with this site and the industry in which it is involved.

Site 59 – Wyndham Orlando Resort (FLD084729482, 48/8737273) – No records were found for this former UST and current AST site located at 8001 International Drive which is also listed as a small quantity generator. In March, 1999 a UST tank and piping was removed from the site and replaced with a 500 gallon AST. At the time of removal there was no evidence of tears or holes associated with the tank. Due to there being no incidences of reported contamination for this site it is rated **LOW RISK**.

Site 60 – Cell Tower with Diesel Generator B (no FDEP #s found) – No records were found for this site located at 7212 Sand Lake Road. The generator and its small AST appear to be in good condition with no noticeable stains. This site is rated as **LOW RISK** due to there being no records or visible signs of contamination.

Site 61 – Whole Foods Market Bay Hill (48/9810262) – This site is located at 8003 Turkey Lake Road and has an emergency diesel generator with an associated AST. The site was out of compliance in July, 2008 for not monitoring the secondary containment of the tank. However, no contamination discharge was recorded and the site is in compliance as of May, 2012. This site is rated **LOW RISK** due to it being in compliance and appears to be in good condition without any incidences of contamination.

Site 62 – Faesch Enterprises LLC (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7380 Sand Lake Road. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 63 – Vinod Arora CPA (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7232 Sand Lake Road. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 64 – Multiple Doctors’ Offices D (no FDEP #s found) – The facilities at this site are listed as small quantity generators by Orange County but they are not generators of hazardous waste. They are located at 7208 Sand Lake Road and include

Drew Medical Inc. and Karl O Rayan DDS After Hours. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 65 – Circle K #2708960 (FLD000604827, 48/8513378, 29440814) – This former Shell Gas Station and current BP Gas Station LUST site is located at 6942 Sand Lake Road. In January, 1995 a compliance inspection reported a petroleum odor in a monitoring well at the Shell station but no records show any action was taken to clean up the site at the time. BP acquired the site in September, 2003 and discovered contamination at the site that Shell was responsible for. The site was monitored, resulting in the site being deemed in compliance as of December, 2007. In February, 2010 an unknown amount of unleaded gasoline was discovered to have discharged into the soil as a result of a failed fill port spill containment bucket. The problem was fixed and the site was deemed No Further Action as of August, 2011 but contamination was still present at the site. Work was recently completed (June, 2013) to remove and replace dispensers without replacing the tanks and the site was in compliance as of July, 2013 but there was nothing to indicate any source removal activities had occurred and the site is currently awaiting cleanup but has a low (10) Priority Ranking score. A Site Assessment Report (2011) indicated that groundwater flow was in a south southeasterly direction (see **Appendix D**). Despite this site receiving a No Further Action order and being in compliance, the site is ranked as **MEDIUM RISK** due to a history of spills at the site, its proximity to the right-of-way (0.07 miles east) and other contamination sites, and it is currently awaiting cleanup.

Site 66 – Checkers Restaurant, former Chevron #42157 (FLD984209080, 48/8512747, 29440736) – This LUST site is located at 6908 Sand Lake Road. On August 9th, 1988, petroleum odor was reported from an unknown discharge and in January, 1992, evidence of petroleum was recorded in a monitoring well. Approximately 9.8 cubic yards of diesel fuel contaminated soil was removed in May, 1992 but the four UST tanks were not replaced. Deeper contamination was found at the site after adding additional monitoring wells in December, 1993. A monitoring plan was implemented to test contamination concentration at the site but monitoring wells still exceeded acceptable contamination levels as of 3/1996. There is no record of additional cleanup measures at the site from then to the present and no mention of tank closures. According to the Chevron #42157 Monitoring Only Plan Report of First Quarter Field Activities and Groundwater Quality (1994), the groundwater at the site is flowing in a southeasterly direction (see **Appendix D**). The site is located east of another contamination site, Circle K #2708960 (Site 65), where a Site Assessment Report (2011) also reported groundwater to be flowing in a southeasterly direction from the site, potentially contributing to higher contamination levels recorded at this site. Checkers Restaurant acquired the parcel in December, 2003 and is still in business. As of May, 2012 the site is still awaiting state-funded cleanup with a Priority Ranking Score of 30. This site is rated **MEDIUM RISK** due to it still awaiting cleanup, its proximity to other former contamination sites, and lack of a detailed record of the amount of contamination discharged.

Site 67 – International Bazaar Row Stores, former Haji A Inc. (48/9500218) – This site is located at 8000 International Drive #1, directly east of the current Checkers Restaurant, formerly Chevron #42157 (Site 66). No available records were found that documented contamination associated with this site. An internet search indicated that this parcel was historically a coin laundry and food store, but also had a ½ Hour Photography business located there in 1992. There are no known records of contamination at this site; therefore it is rated as **LOW RISK**.

Site 68 – Orange County Utilities Dr. Phillips PS #3151(48/9100604) – This AST site is located at 7379 Sand Lake Road. The emergency diesel generator was out of compliance for an improper label display in April, 2006 but has not had any record of contamination discharges and is in compliance as of July, 2012. The generator and AST appear to be in good condition and there are no noticeable stains. This site is rated as **LOW RISK** due to there being no record of contamination.

Site 69 – Offices at Rialto, formerly Days Inn (48/9045604) – This former LUST site is located at 7335 Sand Lake Road. In October, 1992, a vapor test detected high readings of unleaded gasoline at the site from an unknown source. The discharge of fuel was attributed to a leak prior to 1985, when the three USTs were interiorly lined. In 1998, the USTs were abandoned in-place by filling with concrete. In September, 2004 the USTs were removed along with soil around the tanks to a depth of twenty feet. The site was monitored up until 2010 when a No Further Action Proposal was accepted. The site is rated as **LOW RISK** due to the site having been cleaned and an accepted No Further Action Proposal.

Site 70 – Chevron Sand Lake MCS PC #136 (FLD984209080, 48/9400272) – This LUST site that is also listed as a small quantity generator was built in February, 1994 and is located at 7331 Sand Lake Road. Petroleum contamination was discovered in February, 2003 and monitored. Contamination was found at the parcel to the west of this site (Chick-fil-A) in association with this spill, indicating that groundwater flow is likely going west and away from the right-of-way. Contamination levels declined over a period of seven years leading to a well abandonment report being approved in May, 2010, which released the site from further obligation to clean the spill from 2003. Minor violations regarding certifications and an unrepaired component have been documented along with a major out of compliance in August, 2010 because a UST was not provided with overfill protection. The site was in compliance as of February, 2012. The site is rated as **LOW RISK** due to it being currently in compliance and contamination levels from an initial spill in 2003 have dropped very low.

Site 71 – 7-Eleven Food Store #29682 (48/8943462, 29444058) – This UST site is located at 7329 Sand Lake Road. Three USTs were replaced with two new USTs in March, 2004. No incidents of contamination were documented before this date or in association with the removed tanks. Gasoline was found in a soil test/sample from an overspill bucket in January, 2009 but was cleaned up and back in compliance as of January, 2010. The site is rated as **LOW RISK** due to there being no record of major contamination discharges and it currently being in compliance as of December, 2011.

Site 72 – FDOT Right-of-Way, former 7-Eleven Food Store #21315 (48/8512588, 29438358) – This former LUST site was located at 7957 Sand Lake Road, which is currently the I-4 interchange with Sand Lake Road at the ramps northwest of the current right-of-way. In May, 1989, 522 tons of leaded/unleaded gasoline contaminated soil was excavated and removed to a depth of six feet. The area is considered clean because it was over-excavated to remove any excess contamination, but there is no record regarding the source or the size of the original contamination discharge. This site is rated **LOW RISK** due to it being already owned by the FDOT and considered clean, but there could be a potential for contamination to exist deeper in the soil.

Site 73 – Circle K #2709741, former Texaco #24-025-0073 (48/8513497, 29440833) – This LUST site is located at 6941 Sand Lake Road. In August, 1987, an unknown amount of fuel that had discharged from an unknown source was discovered from a manual test of a monitoring well when the site was owned by Texaco. A small visible leak was found under a dispenser, but Texaco inventory records did not reflect any loss of product. A remediation plan for the contamination was accepted in December, 1995 but no cleanup activities took place. Another gasoline discharge was reported in November, 2006 that was observed visually and by automatic tank gauging. The four current USTs were changed to double wall in September, 2007. According to a Supplemental Site Assessment Report (2008), groundwater was determined to be flowing in a south southwesterly direction, toward to the current right-of way (see **Appendix D**). Over time, lower levels of contamination were observed at the site and it was released from site rehabilitation in April, 2011 while still being monitored. Despite minor incompliances in the past that didn't result in documented discharges, the site is in compliance as of September, 2012. Despite being in compliance, this site is rated as **MEDIUM RISK** due to its close proximity to the current right-of-way (0.05 miles east), direction of groundwater flow and history of discharges that were not removed.

Site 74 – Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941 (48/8513342) – This former LUST site is located at 6877 Sand Lake Road and is currently vacant, being used as overflow parking for the McDonald's Restaurant directly to the west. As an Exxon Service station in December, 1988, a water analysis showed that a discharge had occurred. Monitoring wells were installed and the site was deemed rehabilitated as of October, 1993. In June, 2007, a discharge from a pipe affected the soil and groundwater. The contaminated soil below the pipe trenches was excavated and removed to the depth of the water table, the pipes were replaced, and the site was monitored; the site was in compliance as of September, 2008. In January, 2013 the 4 USTs and associated piping were removed and the monitoring wells were closed in preparation for sale of the property. At the time of tank excavation, no staining or petroleum odor was detected. The site is closed, but it has not received a No Further Action Order. According to a Supplemental Site Assessment Report (2008), groundwater is flowing in a south southeasterly direction at this site (see **Appendix D**). Despite this site being in compliance and the USTs having been removed from the property, the site is rated **MEDIUM RISK** due to a history of spills and that it has not received a No Further Action Order.

Site 75 – Orlando Trade Center (48/9200207) – No records were found for this site located at 6221 Sand Lake Road. Multiple small shops currently occupy the structure, no obvious signs of contamination were observed during a site visit. This site is rated **LOW RISK** due to there being no record of contamination and the distance (0.42 miles east) from the current right-of-way.

Site 76 – Southeast Great Health Solution (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7345 Sand Lake Road. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 77 – Drury Inn Hotel (no FDEP #s found) – No records were found for this site located at 7301 Sand Lake Road. This facility uses a natural gas generator, which is in very good condition. No signs of contamination were observed at the site. This site is rated **NO RISK** due to there being no records of a contamination discharge or signs of contamination.

Site 78 – Rosen Medical Center (no FDEP #s found) – No records were found for this site located at 7656 International Drive. This site may generate hazardous waste as a medical facility but there is no record of any contamination associated with the site. The site uses a natural gas emergency generator located at the Quality Inn International (Site 83). This facility is rated **NO RISK** due to there being no records of contamination or use of petroleum.

Site 79 – Vacant Lot, former Fun'n Wheels Family Fun Park (48/8512935) – This former LUST and AST site is located at 6739 Sand Lake Road. In June, 1993 a UST that was used for go-karts was reported for contamination, resulting in the excavation and removal of 1,200 square feet of contaminated soil. The tank was replaced with an AST, which had no reports of contamination discharges associated with it and was removed in July, 2000. The site had monitoring wells and was in a voluntary agreement to have the site cleaned. The site was considered released from further obligation and closed effective August, 2006. This site is rated **LOW RISK** due to the contamination having been cleaned up and there being no further reports of contamination associated with the site.

Site 80 – Quality Inn International (no FDEP #s found) – No records were found for this site located at 7600 International Drive. It is also listed as a conditionally exempt small quantity generator by Orange County. This facility uses two natural gas generators for emergency power, which appear very clean. This site is rated as **LOW RISK** due to there being no records of contamination associated with this site.

Site 81 – Former Rock on Ice!, W P Pallis Company (FLR000045062) – This closed site that used to be an ice skating rink is located at 7500 Canada Avenue; it was listed as a small quantity generator. In April, 1997, a complaint was received that rusted barrels of ethylene glycol were being stored on site and were being spilled. In April, 1998, another complaint described that after servicing the Zamboni, used oil and hydraulic oil was poured on the concrete at the right side of the facility and hosed off into the woods along with Freon and glycol. In May, 1998 a site inspection revealed that 4 out of 17 drums of ethylene glycol had lids that had rusted off, resulting in spills when it tops off during rain. The site inspection also found that paint from the ice (not hazardous) had been improperly disposed of and had formed a white sludge-like material at the end of the concrete pad. The site took the necessary cleanup measures to be considered in compliance as of June, 1998. No records indicate that the site was tested for petroleum contamination which had allegedly been being washed into the woods. At the time of the inspection, the concrete pad and ground behind the facility did not show signs that a discharge of oil had occurred. The site is currently closed and a site inspection in December, 2010 deemed the site to not be in violation or have any areas of concern. During the site visit, no obvious signs of petroleum contamination were observed, but hoses were spread out at the north side of the building and leaking a substance that appeared to be killing the grass. The hoses may have been a part of the ice skating rink freezing system making it likely that it was an associated chemical dripping out of them, but this was not confirmed. Other miscellaneous discarded debris was observed on the concrete pad where previous complaints had called attention to. This site is rated **LOW RISK** despite there being a lack of a detailed record involving the potential discharge of oil around the concrete pad because of the distance (0.29 miles east) away from the right-of-way.

Site 82 – Majestic Gift Shop (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7663 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 83 – Discount Club Cleaners (no FDEP #s found) – No records were found for this dry cleaning site located at 7645 Turkey Lake Road. This facility is rated as **LOW RISK** due to there being no record of contamination.

Site 84 – Bay Hill First Nail (no FDEP #s found) – No records were found for this retail nail salon located at 7627 Turkey Lake Road. This site is rated as **LOW RISK** due to there being no record of contamination.

Site 85 – Tire Kingdom #956 (FLR000180752) – No records were found for this site located at 7601 Majorca Place that is listed as a conditionally exempt small quantity generator. This fairly new (November, 2011) facility uses petroleum products for vehicle maintenance. No obvious staining or signs of contamination were observed at the site. This site is rated **LOW RISK** due to there being no records of a contamination discharge or signs of contamination.

Site 86 – Gift Galley, formerly Gala Gifts (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7535 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 87 – K Mart #3478 (FLR000151464) – This site is located at 7603 Turkey Lake Road. It is listed as a conditionally exempt small quantity generator. In June, 2002, an anonymous complaint described an overwhelming smell of pesticide/chemicals/fertilizer in the garden center and cited possible hazardous waste problems. An inspection of the site revealed that no hazardous materials had been improperly stored or spilled, leading to the complaint being dismissed. This site is rated **LOW RISK** due to there being no other complaints or records regarding contamination associated with this facility.

Site 88 – 24 Hour Dentist Inc. (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 7259 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 89 – Fantasy Nails (no FDEP #s found) – No records were found for this retail nail salon located at 7235 International Drive. This facility is rated as **LOW RISK** due to there being no record of contamination.

Site 90 – Former USA Films Brasil Inc. (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6536 Carrier Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 91 – Taj Punjabi Indian Restaurant, former International Dry Cleaners (FLD982103327) – This former dry cleaners and current restaurant is located at 6524 Carrier Drive. No reports of contamination have been documented in association this site and during an inspection in December, 2010 there were no violations or areas of concern observed. This site is rated **LOW RISK** due to there being no records of contamination and the site is no longer an active dry cleaners.

Site 92 – Loews Hotels at Universal Studios Escape (FLR000058669, 48/9801969) – This site has an AST for a diesel emergency generator and is listed as a small quantity generator. It is located at 6800 Lakewood Plaza Drive. This facility applied to be issued a DEP/EPA identification number in August, 1999 and was accepted as a small quantity generator. No other reports or documents were found regarding this site. There are two buildings at the site, one is offices and the other appears to supply toiletries and cleaning services to hotels. During the site visit, empty drums of sanitizer solution were being stored on the outside of the building, but no noticeable signs of contamination were observed. The diesel generator appeared to be in good condition and no obvious signs of contamination were visible. This site is rated as **LOW RISK** due to there being no records of any contamination associated with this site.

Site 93 – Magical Midway, former Wonderworks (48/9803961) – This AST site is located at 7001 International Drive. The AST was installed in June, 2001 and there has been no reported contamination at the site and it is in compliance as of August, 2012. This site is rated as **LOW RISK** due to it being in compliance and no history of contamination issues.

Site 94 – Orlando City Lift Station #29 (48/8841639) – This LAST site is located 5998 Precision Drive. A small, unknown amount of petroleum discharge was discovered in June, 1995 but it was granted a No Further Action Proposal in June, 2006 and is in compliance as of August, 2012. This site is rated as **LOW RISK** due to it being in compliance and distance (0.49 miles southeast) from the current right-of-way.

Site 95 – World Café (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6582 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 96 – Wet ‘n Wild, former Site of Power Concrete Products Company (48/8838632, 29443626) – This former LUST site is located at 5955 Precision Drive. It is currently being utilized as overflow parking for Wet ‘n Wild. In October, 1988, two USTs were removed from the site. An unknown amount of unleaded gas and vehicular diesel was noticed to have discharged to the soil around and under the tanks. Roughly 75 tons of excessively contaminated soil was removed and disposed of, but contaminated soils lower than seven feet were left in place. Monitoring wells were installed at the site in December, 1988 and monitoring is still ongoing. Contamination levels at the site have continued to decrease but the site is

still awaiting cleanup. The site currently has a low (10) Site Priority Ranking score. This site is rated as **LOW RISK** due to the distance from the right-of-way (0.43 miles southeast), and the reported direction of groundwater flow is going away from the right-of-way (flowing southeast).

Site 97 – International Palms Resort (no FDEP #s found) – No records were found for this site located at 6515 International Drive. This facility uses a natural gas generator for emergency power. This site is rated as **NO RISK** due to there being no records of contamination associated with this site.

Site 98 – Multiple shops, formerly E Z Food Mart and Mr. Grocer (48/8513202, 29440799) – This former LUST site is located at 6400 International Drive. A discharge was reported at the site in December, 1980 in which no records indicate cleanup activities took place until April, 1997 when the three UST tanks were removed. During excavation, soil around the tanks was stockpiled on-site and later returned to the excavation (**see Appendix D**). Soil samples revealed that the stockpiled soil was contaminated but not to a degree that would be considered excessively contaminated. Monitoring wells indicate that the levels of contamination have remained relatively constant up to the present. The site currently has a relatively low (30) Site Priority Ranking score and is currently awaiting cleanup. This site is ranked **MEDIUM RISK** due to it still awaiting cleanup of contaminated soil, contamination levels are not dropping, the distance (0.13 miles south) from the right-of-way, and the direction of groundwater flow is unknown.

Site 99 – Rosen Inn (no FDEP #s found) – No records were found for this site located at 6327 International Drive. This facility uses a natural gas generator for emergency power. This site is rated as **NO RISK** due to there being no records of contamination associated with this site.

Site 100 – International Golf (48/8841402) – No records were found for this site located at 6351 International Drive. The address of this location indicates that it is currently the southwestern end of the Wet ‘n Wild property. An internet and property record search did not uncover any details relevant to this FDEP entry. It is possible that the site is mislabeled or is now considered part of Wet ‘n Wild. The site is rated **NO RISK**; the agency review of Wet ‘n Wild (Site 101) below contains additional detailed information regarding this site.

Site 101 – Wet ‘N Wild (FLD982169682) – This site is located at 6200 International Drive. It is listed as a small quantity generator. In February, 1998 a complaint stated that black material was being discharged from a stormwater pipe into Sandy Lake behind Wet ‘n Wild and that most of the material sank but it left a film on top of the water and several dead fish had been observed. No evidence of contamination was detected at the site upon inspection and no further action needed to be undertaken unless more detailed complaints were received. This site uses pool chemicals, but no records of contamination have been documented at this site except for separate entries for the former Power Concrete Products Company (Site 96) and possibly International Golf (Site 99). This site is rated **LOW RISK** due to it being listed as a small quantity generator but has no documented records of contamination.

Site 102 – Orlando Monumental Movieland Hotel (no FDEP #s found) – No records were found for this site located at 6233 International Drive. A site inspection revealed discarded detergent drums and staining near the dumpster area located in the northwest corner of the parcel, on the edge of the current I-4 right-of-way. This site is rated **LOW RISK** despite possible dumping violations because there are no records of contamination at the site and it is not a fuel user.

Site 103 – Days Inn International (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 5858 International Drive. The site was visited for signs of

contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 104 – Chevron International, former Shell (48/9202534) – This UST site was originally a Shell Service Station and is located at 6932 South Kirkman Road. Despite minor noncompliance issues regarding failure to conduct annual testing, there are no records of contamination for this site and it is in compliance as of March, 2013. This site is rated as **LOW RISK** due to it being in compliance and having no records of contamination.

Site 105 – Walgreens #2839 (no FDEP #s found) – This site is located at 6201 International Drive. It is listed as a conditionally exempt small quantity generator by Orange County because of the type of pharmaceuticals it distributes. This site is rated **LOW RISK** due to there being no records of contamination associated with this site and the industry in which it is involved.

Site 106 – Alamo Rent-A-Car (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 5905 International Drive. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 107 – Office Depot #533 (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6855 Kirkman Road. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 108 – Del Taco, formerly Exxon #40262 (FLD984196196, 48/8627545) – This former LUST site is located at 6855 Grand National Drive and was also listed as a small quantity generator. All contamination issues associated with this site are related to when it was an Exxon station. In December, 1988, a water analysis showed that an unknown discharge had occurred from an unknown source at the site. Monitoring wells were installed and by February, 2000 the levels of contamination at the site were low enough to be considered rehabilitated. Another small discharge from an unknown origin was discovered in September, 2004. There are no available reports that indicate that the contamination at the site was excavated or if the tanks were removed or closed. However, some correspondences from 2004 reference a Tank Closure Report and as of November, 2006 all monitoring wells had been abandoned and a No Further Action Proposal was accepted for the site. Groundwater flow at this site was reported to be moving in a south-southeasterly direction, away from the right-of-way. While low levels of contamination may still exist at this site, it is rated **LOW RISK** due to it having an accepted No Further Action Proposal, distance (0.29 miles southeast) from the right-of-way and direction of groundwater flow.

Site 109 – Hess #09328 (48/9804299) – This UST site is located at 5365 International Drive. The four tanks that were installed in July, 1998 have no reports of contamination. The site has had out of compliance violations involving insurance and pump hose replacements, but it was in compliance as of September, 2011. This site is rated **LOW RISK** due to it having no reported contamination and its distance from the current right-of-way (0.47 miles southeast).

Site 110 – Orlando Utility Commission SW Water Plant (48/9802917) – This former UST site and current AST site is located at 6755 Manlie Smith Road. Two USTs were removed and replaced with an AST in January, 2005 without any reported issues regarding contamination. A noncompliance violation regarding the AST fill pipes needing to be recoated has been corrected and the facility is in compliance as of October, 2012. This site is rated **LOW RISK** due to it being in compliance, has no record of contamination, and distance (0.36 miles northeast) from the right-of-way.

Site 111 – I-Fly (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste. It is located at 6805 Visitors Circle. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 112 – Universal Shops (no FDEP #s found) – No records were found for this site located at 6809 Visitors Circle. A bulk oil and propane tank was found behind this site, within 10 feet of the current right-of-way. No obvious signs of contamination were observed around these tanks that would be a cause for concern; the bulk oil tank is likely used for cooking oil. This site is rated **LOW RISK** due to its proximity to the current right-of-way and no reports of contamination.

Site 113 – Buffalo-Orlando 3 LLC Parcel (no FDEP #s found) – No records were found for this site located at 5910 American Way. The site is currently vacant, but there was an AST resting on the ground at the southwest corner of the parcel during a site visit. It is unknown what the AST was being used for or where it came from. The area around the tank did not show any signs of contamination. Due to the lack of any documented or observed signs of contamination, this site is rated **LOW RISK**.

Site 114 – Super 8 Motel (no FDEP #s found) – This site is located at 5900 American Way. It is listed as a conditionally exempt small quantity generator by Orange County. This site is rated **LOW RISK** due to there being no records of contamination associated with this site and no signs of contamination were observed at the site.

Site 115 – Homewood Suites and Hilton Garden Inn, former Orlando Malibu Grand Prix (48/8839335, 29443650) – This former LUST site was located at 5901 American Way, the current site of Homewood Suites and Hilton Garden Inn. All contamination issues are associated with Orlando Malibu Grand Prix, which closed in 2000. A UST discharged an unknown amount of leaded gasoline in December, 1987 and an unknown amount of unleaded gasoline in October, 1991. Site assessments using the Site Priority Ranking Rule scored the site as 10 and 30, respectively. There are no records of any cleanup activity taking place at the site or mention of tank closures. The site is currently awaiting cleanup as of September, 2012 and has a low (10) Site Priority Ranking score. This site is rated **MEDIUM RISK** due to the lack of detailed records of tank closures, the site awaiting cleanup of reported contamination, and the proximity of the site to the right-of-way (0.1 miles south).

Site 116 – Fun Spot Attraction Park (no FDEP #s found) – No records were found for this site located at 5551 Del Verde Way, but is listed by Orange County as a conditionally exempt small quantity generator. This site recently expanded the park to the north and is now located approximately 0.13 miles from the right-of-way. This facility also owns the vacant parcel directly to the north of the current park location and Fun Spot Way. An AST was observed at this site near the maintenance facility without any containment, apparently sitting on the ground. However, the tank appeared to be in good condition and no obvious signs of contamination were observed. Two large, seemingly empty propane tanks were found on the vacant parcel to the north of Fun Spot Way during a site visit but there was nothing to suggest that there was any contamination in association with the tanks. This site is rated **LOW RISK** due to there being no record of contamination.

Site 117 – Former International Station (48/9801991) – This former LAST site was a toy train museum with small tracks and a locomotive on site. It was located at 5253 International Drive. In August, 1992, vandals turned on a fuel valve on the locomotive during the night, releasing about 240 gallons of diesel fuel to the ground. In addition to the fuel spilled directly below the tank, the spill encompassed about 100 feet along the sidewalk, a portion going into the stormwater drain. Contaminated soil was removed and replaced and a lock was installed on the tank. In September, 1999, a Limited Contamination Assessment Report showed that contamination levels in the soil and groundwater at the site did not exceed acceptable levels and appeared to be clean. A No Further Action Order was not given to the site due to a comprehensive

Contamination Assessment Report not being submitted and there were still low levels of contamination present. However, the site was released from further obligation to be cleaned because it was determined that the contamination levels were low enough that no additional cleanup was required. No further records exist for this site which is currently a collection of small shops. This site is rated **LOW RISK** despite the possibility that there are still low levels of contamination at the site that was not detected with the Limited Contamination Assessment Report because of the distance (0.26 miles southeast) from the right-of-way.

Site 118 – Irving Mechanical (no FDEP #s found) – This facility is listed as a small quantity generator by Orange County but is not a generator of hazardous waste; It is located at 6505 Adventure Way. The site was visited for signs of contamination at the address given, but no businesses are located at this address and it appears to be part of Universal Studios Orlando, which is currently building a hotel, Cabana Cay, on the site at the present time. An internet search did not find any businesses named Irving Mechanical in the area. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 119 – Prime Outlets (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste; It is located at 5401 Oakridge Road. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 120 – Hyatt Place Orlando (no FDEP #s found) – No records were found for this site located at 5895 Caravan Court. The site has an emergency diesel generator with an AST on the site. There were no obvious signs of contamination around the generator during a site visit. This site is rated **LOW RISK** due to there being no records or visual signs of contamination.

Site 121 – Double Tree by Hilton Universal (48/9813200) – This AST site is located at 5780 Major Boulevard. In June, 2012 the site was out of compliance due to there being no financial responsibility associated with the tank. This issue was resolved as of October, 2012 and no reports of contamination have been documented for this site. This site is rated **LOW RISK** due to the tank being relatively new and no reports of contamination.

Site 122 – In Charge Institute (no FDEP #s found) – This site is listed as a small quantity generator by Orange County but is not a generator of hazardous waste; it is located at 5750 Major Boulevard. The site was visited for signs of contamination but none were found. Due to the lack of any documented or observed signs of contamination, this site is rated **NO RISK**.

Site 123 – Former Delta Orlando Resort (FLD984200915) – No records were found for this site that is located at 5715 Major Boulevard that used to be listed as a small quantity generator. The site is currently vacant and showed no signs of contamination during a site visit. The site is rated **LOW RISK** due to there being no records or visual signs of contamination.

Site 124 – Major Plaza (48/9202808) – This UST site is located at 5728 Major Boulevard. In December, 1997 a 300 gallon tank was replaced with a 550 gallon tank. At that time a small amount (about 5 gallons) of contaminated soil around the fill pipe was removed for disposal, but no other contamination associated with the tank was detected. No other reports of contamination have been documented and the site is in compliance as of June, 2012. This site is rated **LOW RISK** due to it being in compliance and its distance (0.44 miles northeast) from the right-of-way.

5.5 Historic Aerial Photography Review

Available historical and current aerial photographs were reviewed by from the Orange County Property Appraiser, the University of Florida Digital Collections (via internet), the National Resources Council Soil Conservation Service Soil Maps, and Google Images. Aerial photos from the years 1947, 1954, 1969, 1980, 1989, and 1994 and 2012 were utilized to help

determine the evidence of land use that could indicate a potential for adverse environmental impacts within or adjacent to the project corridor. Examples of the aerial flights over the project corridor can be found in **Appendix C**.

1947

This area of Orange County was primarily undeveloped. Land use appeared to be primarily pine flatwoods, lakes, swamps, and scrub areas. A few citrus groves were observed adjacent to Big Sand Lake. There were no residential areas present. What appears to be an un-paved road was located very near where I-4 is currently located. The only potential contamination sites observed would be where the citrus groves were once located. Potential contamination could have been herbicides or pesticides.

1954

Conditions appeared to be the same as observed in 1947 aerials.

1969

The majority of the land use was primarily undeveloped. Sand Lake Road, Kirkman Road, I-4 and the Martin-Marietta facility were present. Potential contamination sites would possibly include the previously mentioned citrus groves, the Martin-Marietta facility, and the potential for gas stations at the northeast and southwest quadrants of the I-4/Sand Lake Road interchange.

1980

Commercial and residential development had occurred throughout the project corridor. The Beachline Expressway (SR 528) was present as well as International Drive. Several hotels were present north of Sand Lake Road and east of I-4. Very little development had occurred south of Sand Lake Road along International Drive. Turkey Lake Road was not present. The majority of the citrus groves within the project corridor had vanished. Potential contamination sites were likely service stations at the I-4/Sand Lake Road interchange.

1989

The majority of the project corridor had been developed with commercial and residential usage. Potential contamination sites were likely associated with local service stations.

1994

Conditions were very similar along the corridor as seen today. Universal Studios was present but had not been developed to the extent it is today. Potential contamination sites were still likely associated with service stations.

2012

Conditions along the corridor are similar to 1994, with the additional development of Universal Studios (now the Universal Orlando Resort), additional development on Turkey Lake Road, and the addition of the expanded Orange County Convention Center.

5.6 Interviews

Interviews were conducted with any available property owners or site managers at the times of the site visits. In general, the majority of those interviewed knew very little site specific information. No additional information was gathered beyond that found on the FDEP's Oculus Database.

Mr. George Houston II, of the FDEP’s Central District Waste Cleanup Section was contacted in regards to any additional contamination information within the project corridor. He did not provide any additional information and referred us to their website for further details on any of the potential contamination sites.

Lieutenant Gregg McLay of the Orlando Fire Department’s Station Number 10 was contacted in regards to any additional contamination information within the project corridor. He recalled a truck accident resulting in a diesel fuel spill in the median just south of the interchange with Universal Boulevard, discharging approximately 50 gallons of diesel fuel. He stated that his hazardous materials crew notified appropriate officials and cleanup crew was sent there shortly after the accident. This spill did appear in the agency review of sites listed in the FDEP database, no evidence of contamination was observed in the median at this location.

6.0 Alternative Alignments

There are no alternative alignments included with this project as the project goal involves the expansion of the current roadway. The existing right-of-way and new pond sites will likely contain the full extent of the proposed project, with the potential for additional minimal right-of-way acquisitions adjacent to the current limits being the exception. The study area contains any likely additional right-of-way needed, unless a new pond site is proposed beyond what was reviewed for this study.

7.0 Project Impacts

Future construction activities within the existing and proposed right-of-way create the potential for contamination impacts within the project corridor. A total of one hundred and twenty four (124) sites were identified within the project corridor that could be potential contamination sites, with potential impacts that may occur both within the proposed right-of-way and the proposed pond sites.

One documented truck accident occurred on I-4 approximately 500 feet east of the Beachline Expressway (SR 528) in the westbound lanes where contamination was an issue. Records indicate that the free product that had spilled was removed.

Photographs of all potential contamination sites are provided in **Appendix B**.

8.0 Regulatory Status of Sites

Impacts to known and/or potential contamination sites may occur adjacent to the existing right-of-way. Additional right-of-way required for future improvements consists of stormwater retention ponds. Out of the one hundred and twenty four (124) sites, ten (10) were given a medium risk rating. No sites were given a high risk rating. The remaining one hundred and fourteen (114) sites were given a no risk or low risk rating. The pond sites for this project were rated for their potential to have contamination and are listed in **Table 2**. The facilities with potential contamination in the vicinity of the existing right-of-way and proposed additional right-of-way are listed and rated in **Table 3**.

TABLE 2 – POTENTIAL CONTAMINATION RATINGS FOR POND SITES

Pond Site #	Contamination Source	Rating
200A (Alternate)	NRC	Low
200B (Recommended)	NRC	Low
201	NRC	Low
202A	NRC	Low

Pond Site #	Contamination Source	Rating
202B	NRC	Low
202C	NRC	Low
202D	NRC	Low
203A	NRC	Low
203B	NRC	Low
204A	NRC	Low
204B	NRC	Low
205A (Alternate)	EDB, Misc. Debris	Med.
205B (Alternate)	EDB, Misc. Debris	Med.
205C (Recommended)	EDB, Misc. Debris	Med.
205D (Recommended)	EDB, Misc. Debris, Structures	Med.
206	NRC	Low
206A	NRC	Low
206B	NRC	Low
207	NRC	Low
208	NRC	Low

Table 2 Notes: No Reported Contamination (NRC), Ethylene Dibromide (EDB)

TABLE 3 – REGULATORY STATUS & RATING OF POTENTIAL CONTAMINATION SITES

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
1	Marriot Cyprus Pines Golf Course Maintenance Facility	FLR000108118	.26 SE	NHR	NRC	Low
2	Dr. Phillips Community Park, formerly Orange County Trap and Skeet Club	FLR000097584	.6 SW*	NHR (LQG)	PHMC	Low
3	7-Eleven Store #35277	48/9812949	.29 E	UST	ICOM	Low
4	CVS Pharmacy #5400	FLR000191544	.31 E	SQG	NRC	Low
5	Hilton Garden Inn	NDB	.19 E	NHR	NRC	No
6	Renaissance Resort SeaWorld	48/9100915	.27 E	AST, LUST	ICOM	Low
7	Places of Learning SeaWorld Orlando Marketing	48/9046692	.02 E	UST, AST (visual)	PCI	Med.
8	SeaWorld Parks and Entertainment Administration Office	NDB	.03 E	NHR	NRC	No
9	SeaWorld of Florida Inc., Florida Festival	FLR000149609	.42 SE	SQG	ICOM	Low
10	Newkirk Skoob LP, formerly Houghton Mifflin Hancourt	48/8627980	.47 SE	AST, LUST	SAO	Low
11	Double Tree International, formerly Sheraton World Resort	FLD984242701	.32 SE	CESQG	NRC	Low
12	Cell Tower with Diesel Generator A	NDB	.32 SE	AST (visual)	NRC	Low

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
13	Texaco Redimart	48/9102998, 29496696	.32 SE	UST, LUST	CPO	Low/Med
14	Ciao Italia Restaurant	NDB	.32 SE	NHR	NRC	No
15	Westwood Dry Clean Inc.	FLD982148629, 48/9500191, 29571250	.33 SE	SQG	NRC	Low
16	FDOT Diesel Power Generator A	NDB	0	AST (visual)	NRC	Low
17	Groundwater Contamination Plume #48263254	NDB	0	EDB	PCI	Med.
18	Orange County Convention Center West Building	FLD132980335, 48/9101508	.08 E	AST, LUST, SQG	ICOM	Low
19	Days Inn Civic Center	NDB	.37 NE	NHR	NRC	No
20	7-Eleven Store #34881, formerly Exxon RAS #44417	FLR000054916, 48/9801643	.49 NE	UST, (CESQG)	NRC	Low
21	Walgreens #12340, formerly Mobil #11220	FLD984203992, 48/8521731, 29499002	.38 NE	LUST	CRD	Low
22	GT Specialists Spill Site	48/9806206	0	Spill	NFA	Low
23	Westgate Lakes Resort and Spa	NDB	.05 W	AST (visual)	NRC	Low
24	Peabody Orlando	FLD982156143, 48/9202658, 29432255	.36 E	LAST, SQG	CPO	Low
25	Nasir Alar MD	NDB	.18 W	NHR	NRC	No
26	Sand Lake Cancer Center	NDB	.15 W	NHR	NRC	No
27	OHPG Orlando Heart Center	FLR000196501	.17 W	CESQG	NRC	Low
28	S A Neurology LLC	NDB	.18 W	NHR	NRC	No
29	Gowani Medical Associates MD	NDB	.18 W	NHR	NRC	No
30	Multiple Doctors' Offices A	NDB	.05 W	NHR	NRC	No
31	Dr. P. Phillips Hospital	FLR000176305, 48/9101769	.25 W	UST, SQG	ICOM	Low
32	Rosen Plaza Hotel	NDB	.08 E	AST (visual)	NRC	Low
33	Multiple Doctors' Offices B	NDB	0.2 W	NHR	NRC	No
34	Sand Lake Imaging, Quest Diagnostics	NDB	.08 W	NHR	NRC	No
35	Multiple Doctors' Offices C	NDB	.27 W	NHR	NRC	No
36	Central Florida Investments Inc. Sand Lake	48/9046035	.42 W	AST	NRC	Low
37	Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, and 205C	NDB	.04 W	EDB, Misc. Debris	PCI	Med.
38	Ming Court, listed as Top Tree Service	NDB	.16 E	NHR	NRC	No
39	Pizza Hut	NDB	.16 E	NHR	NRC	No
40	Wonderworks	NDB	.15 E	NHR	NRC	No
41	Rosen Inn at Pointe Orlando	NDB	.02 E	AST (visual)	NRC	Low
42	FDOT Diesel Power Generator B	NDB	0	AST (visual)	NRC	Low
43	Air Florida Helicopter INC	NDB	.02 E	AST (visual)	NRC	Low
44	Former Debernardi Printing	NDB	.28 W	NHR	NRC	No

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
45	Embassy Suites	NDB	.02 E	AST (visual)	NRC	Low
46	Lakeside Medical	NDB	.19 E	NHR	NRC	No
47	Wal-Mart Supercenter #4332	FLR000138677, 48/9809167	.06 W	AST, SQG	ICOM	Low
48	Sonesta ES Suites, formerly Summerfield Suites Hotel	FLR000011213	.17 E	SQG	ICOM	Low
49	Former site of the Butcher Shop Steakhouse	NDB	.18 E	NHR	NRC	No
50	Radisson Hotel	NDB	.03 E	NHR	NRC	Low
51	YMCA	NDB	.02 E	NHR	NRC	Low
52	Paris Nails and Spa	NDB	.05 W	NHR	NRC	Low
53	Ramada Inn	NDB	.04 E	NHR	NRC	No
54	Former site of Dream Cars Unlimited Inc.	NDB	0.2 E	NHR	NRC	No
55	Embassy Suites Hotel	48/9700998	.02 E	AST, (UST)	NFA	Low
56	Image Nails	NDB	.06 W	NHR	NRC	Low
57	Comfort Inn	NDB	.05 E	NHR	NRC	No
58	Walgreens #3254	NDB	.13 E	CESQG	NRC	Low
59	Wyndham Orlando Resort	FLD084729482, 48/8737273	.18 E	AST, (UST), SQG	ICOM	Low
60	Cell Tower with Diesel Generator B	NDB	.13 W	AST (visual)	NRC	Low
61	Whole Foods Market Bay Hill	48/9810262	.07 W	AST	ICOM	Low
62	Faesch Enterprises LLC	NDB	.38 W	NHR	NRC	No
63	Vinod Arora CPA	NDB	.12 W	NHR	NRC	No
64	Multiple Doctors' Offices D	NDB	.12 W	NHR	NRC	No
65	CIRCLE K #2708960	FLD000604827, 48/8513378, 29440814	.07 E	LUST	NFA, ICOM	Med.
66	Checkers Restaurant, former Chevron #42157	FLD984209080, 48/8512747, 29440736	.1 E	LUST	CRD	Med.
67	International Bazaar, former Haji A Inc.	48/9500218	.13 E	No Listing	NRC	Low
68	Orange County Utilities Dr Phillips PS #3151	48/9100604	.42 W	AST	ICOM	Low
69	Offices at Rialto, formerly Days Inn	48/9045604	.17 W	LUST	NFA	Low
70	Chevron Sand Lake MCS PC #136	FLD984209080, 48/9400272	.1 W	LUST	ICOM	Low
71	7-Eleven Food Store #29682	48/8943462, 29444058	0.05 W	UST	ICOM	Low
72	FDOT Right-of-way, former 7-Eleven Food Store #21315	48/8512588, 29438358	0	LUST	PCI	Low
73	Circle K #2709741, former Texaco #24-025-0073	48/8513497, 29440833	0.05 E	LUST	ICOM	Med.
74	Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941	48/8513342	.13 E	LUST	ICOM	Med.

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
75	Orlando Trade Center	48/9200207	.42 E	No Listing	NRC	Low
76	Southeast Great Health Solution	NDB	.38 W	NHR	NRC	No
77	Drury Inn Hotel	NDB	.02 W	NHR	NRC	No
78	Rosen Medical Center	NDB	.01 E	NHR	NRC	No
79	Vacant Lot, former Fun'n Wheels Family Fun Park	48/8512935	.27 E	LUST, (AST)	VCA	Low
80	Quality Inn International	NDB	.02 E	CESQG	NRC	Low
81	Former Rock on Ice!, W P Pallis Company	FLR000045062	.29 E	SQG	ICOM, PCI	Low
82	Majestic Gift Shop	NDB	.22 E	NHR	NRC	No
83	Discount Club Cleaners	NDB	.05 W	NHR	NRC	Low
84	Bay Hill First Nail	NDB	.05 W	NHR	NRC	Low
85	Tire Kingdom #956	FLR000180752	.13 W	CESQG	NRC	Low
86	Gift Galley, formerly Gala Gifts	NDB	.19 E	NHR	NRC	No
87	K Mart #3478	FLR000151464	.05 W	CESQG	NRC	Low
88	24 Hour Dentist Inc.	NDB	.18 E	NHR	NRC	No
89	Fantasy Nails	NDB	.15 E	NHR	NRC	Low
90	Former USA Films Brasil Inc.	NDB	.19 E	NHR	NRC	No
91	Taj Punjabi Indian Restaurant, former International Dry Cleaners	FLD982103327	.19 E	No Listing	NRC	Low
92	Loews Hotels at Universal Studios Escape	FLR000058669, 48/9801969	0.02 W	AST, SQG	NRC	Low
93	Magical Midway, former Wonderworks	48/9803961	.18 E	AST	ICOM	Low
94	Orlando City Lift Station #29	48/8841639	.49 SE	LAST	ICOM	Low
95	World Café	NDB	.14 SE	NHR	NRC	No
96	Wet 'n Wild, former Site of Power Concrete Products Company	48/8838632, 29443626	.43 SE	LUST	CRD	Low
97	International Palms Resort	NDB	.03 S	-	NRC	No
98	Multiple Shops, formerly E Z Food Mart and Mr. Grocer	48/8513202, 29440799	.13 S	LUST	CRD	Med.
99	Rosen Inn	NDB	.03 S	NHR	NRC	No
100	International Golf	48/8841402	.16 S	No Listing	NRC	No
101	Wet 'N Wild	FLD982169682	0.19 SE	SQG	NRC	Low
102	Orlando Monumental Movieland Hotel	NDB	.03 S	NHR	PCI	Low
103	Days Inn International	NDB	.26 SE	NHR	NRC	No
104	Chevron International, former Shell	48/9202534	.36 SE	UST	ICOM	Low
105	Walgreens #2839	NDB	.13 SE	CESQG	NRC	Low
106	Alamo Rent A Car	NDB	.28 S	NHR	NRC	No
107	Office Depot #533	NDB	.23 SE	NHR	NRC	No
108	Del Taco, formerly Exxon #40262	FLD984196196, 48/8627545	.29 SE	LUST, SQG	NFA	Low

Site #	Facility Name	Site ID/ Facility ID/SQG Facility ID	Location off ROW (miles)	Contamination Source	Regulatory Status	Rating
109	Hess #09328	48/9804299	.47 SE	UST	ICOM	Low
110	Orlando Utility Commission SW Water Plant	48/9802917	.36 NE	AST, (UST)	ICOM	Low
111	I-Fly	NDB	.08 S	NHR	NRC	No
112	Universal Shops	NDB	.01 S	NHR	NRC	Low
113	Buffalo-Orlando 3 LLC Parcel	NDB	.13 S	AST (visual)	NRC	Low
114	Super 8 Motel	NDB	.14 S	CESQG	NRC	Low
115	Homewood Suites and Hilton Garden Inn, formerly Orlando Malibu Grand Prix	48/8839335, 29443650	.10 S	LUST	CRD	Med.
116	Fun Spot Attraction Park Orlando	NDB	.13 SE	CESQG	NRC	Low
117	Former International Station	48/9801991	.26 SE	LAST	CRD	Low
118	Irving Mechanical	NDB	.36 N	NHR	NRC	No
119	Prime Outlets	NDB	.11 SE	NHR	NRC	No
120	Hyatt Place Orlando	NDB	.06 N	NHR	NRC	Low
121	Double Tree by Hilton Universal	48/9813200	.3 NE	AST	NRC	Low
122	In Charge Institute	NDB	.36 NE	NHR	NRC	No
123	Former Delta Orlando Resort	FLD984200915	.38 NE	SQG	NRC	Low
124	Major Plaza	48/9202808	.44NE	UST	ICOM	Low

Table 3 Notes: *Distance from ROW displays approximate location of lead in Big Sand Lake; distance to the park is 0.77 Miles. Parentheses around contamination sources indicate the source is closed or a former label.

Table 3 Abbreviations: Not in FDEP database (NDB), In Compliance (ICOM), Site Assessment Ongoing (SAO), No Reported Contamination (NRC), Contamination Reported (CRD), Voluntary Cleanup Agreement (VCA), No Further Action (NFA), Possible Heavy Metal Contamination (PHMC), Possible Contamination Issue (PCI), Cleanup Ongoing (CPO)

9.0 Conclusions and Recommendations

A detailed site inspection was conducted of the I-4 corridor for this CSER from west of SR 528 to SR 435 (Kirkman Road), including the interchanges at SR 528, Sand Lake Road, Universal Boulevard, as well as the twenty (20) pond sites along the corridor in Orange County, Florida. This study includes site reconnaissance, regulatory file reviews, historic aerial photograph review, construction plans review, interviews, and reporting.

A total of one hundred and twenty four (124) sites within the study area were identified as being potential handlers of hazardous materials or having some type of involvement with potential contamination. Of these sites, none had a high risk rating and nine (9) had a medium risk rating including Sites 7, 17, 37, 65, 66, 73, 74, 98, and 115. The remaining one hundred and fifteen sites identified received a no risk or low risk rating. It is recommended that any demolition or dewatering activities within or adjacent to any of the identified medium risk sites should require soil and groundwater testing before construction.

Site 17 is a groundwater contamination plume of ethylene dibromide (EDB) and encompasses sixteen (16) other listed sites, as well as Pond Sites 205A, 205B, 205C, and 205D. These are the only four pond sites within the groundwater contamination plume and were the only pond sites identified as having a medium risk rating for contamination. In addition to the contamination plume, discarded debris such as building materials and shingles were discovered at Pond Sites 205A, 205B, and 205C, which are combined with other adjacent vacant land as Site 37. A structure, along with discarded or

abandoned containers and other potential sources of contamination, was found at Pond Site 205D. These sites should be tested for asbestos containing materials and lead-based paint prior to construction.

FDOT commits to conducting Level II Contamination Screenings on all Medium and High Risk Rated sites before establishing a final determination. This will include investigating previous PD&E Studies and Design Projects covering the project area and its surroundings.

All bridges and other structures which will require possible demolition or retrofit should be tested for asbestos containing materials, lead-based paint, or any other hazardous materials prior to construction.

Should any parcels containing medical facilities, doctor offices, hospitals, or drug stores be acquired, they should be tested for asbestos, lead-based paint, x-ray equipment, lead-lined walls, chemicals, and pharmaceuticals prior to demolition.

10.0 References

Chevron #42157 Contamination Assessment Report Addendum, HSW Environmental Consultants Inc., 1994

Chevron #42157 Monitoring Only Plan Report of First Quarter Field Activities and Groundwater Quality, HSW Environmental Consultants Inc., 1994

Circle K #2708960 Site Assessment Report, ATC Associates Inc., 2011

E Z Food Mart Closure Report, Omega Environmental Services, 1997

Exxon Service Station #4-6941 Supplemental Site Assessment Report, Groundwater & Environmental Services Inc., 2008

Florida Department of Transportation, Project Development & Environment guidelines (Chapter 22, January 17, 2008 revision)

Florida Department of Transportation, Florida Land Use, Cover, and Forms Classification System (FLUCFCS), Level III, third edition, 1999

FHWA Technical Advisory T 6640.8A, dated October 30, 1987

Shell #100719 Supplemental Site Assessment Report, Groundwater & Environmental Services Inc., 2008

University of Florida George A. Smathers Library Digital Collections: Aerial Photography Florida (website), 2013

US Department of Agriculture Soil Conservation Service, Soil Survey of Orange County, Florida, 1989

APPENDIX A

FIGURE A
LAND USE AND HABITAT MAP

I-4 (SR 400) PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY BEYOND THE ULTIMATE

SEGMENT 2

FDOT FM NO. 432100-1-22-01

CONTAMINATION SCREENING EVALUATION REPORT

ORANGE COUNTY FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT 5

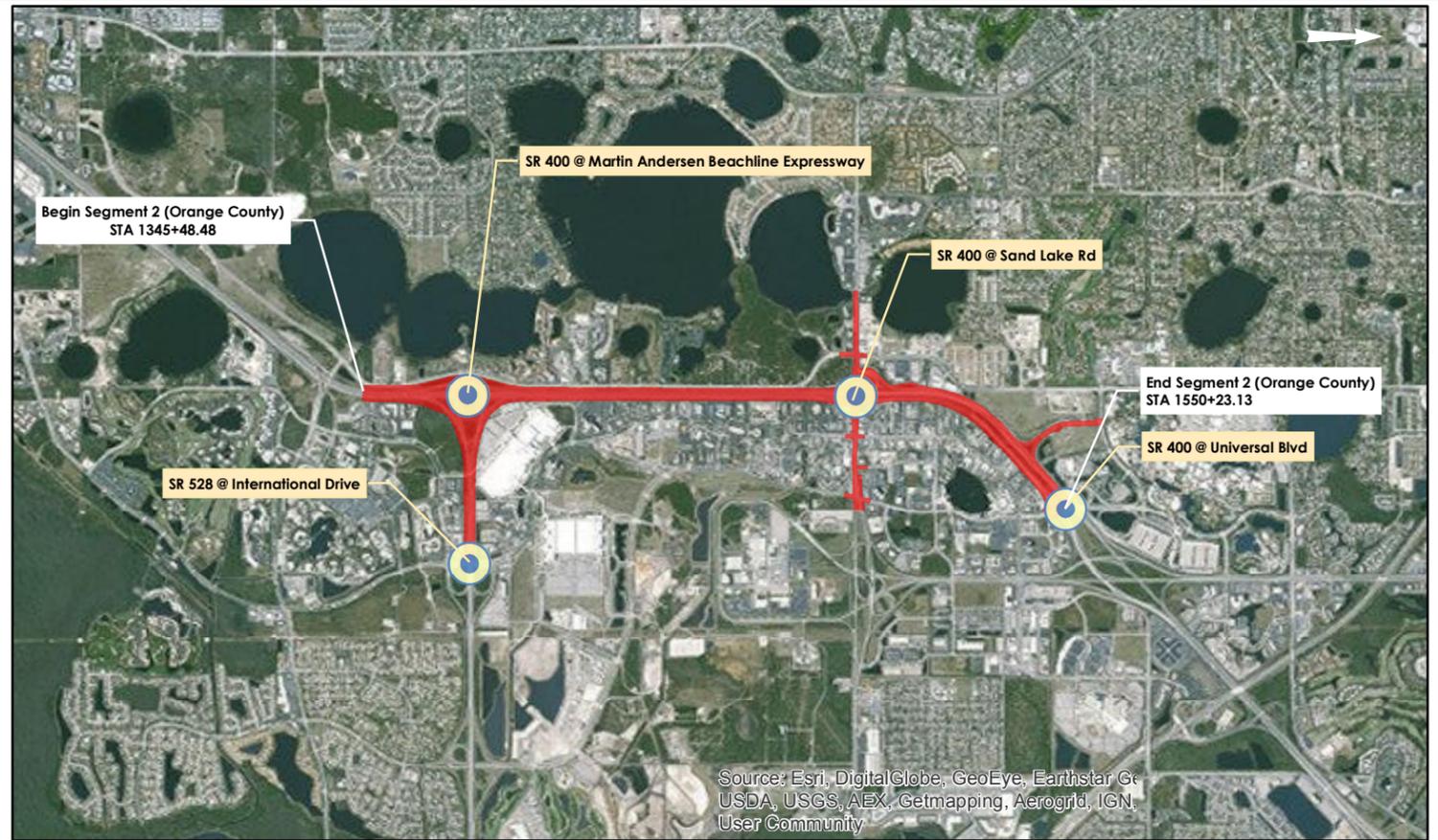
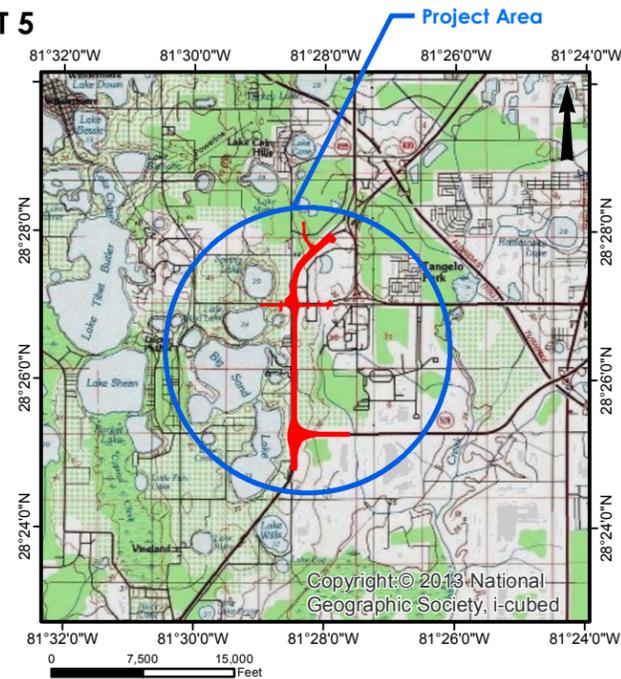
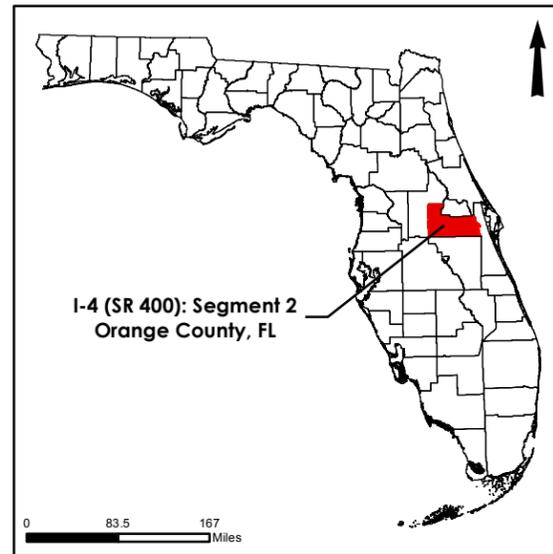


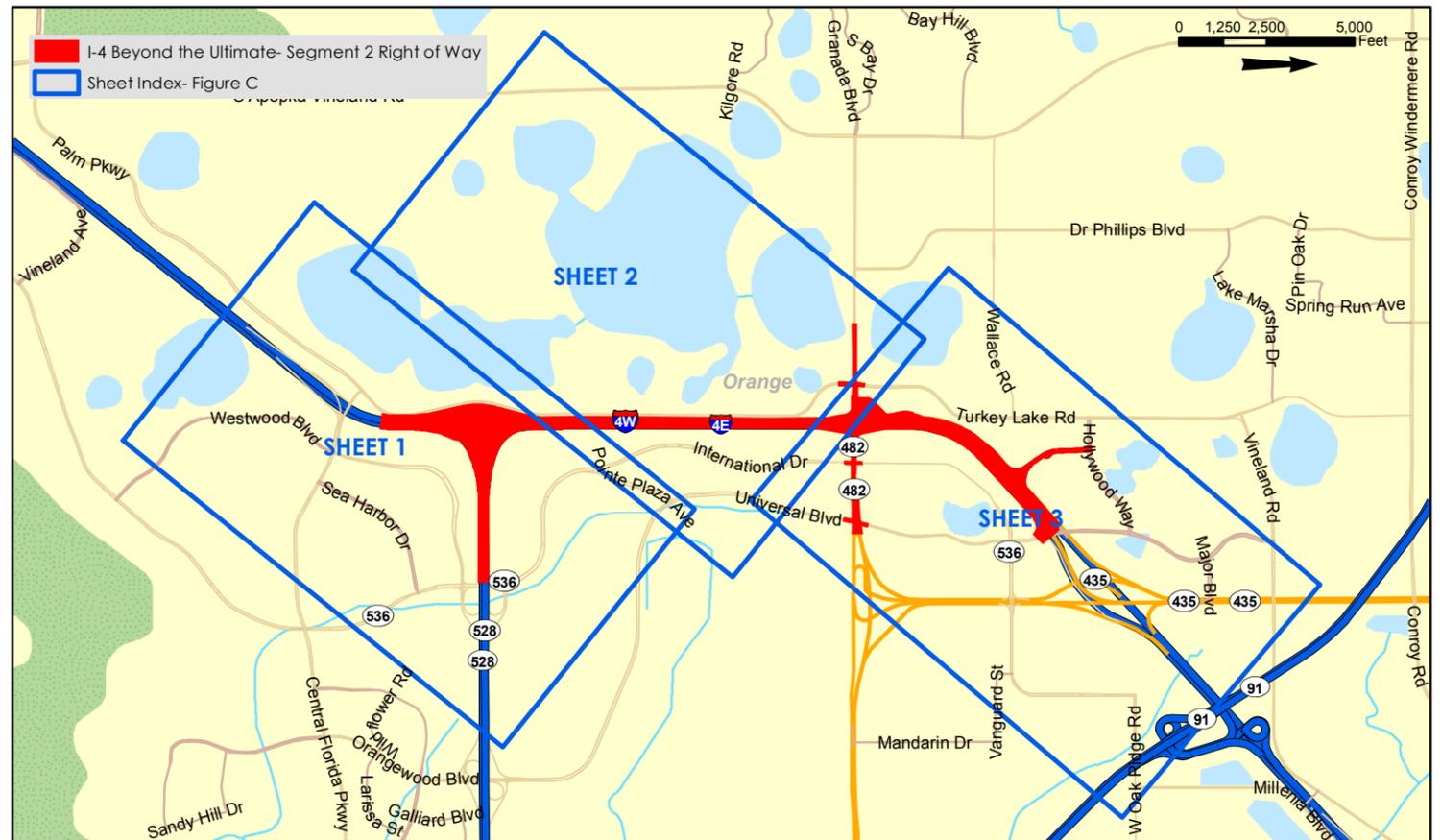
FIGURE NO.	SHEET NO.	TITLE
Figure A	Single Sheet	Land Use and Habitat Map
Figure B	Single Sheet	USGS Topographical Map
Figure C	Sheets 1-3	Contamination Sites Map

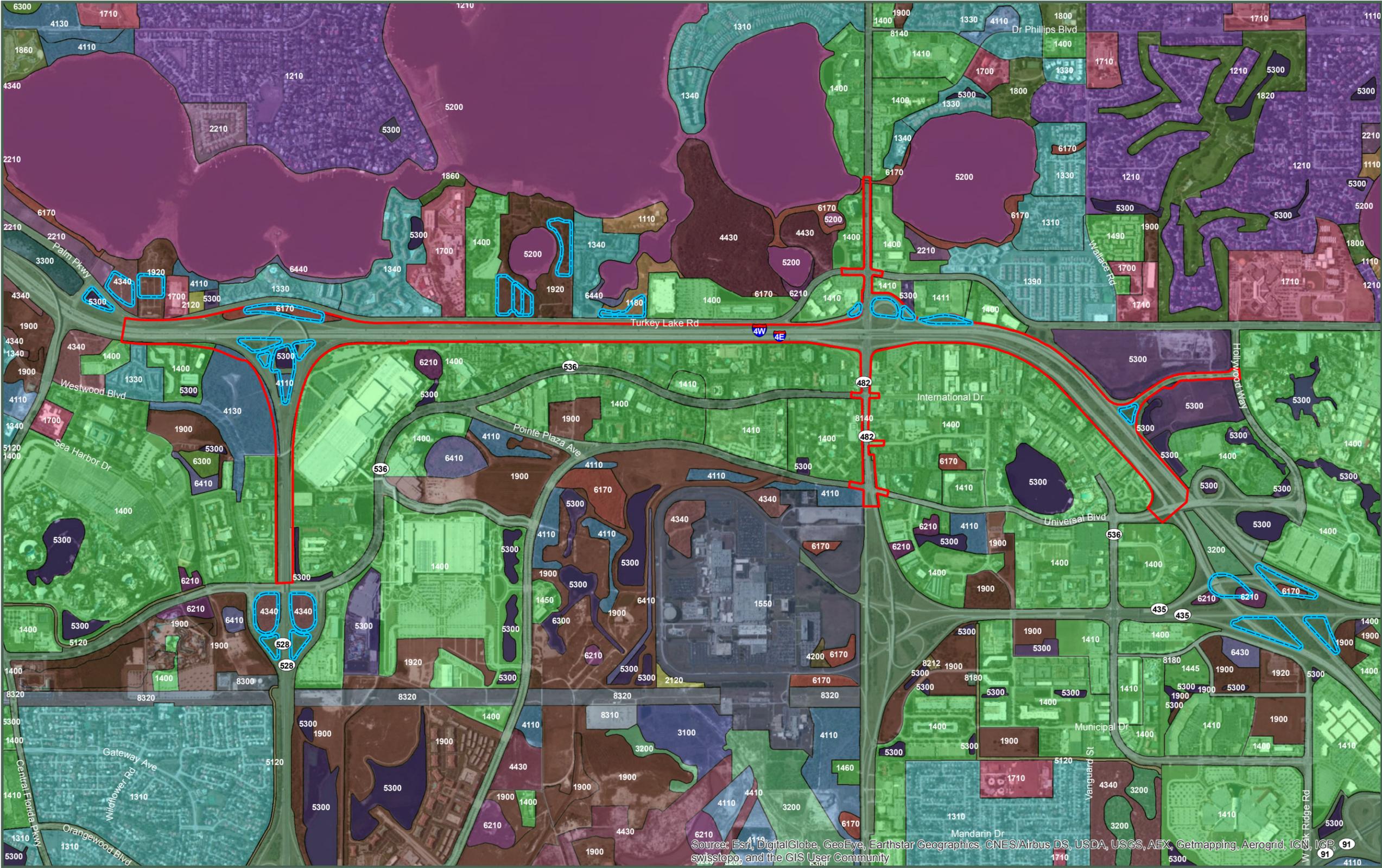
PROJECT DETAILS

CONTAMINATION SCREENING EVALUATION REPORT:
Segment 2 - Report Maps

SR 400 (I-4) from West of SR 528 Beachline Expressway
to West of SR 435 Kirkman Road - Orange County (75280)

75280 Orange County
STA 1345+48.48 (Begin) - MP 5.65
STA 1550+23.13 (End) - MP 9.562





Map Key

SR 400 (I-4) PD&E Limits

- I-4 Beyond the Ultimate-Segment 2 Right of Way
- Pond Sites (02/02/15)

Land Use and Habitats

- 1100: RESIDENTIAL, LOW DENSITY
- 1200: RESIDENTIAL, MEDIUM DENSITY
- 1300: RESIDENTIAL, HIGH DENSITY
- 1400: COMMERCIAL AND SERVICES
- 1500: INDUSTRIAL
- 1700: INSTITUTIONAL
- 1800: RECREATIONAL
- 1900: OPEN LAND
- 2120: UNIMPROVED PASTURES
- 2200: TREE CROPS
- 3100: HERBACEOUS (DRY PRAIRIE)
- 3200: SHRUB AND BRUSHLAND
- 3300: MIXED RANGELAND
- 4100: UPLAND CONIFEROUS FORESTS
- 4200: UPLAND HARDWOOD FORESTS
- 4300: UPLAND HARDWOOD FORESTS
- 4400: TREE PLANTATIONS
- 5100: STREAMS AND WATERWAYS
- 5200: LAKES
- 5300: RESERVOIRS
- 6100: WETLAND HARDWOOD FORESTS
- 6200: WETLAND CONIFEROUS FORESTS
- 6300: WETLAND FORESTED MIXED
- 6400: NON-FORESTED WETLANDS
- 8100: TRANSPORTATION
- 8200: COMMUNICATIONS
- 8300: UTILITIES

CONTAMINATION SCREENING EVALUATION REPORT: Segment 2 - Land Use and Habitat Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 2: SR 400 (I-4) from W of SR 528 Beachline Expressway to W of SR 435 Kirkman Road

Project Location:
 75280 Orange County
 STA 1345+48.48 (Begin) - MP 5.65
 STA 1550+23.13 (End) - MP 9.562

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet

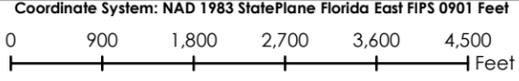
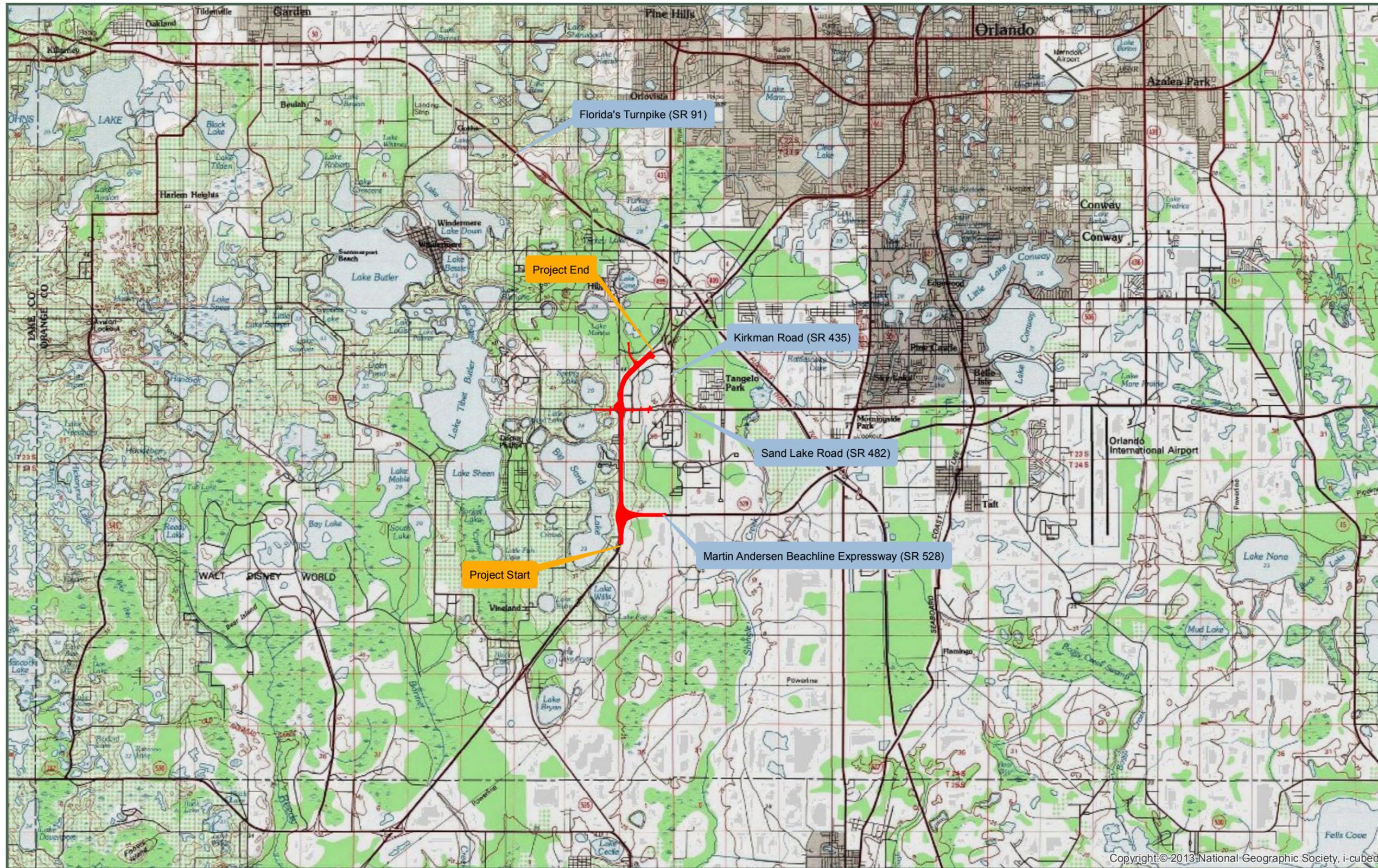


Figure A: Land Use and Habitat Map



Map Key

SR 400 (I-4) PD&E Limits

- █ I-4 Beyond the Ultimate-Segment 2 Right of Way

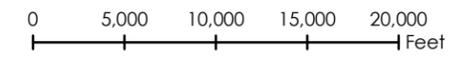
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 CONTAMINATION SCREENING EVALUATION REPORT: Segment 2 - USGS Topographical Map

Client/Project:
 Florida Department of Transportation-D5
 SR 400 Project Development & Environment Study
 Segment 2: SR 400 (I-4) from W of SR 528 Beachline Expressway to W of SR 435 Kirkman Road

Project Location:
 75280 Orange County
 STA 1345+48.48 (Begin) - MP 5.65
 STA 1550+23.13 (End) - MP 9.562

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 Prepared by: mLeonard 2/25/2015
 Technical Review by: mDrauer 2/25/2015
 Independent Review by: Moore 2/25/2015

Figure B: USGS Topographical Map





Map Key

SR 400 (I-4) PD&E Limits

- I-4 Beyond the Ultimate-Segment 2 Right of Way

Site Risk Rating

- NO
- LOW
- LOW / MEDIUM
- MEDIUM

Pond Site Risk Rating

- LOW
- MEDIUM
- RND (Risk Not Determined)

Ground Water Contamination

- GCP # 48263254 (Site #17)

Site # 7
 Places of Learning-SeaWorld
 Site # 17
 Groundwater Contamination Plume #48263254
 Site # 37
 Vacant Lots (Ponds 205A, 205B, 205C)
 Site #65
 Circle K #2708960
 Site #66
 Checkers Restaurant
 Site #73
 Circle K #2709741
 Site #74
 Vacant Lot
 Site #98
 Multiple Shops
 Site #115
 HomewoodSuites & Hilton Garden Inn

Title:
CONTAMINATION SCREENING EVALUATION REPORT: Segment 2 - Contamination Sites Map

Client/Project:
 Florida Department of Transportation- D5
 SR 400 Project Development & Environment Study
 Segment 2: SR 400 (I-4) from W of SR 528 Beachline Expressway to W of SR 435 Kirkman Road

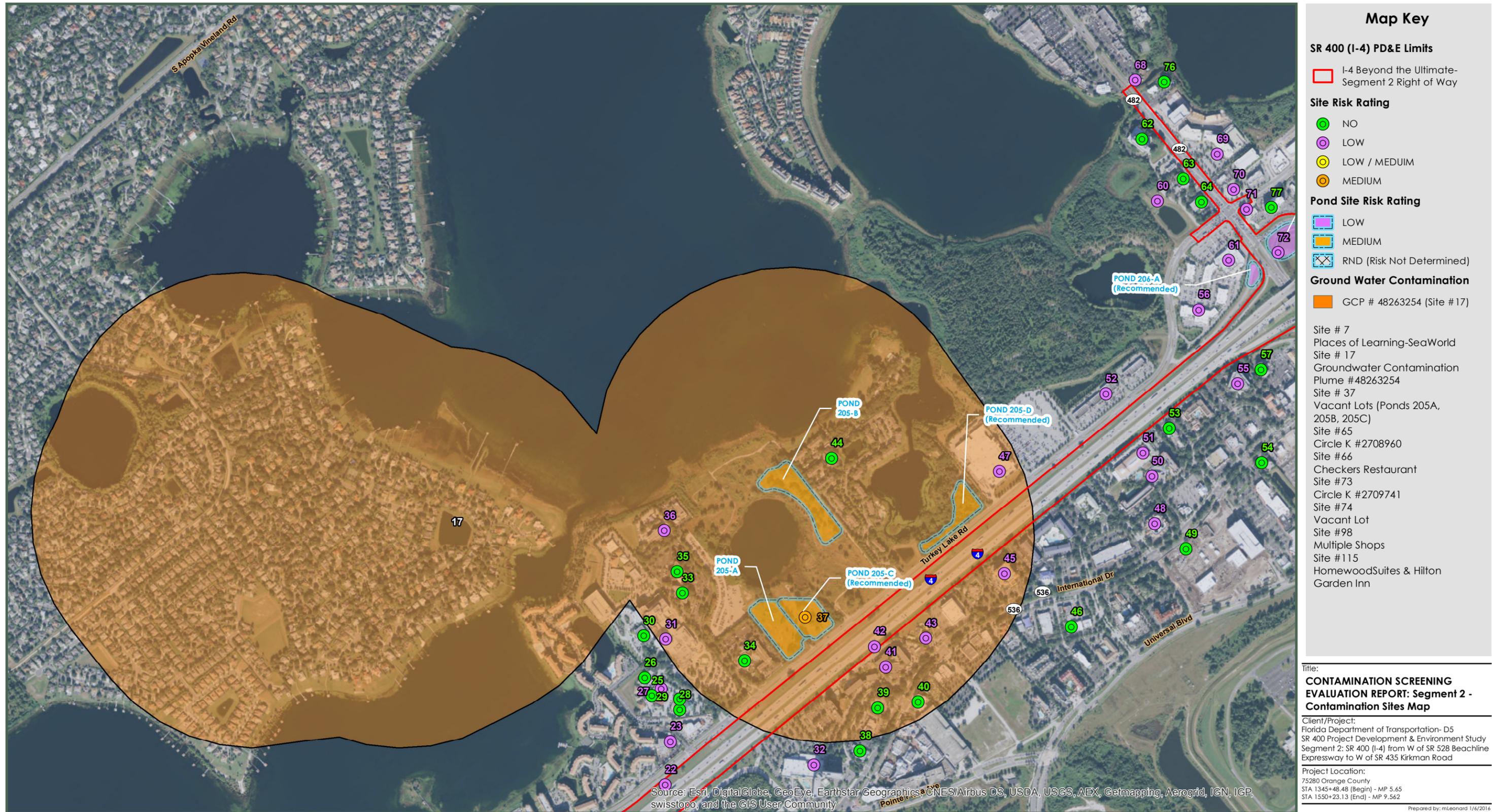
Project Location:
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet

Prepared by: mLeonard 1/6/2016
 Technical Review by: mDrauer 1/6/2016
 Independent Review by: jMoore 1/6/2016

Figure C: Contamination Sites Map - Sheet 1 of 3



Map Key

SR 400 (I-4) PD&E Limits

- I-4 Beyond the Ultimate-Segment 2 Right of Way

Site Risk Rating

- NO
- LOW
- LOW / MEDIUM
- MEDIUM

Pond Site Risk Rating

- LOW
- MEDIUM
- RND (Risk Not Determined)

Ground Water Contamination

- GCP # 48263254 (Site # 17)

Site # 7
 Places of Learning-SeaWorld
 Site # 17
 Groundwater Contamination Plume #48263254
 Site # 37
 Vacant Lots (Ponds 205A, 205B, 205C)
 Site # 65
 Circle K #2708960
 Site # 66
 Checkers Restaurant
 Site # 73
 Circle K #2709741
 Site # 74
 Vacant Lot
 Site # 98
 Multiple Shops
 Site # 115
 HomewoodSuites & Hilton Garden Inn

Title:
CONTAMINATION SCREENING EVALUATION REPORT: Segment 2 - Contamination Sites Map

Client/Project:
 Florida Department of Transportation- D5 SR 400 Project Development & Environment Study Segment 2: SR 400 (I-4) from W of SR 528 Beachline Expressway to W of SR 435 Kirkman Road

Project Location:
 75280 Orange County
 STA 1345+48.48 (Begin) - MP 5.65
 STA 1550+23.13 (End) - MP 9.562

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet

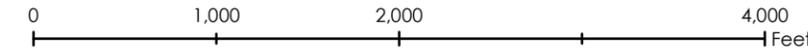
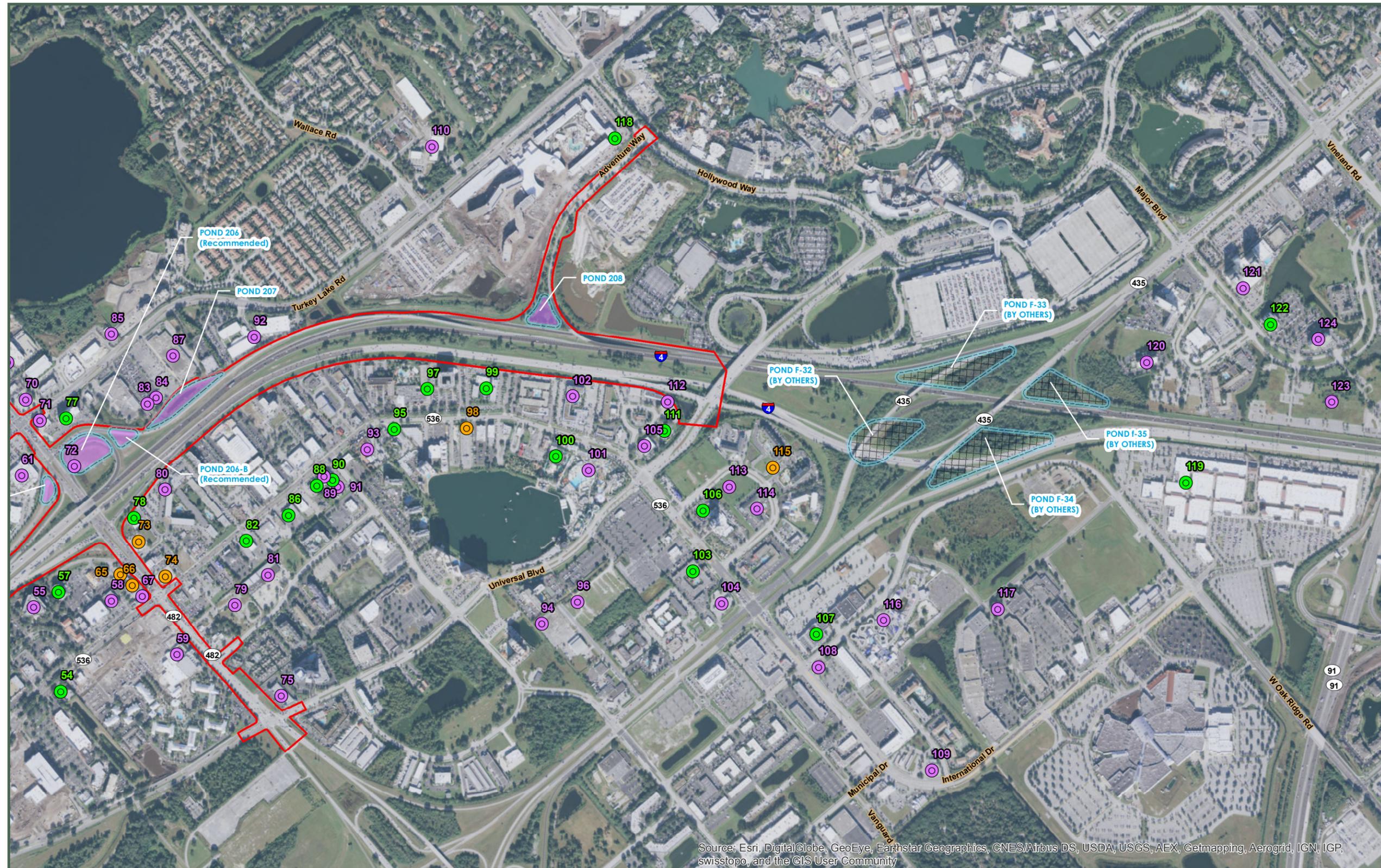


Figure C: Contamination Sites Map - Sheet 2 of 3



Map Key

SR 400 (I-4) PD&E Limits

- I-4 Beyond the Ultimate-Segment 2 Right of Way

Site Risk Rating

- NO
- LOW
- LOW / MEDIUM
- MEDIUM

Pond Site Risk Rating

- LOW
- MEDIUM
- RND (Risk Not Determined)

Ground Water Contamination

- GCP # 48263254 (Site # 17)

Site # 7
Places of Learning-SeaWorld

Site # 17
Groundwater Contamination Plume #48263254

Site # 37
Vacant Lots (Ponds 205A, 205B, 205C)

Site # 65
Circle K #2708960

Site # 66
Checkers Restaurant

Site # 73
Circle K #2709741

Site # 74
Vacant Lot

Site # 98
Multiple Shops

Site # 115
HomewoodSuites & Hilton Garden Inn

Title:
CONTAMINATION SCREENING EVALUATION REPORT: Segment 2 - Contamination Sites Map

Client/Project:
 Florida Department of Transportation- D5 SR 400 Project Development & Environment Study Segment 2: SR 400 (I-4) from W of SR 528 Beachline Expressway to W of SR 435 Kirkman Road

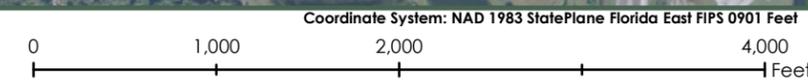
Project Location:
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 STA 1345+48.48 (Begin) - MP 5.65
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet

Prepared by: mLeonard 1/6/2016
 Technical Review by: mDrauer 1/6/2016
 Independent Review by: jMoore 1/6/2016

Figure C: Contamination Sites Map - Sheet 3 of 3



APPENDIX B

POND SITE PHOTOS

I-4 PD&E Segment 2 Pond Site Photographs



Pond Site 200A



Pond Site 200B



Pond Site 201



Pond Site 202A



Pond Site 202B



Pond Sites 202C, 202D



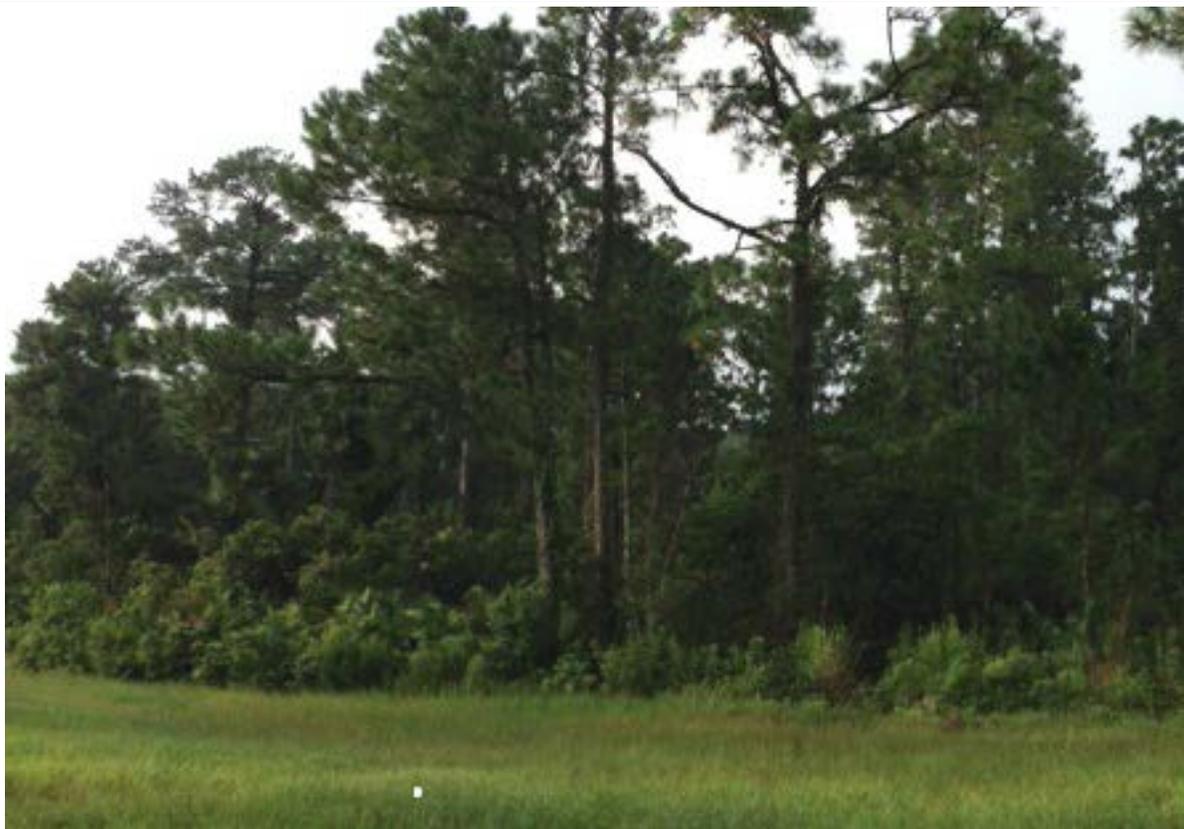
Pond Site 203A



Pond Site 203B



Pond Site 204A



Pond Site 204B



Pond Site 205A



Pond Site 205B



Pond Site 205C



Pond Site 205C: discarded debris



Pond Site 205D



Pond Site 205D: paint cans, debris



Pond Site 205D: remains of structure



Pond Site 206



Pond Site 206A



Pond Site 206B



Pond Site 207



Pond Site 208

CONTAMINATION SITE PHOTOS



Site 1: Marriott Cypress Pines Golf Course Maintenance Facility



Site 2: Dr. Phillips Community Park, formerly Orange County Trap and Skeet Club



Site 3: 7-Eleven Store #35277



Site 4: CVS Pharmacy #5400



Site 5: Hilton Garden Inn



Site 6: Renaissance Resort SeaWorld



Site 6: Renaissance Resort SeaWorld



Site 7: Places of Learning SeaWorld Orlando Marketing



Site 8: SeaWorld Parks and Entertainment Administration Office



Site 9: SeaWorld of Florida Inc., Florida Festival



Site 10: Newkirk Skoob LP, formerly Houghton Mifflin Harcourt



Site 10: Newkirk Skoob LP, formerly Houghton Mifflin Harcourt



Site 11: Double Tree International, formerly Sheraton World Resort



Site 12: Cell Tower with Diesel Generator A



Site 13: Texaco Redmart



Site 13: Texaco Redmart – remediation system



Site 14: Ciao Italia Restaurant



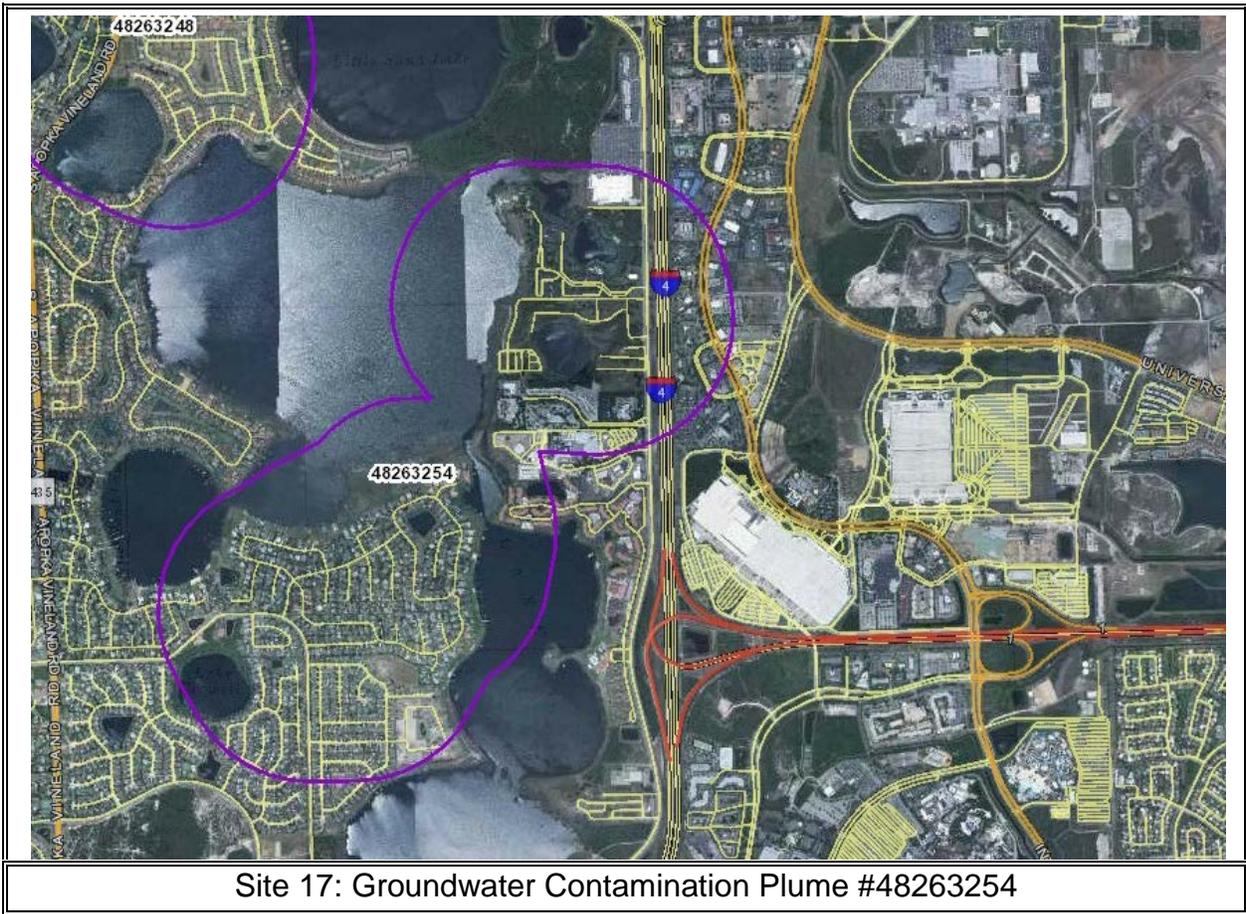
Site 15: Westwood Dry Clean Inc.



Site 15: Westwood Dry Clean Inc.



Site 16: FDOT Diesel Power Generator A



Site 17: Groundwater Contamination Plume #48263254



Site 18: Orange County Convention Center West Building



Site 18: Orange County Convention Center West Building – storage tank



Site 19: Days Inn Civic Center



Site 20: 7-Eleven Store #34881, formerly Exxon RAS #44417



Site 21: Walgreens #12340, formerly Mobil #11220



Site 22: GT Specialists Spill Site – Looking westbound toward the I-4/SR-528 Interchange



Site 23: Westgate Lakes Resort and Spa



Site 23: Westgate Lakes Resort and Spa – storage tanks



Site 24: Peabody Orlando – Looking northeast from International Dr.



Site 25: Nasir Alar MD



Site 26: Sand Lake Cancer Center



Site 27: OHPG Orlando Heart Center



Site 28: S A Neurology LLC



Site 29: Gowani Medical Associates MD



Site 30: Multiple Doctors' Offices A



Site 31: Dr. P. Phillips Hospital



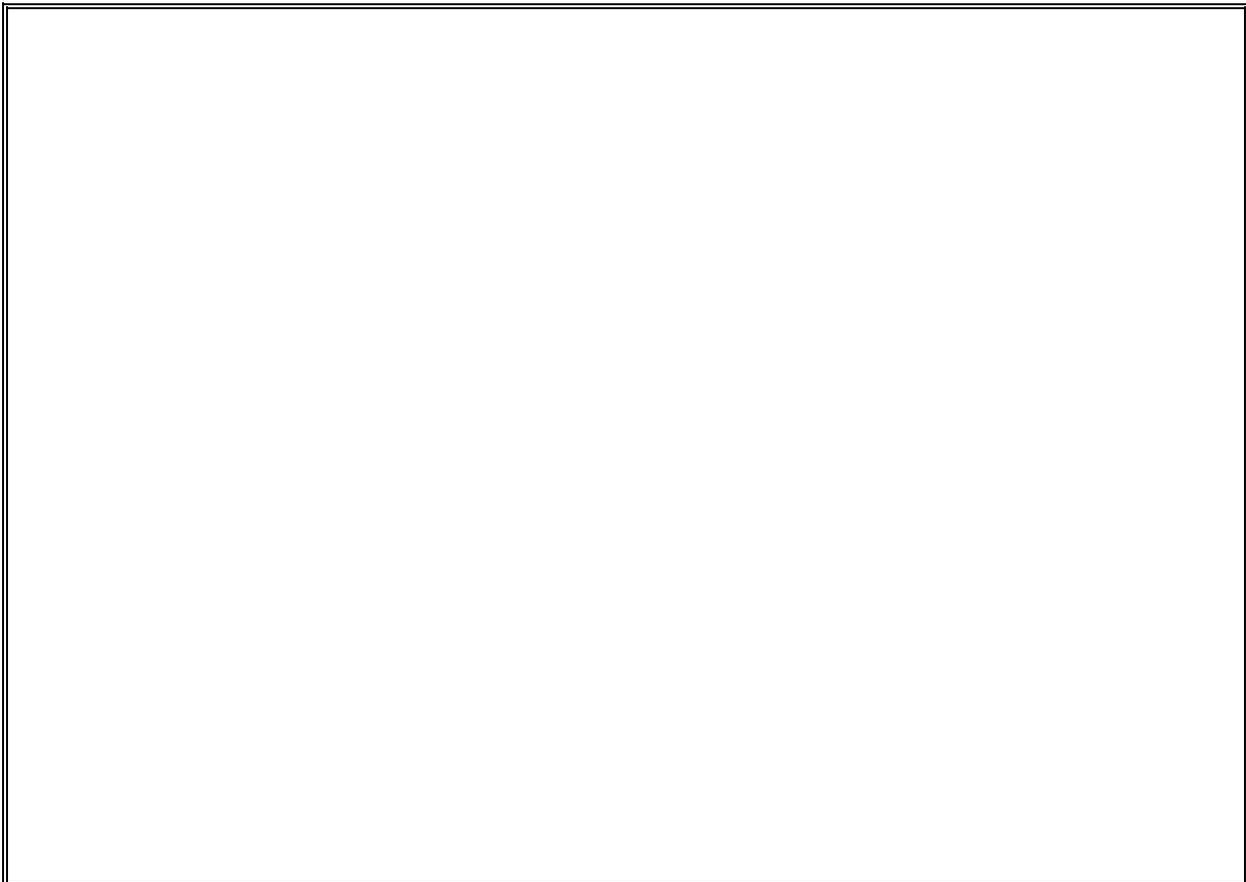
Site 32: Rosen Plaza Hotel



Site 32: Rosen Plaza Hotel



Site 33: Multiple Doctors' Offices B



Site 34: Sand Lake Imaging, Quest Diagnostics



Site 35: Multiple Doctors' Offices C



Site 36: Central FL Investments Inc. Sand Lake



Site 36: Central FL Investments Inc. Sand Lake - generator



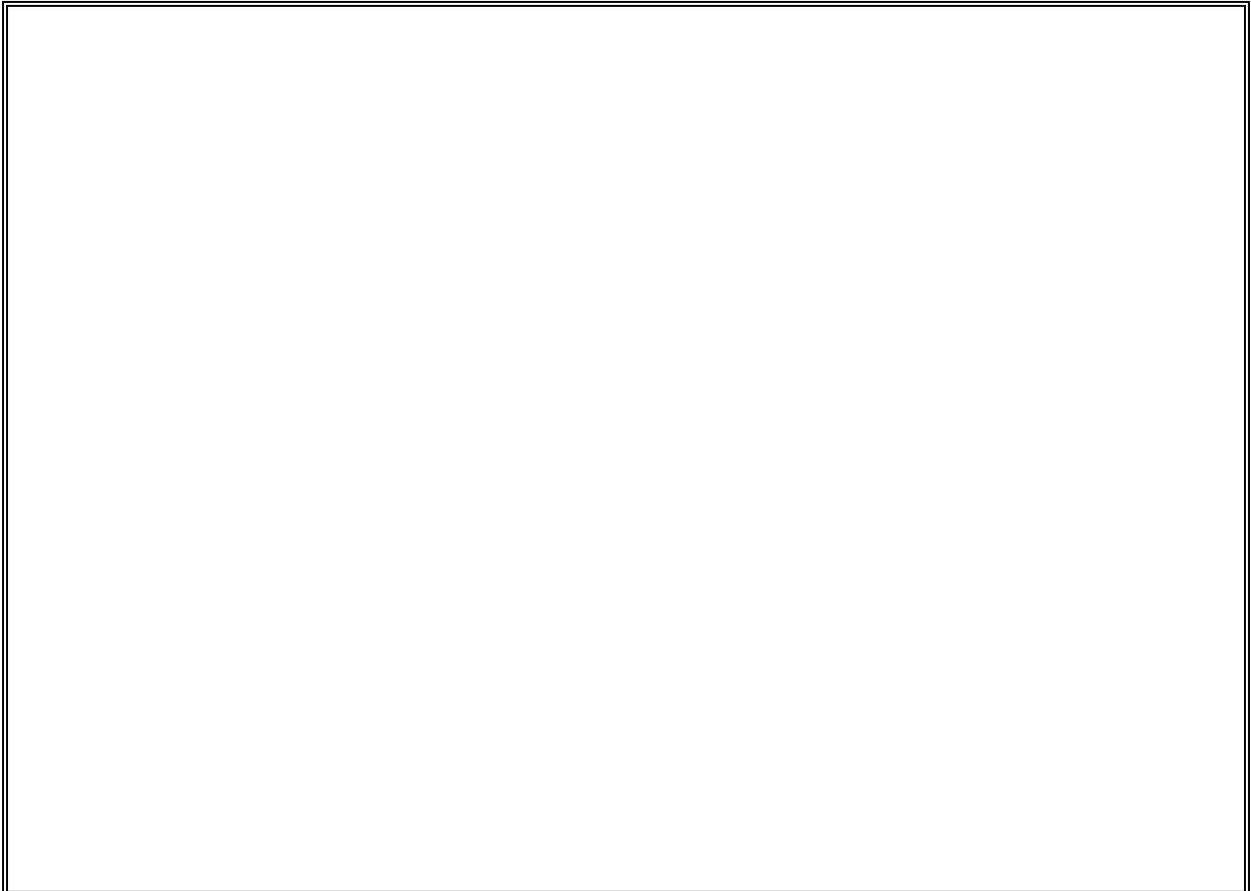
Site 37: Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, and 205C



Site 37: Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, and 205C - debris



Site 37: Vacant Lots, FDOT Proposed Pond Sites 205A, 205B, and 205C - debris



Site 38: Ming Court, listed as Top Tree Service

Site 39: Pizza Hut



Site 40: Wonderworks



Site 41: Rosen Inn at Pointe Orlando



Site 41: Rosen Inn at Pointe Orlando - generator



Site 41: Rosen Inn at Pointe Orlando - generator



Site 42: FDOT Diesel Power Generator B - at Rosen Inn at Pointe Orlando



Site 43: Air Florida Helicopter Inc. – Looking west towards I-4



Site 43: Air Florida Helicopter Inc.



Site 44: Former Debernardi Printing



Site 45: Embassy Suites



Site 45: Embassy Suites - generator



Site 45: Embassy Suites - drums



Site 46: Lakeside Medical



Site 47: Wal-Mart Supercenter #4332



Site 48: Sonesta ES Suites, formerly Summerfield Suites Hotel



Site 49: Former site of the Butcher Shop Steakhouse



Site 50: Radisson Hotel



Site 50: Radisson Hotel – natural gas fueled generator



Site 51: YMCA



Site 51: YMCA – Pool chemical storage



Site 52: Paris Nails and Spa



Site 53: Ramada Inn



Site 54: Former site of Dream Cars Unlimited Inc.



Site 55: Embassy Suites Hotel



Site 55: Embassy Suites Hotel – diesel fueled generator



Site 56: Image Nails



Site 57: Comfort Inn



Site 58: Walgreens #3254



Site 59: Wyndham Orlando Resort



Site 60: Cell Tower with Diesel Fueled Generator B



Site 61: Whole Foods Market Bay Hill



Site 61: Whole Foods Market Bay Hill – diesel fueled generator



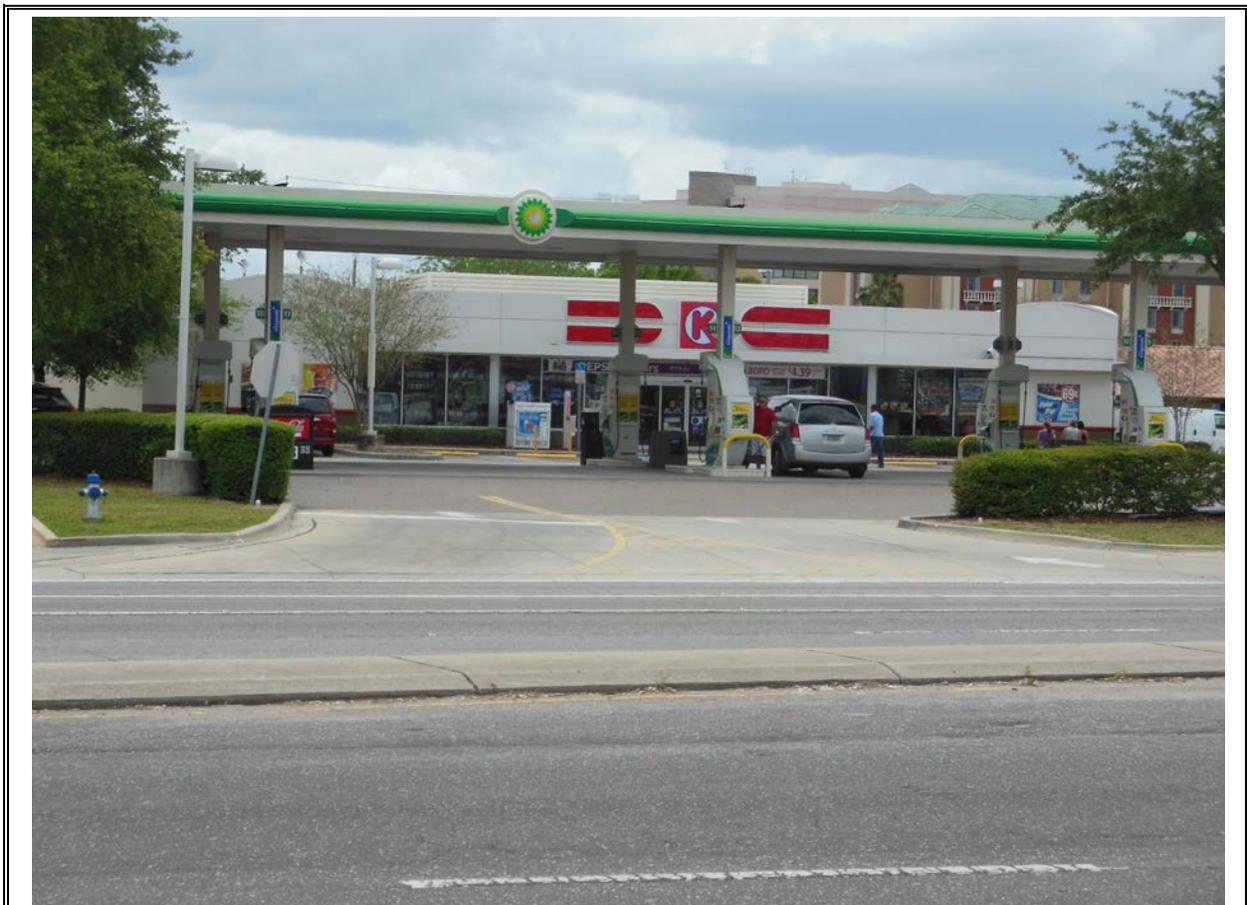
Site 62: Faesch Enterprises LLC



Site 63: Vinod Arora CPA



Site 64: Multiple Doctors' Offices D



Site 65: Circle K #2708960



Site 65: Circle K #2708960 – monitoring well



Site 66: Checkers Restaurant, former Chevron #42157



Site 66: Checkers Restaurant (former Chevron #42157) – monitoring well east of Checkers building in the parking lot



Site 67: International Bazaar Row Stores, formerly Haji A INC



Site 68: Orange County Utilities Dr. Phillips PS #3151



Site 69: Offices at Rialto, formerly Days Inn



Site 70: Chevron Sand Lake MCS PC #136



Site 71: 7-Eleven Food Store #29682



Site 72: FDOT Right-of-Way, former 7-Eleven Food Store #21315 – Approximate site of former 7-Eleven in NW corner of I-4 Sand Lake Interchange



Site 73: Circle K #2709741 , former Texaco #24-025-0073



Site 73: Circle K #2709741, former Texaco #24-025-0073



Site 74: Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941



Site 74: Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941 – site well



Site 75: Orlando Trade Center



Site 76: Southeast Great Health Solution



Site 77: Drury Inn Hotel



Site 77: Drury Inn Hotel – natural gas fueled generator



Site 78: Rosen Medical Center



Site 79: Vacant Lot, former Fun'n Wheels Family Fun Park



Site 80: Quality Inn International



Site 80: Quality Inn International – natural gas fueled generator



Site 80: Quality Inn International – natural gas fueled generator



Site 81: Former Rock on Ice!, W P Pallis Company



Site 81: Former Rock on Ice!, W P Pallis Company



Site 81: Former Rock on Ice!, W P Pallis Company



Site 82: Majestic Gift Shop



Site 83: Discount Club Cleaners – looking southeast from Bay Hill Plaza



Site 84: Bay Hill First Nail – Looking east from Bay Hill Plaza



Site 85: Tire Kingdom #956



Site 86: Gift Galley, formerly Gala Gifts



Site 87: K Mart #3478



Site 88: 24 Hour Dentist Inc.



Site 89: Fantasy Nails



Site 90: Former USA Films Brasil Inc.



Site 91: Taj Punjabi Indian Restaurant, former International Dry Cleaners



Site 92: Loews Hotels at Universal Studios Escape – Chemical barrels at north building



Site 92: Loews Hotels at Universal Studios Escape – diesel fueled generator



Site 93: Magical Midway, former Wonderworks



Site 94: Orlando City Lift Station #29



Site 95: World Café



Site 96: Wet 'n Wild, former site of Power Concrete Products Company



Site 97: International Palms Resort



Site 97: International Palms Resort – natural gas fueled generator, northeast side of tower, inside maintenance room



Site 98: Multiple Shops, formerly E Z Food Mart and Mr. Grocer



Site 99: Rosen Inn – northwest corner of building, facing southeast



Site 100: International Golf



Site 101: Wet 'N Wild – looking south from International Dr.



Site 102: Orlando Monumental Movieland Hotel – north side of building, facing west, dumpster and chemicals at right side of picture



Site 102: Orlando Monumental Movieland Hotel – used chemicals and stains at northwest part of parcel



Site 103: Days Inn International



Site 104: Chevron International, former Shell



Site 105: Walgreens #2839



Site 106: Alamo Rent A Car



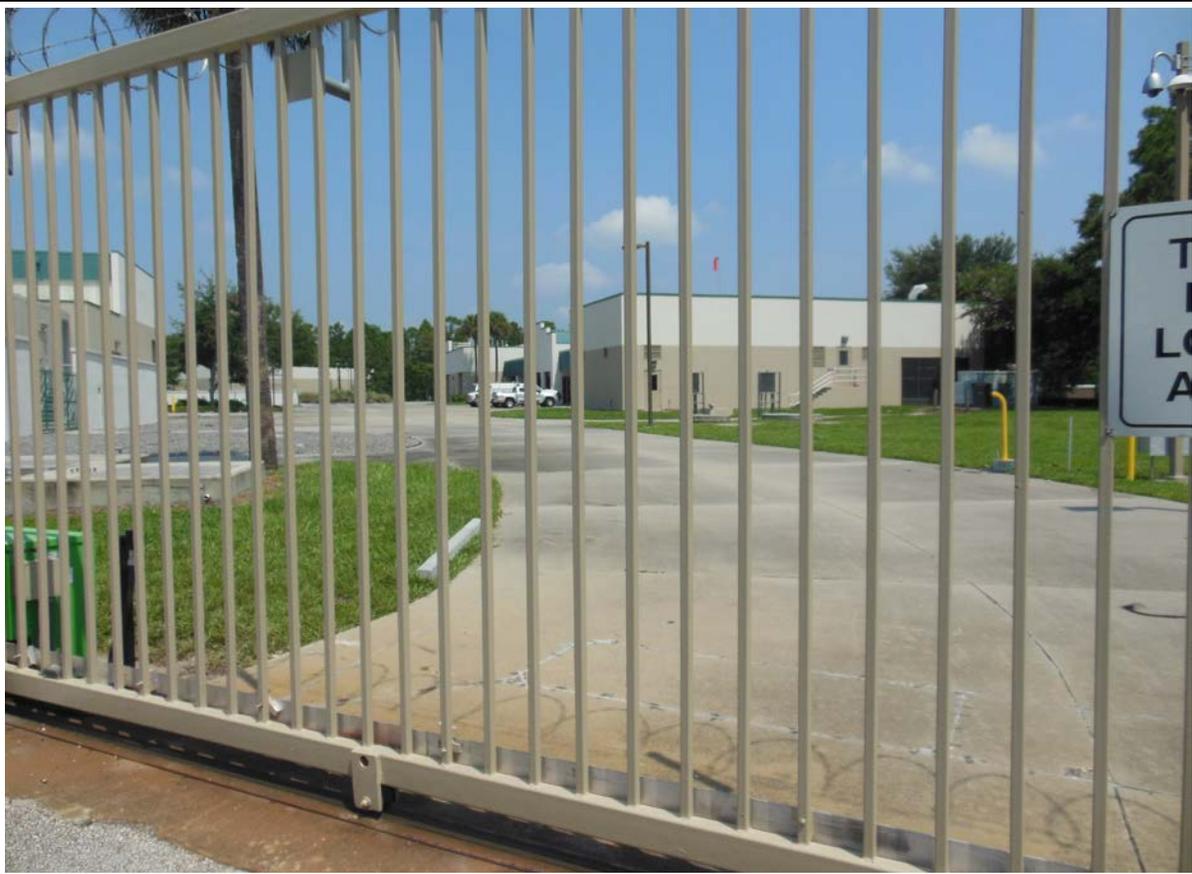
Site 107: Office Depot #553



Site 108: Del Taco, Formerly Exxon #40262



Site 109: Hess #09328



Site 110: Orlando Utility Commission SW Water Plant



Site 111: I-Fly



Site 112: Universal Shops – looking north from Visitors Circle



Site 113: Buffalo-Orlando 3 LLC Parcel



Site 114: Super 8 Motel



Site 115: Homewood Suites and Hilton Garden Inn, formerly Orlando Malibu Grand Prix



Site 116: Fun Spot Attraction Park



Site 116: Fun Spot Attraction Park



Site 116: Fun Spot Attraction Park



Site 117: Former International Station



Site 118: Irving Mechanical – area where site is located on FDEP Map Direct



Site 119: Prime Outlets



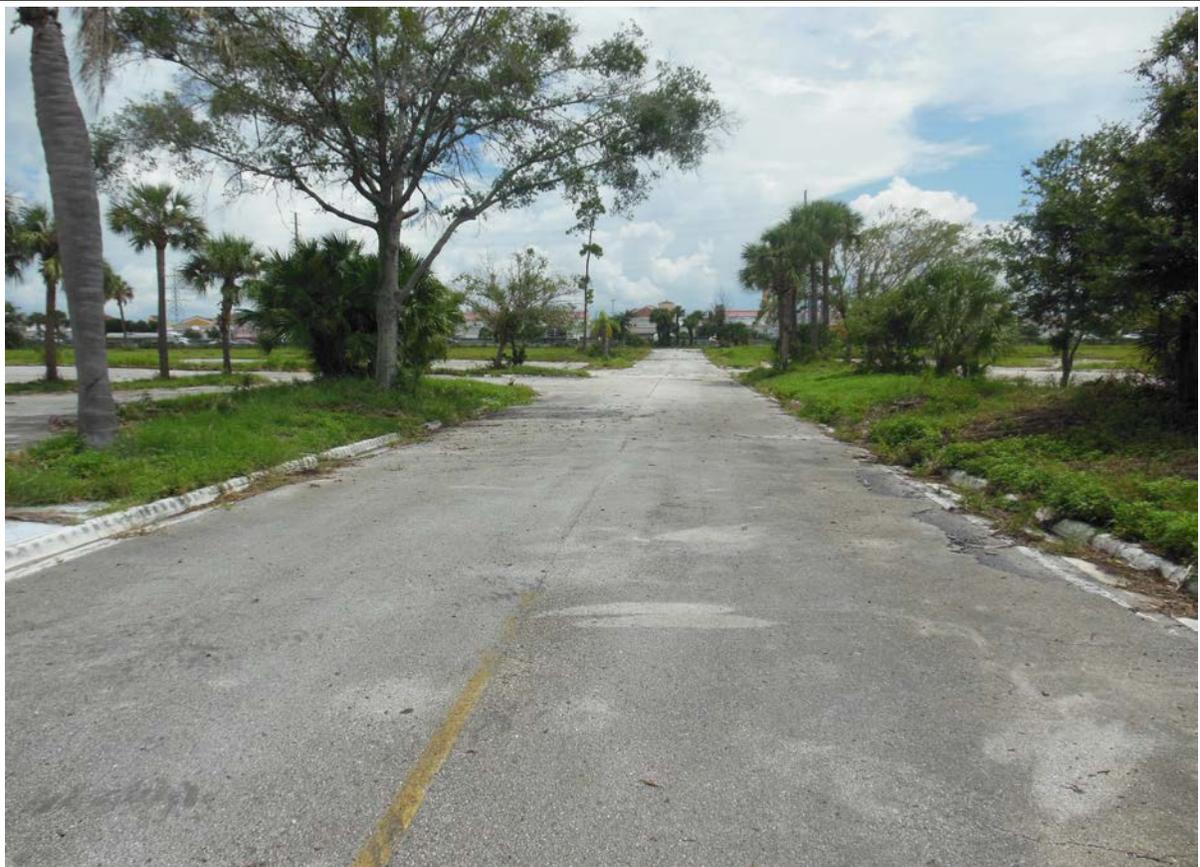
Site 120: Hyatt Place Orlando



Site 121: Double Tree by Hilton Universal



Site 122: In Charge Institute

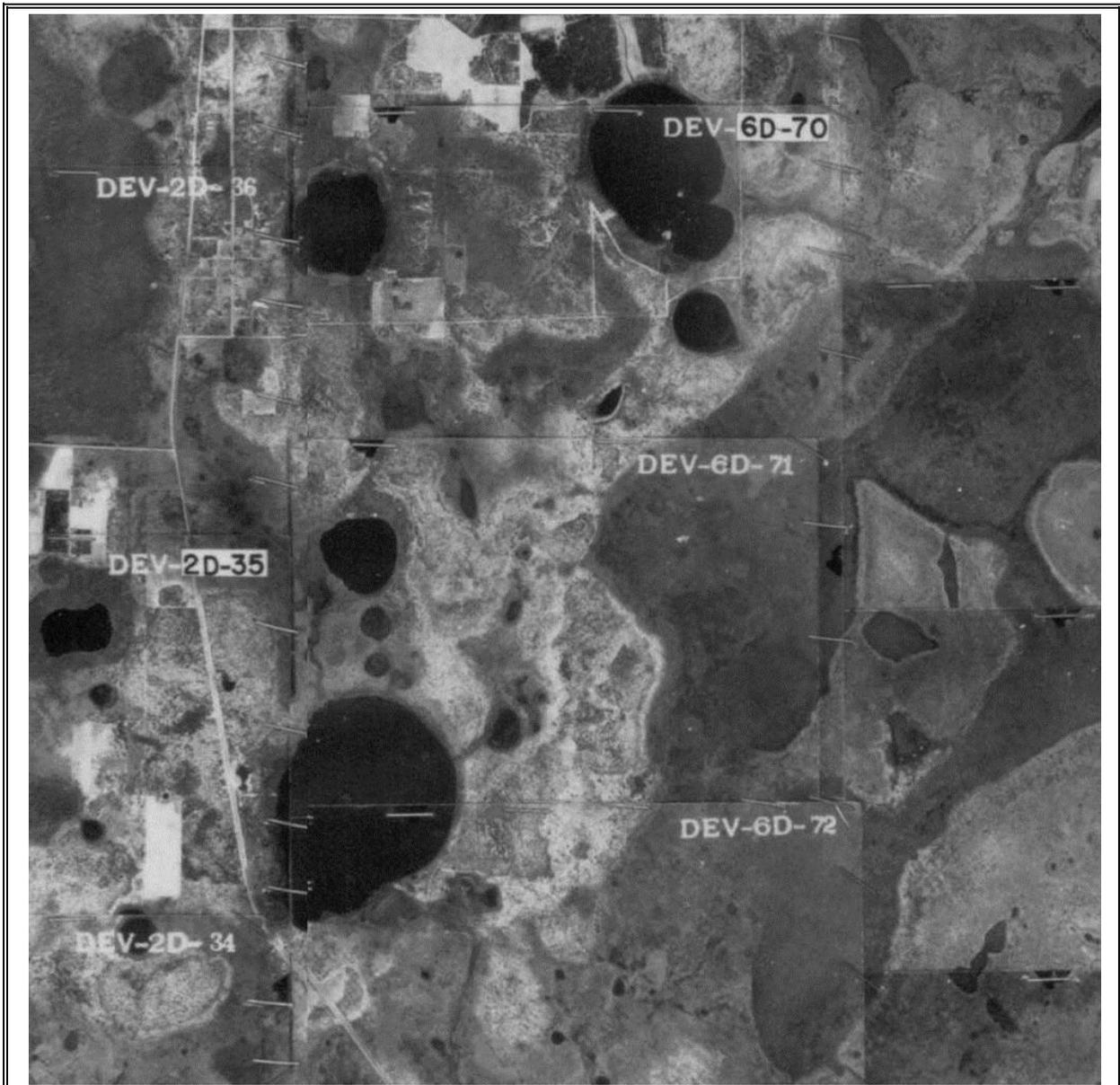


Site 123: Former Delta Orlando Resort

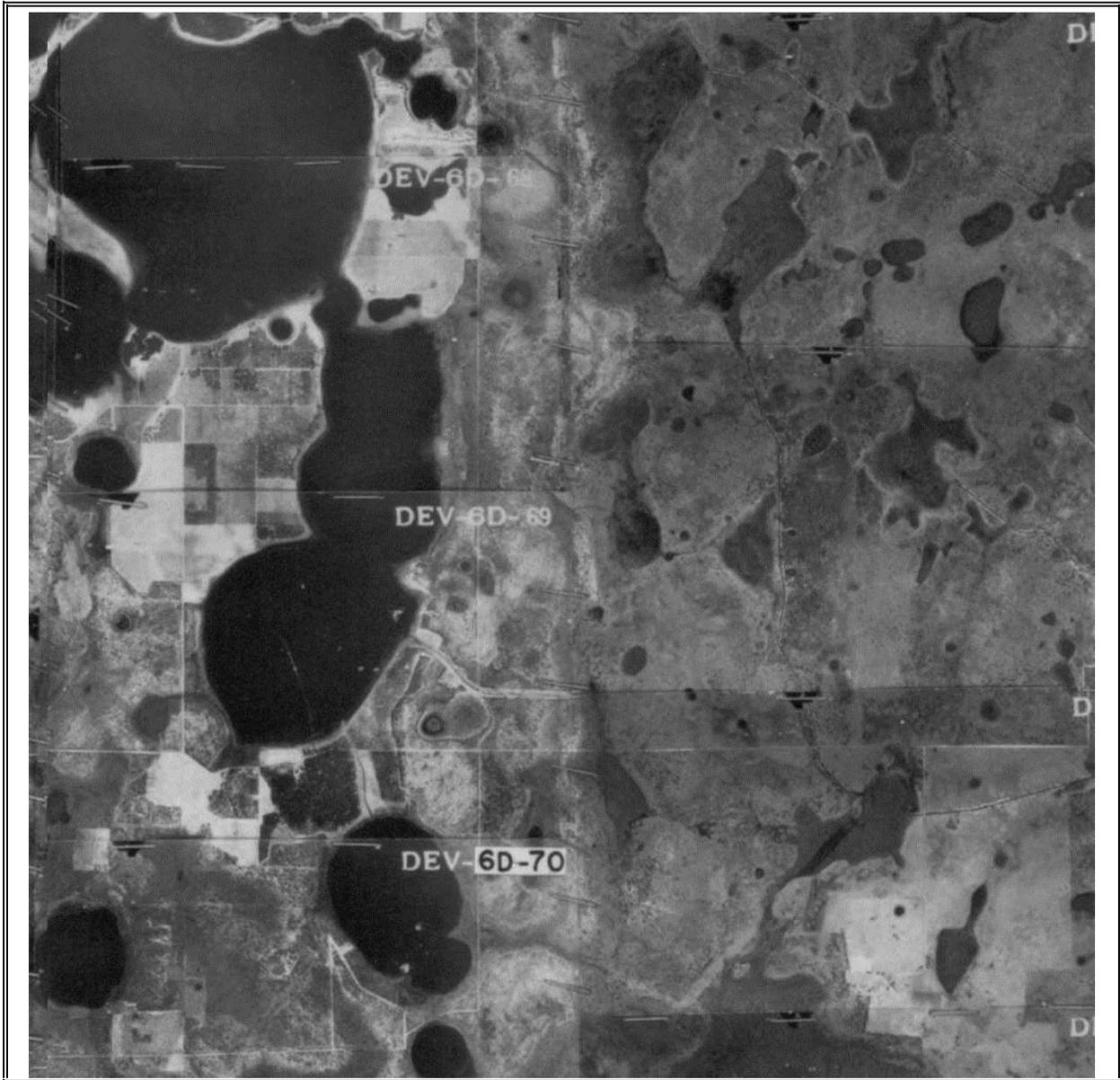


Site 124: Major Plaza

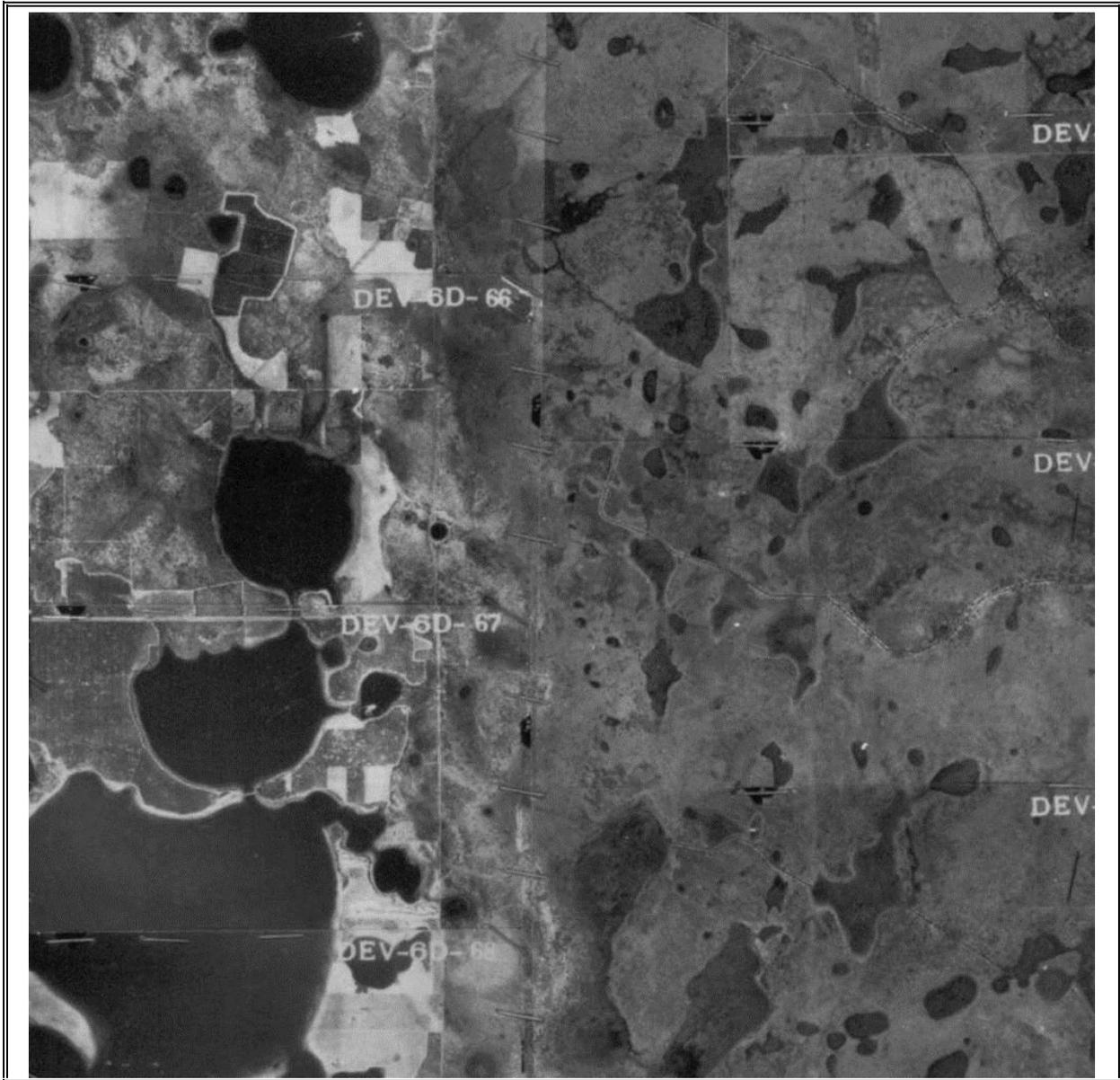
APPENDIX C



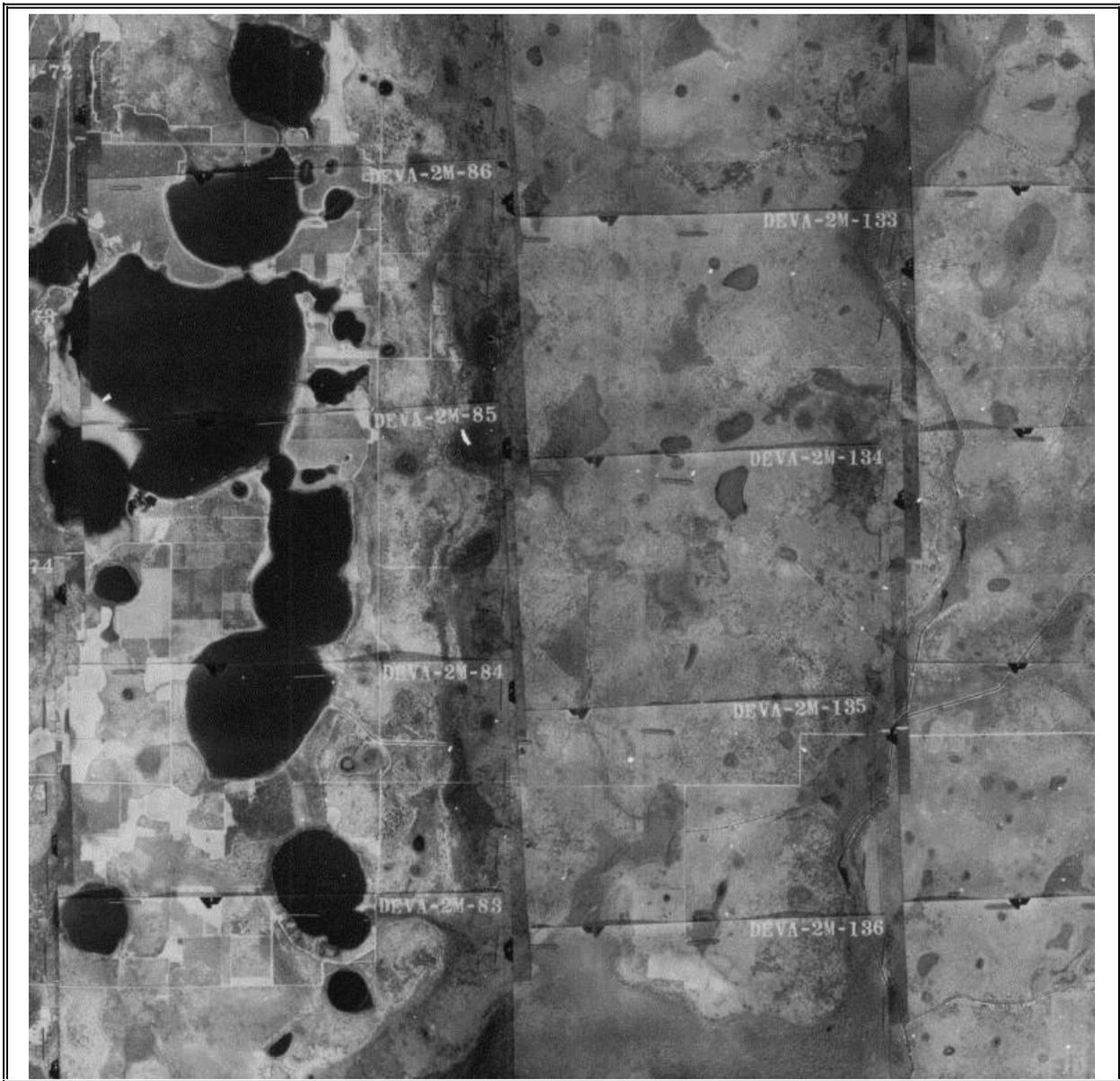
Aerial Photography: 1947 A



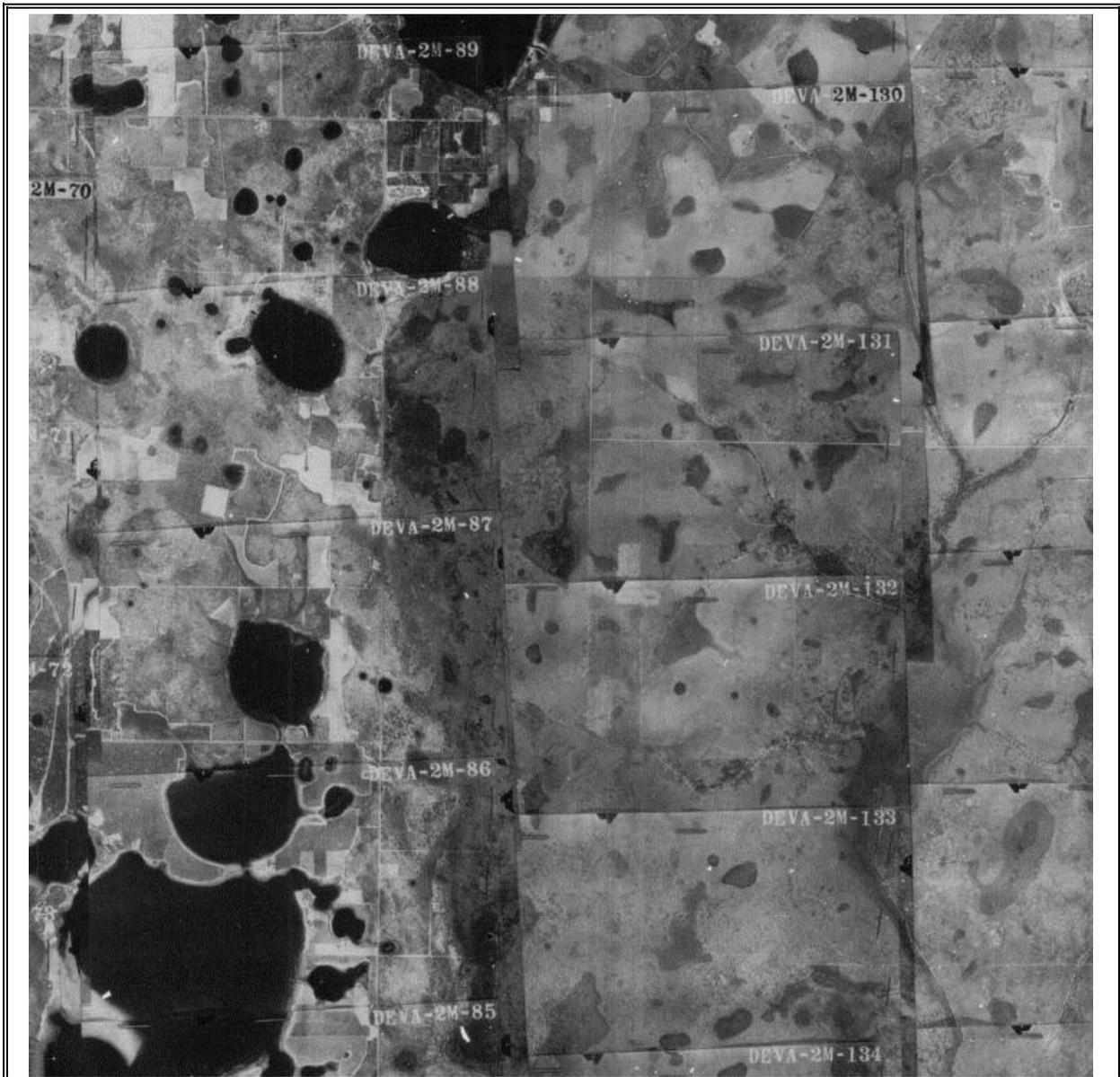
Aerial Photography: 1947 B



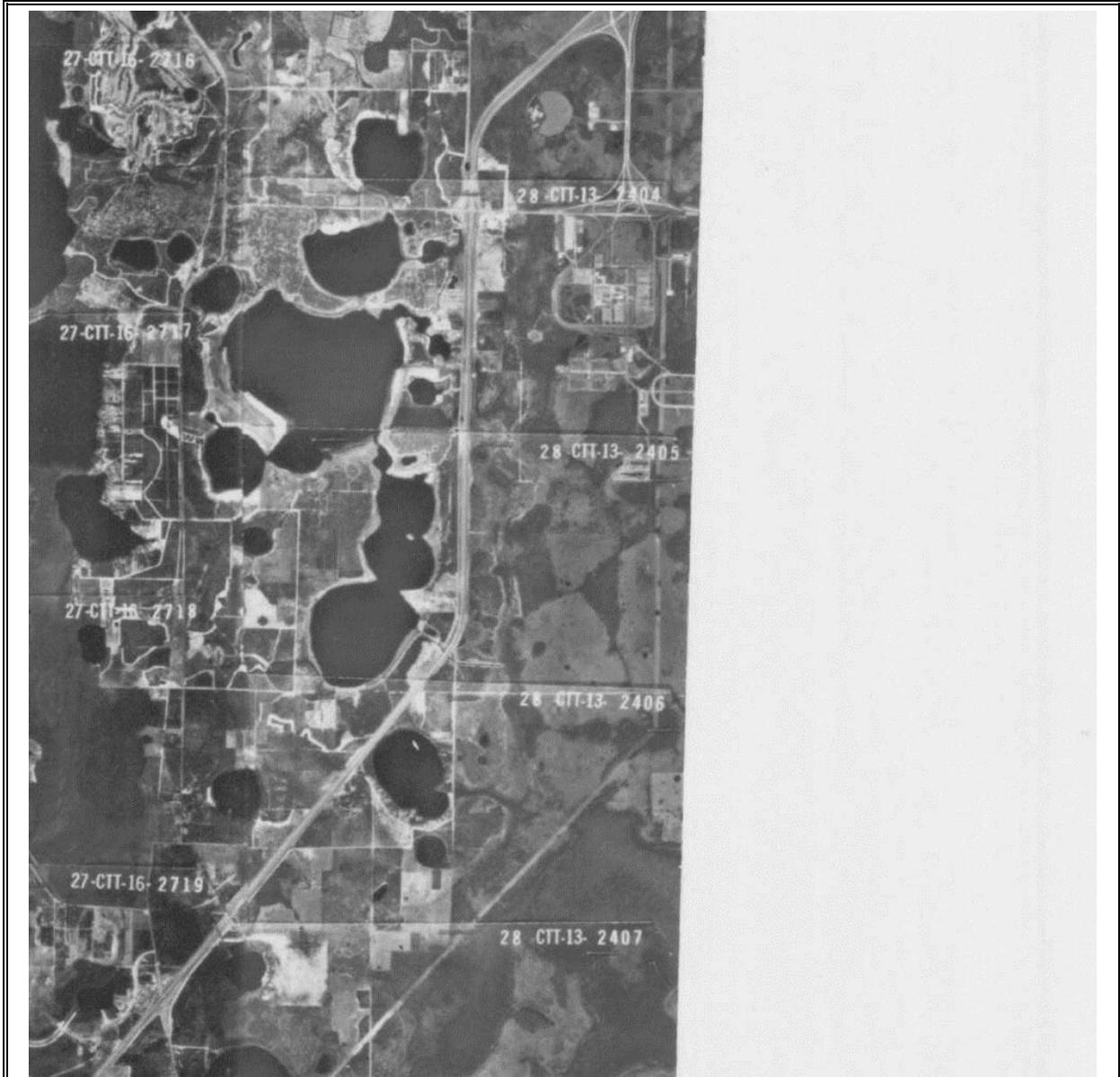
Aerial Photography: 1947 C



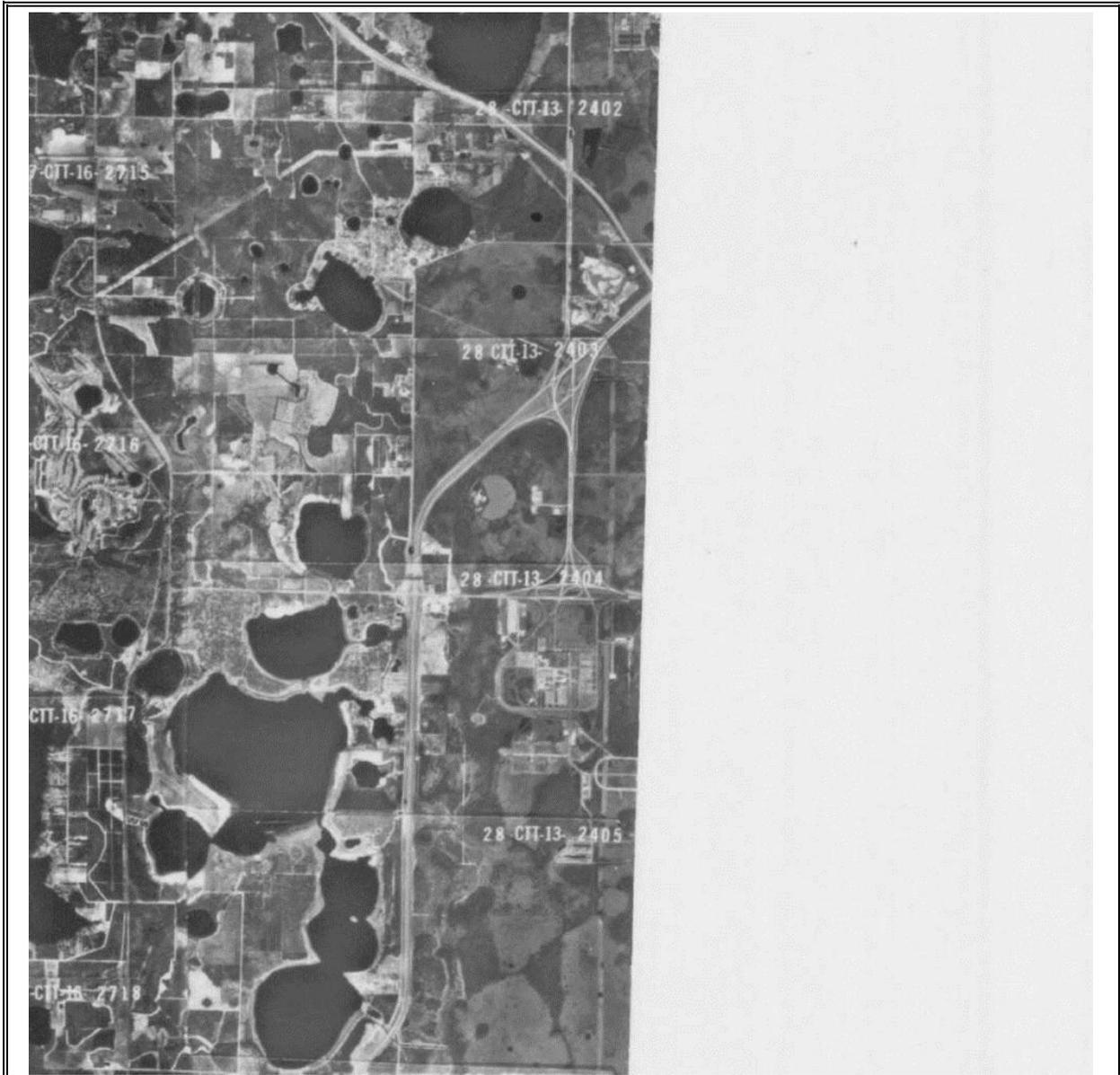
Aerial Photography: 1954 A



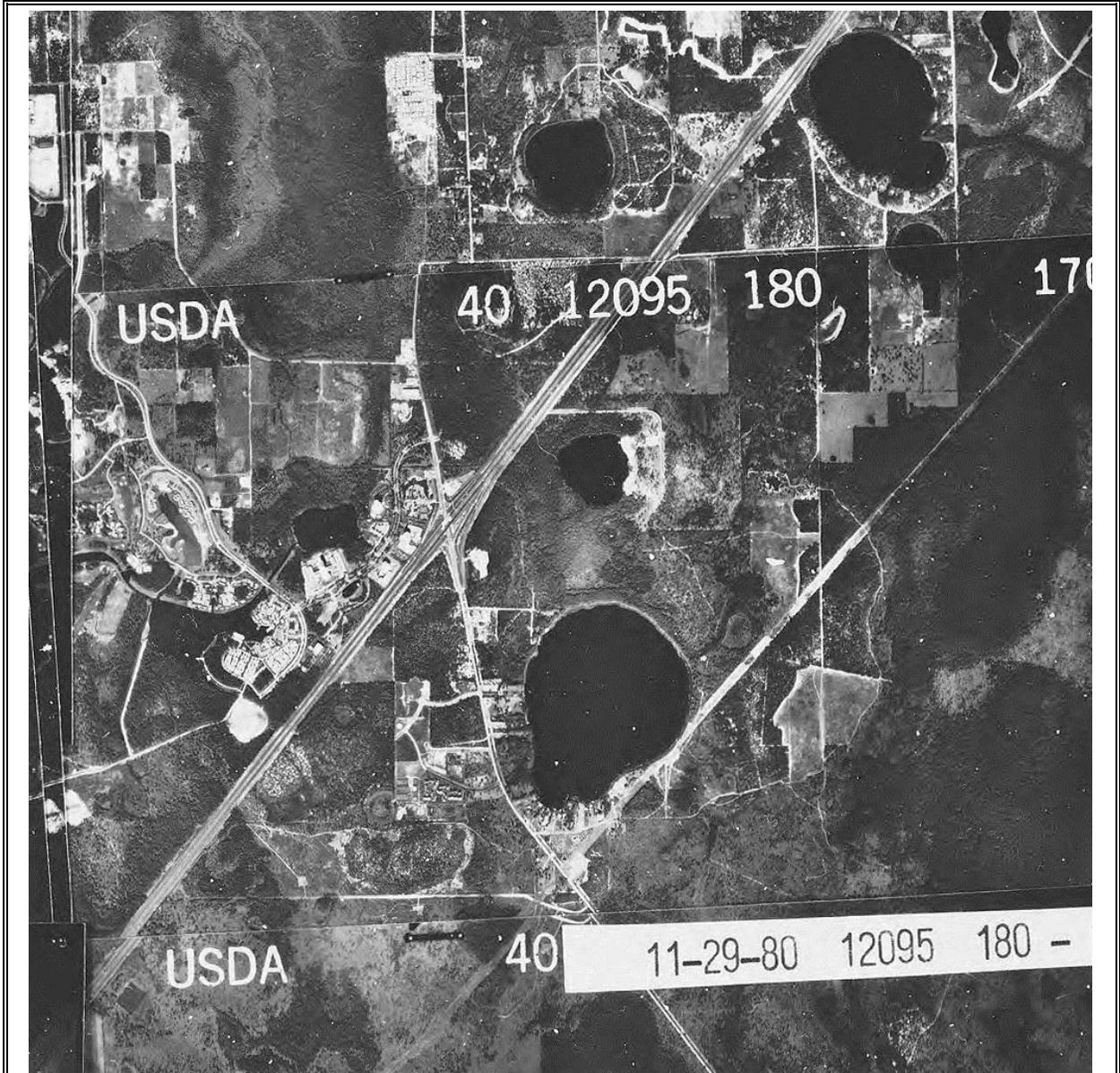
Aerial Photography: 1954 B



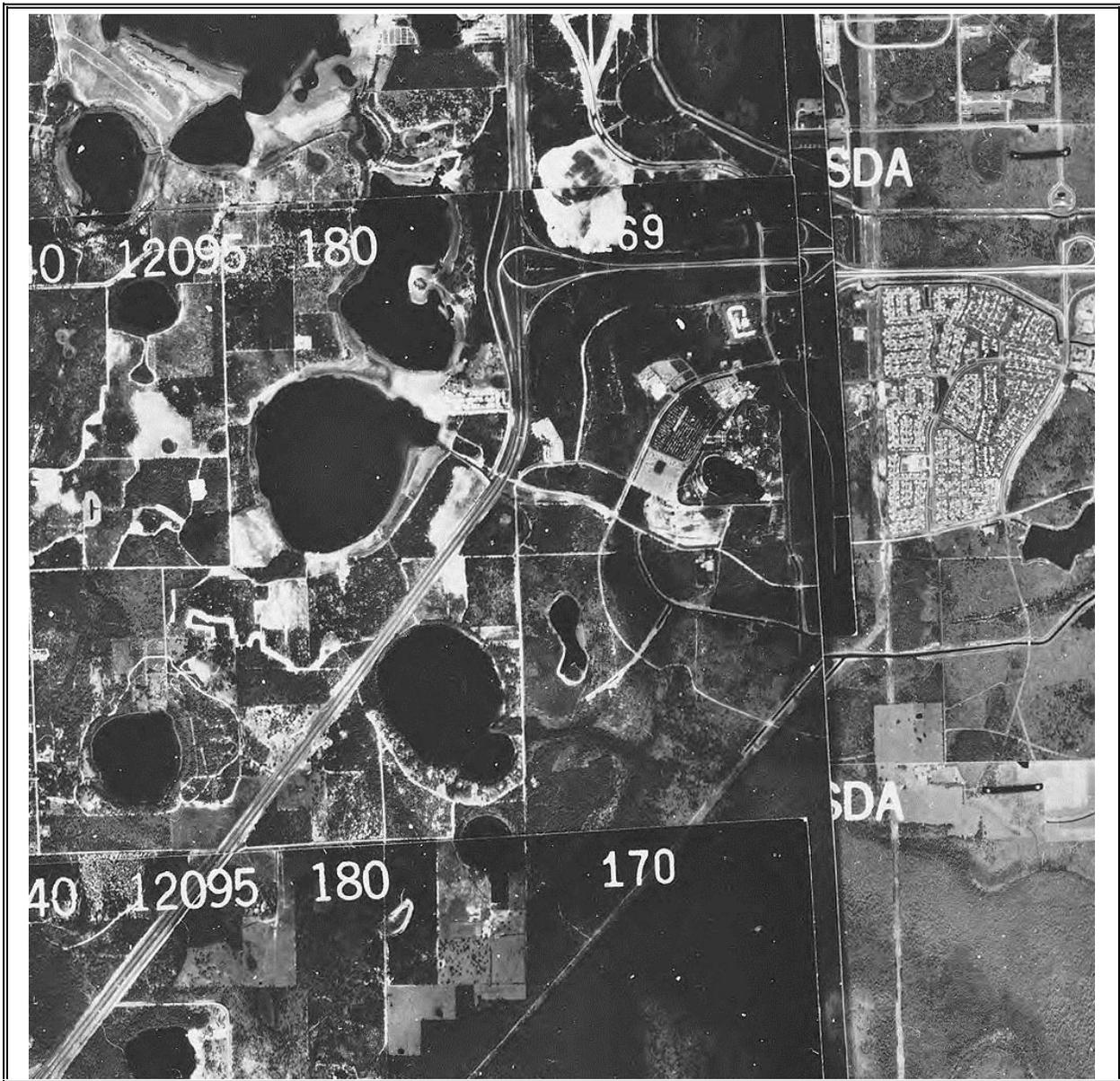
Aerial Photography: 1969 A



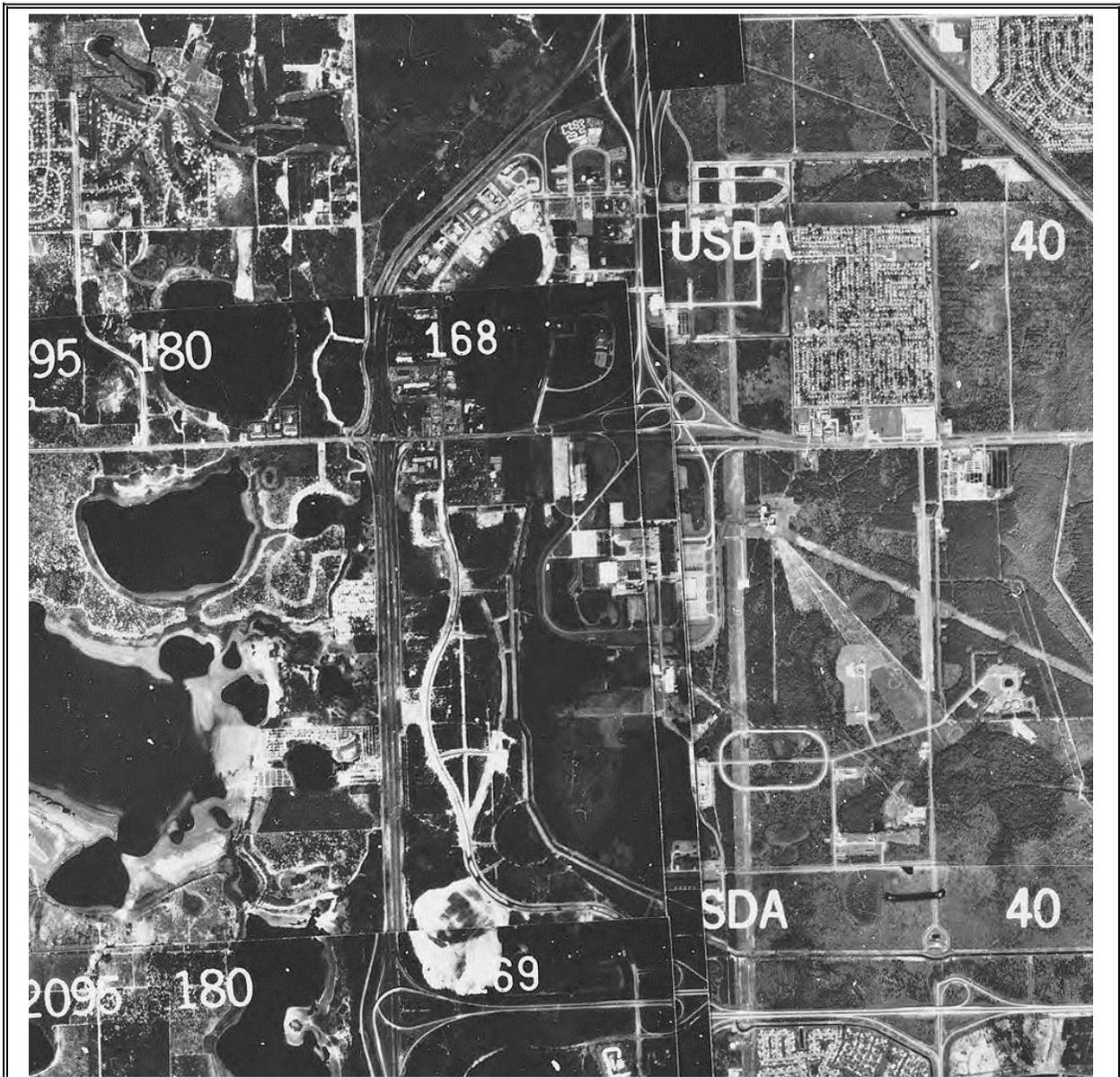
Aerial Photography: 1969 B



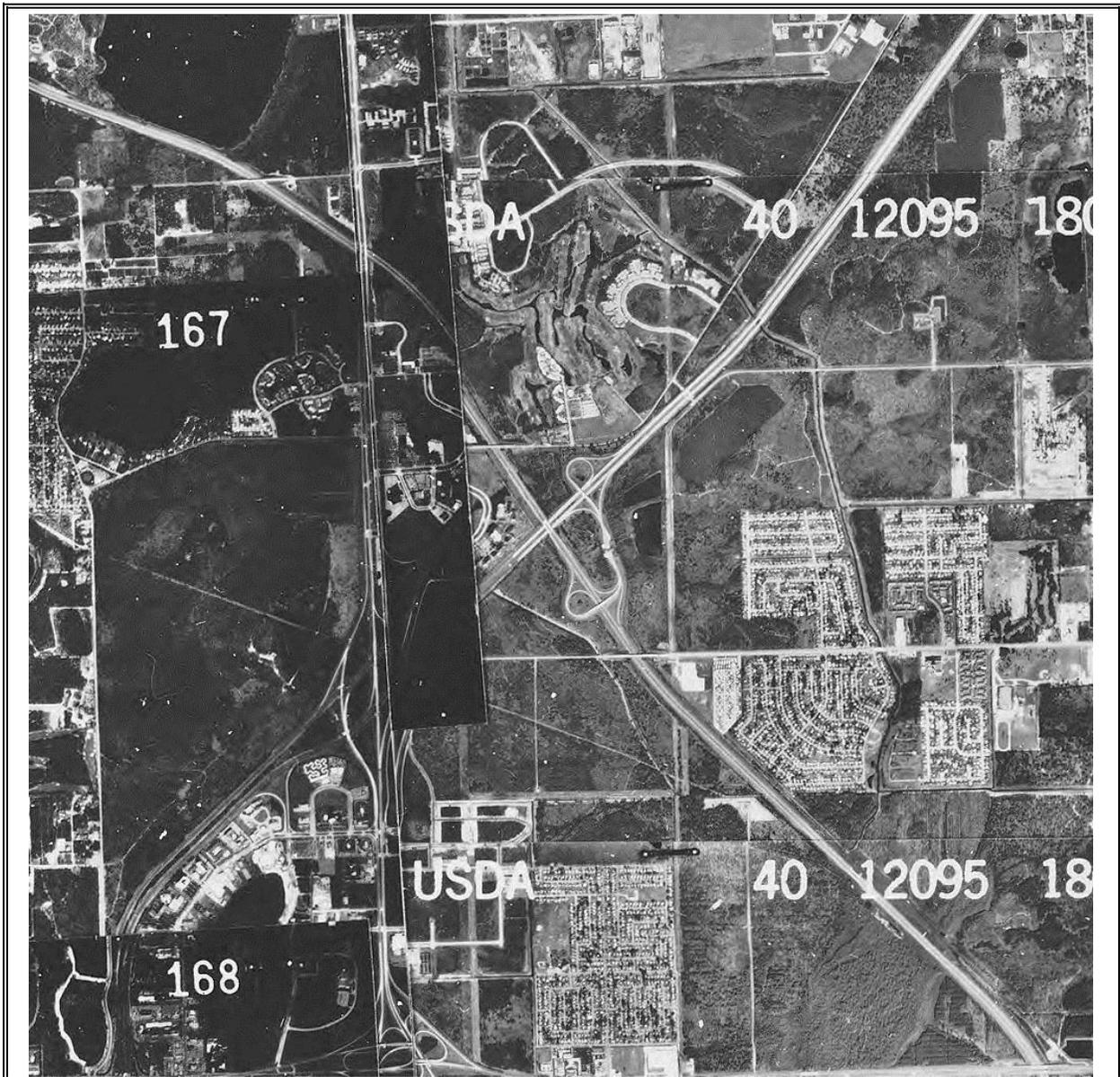
Aerial Photography: 1980 A



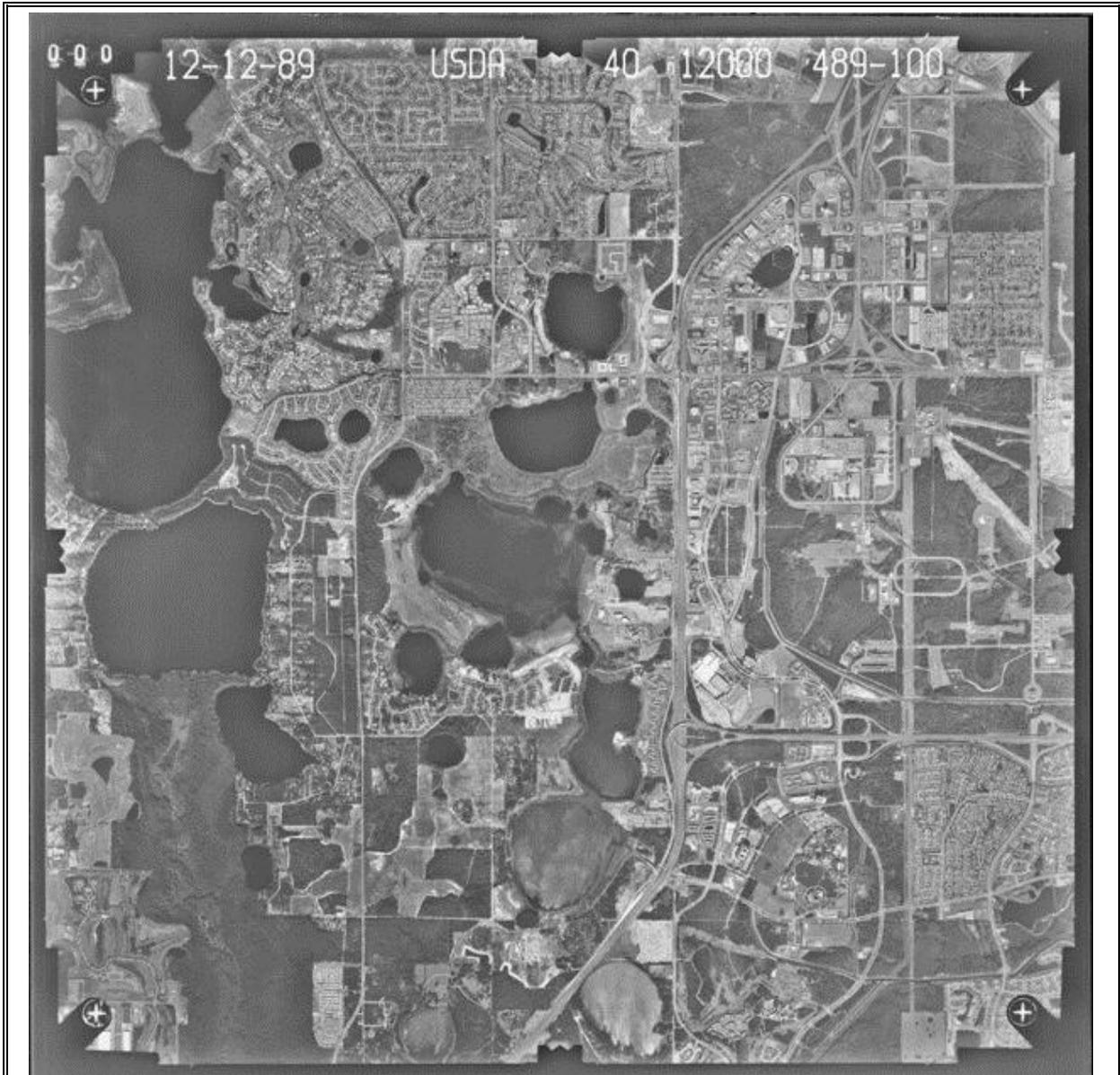
Aerial Photography: 1980 B



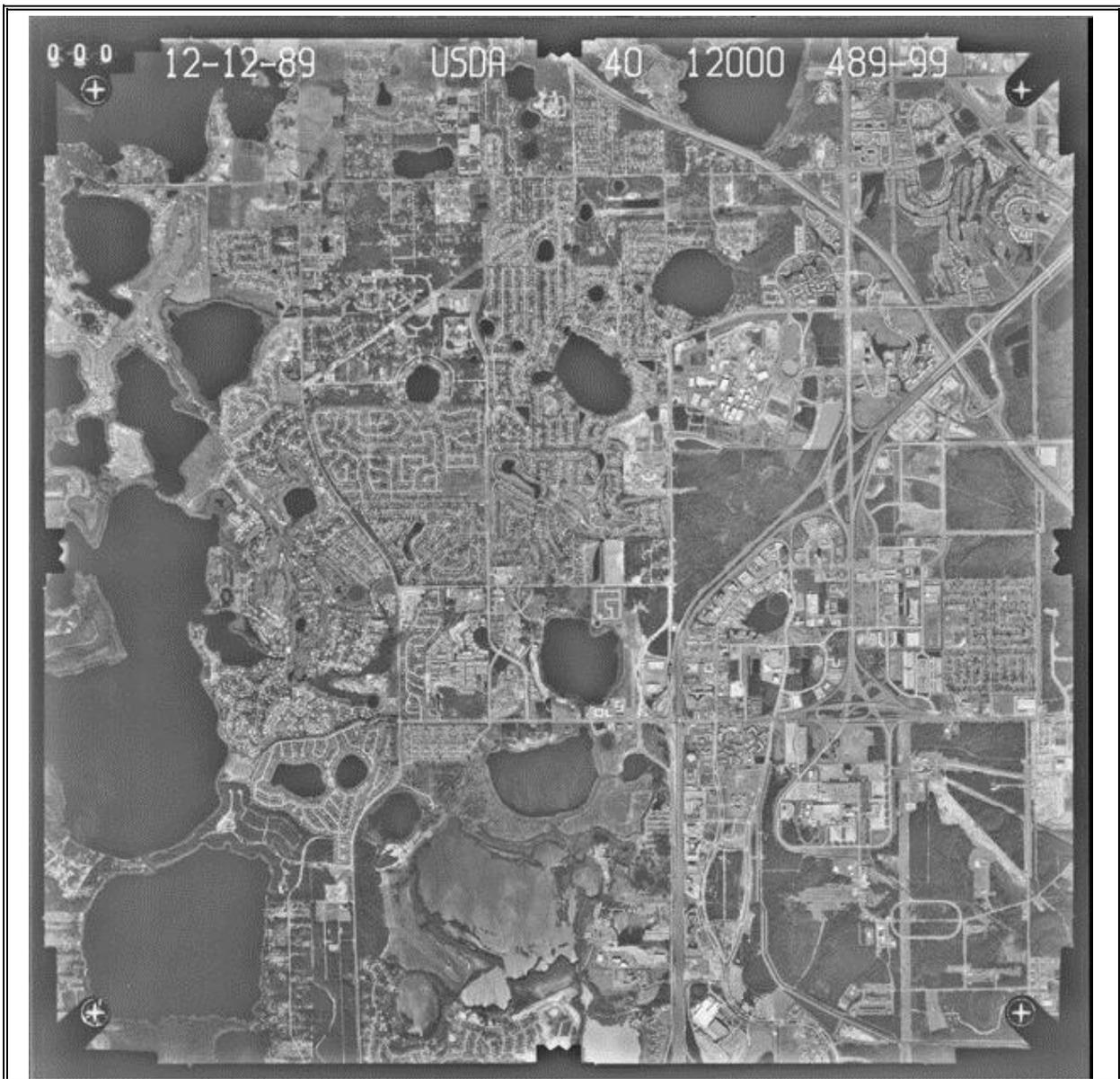
Aerial Photography: 1980 C



Aerial Photography: 1980 D



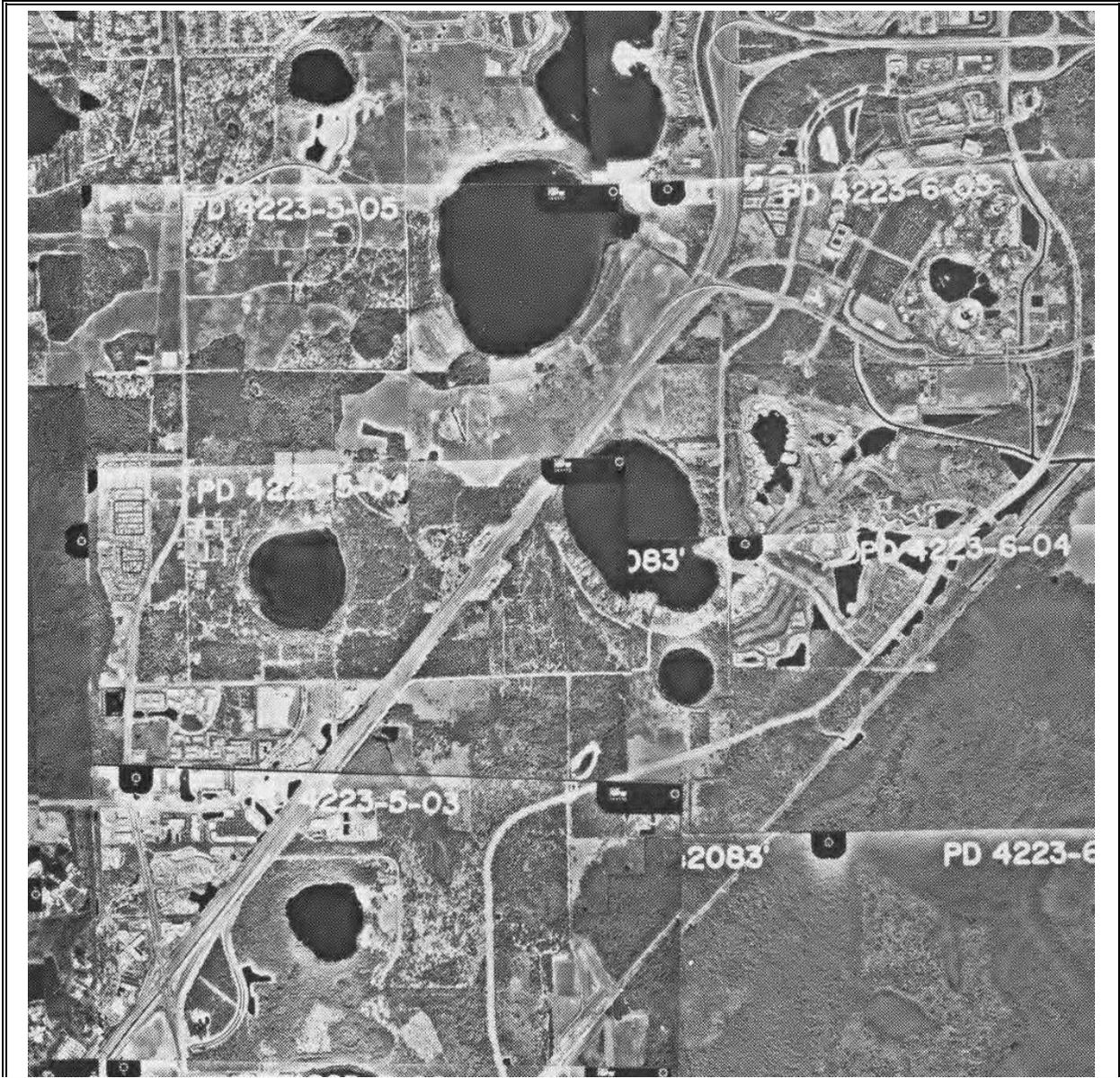
Aerial Photography: 1989 A



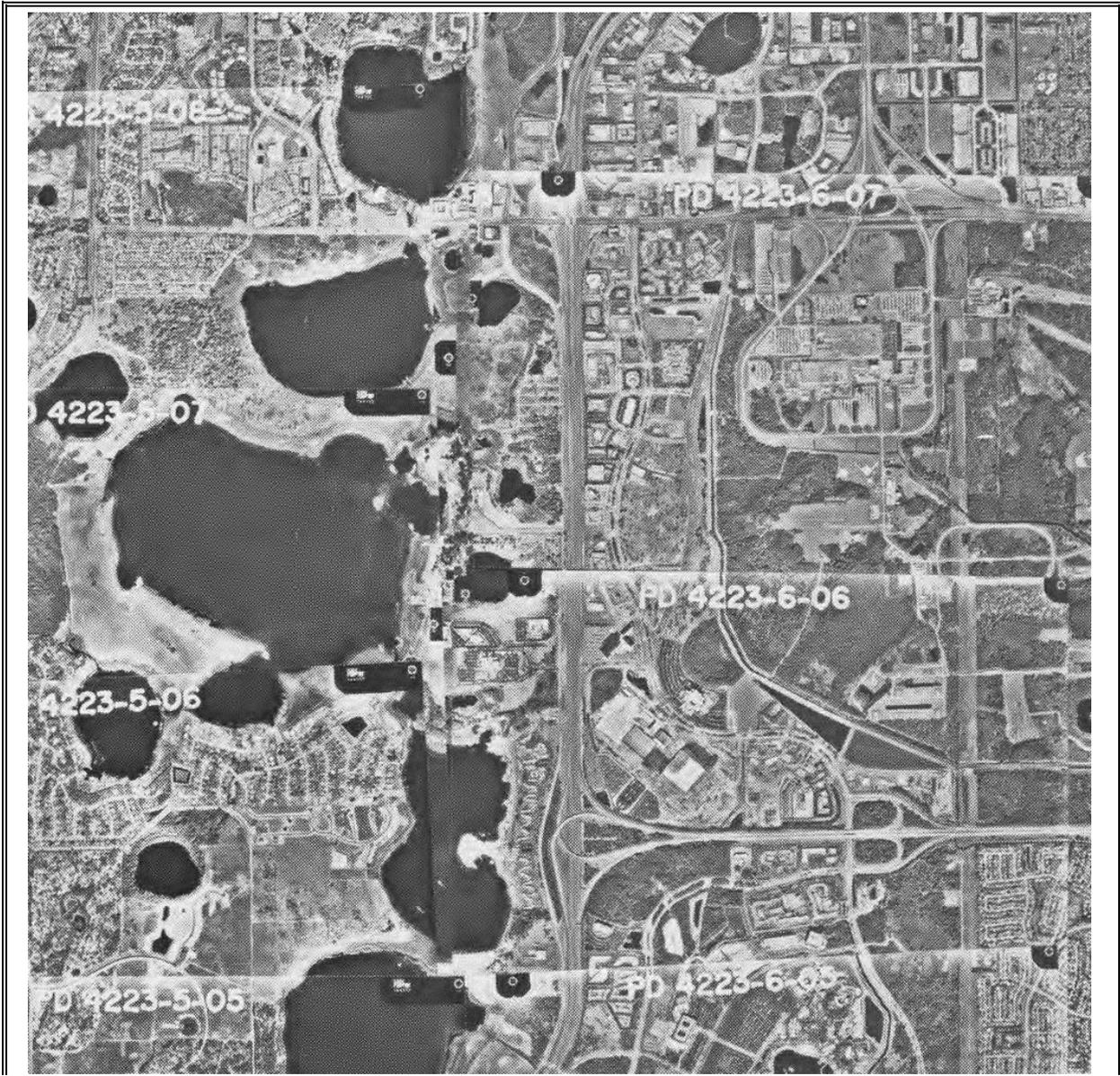
Aerial Photography: 1989 B



Aerial Photography: 1994 A



Aerial Photography: 1994 B



Aerial Photography: 1994 C

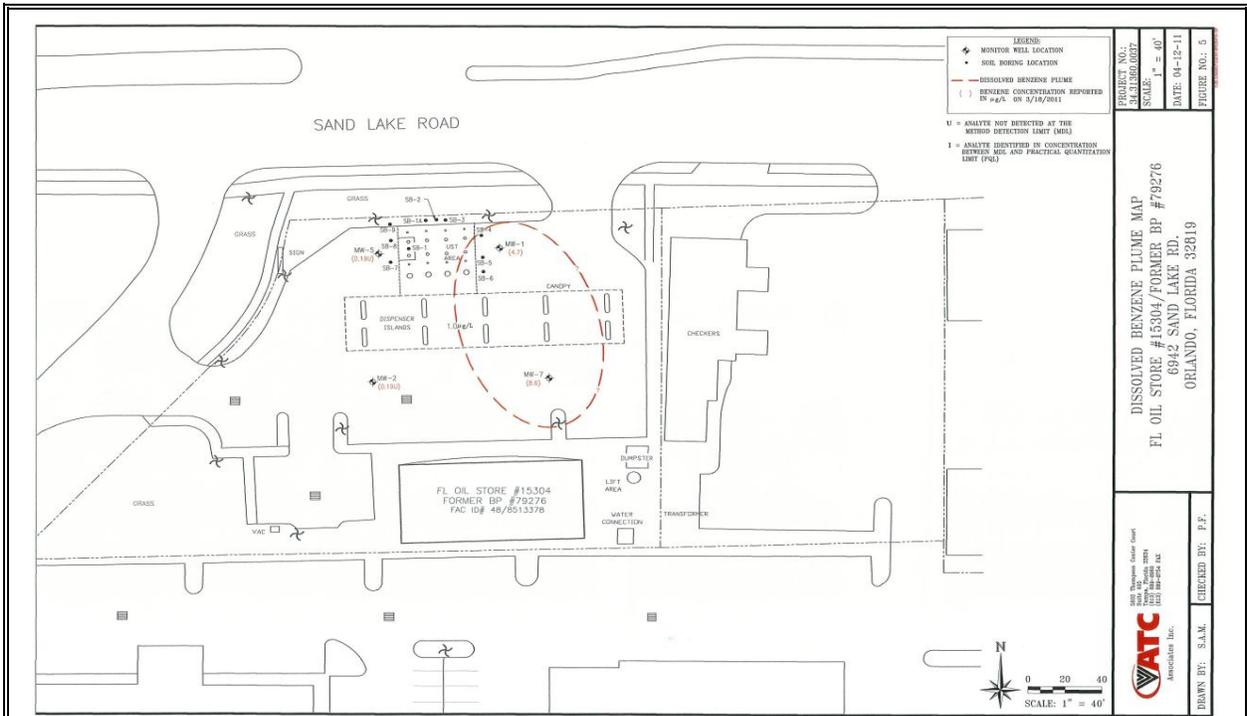


Aerial Photography: 1994 D

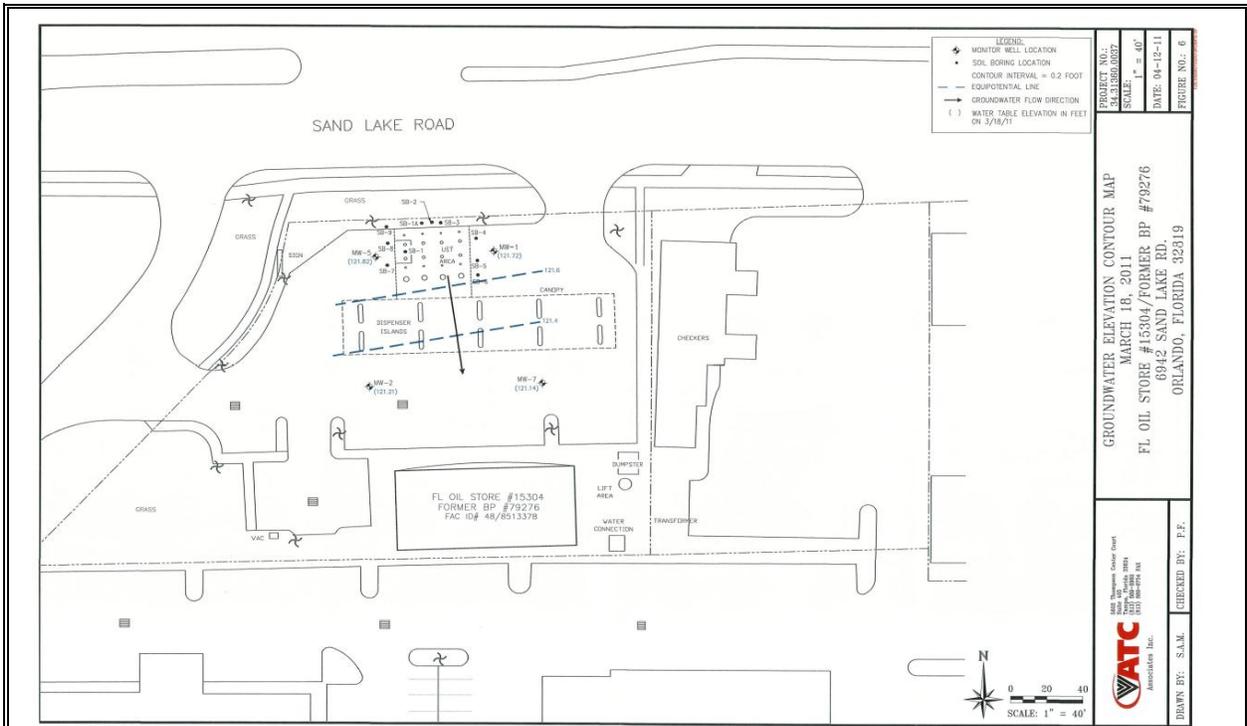


Aerial Photography: 1994 E

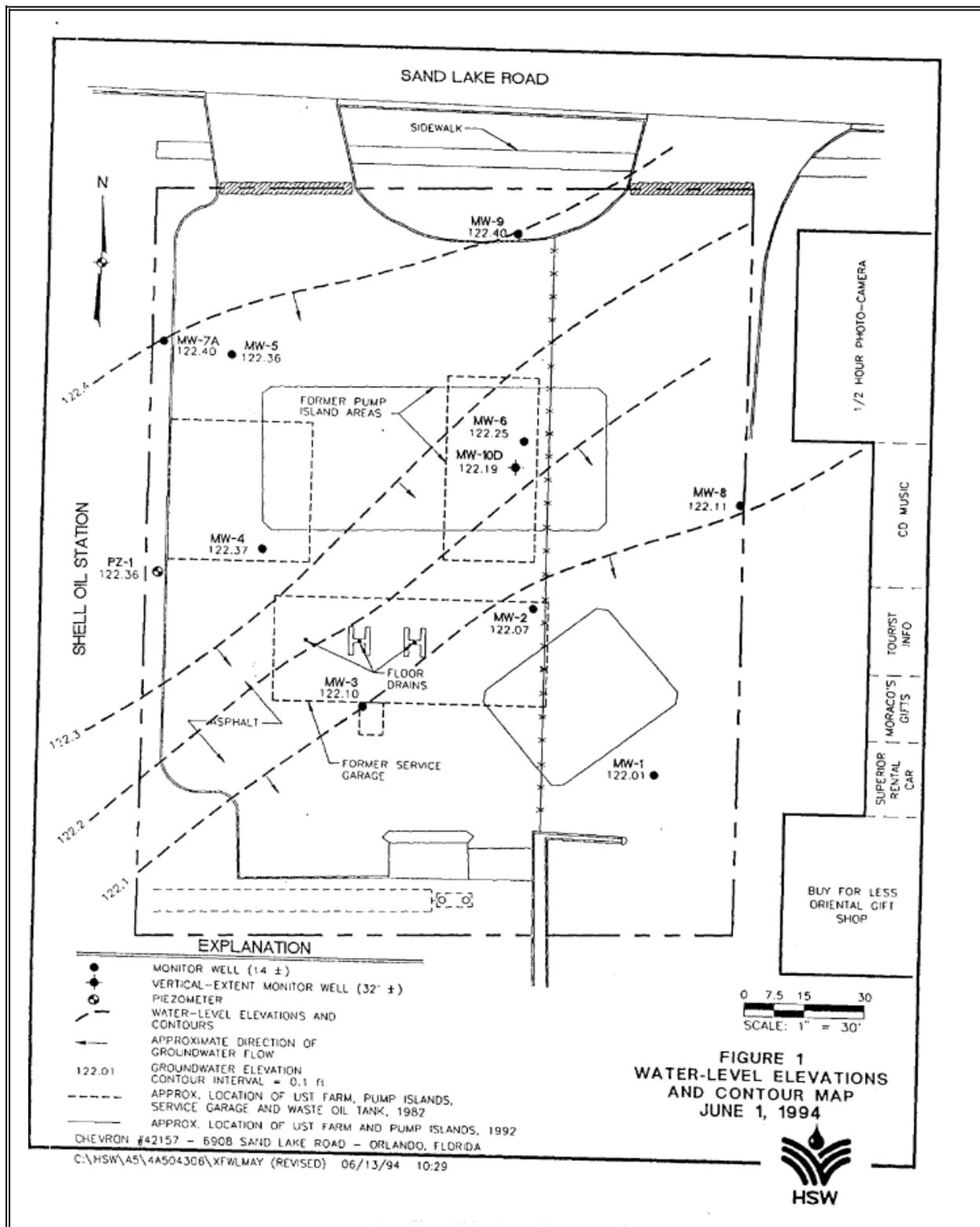
APPENDIX D



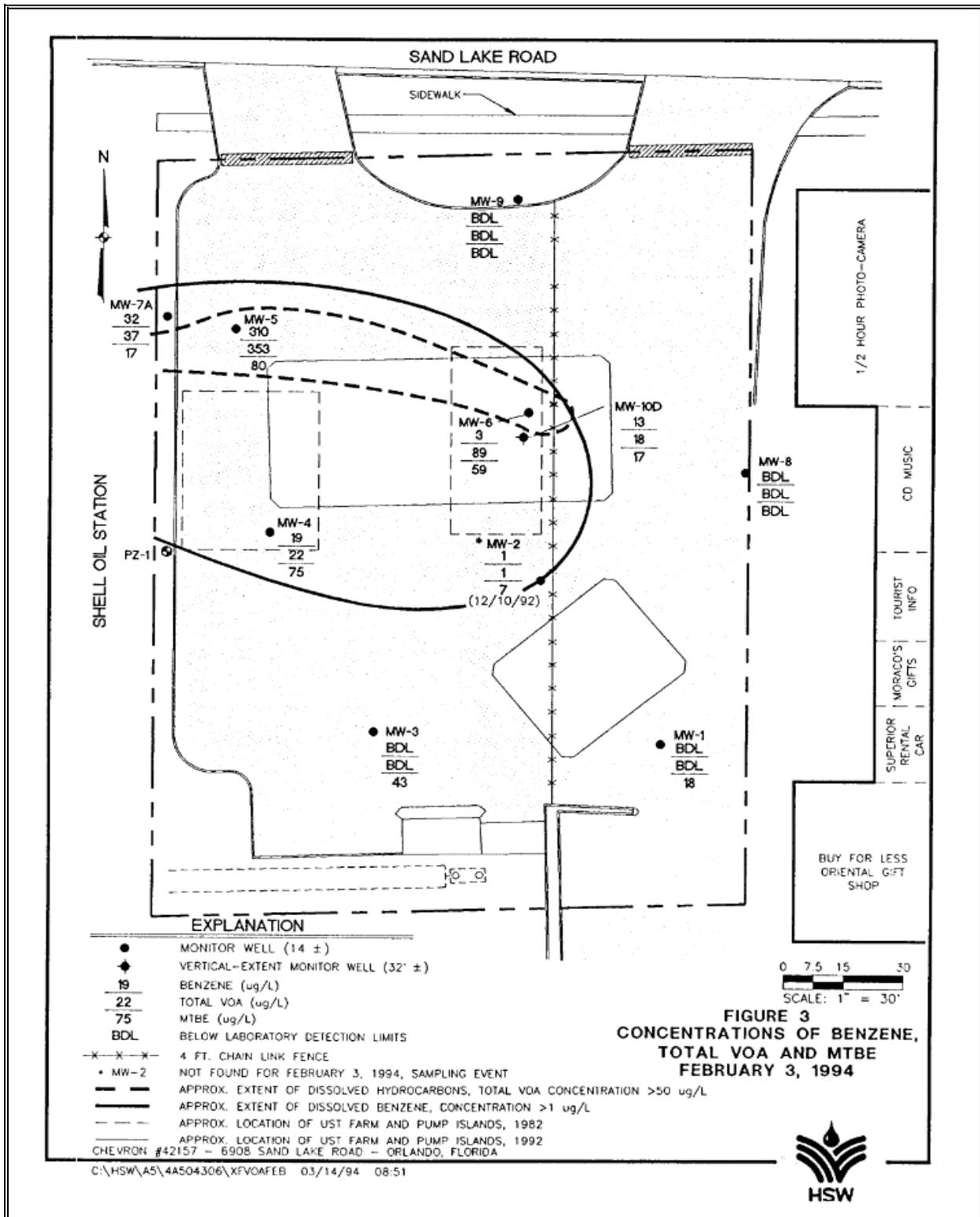
Site 65: Circle K #2708960 – Dissolved Benzene Plume Map from the Site Assessment Report by ATC Associates INC



Site 65: Circle K #2708960 – Groundwater Elevation Contour Map from the Site Assessment Report by ATC Associates INC



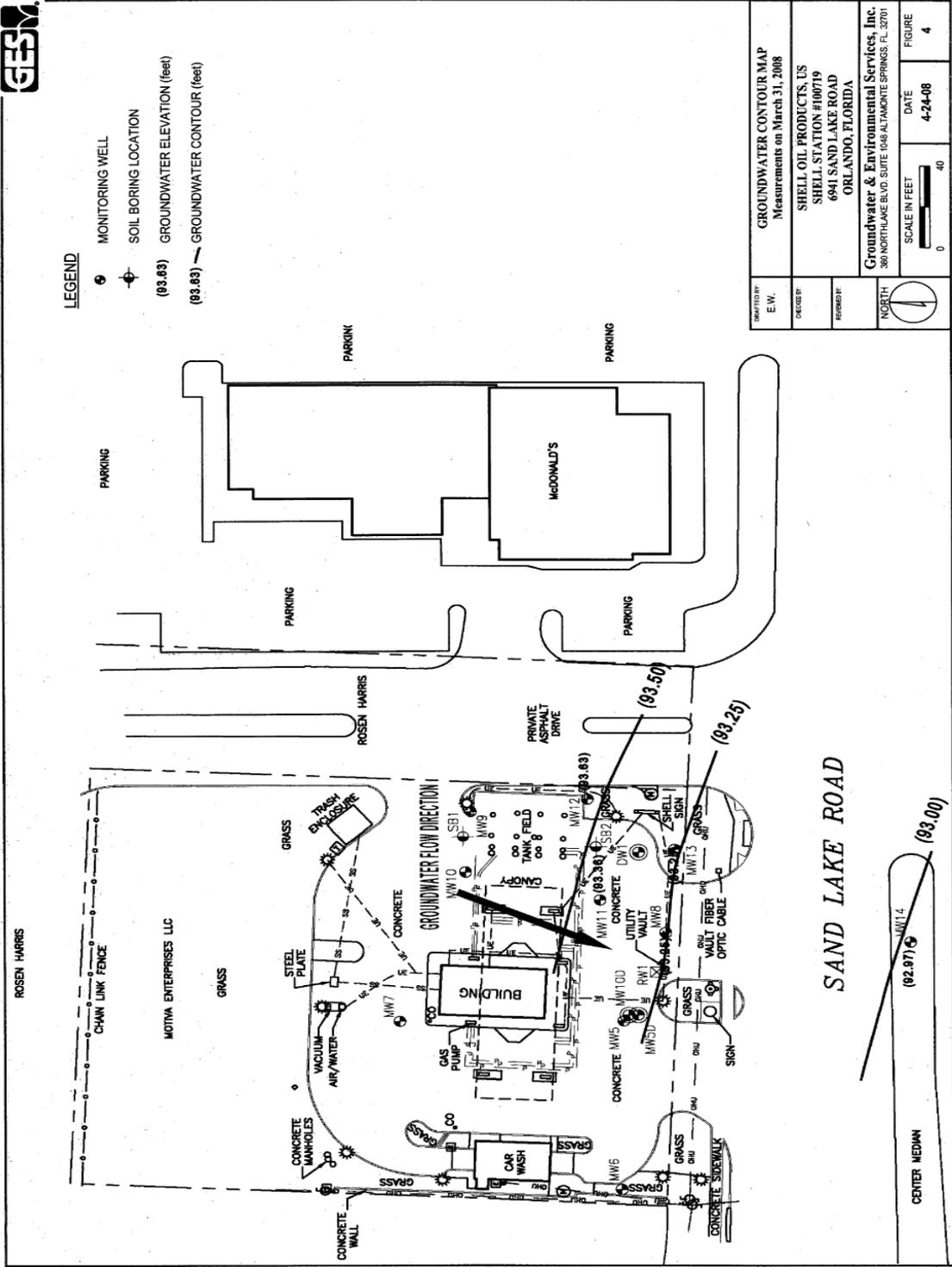
Site 66: Checkers Restaurant, former Chevron #42157 – Water Level Elevations and Contour Map from the Monitoring Only Plan Report of the First Quarter Field Activities and Groundwater Quality (1994) by HSW Environmental Consultants INC



Site 66: Checkers Restaurant, former Chevron #42157 – Concentrations of Benzene, Total VOA and MTBE from the Contamination Assessment Report Addendum (1994) by HSW Environmental Consultants INC



- LEGEND**
- MONITORING WELL
 - ⊕ SOIL BORING LOCATION
 - (93.63) GROUNDWATER ELEVATION (feet)
 - (93.83) GROUNDWATER CONTOUR (feet)



Site 73: Circle K #2709741, former Texaco #24-025-0073 - Groundwater Contour Map from the Supplemental Site Assessment Report (Referenced as Shell #100719, 2008) by Groundwater & Environmental Services INC



LEGEND

- UTILITY MANHOLE
- UTILITY POLE
- LIGHT POLE
- FIRE HYDRANT
- TELEPHONE
- MONITORING WELL
- DEEP MONITORING WELL
- DESTROYED MONITORING WELL
- PRODUCT PIPING LINE

MW	VARIOUS	DATE	CONCENTRATION (ug/L)
B	0.211U	0.249U	0.249U
T	0.247U	0.201U	0.201U
L	0.247U	0.201U	0.201U
K	0.247U	0.201U	0.201U
X	0.247U	0.201U	0.201U
M	0.247U	0.201U	0.201U

ug/L
MTBE
MICROGRAMS PER LITER
METHYL TERT-BUTYL ETHER

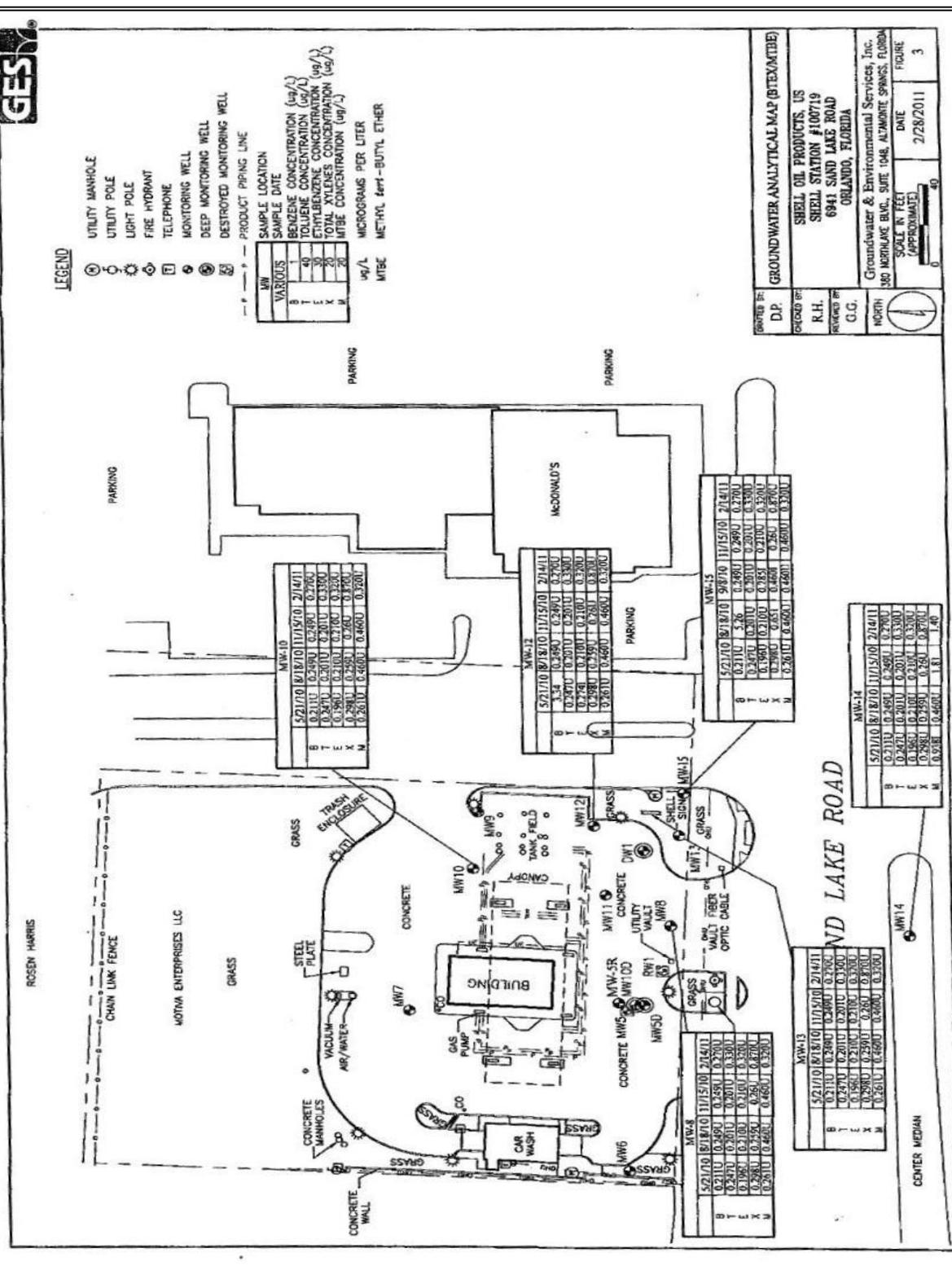
GROUNDWATER ANALYTICAL MAP (BTEX/MATBE)

CREATED BY: D.P.
 CHECKED BY: R.H.
 REVISION BY: G.G.
 NORTH

SHELL OIL PRODUCTS, US
 SHELL STATION #100719
 6941 SAND LAKE ROAD
 ORLANDO, FLORIDA

Groundwater & Environmental Services, Inc.
 100 MORRIS AVE BLDG. SUITE 104B, ALMORNT SPAINS, FLORIDA

SCALE IN FEET (APPROXIMATE) 40
 DATE 2/28/2011
 FIGURE 3



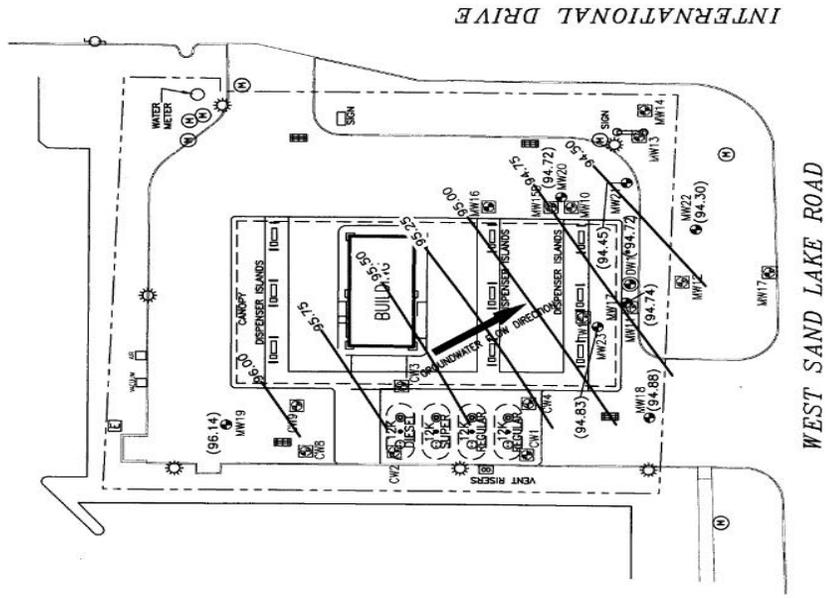
Site 73: Circle K #2709741, former Texaco #24-025-0073 – Groundwater Analytical Map from the Supplemental Site Assessment Report (Referenced as Shell #100719, 2008) by Groundwater & Environmental Services INC



LEGEND

- CATCH BASIN
- AREA LIGHT
- UTILITY MANHOLE
- UTILITY POLE
- MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED MONITORING WELL
- GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet)

95.00



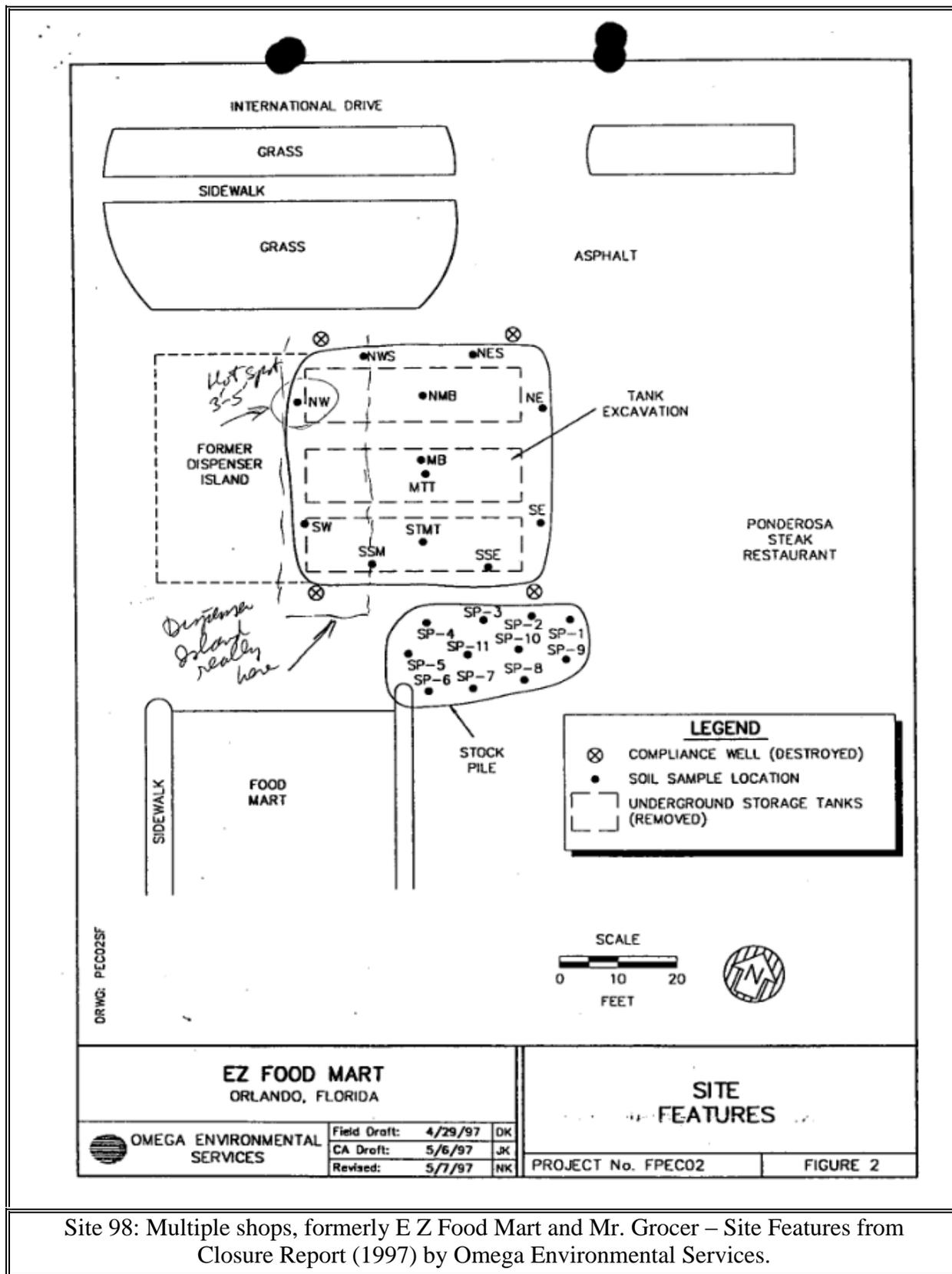
NOTE:

• MW1 IS A DEEP WELL AND WAS NOT USED TO GENERATE GROUNDWATER CONTOURS.

DRAFTED BY: M.L.T. (N.J.)	GROUNDWATER CONTOUR MAP MAY 23, 2008
CHECKED BY:	ExxonMobil OIL CORPORATION EXXON STATION #4-6941 6877 WEST SAND LAKE ROAD ORLANDO, FLORIDA
REVIEWED BY:	Groundwater & Environmental Services, Inc. 180 NORTHLAKE BLVD., SUITE 104, ALAHEMIE SPRINGS, FLORIDA
NORTH 	SCALE IN FEET (APPROXIMATE)
DATE 6-11-08	FIGURE 7

Site 74: Vacant Lot, former 7-Eleven Store #34885 and Exxon Service Station #4-6941 – Direction of Groundwater from the Supplemental Site Assessment Report (2008) by Groundwater & Environmental Services INC

M:\Graphics\7700-Chandos\ExxonMobil\Site\74-08\12-27-08\12-27-08 12:57:17 PM - WWS\mshind



Site 98: Multiple shops, formerly E Z Food Mart and Mr. Grocer – Site Features from Closure Report (1997) by Omega Environmental Services.