Preliminary Engineering Report

State Road 869/SW 10th Street Connector

Project Development and Environment (PD&E) Study

SW 10th Street from Florida's Turnpike/Sawgrass Expressway
to west of I-95 (SR 869/Sawgrass Expressway MP 20.672 to MP 21.835
and SW 10th Street MP 0.00 to 1.922)

Broward County, Florida

Financial Project ID No. 439891-1-22-02
ETDM No.: 14291/FAP No.: TBD

Prepared for:
FDOT District Four
3400 W. Commercial Blvd.
Ft. Lauderdale, FL 33309

May 2021

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration and FDOT.

PROFESSIONAL ENGINEER CERTIFICATION

PRELIMINARY ENGINEERING REPORT

Project: State Road 869/SW 10th Street Connector PD&E Study

ETDM Number: 14291

Financial Project ID: 439891-1-22-02

Federal Aid Project Number: TBD

This preliminary engineering report contains engineering information that fulfills the purpose and need for the State Road 869/SW 10th Street Connector Project Development & Environment Study from Florida's Turnpike/Sawgrass Expressway to I-95 in Broward County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with RS&H, Inc., and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for this project.

Insert Seal Picture

This item has been digitally signed and sealed by *Paul Heeg* on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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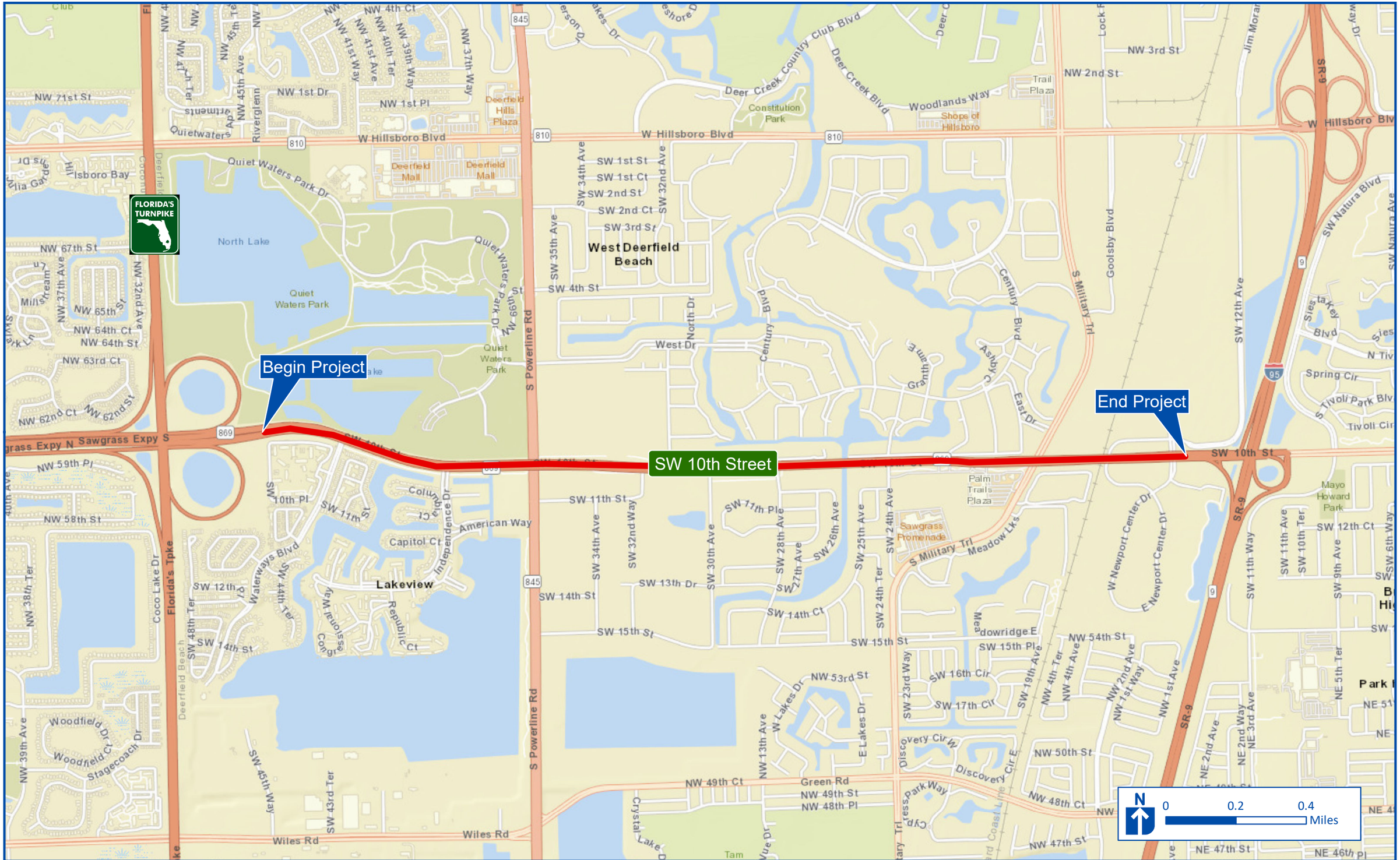
1.0 Project Summary

1.1 Project Description

The Florida Department of Transportation (FDOT) is evaluating alternatives to improve State Road (SR) 869 (Sawgrass Expressway / SW 10th Street) from Florida's Turnpike to west of I-95, a distance of approximately three miles. Technically, the Sawgrass Expressway ends, and SW 10th Street begins at SR 845 (Powerline Road). However, most residents refer to SR 869 between Florida's Turnpike and I-95 as SW 10th Street and for that reason, the project limits will be referred to as SW 10th Street throughout this report. The project is located in Broward County, Florida within the municipality of Deerfield Beach. The project location map, Figure 1.1.1, shows the limits of the SW 10th Street Connector Project Development and Environment (PD&E) Study.

SW 10th Street currently consists of six lanes (three in each direction) from Florida's Turnpike to Quiet Waters Business Park Entrance Road, four lanes (two in each direction) from Quiet Waters Business Park Entrance Road to Military Trail, and five lanes (two westbound and three eastbound) from Military Trail to I-95. SW 10th Street is functionally classified as a Divided Urban Principal Arterial and has a posted speed limit of 45 miles per hour (mph) from Florida's Turnpike to Military Trail, and 40 mph from Military Trail to I-95. The access management classification from Florida's Turnpike to Powerline Road is limited access Class 1. East of Powerline Road, the access management classification is restricted Class 3. The context classification from Florida's Turnpike to just east of Military Trail is Suburban Residential (C3R) and from just east of Military Trail to I-95 the context classification is Suburban Commercial (C3C).

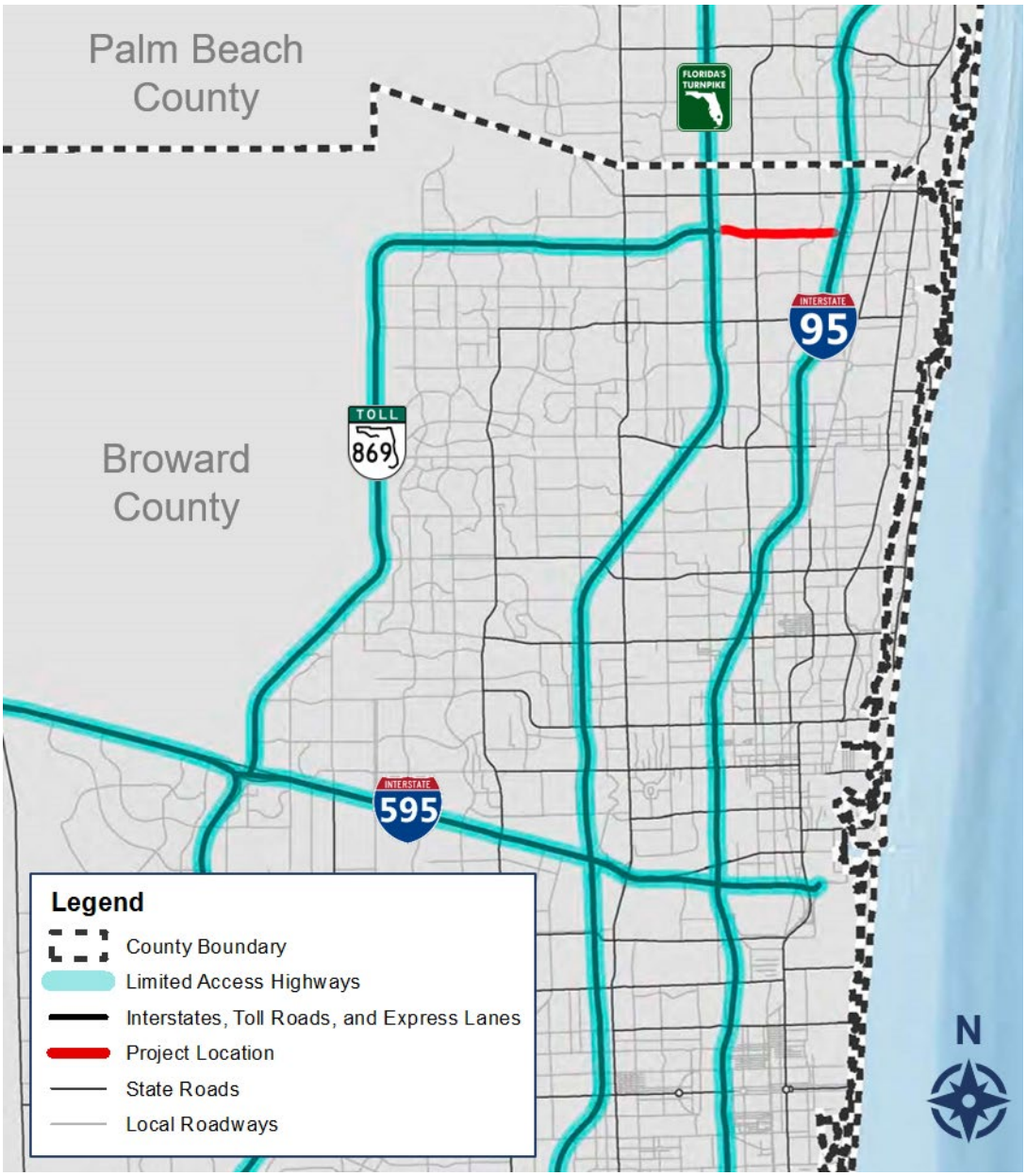
Within the project area, SW 10th Street is an east-west principal arterial that connects three limited access facilities: Florida's Turnpike, Sawgrass Expressway, and I-95. SW 10th Street is part of the state's Strategic Intermodal System (SIS) and the National Highway System (NHS). In addition, SW 10th Street is designated as an evacuation route. In its existing condition, SW 10th Street from Sawgrass Expressway / Florida's Turnpike to I-95 is a missing link in the limited access roadway network as shown in Figure 1.1.2.



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 1.1.1
Project Location Map

Figure 1.1.2: Missing Link Regional Map



The project proposes to add a limited access (managed lanes) facility alongside the existing arterial facility to close the gap and provide a continuous high-speed link while maintaining a separate arterial corridor for SW 10th Street.

The proposed improvements are expected to reduce the amount of traffic on local SW 10th Street by allowing vehicles to bypass the local road network and utilize the limited access facility. The ability to provide relief for local traffic is an objective of the improved

connectivity between the three limited access facilities and is accomplished by providing dual systems (local access and limited access) within the existing SW 10th Street corridor.

In this document, the term "managed lanes" is used to describe the proposed limited access connection between the existing limited access facilities of I-95 and the Sawgrass Expressway. Through this PD&E Study, the FDOT has determined that the managed lanes proposed in this study will not be tolled initially but will provide a physically-separated, high-speed connection to adjacent tolled express lanes and general purpose lanes on I-95 and the Sawgrass Expressway. The SW 10th Street managed lanes, also referred to as the "Connector Road," will not have truck restrictions.

1.2 Purpose & Need

The purpose of this project is to improve regional connectivity, increase capacity, and improve existing operational and safety deficiencies along SW 10th Street between the Sawgrass Expressway, Florida's Turnpike, and I-95 while also enhancing the regional transportation network.

The primary need for this project is to improve regional connectivity and system linkage. Secondary considerations include: improving operational deficiencies and safety on SW 10th Street, modal interrelationships, transportation demand, social demands and economic development, and emergency response / evacuation. The primary and secondary needs for the project are discussed in further detail below.

1.2.1 Project Status

The SW 10th Street Connector project is in the Broward Metropolitan Planning Organization (MPO) jurisdiction. The Broward MPO Transportation Improvement Program (TIP) Fiscal Year 2021 – 2025 includes funding for the SW 10th Street Connector for Preliminary Engineering, Right-of-Way, and Construction. The project is listed as the 2020 MPO number one priority project. The FDOT Approved State Transportation Improvement Program (STIP) includes funding for PD&E, Preliminary Engineering, Right-of-Way, and Design-Build. The Broward MPO Commitment 2045 Metropolitan Transportation Plan (MTP) also includes

funding for Preliminary Engineering, Right-of-Way, and Construction. The TIP and STIP are consistent in total project funding, $461.8 million.

1.2.2 System Linkage

Within the project area, SW 10th Street is part of the state's SIS and the NHS. The SIS is an intermodal network of transportation facilities that are designed to provide the highest degree of mobility for people and goods traveling throughout Florida. The SIS is an integral piece of Florida's goal to enhance economic competitiveness and quality of life for its citizens and visitors. The NHS is a network of strategic highways within the United States, including the Interstate Highway System and other roads serving major airports, ports, rail or truck terminals, railway stations, pipeline terminals, and other strategic transport facilities.

The SW 10th Street corridor provides the opportunity for commuters and local residents to connect to three major limited access facilities: Florida's Turnpike, Sawgrass Expressway, and I-95. The connection of these three limited access facilities will reduce traffic utilizing SW 10th Street and provide relief for local traffic through the dual roadway system (separate local access and limited access facilities) within the SW 10th Street right-of-way. These limited access roadways are also on the regional freight network as identified in the March 2010 South Florida Regional Freight Plan (project #269). Florida's Turnpike provides limited access north-south connectivity from Miami-Dade County to Orlando and connects to I-75 northwest of Orlando. The Sawgrass Expressway provides limited access connectivity from the I-75 / I-595 Interchange to the Florida's Turnpike and SW 10th Street Interchange. I-95 is the primary north-south interstate facility that links all major cities along the Atlantic Seaboard. This project introduces a new limited access connection between the Sawgrass Expressway and I-95 that provides regional connectivity by completing a missing link of the existing limited access network, while also providing congestion relief on the local facility and thus improving operational safety of all the facilities.

1.2.3 Transportation Demand

Transportation demand is evaluated based on current and historical traffic volumes and traffic characteristics such as turning movement counts, peaking, directional factors, ridership data, and bicycle and pedestrian activities. A need exists to improve local and

regional traffic operations along the SW 10th Street corridor. Traffic volumes along SW 10th Street between the Sawgrass Expressway / Florida's Turnpike and I-95 have consistently increased over the past 15 years (2001 to 2016) and are expected to continue to grow through design year 2040.

The 2016 Average Annual Daily Traffic (AADT) on SW 10th Street was recorded as follows:

- Sawgrass Expressway / Florida's Turnpike to Powerline Road - 38,000 vehicles per day (vpd);
- Powerline Road to Military Trail - 46,000 vpd; and
- Military Trail to I-95 - 54,000 vpd.

The existing traffic on SW 10th Street between Powerline Road and I-95 exceeds the design capacity of a four-lane arterial roadway which is approximately 40,000 vpd. The capacity of SW 10th Street from Sawgrass Expressway / Florida's Turnpike to Powerline Road is 60,000 vpd. With the anticipated growth and the combination of local traffic and those travelers going from one limited access facility to the next, this segment is expected to reach capacity before 2040.

Additionally, five intersections currently fall below acceptable Level of Service (LOS) targets (LOS D or better) during either the a.m. or p.m. peak during the existing conditions:

- SW 10th Street at Powerline Road operates at LOS F in both the a.m. and p.m. peak;
- SW 10th Street at SW 30th Avenue operates at LOS F in both the a.m. and p.m. peak;
- SW 10th Street at SW 24th Avenue operates at LOS F in both the a.m. and p.m. peak;
- SW 10th Street at Military Trail operates at LOS F in both the a.m. and p.m. peak; and
- SW 10th Street at the I-95 Northbound ramps operate at LOS D in the a.m. peak and LOS F in the p.m. peak.

These conditions are existing concerns and are projected to worsen in the future if no action is taken. Even with an assumed 10 percent travel time savings or reduction in delay from possible traffic signal optimization, the peak hour traffic volumes are not anticipated to operate at an acceptable LOS. Additional information on the existing and future traffic conditions can be found in the Project Traffic Analysis Report (PTAR), available under separate cover.

1.2.4 Social Demand and Economic Development

Social and economic demands on the SW 10th Street corridor will continue to increase as population and employment increase in Broward County, and the greater south Florida region. The University of Florida Bureau of Economic and Business Research (BEBR) high end estimate predicts Broward County's population will grow to 2.5 million by 2040, an increase of 29 percent from the year 2020. This regional population growth will increase travel demands on the SW 10th Street corridor. Due to the built-out nature of the area surrounding the SW 10th Street corridor, the growth will occur in the region as a whole, necessitating connections between the limited access facilities.

Multiple residential developments and businesses are located along the SW 10th Street corridor; therefore, this project considered livability issues as well as vehicular movement. Capacity improvements to SW 10th Street have previously been studied but have not advanced to design and construction. In 2014, the Broward MPO Board directed its staff to reach out to communities along the corridor and initiate a consensus building effort to evaluate the best way to accommodate the long-term traffic demands as well as the local community considerations. As part of this consensus-building effort, the Community Oversight Advisory Team (COAT) was assembled to represent the communities along the corridor, as well as throughout the greater north Broward County area, to identify the long-term opportunities and vision for the corridor. The COAT developed recommendations for the corridor to be considered by the FDOT in evaluating improvements during the PD&E Study.

1.2.5 Modal Interrelationships

Currently, SW 10th Street has five-foot paved shoulders that are designated bicycle lanes in both directions. Existing sidewalks are located along SW 10th Street's eastbound and westbound lanes from Military Trail to I-95; however, from Waterways Boulevard to Military Trail, sidewalks are only present in the eastbound direction. No Broward County Transit (BCT) services are provided along SW 10th Street. Military Trail and Powerline Road both have transit options, Tri-Rail and Broward County Bus Route No. 14, respectively. The City of Deerfield Beach has partnered with BCT to provide Express I and II routes which is a community bus service. Express I and II Bus Routes are available Monday through Friday from 8 a.m. to 4 p.m. Express Bus I Route utilizes SW 10th Street from the eastern project limits to Powerline Road. The Express I Route has one stop adjacent to the corridor - Stop 5

(Walmart). Express II Route utilizes SW 10th Street outside of the project limits. The Broward MPO assigned a LOS F to the bicycle, pedestrian, and transit services along SW 10th Street. The proposed improvements will provide future accommodations for bicyclist and pedestrians, and transit modes.

1.2.6 Traffic Safety

From 2012 to 2016, the SW 10th Street project corridor experienced a total of 896 crashes of which 342 were injury crashes and one was a fatal crash. Three segments and five intersections along the SW 10th Street corridor were identified as high crash locations during at least one year between 2012 and 2016 and are shown below in Table 1.2.1. The majority of crashes were rear end collisions accounting for 490 crashes, followed by angle collisions (102 crashes), and sideswipe crashes (97 crashes). The total number of crashes has increased over the five-year period, with an average of 179 crashes per year. This project seeks to reduce congestion and improve operations, thus mitigating existing crash patterns. Additional crash information and analysis is located in the PTAR, available under separate cover.

Table 1.2.1: SW 10th Street High Crash Locations

	Description	Begin MP	End MP	Years on High Crash List
Segments				
1	Powerline Road to Quiet Waters Business Park driveway	0.000	0.300	2012, 2013, 2014
2	East of Palm Trails Plaza driveway to east of Military Trail	1.315	1.449	2012, 2013, 2014, 2015, 2016
3	West of Newport Center Drive to east of Newport Center Drive	1.749	1.849	2015, 2016
Intersections				
1	SW 10th Street and SW 28th Avenue	0.699		2013
2	SW 10th Street and Military Trail	1.427		2012, 2013, 2014, 2015, 2016
3	SW 10th Street and I-95 SB On-Ramp	1.955		2013
4	SW 10th Street and I-95 SB Off-Ramp	2.010		2012, 2013, 2015, 2016
5	SW 10th Street and I-95 NB On & Off-Ramps	2.118	2.149	2012, 2013, 2014, 2015

SW 10th Street, Florida's Turnpike, Sawgrass Expressway, and I-95 are part of the emergency evacuation network as designated by both the Florida Division of Emergency Management (FDEM) and Broward County. The project is anticipated to improve emergency evacuation

by enhancing capacity and connectivity to major arterials designated on the state evacuation route. Improved travel times would also result in improved emergency response for local residents and for transport to regional facilities. Broward County Fire and Rescue Station 66 is located at 590 South Powerline Road, approximately 0.3 miles to the north of the study area.

1.3 Commitments

The following text describes the commitments the FDOT has made during the course of this PD&E Study:

1. FDOT commits that bicycle and pedestrian features will be provided with the project as well as connectivity through the Powerline Road and Military Trail intersections.
2. FDOT commits that the Connector Road, which will be part of the FDOT Managed Lanes Network, will allow trucks to use the facility within the project's limits.
3. FDOT commits to minimizing the length of elevated roadways adjacent to residential areas. Specifically, the grade- separated roadways at Military Trail and Powerline Road will be as short as possible and will transition to an at- grade section on both the east and west approaches at Powerline Road and the western approach of the Military Trail intersection as quickly as possible while following FDOT design standards. The proposed overpass in the vicinity of Waterways Boulevard will not be located directly in front of Waterways Boulevard and will instead be located west of this intersection.
4. FDOT commits that landscaping and aesthetic treatments will be coordinated with the local communities and the City of Deerfield Beach during the final design phase. Aesthetic treatments and landscaping schemes will be in conformance with the City of Deerfield Beach guidelines.
5. FDOT commits that the managed lanes will open without tolling, and a separate public hearing would be conducted if it is determined to introduce tolling on the managed lanes in the future.
6. FDOT commits that, if the facility is tolled in the future, it would be done electronically via open road tolling (i.e., without vehicles being required to stop).
7. FDOT commits to conducting an updated bald eagle survey during the nesting season prior to the start of construction and will coordinate the results with US Fish and Wildlife Service (USFWS).

8. FDOT commits to work with the City of Deerfield Beach to avoid impacts to their West Well Field.
9. The FDOT commits to evaluating additional measures for water quality treatment for retention ponds in the next phase of this project including baffles and weirs.
10. FDOT will incorporate the most current versions of the Standard Protection Measures for the Eastern Indigo Snake during construction.
11. FDOT is committed to the construction of feasible and reasonable noise abatement measures at the noise impacted locations identified in Table 4-1 in the Noise Study Report upon the following conditions:
    - Final recommendations on the construction of abatement measures is determined during the project's Final Design and through the public involvement process;
    - Detailed noise analyses during the Final Design process support the need, feasibility, and reasonableness of providing abatement;
    - Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion; Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office; and
    - Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.
12. FDOT commits to constructing ground-mounted noise walls that are warranted and desired by a majority of the benefited residents as early as possible in the construction phase.

1.4 Alternatives Analysis Summary

The goal of the SW 10th Street PD&E Study is to configure a high-speed connection between the Sawgrass Expressway and I-95 such that vehicles exiting the Sawgrass Expressway no longer need to wait at multiple traffic signals when traveling to I-95 or vice versa. Alternatives developed during the study were influenced by the COAT and their recommendations for the project (discussed in more detail in Section 4.1.1). One of the primary recommendations of the COAT is to "minimize and attempt to eliminate the use of above-grade overpasses adjacent to residential areas." A similar recommendation states, "include a below-grade expressway with at-grade local access roads."

The SW 10th Street Connector assumes two distinct corridors for travel:

- A low-speed corridor for local SW 10th Street traffic, bicyclists, and pedestrians; and
- A high-speed corridor that operates like an expressway and maintains free-flow, interstate speeds between the Sawgrass Expressway and I-95.

The SW 10th Street PD&E Study held a Public Kickoff Meeting along with two Alternatives Public Workshops, and a series of three virtual webinars, each of these meetings functioned as a "tier" in the alternative's analysis. The first Alternatives Public Workshop offered the Tier 1 Alternatives, and consisted of the following:

- Center Alignment Alternative; and
- North Alignment Alternative.

The premise of the SW 10th Street Connector typical section is that it must have four managed lanes (two westbound and two eastbound) as well as four local lanes (two westbound and two eastbound). The Center Alternative places the managed lanes in the center of the existing right-of-way and adds a one-way local street system on each side of the managed lanes.

As a counterpart to the Center Alternative, a North Alternative was developed. This alternative places the managed lanes along the north side of the existing right-of-way and relocates local SW 10th Street to the south side of the right-of-way. In this alternative, the local roadway system is positioned near the sideroads along the south side, such as Waterways Boulevard, Independence Drive, SW 30th Avenue, SW 28th Avenue, and SW 24th Avenue. A local SW 10th Street positioned on the south side of the right-of-way also facilitates direct commercial access to several existing businesses that currently have access. By contrast, most of the north side of the existing right-of-way is adjacent to Century Village or Quiet Waters Park, which do not have direct access to SW 10th Street. Figures 1.4.1 and 1.4.2 display typical sections of the Center and North Alternatives, respectively.

Figure 1.4.1: Center Alternative Typical Section

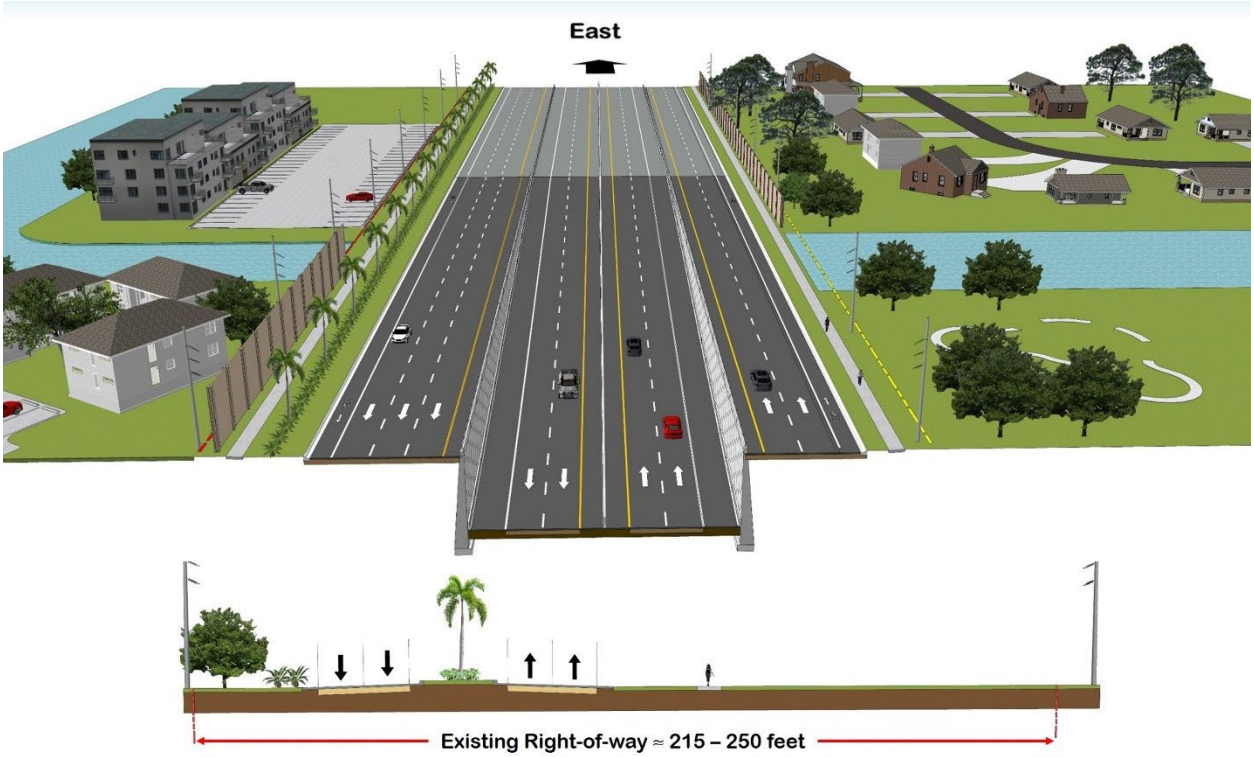
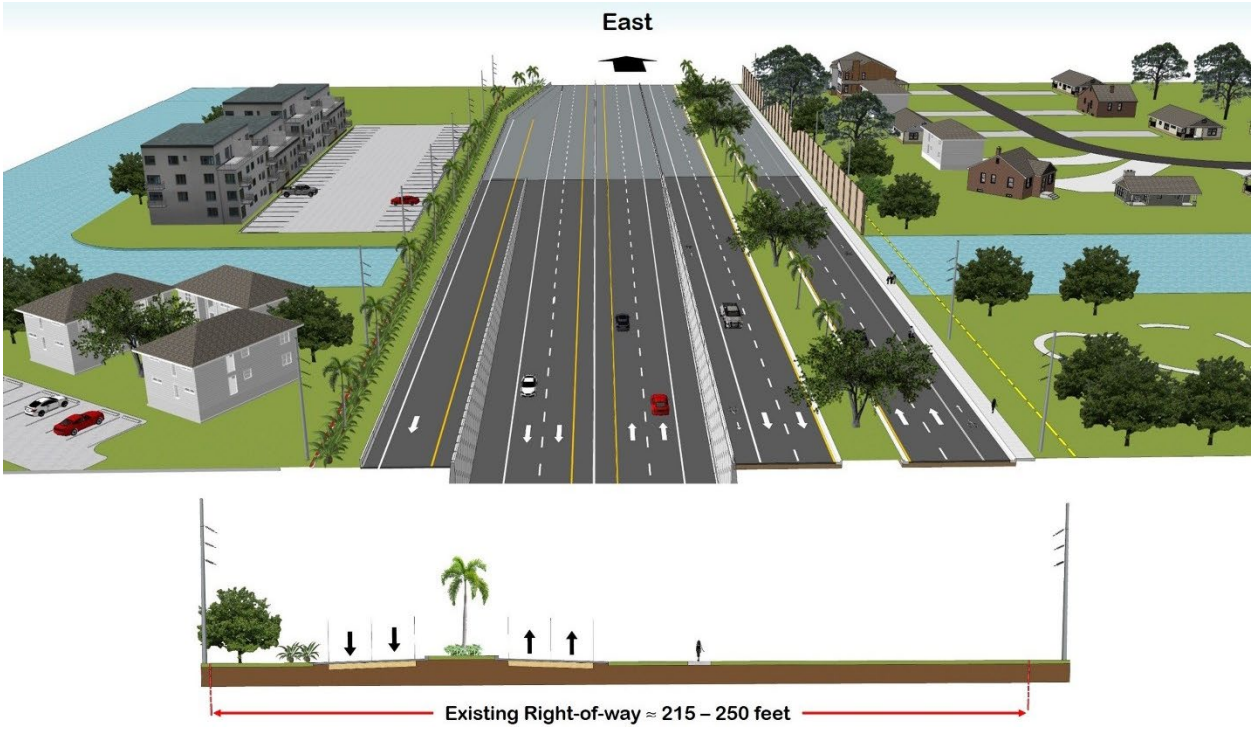


Figure 1.4.2: North Alternative Typical Section



In order to mitigate noise and visual impacts as well as facilitate the COAT recommendation of minimizing elevated roadways, the Center and North Alternatives both examined placing the four managed lanes in a depressed, or "below grade" section. The limits of this roadway depression extend from the Independence Drive intersection to the crossing of the C-2 Canal located just west of SW 24th Avenue. This depressed section was located one level below the existing grade and passed beneath the Powerline Road intersection. Section 4.5 describes the Tier 1 Alternatives in detail.

Subsequent to the first Alternatives Public Workshop (held on April 24, 2018), public comments were analyzed, and additional investigation was performed on the feasibility of a depressed section, as well as providing business and sideroad access to local SW 10th Street. As a result of this analysis, the FDOT decided to drop the Center Alternative and carry forward three alternatives to the second Alternatives Public Workshop, held on November 29, 2018. The three "Tier 2" alternatives all featured a "north" alignment of the managed lanes within the existing right-of-way and are named as follows:

- Full Depressed Alternative;
- Partial Depressed Alternative; and
- Non-Depressed/No Managed Lane Access Alternative.

The Full Depressed Alternative is essentially the Tier 1 North Alternative presented at the first Alternative Public Workshop. Figure 1.4.3 displays a rendering of the Full Depressed Alternative (looking west) that was shown to the public on November 29, 2018.

In response to concerns regarding the feasibility of the Full Depressed Alternative, particularly in regard to Powerline Road, the Partial Depressed Alternative was developed. This alternative has three sub-alternatives:

- Depressed Westbound Exit Ramp Alternative;
- Depressed Eastbound Managed Lanes Alternative; and
- Depressed Eastbound and Westbound Managed Lanes Alternative.

Figure 1.4.3: Full Depressed Alternative

This trio of alternatives have one distinct feature in common: a reduction in the limits of the depressed section such that it begins east of Powerline Road and ends west of the C-2 Canal. The difference in these three sub-alternatives is how they accommodate the proposed entrance and exit ramps between the managed lanes and local SW 10th Street. Below is a description of the ramp "braiding" for each sub-alternative:

Depressed Westbound Exit Ramp Alternative

This sub-alternative minimizes the extent of a depressed section. The managed lanes remain at-grade, and a westbound exit ramp is formed on the left side of the westbound managed lanes, passes beneath the at-grade eastbound managed lanes, and joins local SW 10th Street as an outer third lane approaching Powerline Road. Figure 1.4.4 displays a rendering of the Depressed Westbound Exit Ramp Alternative (looking west).

Figure 1.4.4: Partial Depressed – Depressed Westbound Exit Ramp Alternative

Depressed Eastbound Managed Lane Alternative

This sub-alternative is similar to the Depressed Westbound Exit Ramp Alternative except that the profiles are reversed: the eastbound managed lanes pass beneath an at-grade westbound exit ramp located on the left side of the westbound managed lanes. This alternative requires depressing only one side (eastbound) of the managed lanes. Figure 1.4.5 displays a rendering of the Depressed Eastbound Managed Lane Alternative (looking west).

Figure 1.4.5: Partial Depressed – Depressed Eastbound Managed Lanes Alternative

Depressed Eastbound and Westbound Managed Lanes Alternative

The third option for accommodating ramp braiding is similar to the Depressed Eastbound Managed Lanes except that the westbound exit ramp diverges from the right side of the westbound managed lanes, remains at-grade, and passes above the depressed eastbound and westbound managed lanes. With this configuration, both the eastbound and westbound managed lanes are depressed, and the exit ramp requires more distance to cross over both sets of lanes. Figure 1.4.6 displays a rendering of the Depressed Eastbound and Westbound Managed Lanes Alternative (looking west).

Figure 1.4.6: Partial Depressed – Depressed Eastbound & Westbound Managed Lanes Alternative

Non-Depressed/No Managed Lane Access Alternative

In an effort to reduce right-of-way impacts, utility relocations, and construction cost while increasing the green space in the corridor, an alternative was developed to remove the entrance and exit ramps from the managed lanes. By eliminating access to the managed lanes, both the managed and local lanes can remain at-grade between Quiet Waters Business Park and just east of SW 24th Avenue. This alternative functions as a true "connector" between Sawgrass/Florida's Turnpike and I-95. By eliminating ramps, this alternative requires the smallest footprint and offers the most space for landscaping, as well as bicycle and pedestrian accommodations. However, this alterative does not maximize use and benefit of the managed lanes and consequently does not remove as much traffic from the local lanes

compared to the other alternatives. Figure 1.4.7 displays a rendering of the Non-Depressed/ No Managed Lane Access Alternative (looking west).

Figure 1.4.7: Non-Depressed/No Managed Lane Access Alternative

Subsequent to the second Alternatives Public Workshop, the COAT was re-engaged for a series of three meetings along with numerous stakeholder meetings, including meetings with elected officials, neighborhood groups, and businesses. The Broward MPO was also engaged for several meetings and provided input on modifications to the alternatives presented at the second Alternatives Public Workshop. The following modifications were incorporated:

- Westward shift of overpass at Waterways Boulevard;
- Provide a new signalized median opening for Quiet Waters Business Park on Powerline Road north of SW 10th Street;
- Allow trucks in the managed lanes/Connector Road (exception to FDOT policy);
- Add a 10-foot shared use path along south side of SW 10th Street between Waterways Boulevard and Powerline Road; and
- Include an eight-foot sidewalk along south side of SW 10th Street between Powerline Road and Military Trail.

After considering the various social, cultural, environmental, and engineering issues associated with the Build Alternatives, the Westbound Depressed Exit Ramp was selected as the FDOT Preferred Alternative and a Public Hearing was scheduled for October 2019.

At the October 2019 MPO meeting, the City of Deerfield Beach and Broward MPO Board raised concerns that the FDOT Preferred Alternative was not addressing the COAT recommendations to their expectations. As a result, FDOT decided to postpone the Public Hearing. Subsequently, City staff met with the FDOT and identified five concerns regarding the project:

1. Connector lanes do not connect directly to I-95 general purpose lanes (related to I-95 from SW 10th Street to north of Hillsboro Boulevard PD&E Study);
2. Needs more complete street elements on local SW 10th Street;
3. Not enough depressed section elements;
4. Not enough green space; and
5. Will not provide full access to/from Turnpike from local SW 10th Street (related to the Sawgrass Expressway/Florida's Turnpike PD&E Study).

Consequently, the FDOT developed and evaluated solutions that could be incorporated into the Westbound Depressed Exit Ramp Alternative and coordinated with the City to get feedback. As a result, the following improvements were added to the project:

- Direct connections from the Connector Road to the I-95 general purpose and express lanes (improvements included in the I-95 from SW 10th Street to north of Hillsboro Boulevard PD&E Study);
- Addition of a 12-foot-wide shared use path, instead of buffered bicycle lanes and sidewalk; and
- Included more green space and landscaping.

This revised concept is now referred to as the "With Powerline Road Ramps" Alternative.

A second concept was also developed to further address concerns from the City. This alternative is identical to the one previously described except that it removes the two ramps providing access to Powerline Road (including the depressed exit ramp). This alternative is referred to as the "Without Powerline Road Ramps" Alternative. The removal of the local

access ramps to the Connector Lanes just east of Powerline Road provides an additional 30 feet of green space in the middle of the corridor (where the ramps were located) and moves local SW 10th Street approximately 50 feet further away from homes on the south.

1.5 Description of Preferred Alternative

After considering the various social, cultural, environmental, and engineering issues with all of the alternatives, and evaluating comments from the Public Hearing and additional stakeholder engagement, the Without Powerline Road Ramps Alternative was selected as the Preferred Alternative. This alternative best balances connectivity, congestion, impacts, constructability, and cost, and has fewer impacts to the City of Deerfield Beach parcel containing drinking water wells. In addition, the Preferred Alternative has fewer impacts to the south side Florida Power and Light (FP&L) transmission line, has the least amount of right-of-way impacts, and provides the most landscaping and aesthetic opportunities by having a larger buffer between SW 10th Street and residential properties on the south. This alternative meets the purpose and need for the project while minimizing impacts to the community. In comparison of the two Build Alternatives, the Without Powerline Road Ramps Alternative also received more public support at the Public Hearing than the With Powerline Road Ramps Alternative.

The Preferred Alternative provides a four-lane, limited access connection between the Sawgrass Expressway and I-95 in conjunction with a four-lane, low speed facility serving local traffic (SW 10th Street). The Preferred Alternative includes two ramp connections between the Connector Road and local SW 10th Street as described below:

- Eastbound Egress Ramp – Vehicles traveling eastbound on the Connector Road can exit to local SW 10th Street just prior to Newport Center.
- Westbound Ingress Ramp – Vehicles traveling westbound on SW 10th Street and vehicles traveling eastbound on local SW 12th Avenue can access the Connector Lanes just east of the railroad.

The eastbound egress ramp is a 15-foot single-lane ramp with six-foot wide shoulders. The ramp overpasses Military Trail and therefore is primarily located on structure with outside barrier wall. The westbound ingress ramp is a combination of three movements: I-95

southbound, I-95 northbound, and westbound local SW 10th Street. These three movements combine into a three-lane section with 12-foot-wide lanes and 12-foot-wide inside and outside shoulders flanked with concrete barrier wall. This three-lane section tapers to two lanes just west of Military Trail, thereby forming the westbound Connector Road.

The Connector Road includes overpasses at Powerline Road and Military Trail. At the western project limit, access to the local lanes and the Sawgrass Expressway is provided via a westbound ramp that braids over the eastbound Connector Road. Eastbound egress from the Sawgrass Expressway to local SW 10th Street occurs as a major fork.

1.6 List of Technical Documents

Table 1.6.1 lists all of the technical documents that were prepared as part of this PD&E Study. Documents that are in draft status are noted with a "Draft" and a date of the draft submittal in parenthesis.

Table 1.6.1: Technical Documents Prepared for this Study

Report	Date Completed
Cultural Resource Assessment	September 2018
Natural Resources Evaluation	September 2018
Contamination Screening Evaluation Report	December 2018
Determination of Applicability – Quiet Waters Park	December 2018
Determination of Applicability – Crystal Heights Park	December 2018
Geotechnical Memorandum	July 2019
Location Hydraulics Report	August 2019
Conceptual Stage Relocation Plan	September 2019
Water Quality Impact Evaluation	February 2020
Air Quality Technical Memorandum	July 2020
Section 4(f) No Use Form – Quiet Waters Park	September 2020
Drainage/Pond Siting Report	December 2020
Sociocultural Effects Evaluation Report	March 2021
Noise Study Report	April 2021
Project Traffic Analysis Report	May 2021
Categorical Exclusion Type 2	Draft (May 2021)

2.0 Existing Conditions

2.1 Roadway

SW 10th Street is a four-lane to six-lane divided, urban principal arterial and is a designated SIS facility. Sidewalk is present on at least one-side of the road for the entire corridor, and designated five-foot bicycle lanes are present between Powerline Road and Military Trail.

2.1.1 Typical Section

The existing SW 10th Street typical sections are shown in Figures 2.1.1, 2.1.2, 2.1.3 and 2.1.4.

SW 10th Street from Florida's Turnpike to Powerline Road (~0.8 miles) consists of:

- Three 12-foot travel lanes in each direction;
- Five-foot sidewalk on the south side of SW 10th Street starting east of Waterways Boulevard;
- Raised median varies from 30 to 65 feet; and
- Right-of-way width of 250 feet.

SW 10th Street from Powerline Road to Quiet Waters Business Park Entrance Road (~0.4 miles) consists of:

- Three 12-foot travel lanes in each direction;
- Five-foot paved shoulders/designated bicycle lanes in both directions;
- Six-foot sidewalk on both sides of SW 10th Street;
- 28-foot raised median; and
- Right-of-way width of 316 feet.

SW 10th Street from Quiet Waters Business Park Entrance Road to Military Trail (~1.1 miles) consists of:

- Two 12-foot travel lanes in each direction;
- Five-foot paved shoulders/designated bicycle lanes in both directions;
- Six-foot sidewalk on the south side of SW 10th Street;
- 16-foot raised median; and
- Right-of-way width that varies from 215 feet to 300 feet.

SW 10th Street from Military Trail to East Newport Center Drive (~0.4 miles) consists of:

- Three 11-foot travel lanes in each direction;
- Three-foot paved shoulder;
- Five-foot curb-line sidewalk on both sides of SW 10th Street;
- Variable width raised median (15 feet to 26 feet); and
- Right-of-way width of approximately 250 feet.

Figure 2.1.1: Existing SW 10th Street Typical Section – Florida's Turnpike to Powerline Road

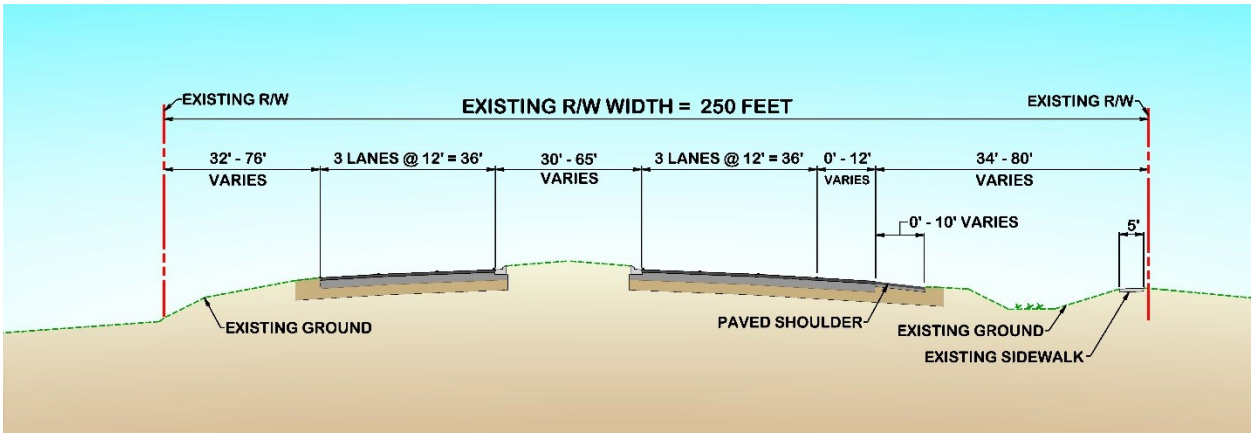


Figure 2.1.2: Existing SW 10th Street Typical Section – Powerline Road to Quiet Waters Business Park Entrance Road

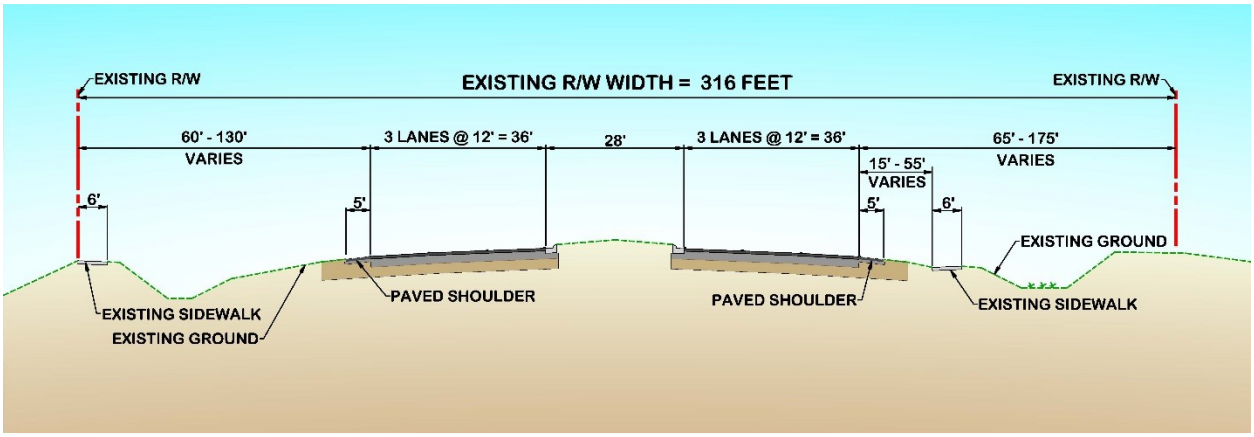


Figure 2.1.3: Existing SW 10th Street Typical Section – Quiet Waters Business Park Entrance Road to Military Trail

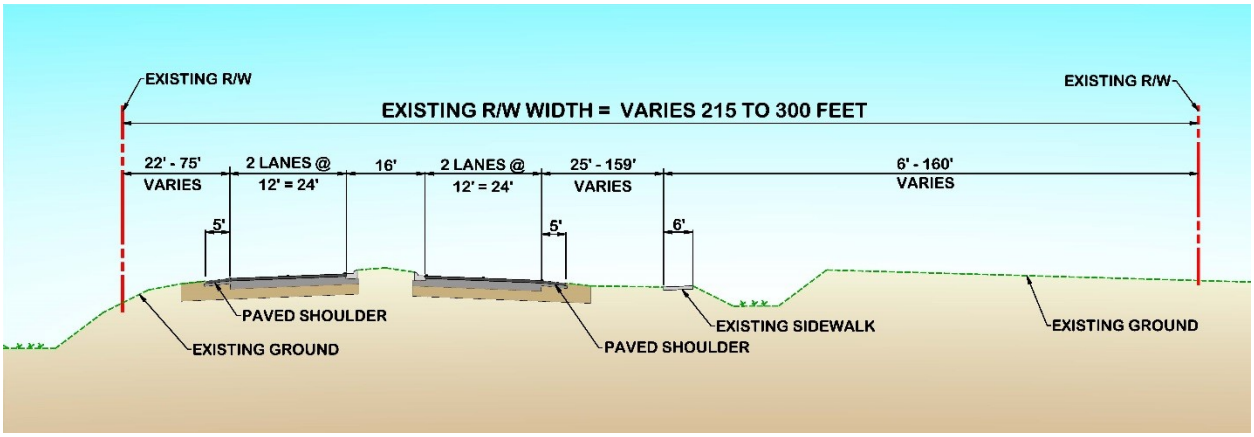
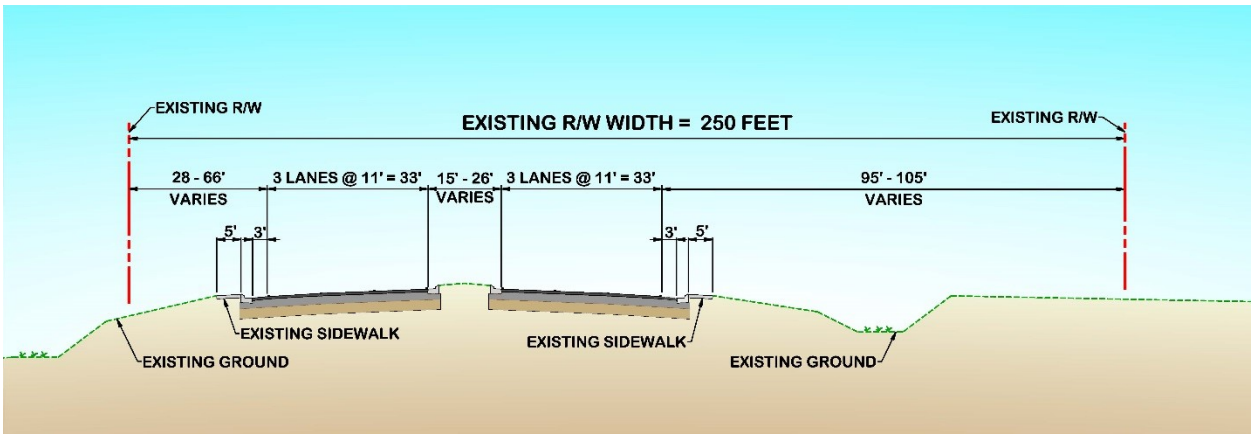


Figure 2.1.4: Existing SW 10th Street Typical Section – Military Trail to East Newport Center Drive

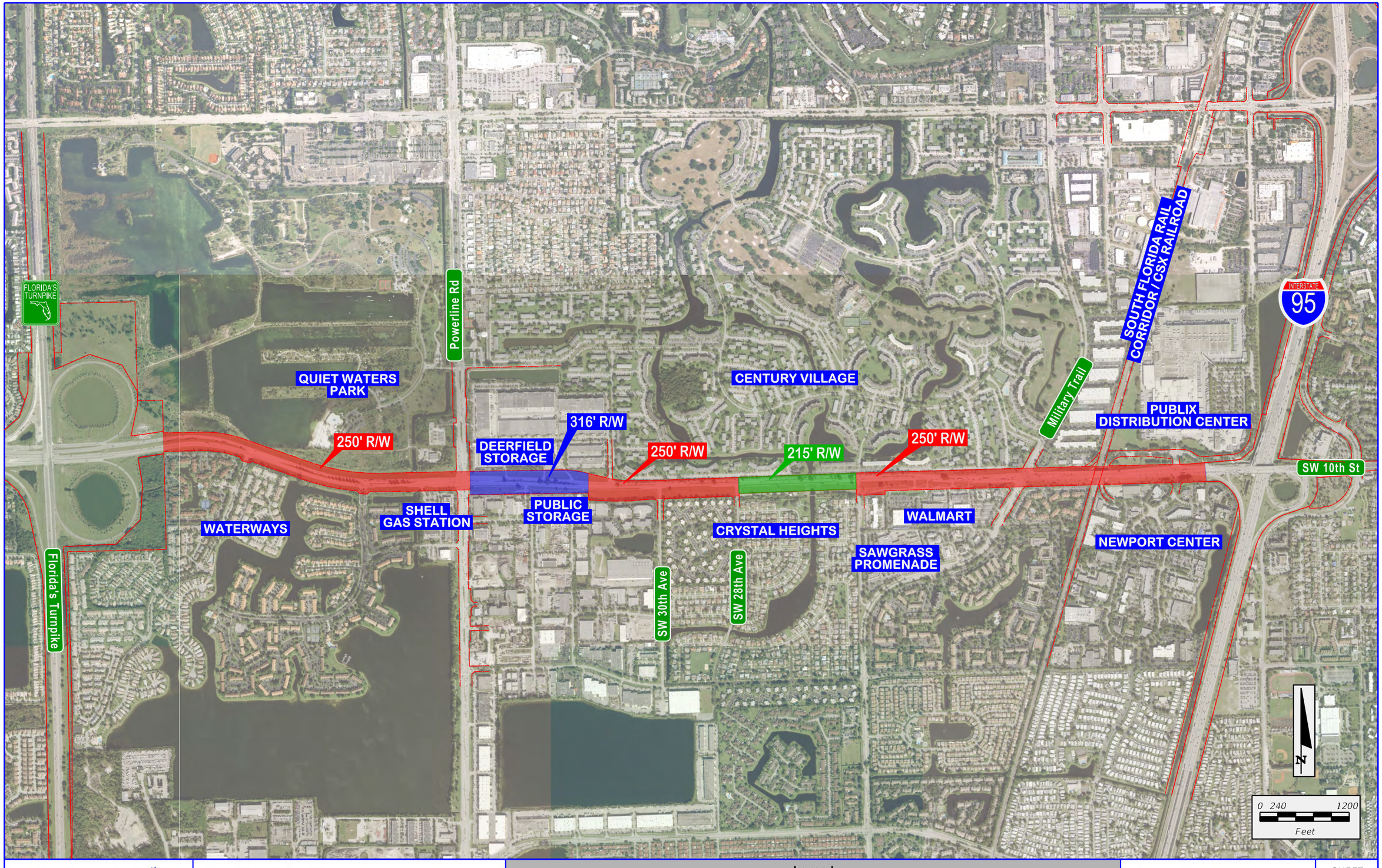


2.2 Right-of-Way

The existing right-of-way was mapped for the SW 10th Street Project. The existing right-of-way varies throughout the corridor from 215 feet to 316 feet. Below is a summary of the existing right-of-way along the corridor:

- Florida's Turnpike/Sawgrass Expressway to Powerline Road (~1 mile) – 250 feet of right-of-way;
- Powerline Road to just west of Quiet Waters Business Park Entrance Road (~0.4 miles) – 316 feet of right-of-way;
- Just west of Quiet Waters Business Park Entrance Road to SW 28th Avenue (~0.3 miles) – 250 feet of right-of-way;
- SW 28th Avenue to SW 24th Avenue (~0.3 miles) – 215 feet of right-of-way; and
- SW 24th Avenue to East Newport Center Drive (~0.8 miles) – 250 feet of right-of-way.

Figure 2.2.1 shows the approximate right-of-way widths in the project corridor.



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Legend

- Existing Right-of-Way
- Existing LA Right-of-Way
- 215' of Right-of-Way
- 250' of Right-of-Way
- 316' of Right-of-Way

Figure 2.2.1
Existing Right-of-Way

SHEET NO.
2-5

2.3 Roadway Classification and Context Classification

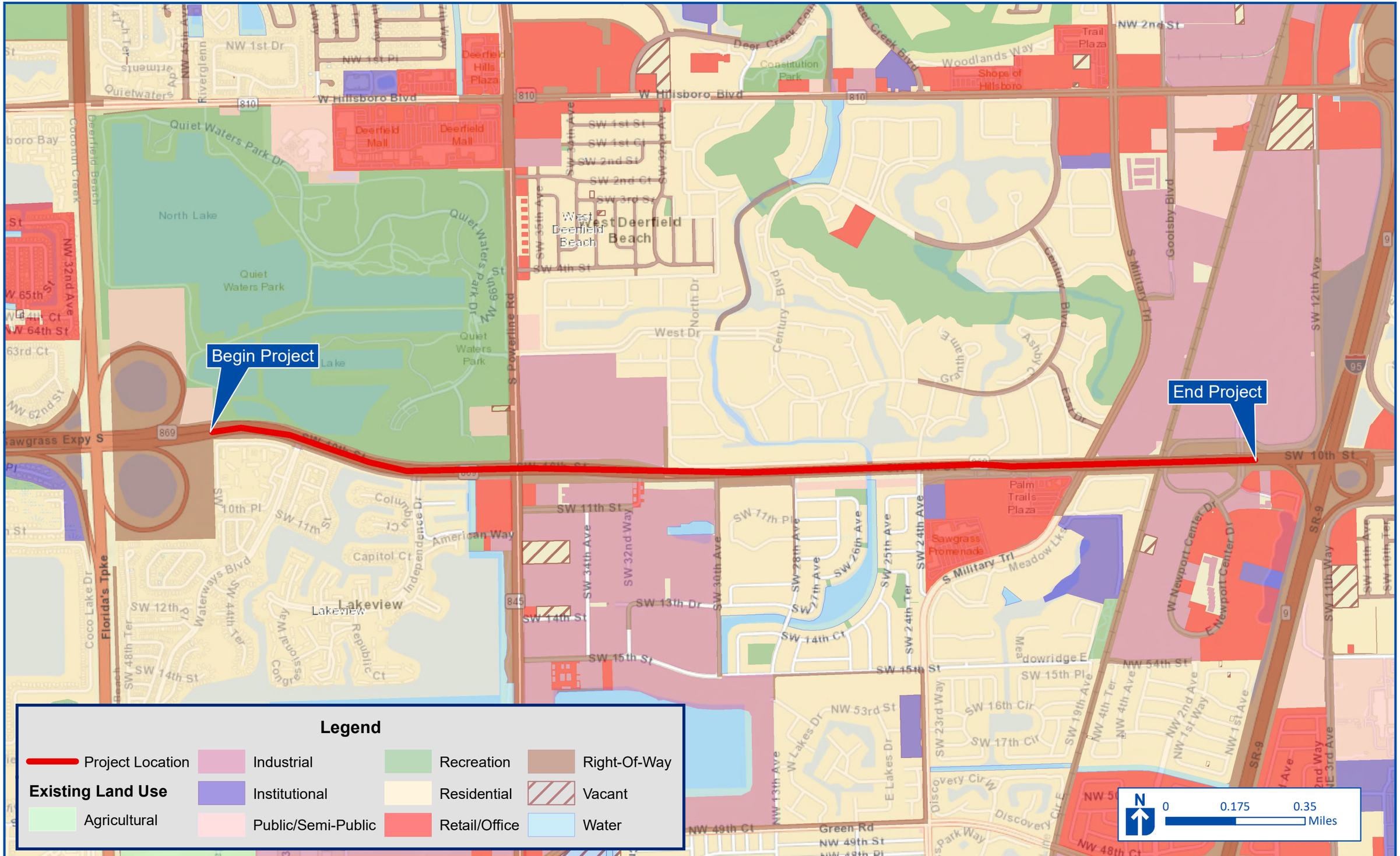
The roadway network within the project study area is comprised of Interstates, Toll Roads, U.S. Routes, State Roads, and local roads, which provide local access to communities on SW 10th Street and also regional connectivity. SW 10th Street is an east-west Urban Principal Arterial, Other facility serving local residential communities, commercial properties, and commuters alike. This section of roadway has also been considered the missing link in the existing and planned regional express lane network.

SW 10th Street is part of the state's SIS and provides the opportunity for commuters and local residents to connect to three major limited access facilities: Florida's Turnpike, Sawgrass Expressway, and I-95. The context classification from Florida's Turnpike to just east of Military Trail is Suburban Residential (C3R). The context classification changes just east of Military Trail to Suburban Commercial (C3C). The context classification remains Suburban Commercial to I-95.

2.4 Adjacent Land Use

The project lies within the City of Deerfield Beach, in Broward County, Florida. The project limits are not within the City of Deerfield Beach Community Redevelopment Area.

The primary land uses in the project corridor include residential (multi-family and single family), recreational, industrial, and commercial. Major residential developments include the Enclave Apartments at Waterways, Waterways, Independence Bay, Century Village, Waterford Courtyards, Waterford Homes, and the Lakes at Deerfield Apartments. Industrial development includes the Publix Distribution Center. Commercial development includes the Sports Complex, Shell Gas Station, Med Care Pharmacy, Deerfield Beach Storage, Quiet Waters Business Park, Public Storage, Walmart, Publix, Quorum Business Center, and the Newport Center. Recreational uses along the corridor include Quiet Waters Park and Crystal Heights Park – North. Figure 2.4.1 shows the existing land use in the project corridor.



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.4.1** **Existing Land Use**	**Page No.** **2-7**

2.4.1 Community Focal Points

Community focal points are public or private locations, facilities or organizations that are important to local residents and communities. Community focal points can include religious facilities, medical and emergency facilities, education facilities, government facilities, parks, social services facilities, and community and cultural centers. Few community focal points are located within a quarter mile of the project corridor (sociocultural effects (SCE) study area).

In the SCE study area, the following resources were identified and are shown on Figure 2.4.2.

Schools

There are no schools located within the 1,320-foot project buffer. There is one day care facility, Leap Ahead Learning Center, located within the SCE study area. Access to the facility is from SW 24th Avenue. Although not in the SCE study area, a noteworthy point is that Quiet Waters Elementary School is located near the project corridor, just south of Hillsboro Boulevard and adjacent to Quiet Waters Park.

Community Centers, Parks and Cemeteries

No community centers or cemeteries are located within the SCE study area. The following parks are located within the SCE study area: Quiet Waters Park, Crystal Heights Park – North, Crystal Heights Park – 1, Trailhead Park, and Independence Bay Linear Park.

Quiet Waters Park is located at the northwest corner of SW 10th Street and Powerline Road and is a large regional park with multiple active and passive recreational activities. No existing or planned direct access from SW 10th Street to this park exists. The vehicle entrance to the park is from Powerline Road. According to Broward County Parks staff, Quiet Waters Park does not get a lot of bicycle or pedestrian traffic from the south that would require crossing SW 10th Street. Minimal pedestrian and bicycle traffic occurs from Century Village (east of Powerline Road and north of SW 10th Street).

Crystal Heights Park – North is a 1.37-acre community park associated with the Crystal Heights (also known as Waterford Homes) subdivision and is located south of SW 10th Street. This park is one of seven small community parks scattered throughout this large subdivision. Crystal Heights Park – North is the only one adjacent to SW 10th Street. The park includes open grassed areas, a children's playground, covered picnic table with grill and an open-air picnic table, and approximately 100 feet of grassed parking area. Access to this park is through the neighborhood with no direct access from SW 10th Street. Additional details about Quiet Waters and Crystal Heights parks can be found in the Section 4(f) Determination of Applicability documents prepared under separate cover.

Crystal Heights Park – 1, Trailhead Park, and Independence Bay Linear Park are also located within the SCE study area but are not directly or indirectly influenced by improvements along SW 10th Street. There is also no direct access to these parks from SW 10th Street. Crystal Heights Park – 1 is an approximately 0.17-acre undeveloped lot with no amenities. Trailhead Park is an approximately 1.44-acre park consisting of parking, picnic benches and a small playground. Independence Bay Linear Park is located south of SW 10th Street and runs along the west side of Powerline Road. This linear park includes a 303-foot-long, 15-foot-wide concrete path to serve joggers, walkers, and bicyclists.

Fire Stations

No fire stations are located within the SCE study area. However, Broward County Fire and Rescue Station 66 is located at 590 South Powerline Road, approximately 0.3 miles to the north of SW 10th Street.

Healthcare Facilities

No healthcare facilities are located within the SCE study area. However, one assisted living facility is located within the study area: Grand Villa of Deerfield Beach. This facility is located directly on SW 10th Street; however, access to this facility is from SW 24th Avenue.

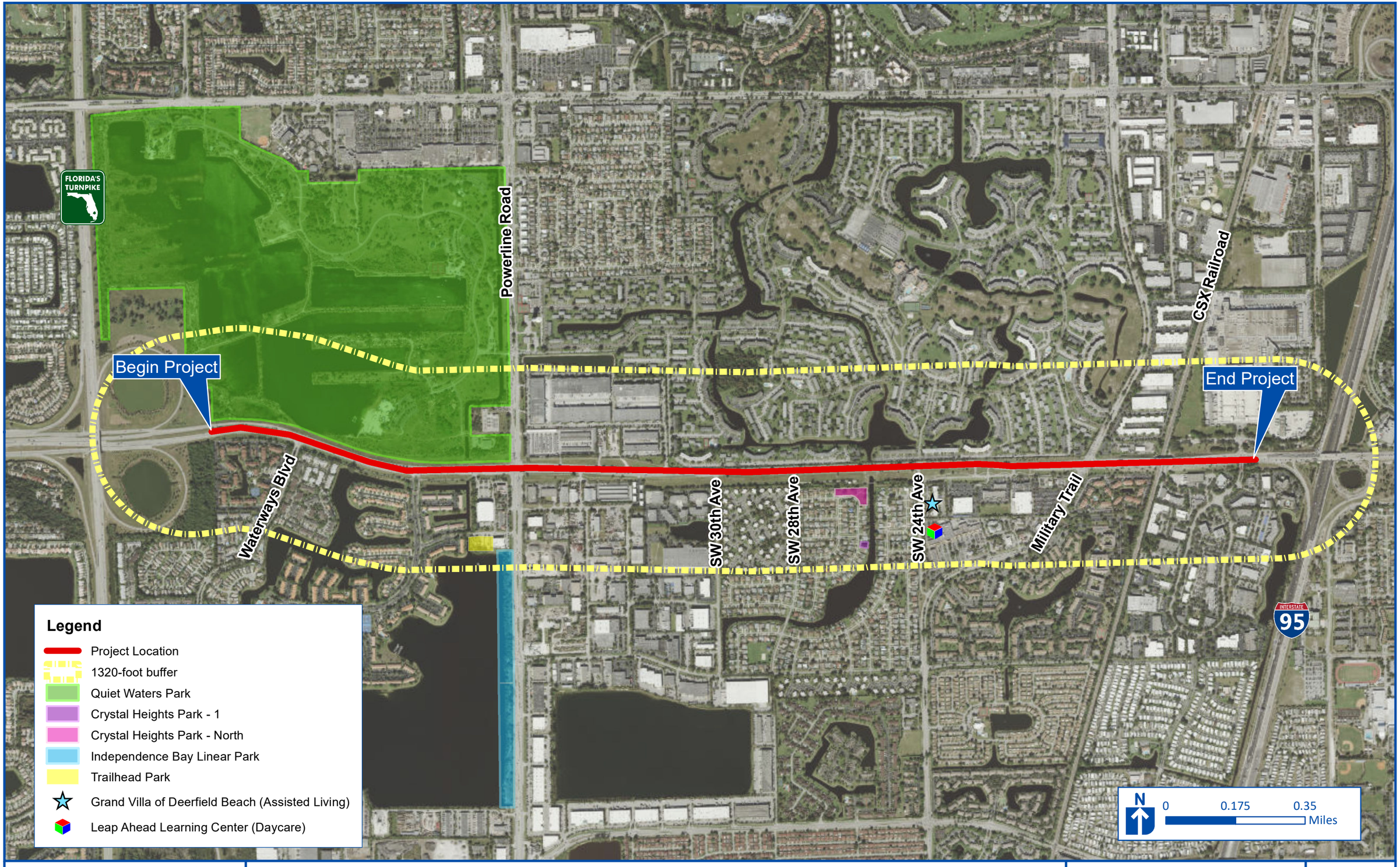


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Figure 2.4.2: Community Focal Points

2.4.2 Demographic Profile

Demographic data describes a community's structure and is primarily collected by local, state, or federal agencies such as the Census Bureau and other local government departments. Demographic data covers a range of topics about communities, including: population size, gender, age composition, ethnic backgrounds, household characteristics, and geographic distribution. This data assists in designing public participation, outreach, and education strategies that reflect the age, education, and economic backgrounds of the community.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed by the President on February 11, 1994, directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

An analysis of minority and low-income populations was conducted through a review of census data, field reconnaissance and public meetings. The 2017 Census Tract data was used for the demographic comparison and analysis contained in this document. A "Census Tract" is an area roughly equivalent to a neighborhood established by the Bureau of Census for analyzing populations. They generally encompass a population between 2,500 to 8,000 people. The Census Bureau describes them as "relatively permanent," but they do change over time.

According to the 2017 Census data, the study area is comprised of approximately 44% minority populations as shown in Table 2.4.1. The minority population within the SCE study area is significantly lower than Broward County (61%). The largest difference between the population distribution in the SCE study area versus Broward County is the higher percentage of White (61% versus 38%) which is primarily a result of the lower Black and Hispanic populations (15% and 20% compared to 27% and 28%, respectively).

Table 2.4.1: Demographic Comparison: Population

Evaluation Criteria	Broward County	Study Area
Total population	1,890,416	20,507
Percent of the population that is White	38.2	60.6
Percent of the population that is Black	27.4	15.4
Percent of the population that is Hispanic	28.4	19.5
Percent of the population that is Asian	3.5	1.6
Percent of the population that is Other[1]	2.6	2.9
Percent of the population that is considered 'Minority'	61.3	43.9
Median population age	40.1	51.5
Percent of the population that is above 65 years old	15.6	18.5

[1] Other nationalities include American Indian or Alaska native, Native Hawaiian or other Pacific islander, some other race, or 2 or more races.

Table 2.4.2 illustrates the Household Income Characteristics summarized from the 2017 American Community Survey (ACS) five-year estimates.

Table 2.4.2: Household Income Characteristics

Geography	Census Block Group	Median Household Income (Dollars)	Percentage of Households with Incomes Below Poverty Level
SW 10th Street SCE Study Area		40,299	15.6%
Census Tract 103.05	Block Group 1	37,188	34.2%
Census Tract 104.02	Block Group 1	23,718	19.5%
Census Tract 104.02	Block Group 2	50,156	14.8%
Census Tract 104.03	Block Group 1	25,733	25.1%
Census Tract 104.03	Block Group 3	31,531	14.8%
Census Tract 104.06	Block Group 1	57,285	10.0%
Census Tract 104.07	Block Group 1	33,728	11.4%
Census Tract 104.07	Block Group 2	68,601	4.2%
Census Tract 107.01	Block Group 2	34,755	19.8%
Source: 2013-2017 American Community Survey Five-Year Estimates			

The ACS estimates indicate that the median household income of the SCE study area is approximately $40,299, with approximately 15.6% of households with income below the federal poverty level. In Broward County, the median household income is approximately $60,427, with approximately 13.3% of households with income below the federal poverty line.

Although the median household income in the study area is significantly lower than in Broward County, the percent of households below the poverty line is relatively similar. A reason for this discrepancy could be the large percentage of elderly individuals within the SCE study area (discussed below), particularly those living in Century Village, many of whom are living on retirement income/savings. Figure 2.4.3 shows the percent minority and low-income percentages for each census tract and block group in the SCE study area.

In addition to ethnicity and household income, the ACS five-year estimates were reviewed to evaluate the percentage of households with one or more persons 65 years or older and the percentage of persons with Limited English Proficiency. The percentage of elderly households within the study area is 51% and ranges from 0% to 92% within each of the census block groups in the study area. The highest percentage of elderly population occurs north of the study area in Census Tract 104.03, Block Group 1 (92%). This Census Tract encompasses all of the Century Village retirement community. The least percentage of elderly population occurs near I-95, north of SW 10th Street in Census Tract 103.05, Block Group 1 (0%). In Broward County the percentage of elderly households is 15.7%.

Limited English Proficiency is defined as people who speak English less than "very well" or "not at all." These people have a limited ability to read, write, speak, or understand English. The percentage of persons with Limited English Proficiency for the entire study area is 9.5% and ranges from 3% to 22.6% within each of the block groups in the study area. The lowest percentage of persons with Limited English Proficiency is in Census Tract 104.07, Block Group 1 (3%), which is south of SW 10th Street. The highest percentage of persons with Limited English Proficiency is in Census Tract 103.05, Block Group 1 (22.6%), which is east of I-95 and north of SW 10th Street. The percent of the population with Limited English Proficiency in Broward County is 15.9%.

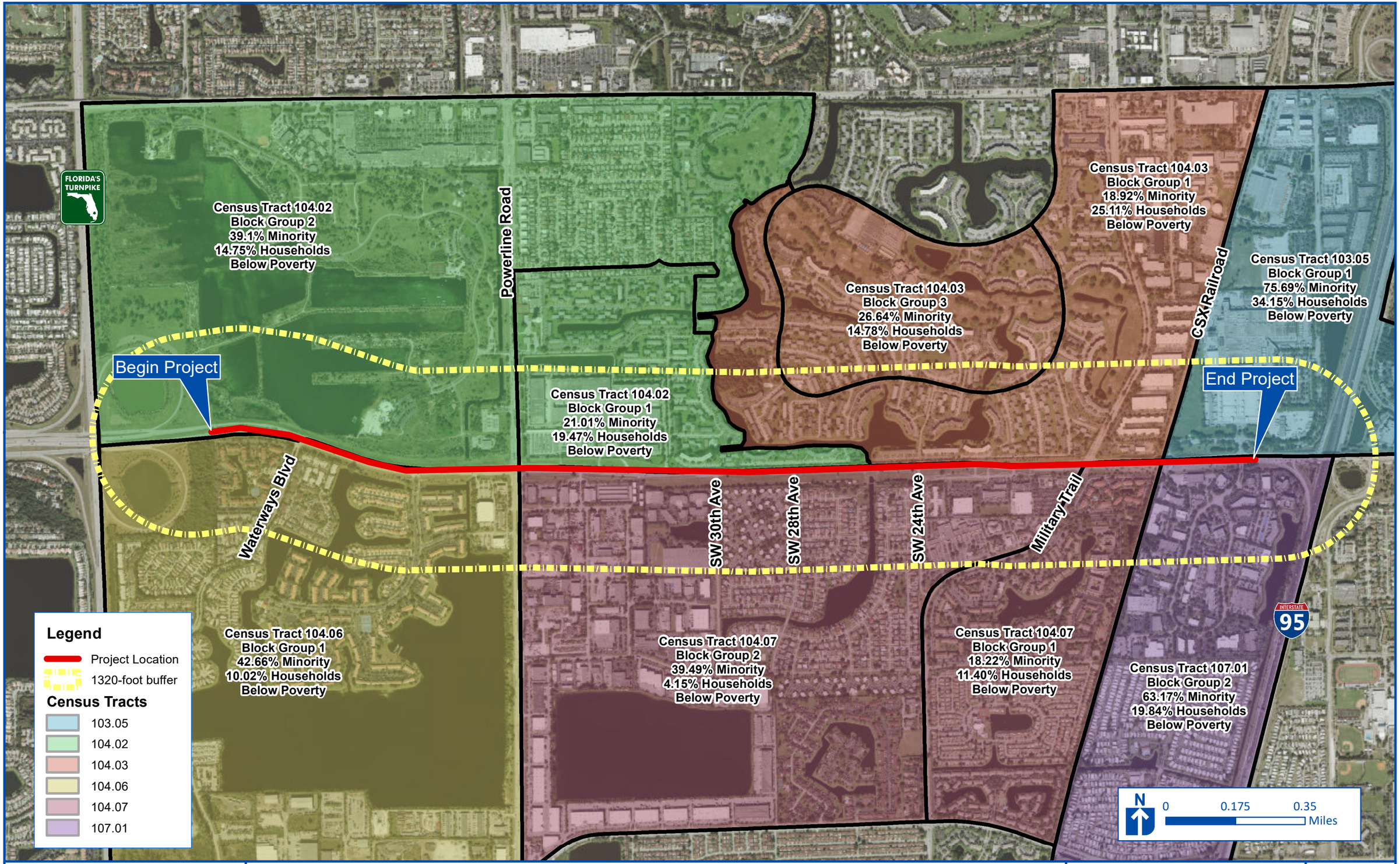

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Figure 2.4.3: Minority and Poverty Map

2.5 Access Management Classification

SW 10th Street from Florida's Turnpike to Powerline Road is designated as Access Management Class 1 by the FDOT. The Access Management Classification transitions from Class 1 to Class 3 at Powerline Road. SW 10th Street from Powerline Road to I-95 is designated as Access Management Class 3.

Access Management Class 1 is designated for all freeways. Access Management Class 1 is then divided into four area types that dictate the interchange spacing requirements. The project corridor is in an existing urbanized area but not in a Central Business District (CBD) therefore, it is categorized as Area Type 2. The interchange spacing requirement for an Area Type 2 is every two miles. Access Management Class 3 allows for directional median openings every 1,320 feet and full median openings/signals every 2,640 feet.

An existing median opening inventory was completed in order to understand the type of and location of existing median openings compared to the FDOT Access Management Standards. A complete list of signalized intersections/median openings and spacing on SW 10th Street is shown below in Table 2.5.1. The red highlighted cells indicate that the existing spacing does not meet access management requirements. Although the western portion of SW 10th Street, from Florida's Turnpike to Powerline Road is classified as Access Management Class 1, this section of SW 10th Street is not a freeway, and the entire project corridor was evaluated with Class 3 requirements. Table 2.5.2 shows a summary of the existing median opening spacing compliance. As shown in Tables 2.5.1 and 2.5.2, the majority of median openings do not meet FDOT Access Management Standards. Of the nine full median openings on SW 10th Street, none meet the full median opening spacing requirement for Access Management Class 3. Similarly, the three directional median openings also do not meet Access Management Class 3 spacing.

Table 2.5.1: Existing Median Openings and Signals on SW 10th Street

	Median Opening Description/ Sideroad	Median Type	Spacing (feet)	Full Median Spacing (feet)	Directional Median Spacing (feet)	Signal Spacing (feet)
Access Management Class 1	Waterways Boulevard	Signal				
			1,600	1,600		1,600
	Independence Drive	Signal				
			1,300	1,300		1,300
	Powerline Road	Signal				
Access Management Class 3			2,000	2,000		3,700
	Quiet Waters Business Park Entrance Road	Full				
			670	670		
	SW 30th Avenue	Full				
			1,030	1,030		
	SW 28th Avenue	Signal				
			1,660	1,660		3,850
	SW 24th Avenue	Full				
			800	2,190	800	
	Frontage Road (Business Park)	Directional				
			510		510	
	Frontage Road (Walmart)	Directional				
			880		880	
	Military Trail	Signal				
			2,080	2,080		2,080
	East Newport Center Drive	Signal				
			740		740	740
	I-95 Southbound Entrance Ramp	Directional/ Signal				

Table 2.5.2: Summary of Existing Access Management

	SW 10th Street Corridor
Number of Signals	7
Number of Full Median Openings (Including Signals)	9
Number of Directional Median Openings (Including Signals)	3
Total Number of Median Openings	***12***
Average Signal Spacing (feet)	2,212
Average Full Median Opening Spacing (feet)	1,566
Average Directional Spacing (feet)	733

2.6 Design and Posted Speeds

Throughout the project corridor, the posted speed varies from 40 to 45 mph. The posted speed on SW 10th Street from Florida's Turnpike to Military Trail is 45 mph and is reduced to 40 mph from Military Trail to I-95.

Based on the SW 10th Street from Powerline Road to East Newport Center Drive (Financial Project ID: 424665-1-52-01) Plans, the design speed is 45 mph on SW 10th Street from Powerline Road to East Newport Center Drive. Plan sets for the remaining segments of the corridor were not available to confirm the design speed, but it is assumed to be 45 mph throughout the corridor.

2.7 Vertical and Horizontal Alignment

2.7.1 Vertical Alignment

SW 10th Street between Florida's Turnpike and just west of the South Florida Rail Corridor/ CSX Railroad is a relatively flat section of roadway. The majority of the existing SW 10th Street roadway varies in elevation from 14.5 feet to 17.3 feet in elevation with the lowest elevation around 9.5 feet in the vicinity of SW 24th Avenue.

2.7.2 Horizontal Alignment

SW 10th Street is oriented in the east-west direction and is generally oriented on a tangent section of roadway within the project area. Below is a brief description of the existing roadway geometry:

- Starting at Florida's Turnpike, SW 10th Street curves with a centerline radius of 11,507 feet for a length of 1,344 feet;
- A short 220-foot tangent separates the first and second curve;
- The second curve has a centerline radius of 1,842 feet for a length of 915 feet;
- Near Waterways Boulevard, the curve transitions to a 946-foot tangent section before curve number three begins;
- The third curve has a centerline radius of 2,916 feet for a length of 1,036 feet;
- Near Independence Drive, the curve transitions to 1,372-foot tangent section ending just east of Powerline Road before curve four begins;
- The fourth curve has a centerline radius of 10,670 feet for a length of 892 feet;
- A short 310-foot tangent separates the fourth and fifth curve;
- The fifth curve has a centerline radius of 7,891 feet for a length of 623 feet. Just east of the Quiet Waters Business Park Entrance Road, the curve transitions to 565-foot-long tangent section;
- A 3,062-foot tangent follows, ending just east of SW 24th Avenue before the start of curve six;
- The sixth curve has a centerline radius of 5,243 feet for a length of 498 feet;
- A short 255-foot tangent separates the sixth and seventh curve;
- The seventh curve has a centerline radius of 3,532 feet for a length of 307 feet; and
- Near the Walmart entrance, the curve transitions to 2,209-foot tangent which ends just east of the South Florida Rail Corridor/CSX Railroad.

2.8 Pedestrian Accommodations

Sidewalks are located along SW 10th Street's eastbound and westbound lanes from Military Trail to I-95. However, from Waterways Boulevard to Military Trail, sidewalks are only present in the eastbound direction, except for a short stretch between Powerline Road and Quiet Waters Business Park Entrance Road which has sidewalk on both sides of the road. No sidewalk is present between Florida's Turnpike and Waterways Boulevard.

2.9 Bicycle Facilities

Five-foot designated bicycle lanes are present in both directions from Powerline Road to Military Trail. East of Military Trail, the paved shoulders narrow to three feet and are therefore not designated bicycle lanes. Figure 2.9.1 shows the pedestrian and bicycle facilities along SW 10th Street.

Figure 2.9.1: Pedestrian and Bicycle Facilities

2.10 Transit Facilities

The City of Deerfield Beach has partnered with BCT to provide Express I and II routes. Express I and II Bus Routes are available Monday through Friday from 8 AM to 4 PM. This community bus service is intended to increase the number of destinations and connections that can be reached with public transit. Express Bus I Route utilizes SW 10th Street from the eastern project limits to Powerline Road. The Express I Route has one stop adjacent to the corridor – at the Walmart (Stop 5). Express II Route utilizes SW 10th Street outside of the project limits. No BCT services are present along SW 10th Street. However, Military Trail and Powerline Road both have transit options, Tri-Rail and Broward County Bus Route No.

14, respectively. The Broward MPO assigned a LOS F to the bicycle, pedestrian, and transit services along SW 10th Street.

2.11 Pavement Conditions

A pavement survey was not completed for this PD&E Study. However, the FDOT Office of Transportation Statistics Road Data Shape Files for Pavement Conditions in GIS were reviewed and field observations confirmed the existing condition of the pavement. The Pavement Conditions file was published on May 12, 2018. Based upon the research, the values in Table 2.11.1 were obtained. Table 2.11.2 provides the pavement condition scale to understand the scores.

Table 2.11.1: Pavement Conditions

Roadway	Begin Limit	End Limit	Score
SW 10 Street	Florida's Turnpike/ Sawgrass	Waterways Boulevard	4.5
SW 10th Street	Waterways Boulevard	Powerline Road	3.5
SW 10th Street	Powerline Road	East Newport Center Drive	5
SW 10th Street	East Newport Center Drive	I-95	3

The values listed are based upon an overall pavement condition scale as shown in Table 2.11.2.

Table 2.11.2: Pavement Condition Scale

Value	Pavement Condition
<1.0	Very Poor
1.0 to 2.0	Poor (Large potholes, deep cracks exist)
2.0 to 3.0	Fair (Rutting, cracking and extensive patching)
3.0 to 4.0	Good (First class ride, slight deterioration)
4.0 to 5.0	Very Good (New or nearly new)

The pavement conditions shown in Table 2.11.1 indicate that the overall pavement condition is "good" in the corridor.

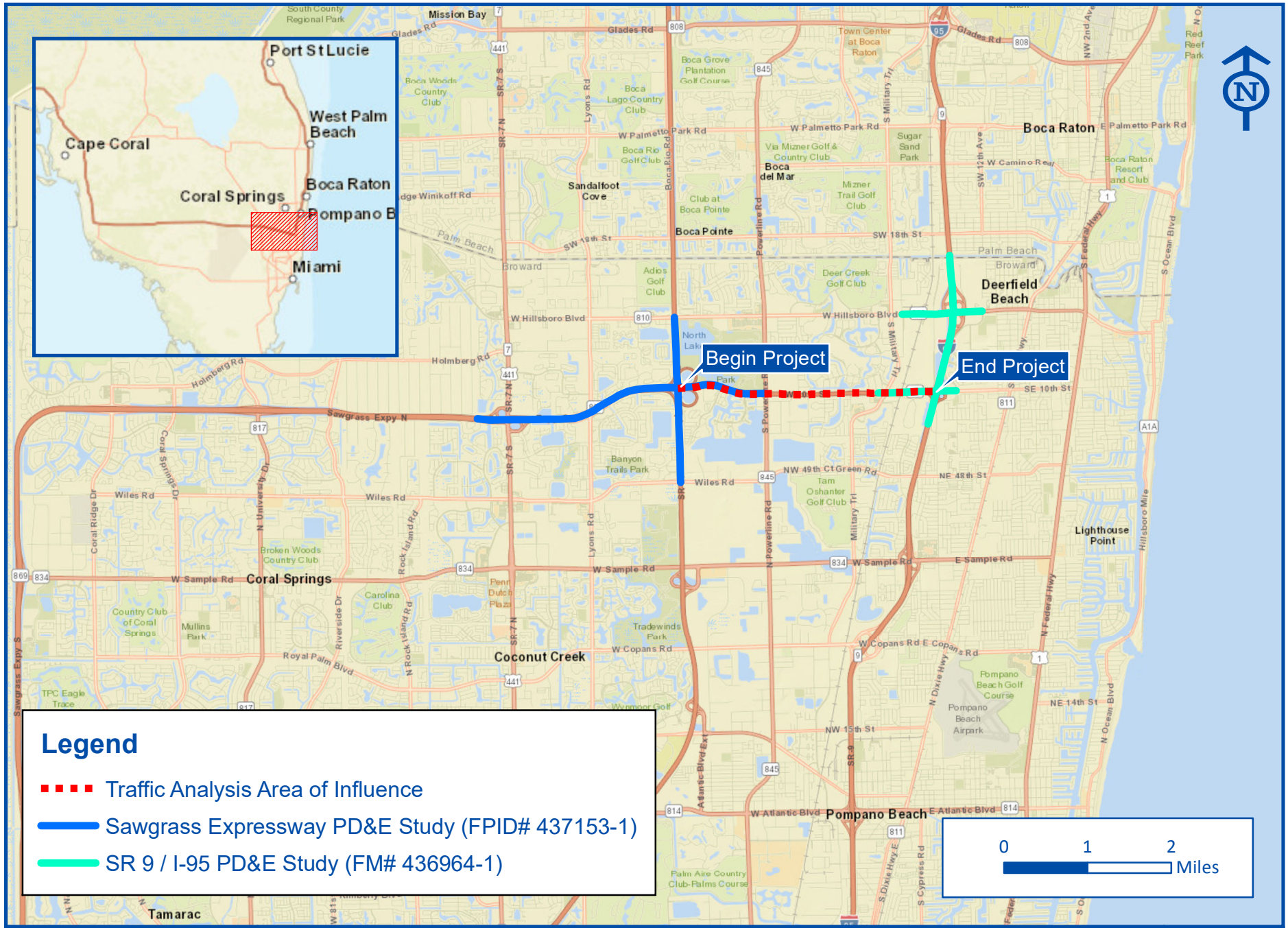
2.12 Traffic Volumes and Operational Conditions

The SW 10th Street corridor from east of the Sawgrass Expressway/Florida's Turnpike to I-95 was analyzed to report existing and projected future traffic performance. The AM and PM peak hour traffic volumes during a typical weekday were analyzed, along with the capacity of the facility. Traffic analysis results are reported for existing (2016) conditions, the 2040 No-Build Alternative (Section 4.2.1), and the 2040 Build Alternatives (Section 4.4.2). Adjacent improvements planned for Florida's Turnpike, Sawgrass Expressway and I-95 are assumed to be in place for the 2040 No-Build and 2040 Build conditions. The traffic analysis was prepared in coordination with the ongoing I-95 PD&E Study from SW 10th Street to Hillsboro Boulevard (FM# 436964-1), and the Sawgrass Expressway PD&E Study from west of US 441/SR 7 to Powerline Road (FM# 437153-1) to ensure that key assumptions are consistent.

The SW 10th Street Connector project location and traffic analysis influence area is shown in Figure 2.12.1. A summary of the methodology and results of the traffic analysis are presented in the following sections.

2.12.1 Methodology

The SW 10th Street PD&E Project Traffic Forecast Memorandum (PTFM) dated January 2019, documents existing traffic data, existing conditions traffic operational analysis, travel demand modeling, future year traffic forecast, and traffic operational analysis for the No-Build Alternative. Traffic forecast information contained in the PTFM, along with information provided in the *SW 10th Street Connector – Toll-Free Project Traffic Forecast Technical Memorandum*, dated July 2019, and the "Scenario C2" and "Scenario A2" volumes documented in the *SW 10th Street Connector & I-95 Interchange Supplemental Traffic Forecast Scenarios Memorandum* dated July 2020 represent the volumes for the project. The traffic analysis for the SW 10th Street Connector PD&E Study is documented in the SW 10th Street Connector PD&E PTAR, available under separate cover.



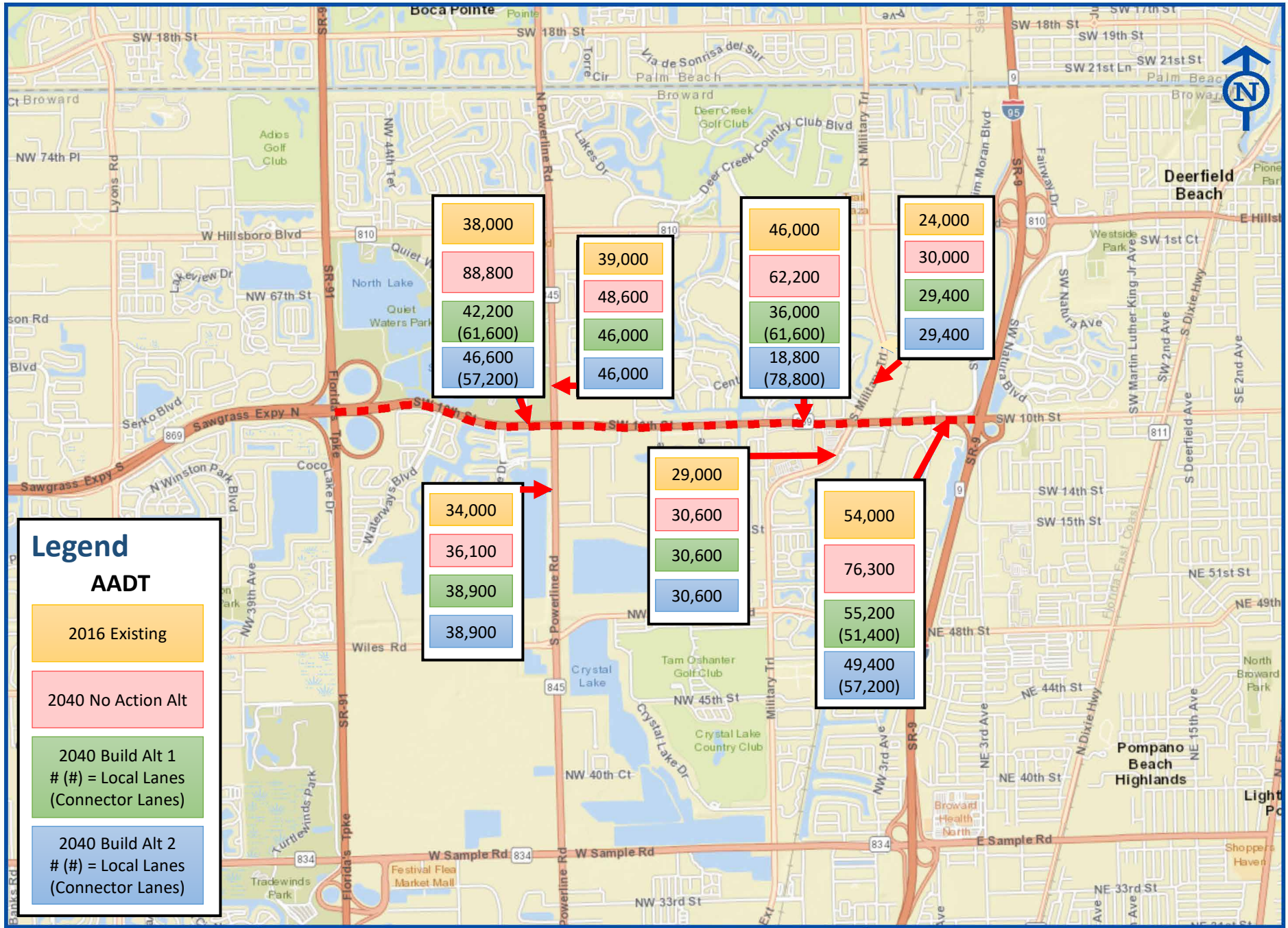
FDOT SW 10th Street Connector	**SR 869 / SW 10th St Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.1** **Project Location and Traffic Analysis Area of Influence**	**Page No. 2-22**

2.12.2 Data Collection

Traffic volume data for the SW 10th Street corridor was obtained through multiple data collection efforts that were also supplemented with existing and historical data from the FDOT Florida Traffic Information (FTI) online website application. Traffic volume, origin-destination, and speed data was collected in 2014, 2015 and 2016. Turning movement and 24-hour continuous count data for SW 10th Street between Sawgrass Expressway and Powerline Road were collected in October and November 2014 as part of the Sawgrass Expressway (south of Sunrise Boulevard to south of US 441) PD&E Study Traffic Technical Memorandum (TTM) effort. Additional turning movement and 24-hour continuous traffic counts along SW 10th Street were collected by FDOT District 4 in March 2016. FTE collected more turning movement and 24-hour continuous traffic counts along SW 10th Street, Powerline Road, and Military Trail in October 2016.

The traffic volume data was used to estimate the existing year 2016 AADT and directional design hour volumes (DDHVs) along the corridor, as well as AM and PM weekday peak hour intersection turning movement volumes at the study intersections. The peak hours on SW 10th Street are 7:30 a.m. – 8:30 a.m. and 5:00 p.m. – 6:00 p.m. Figure 2.12.2 shows the existing year 2016 AADT volumes, while Figure 2.12.3 depicts the existing year 2016 AM and PM peak hour volumes.

Bluetooth origin-destination (O-D) data collection efforts were also completed for the SW 10th Street study corridor. FTE completed an O-D study for portions of the Sawgrass Expressway, Florida's Turnpike, SW 10th Street, and I-95 in February 2015 to support multiple projects in the area. FDOT District 4 collected O-D data for the SW 10th Street corridor between Florida's Turnpike and I-95 in April 2016 using Bluetooth equipment. The O-D data obtained from both efforts provided information about daily and AM and PM peak period traffic patterns. This data also provided insight into the number of vehicles that would be eligible to use the proposed SW 10th Street managed lanes. The PTFM, which documents the data collection efforts within the area of influence, is available under separate cover.



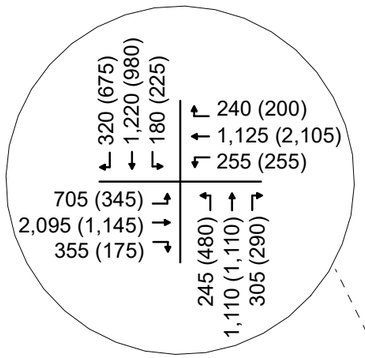
FDOT SW 10th Street Connector	State Road 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	Figure 2.12.2 Annual Average Daily Traffic	Page 2-24

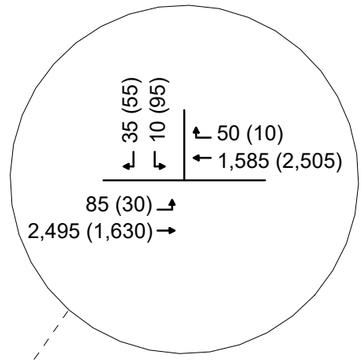
Legend

X,XXX (X,XXX)	AM (PM) Peak Hour Volume
●	Signalized Intersection
○	Unsignalized Intersection

N

N.T.S.





West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

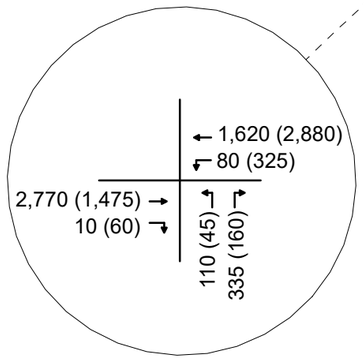
Industrial Park Access

Matchline A

To WB Sawgrass

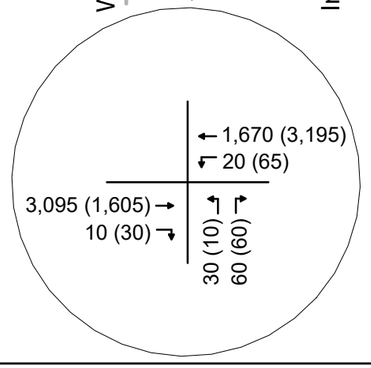
SW 10th St

From EB Sawgrass



Waterways Blvd

Independence Dr

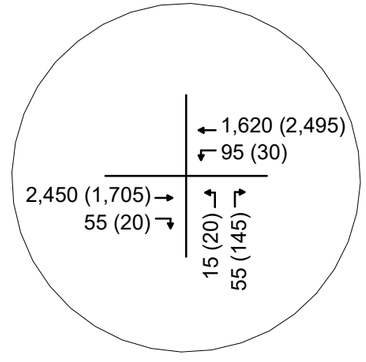


SW 11th Ct

American Way

Powerline Rd

SW 10th St



SW 30th Ave

Page 2

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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Figure 2.12.3
Existing Year 2016 AM and PM Peak Hour Volumes

Legend

X,XXX (X,XXX) AM (PM) Peak Hour Volume

Signalized Intersection

Unsignalized Intersection

N

N.T.S.

Matchline A

Matchline B

Page 1

Page 3

SW 10th St

SW 10th St

Military Trail

East Drive

SW 28th Ave

SW 24th Ave

W. Driveway

E. Driveway

Palm Trails Plaza

The Lakes at Deerfield Apts Driveway

Horizon Club Driveway

← 1,555 (2,485)
← 25 (20)
2,370 (1,690) →
165 (105) ↴
50 (50) ↰
30 (35) ↱

← 1,615 (2,530)
← 55 (60)
2,380 (1,700) →
15 (85) ↴
70 (190) ↱

← 250 (435)
← 535 (785)
← 430 (220)
↰ 285 (425)
↰ 1,260 (2,020)
↰ 290 (350)
280 (305) ↴
2,085 (1,430) ↴
85 (155) ↴
160 (135) ↰
765 (580) ↑
570 (300) ↱

← 1,595 (2,480)
↰ 10 (55)
2,470 (1,755) →
35 (95) ↴
120 (45) ↰
65 (40) ↱

← 1,580 (2,505)
↰ 35 (25)
2,375 (1,700) →
25 (25) ↴
20 (85) ↱

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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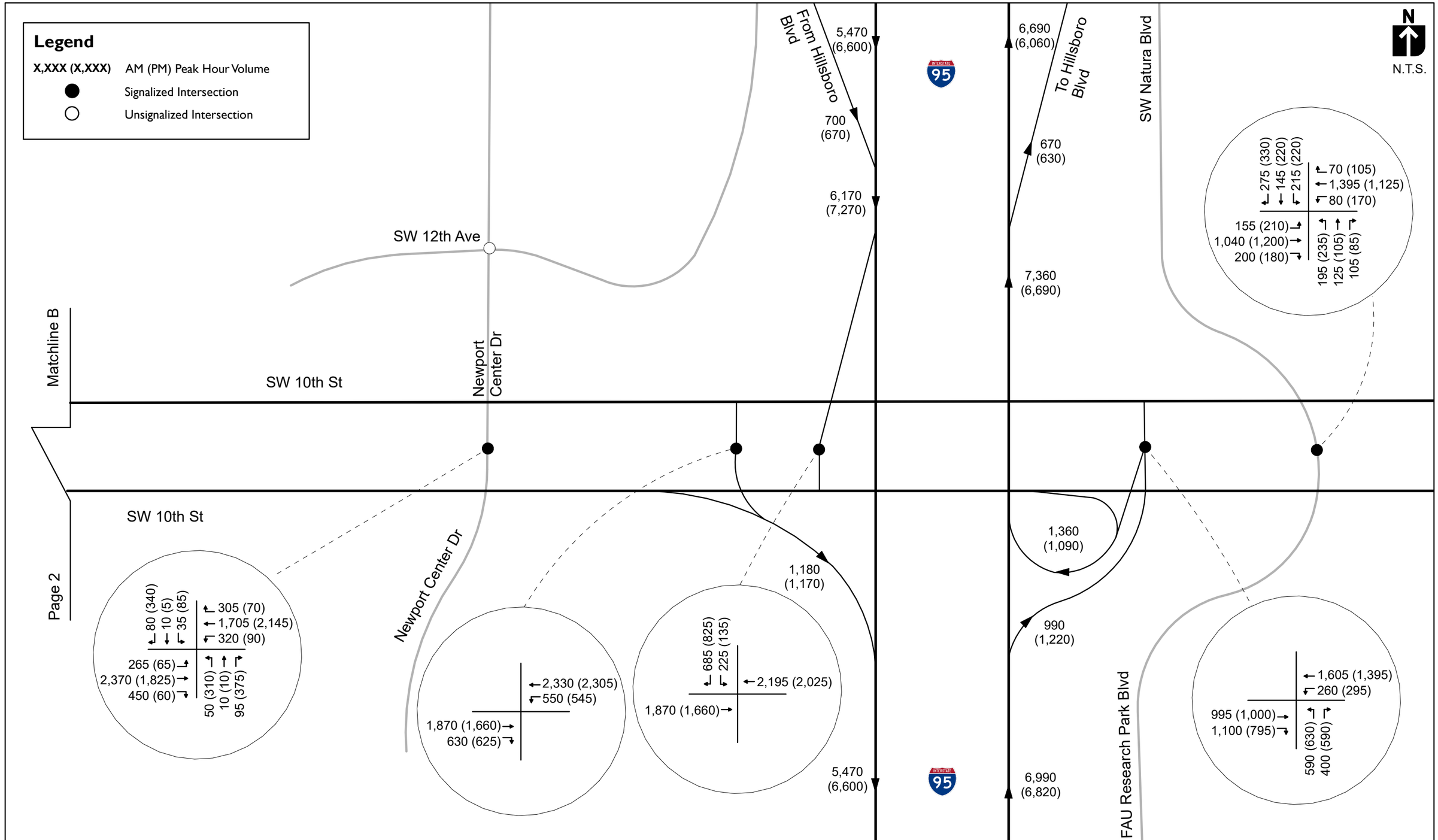
Figure 2.12.3
Existing Year 2016 AM and PM Peak Hour Volumes



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.3** **Existing Year 2016 AM and PM Peak Hour Volumes**

2.12.3 Traffic Development

Future year 2040 daily and peak hour traffic forecasts were developed for the SW 10th Street study corridor assuming various roadway network scenarios, including the No-Build Alternative and Build Alternatives. An adjusted and validated version of the Southeast Regional Planning Model (SERPM) 6.5.4, developed by FTE (SERPM-FTE), was used to develop future volumes for this study. The SERPM-FTE model has a base year of 2010 and future year models were developed for years 2020 and 2040. The travel demand model (SERPM-FTE) used for the SW 10th Street project was built upon the Sawgrass PD&E travel demand model and includes the SERPM 7 socioeconomic data (version 7.062). The SERPM-FTE model was used to produce travel demand forecasts at a daily level and for three time periods: AM peak period (6:30 a.m. to 9:30 a.m.), PM peak period (3:30 p.m. to 6:30 p.m.), and off-peak period (remainder of the day). Base 2040 forecasted volumes were first developed using the Florida's Turnpike Express Lane Time-of-Day (ELToD) model v2.2 in conjunction with the SERPM-FTE model.

Year 2040 traffic volumes were forecasted for multiple scenarios and documented in the PTFM including:

- A scenario (first termed "Partial Build" in the PTFM and later termed "No-Build Alternative" in the PD&E PTAR and PER) which assumes no improvements constructed along SW 10th Street, but planned improvements are constructed at the SW 10th Street and Sawgrass Expressway/Turnpike interchange and at the SW 10th Street and I-95 interchange.
- Multiple Build concepts with various Connector Road (managed lane) access configurations (termed "Build Alternatives – North and Center alignments – Options 3D-1.1 through Option 3D-1.6" in the PTFM), which assume managed lanes are constructed along SW 10th Street, and planned improvements are constructed at the SW 10th Street and Sawgrass Expressway/Turnpike interchange and at the SW 10th Street and I-95 interchange.

The initial 2040 forecasts for the Build concepts as documented in the PTFM, assumed some portion of the managed lanes would be tolled and trucks with three or more axles would not be allowed to use the managed lanes. Subsequent to the PTFM being published, additional Build concepts and traffic forecasts were developed assuming the SW 10th Street connector

would be toll-free for some or all of the corridor limits between the Turnpike and I-95. In addition, the new volume forecasts assumed no vehicle eligibility restrictions so that all trucks, including those with three or more axles, would have access to and from the connector lanes. Traffic forecast information contained in the PTFM, along with information provided in the *SW 10th Street Connector – Toll-Free Project Traffic Forecast Technical Memorandum*, dated July 2019, provided initial 2040 No-Build and Build concept forecast volumes, while *the SW 10th Street Connector & I-95 Interchange Supplemental Traffic Forecast Scenarios Memorandum* dated July 2020, provides the 2040 final No-Build Alternatives and Build Alternatives forecast volumes documented in this report.

The 2040 No-Build Alternative AADTS and 2040 Build Alternatives' AADTs are presented in Figure 2.12.2. The 2040 AM and PM peak hour volumes are shown in Figure 2.12.4 for the No-Build Alternative, Figure 2.12.5 for the Build Alternative Without Powerline Road Ramps, and Figure 2.12.6 for the Build Alternative With Powerline Road Ramps Alternative. Please note, in the PTAR, the "Without Powerline Road Ramps Build Alternative" is referred to as Build Alternative #1, and the "With Powerline Road Ramps Build Alternative" is referred to as Build Alternative #2.

2.12.4 Analysis Procedures

The AM and PM peak hour operations along the SW 10th Street corridor were assessed under existing conditions, 2040 No-Build, and 2040 Build conditions. For each of the four scenarios, the directional AM and PM peak hour volumes along the corridor were assessed against the generalized roadway capacity. In addition, intersection LOS and delays were analyzed using Synchro software and Highway Capacity Methodology for existing conditions and using VISSIM microsimulation software for future year 2040 No-Build and Build Alternatives.

Using VISSIM, the 2040 AM and PM peak hour operations for the No-Build and Build Alternatives were analyzed and the average travel speeds in the local lanes and managed lanes were evaluated. In addition, for the Build Alternative, With Powerline Road Ramps, the 2040 AM and PM peak hour density and LOS for the managed lanes between the local access ramps were also analyzed to ensure these new lanes would operate acceptably. In the analysis of both Build Alternatives, truck traffic, including trucks with three or more axles,

was assumed to be eligible to utilize the managed lanes, and tolling was not assumed for the managed lanes.

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- X,XXX (X,XXX) AM (PM) Peak Hour Volume
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

Industrial Park Access

Matchline A

To WB Sawgrass

SW 10th St

From EB Sawgrass

Waterways Blvd

Independence Dr

SW 11th Ct

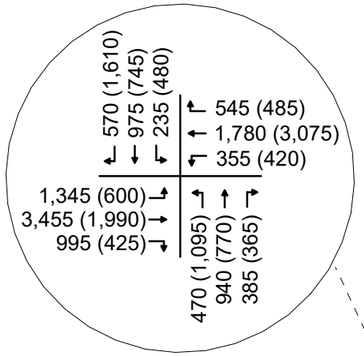
American Way

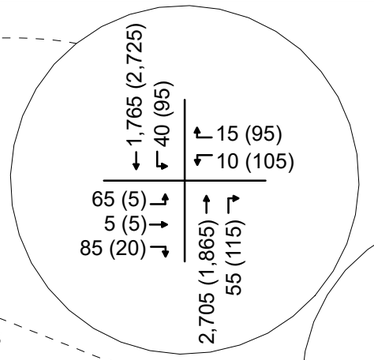
Powerline Rd

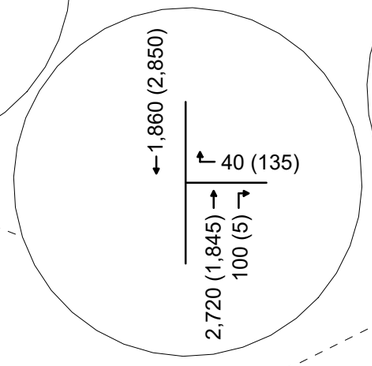
SW 10th St

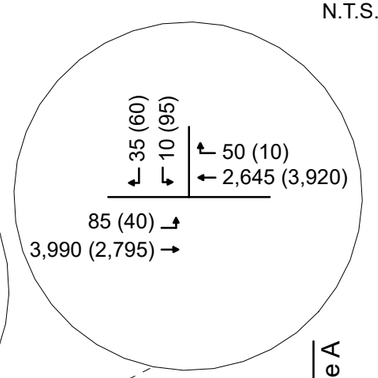
SW 30th Ave

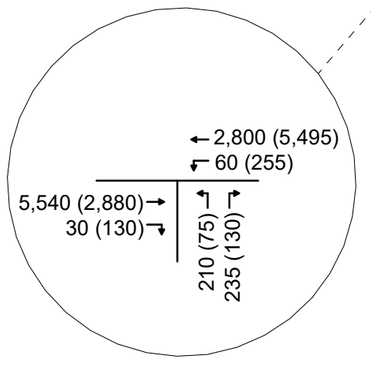
Page 2

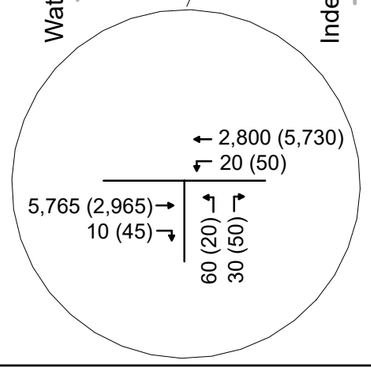


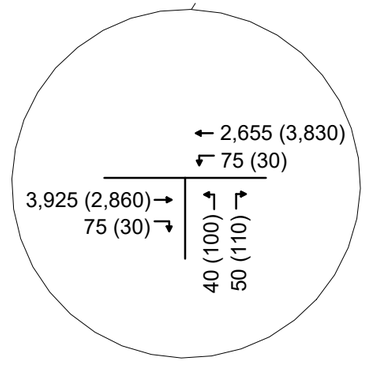












SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 2.12.4
No-Build Alternative
2040 Peak Hour Volumes

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- X,XXX (X,XXX) AM (PM) Peak Hour Volume
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

Military Trail

East Drive

300 (640)
560 (765)
480 (440)
575 (540)
1,035 (1,615)
340 (485)
375 (350)
1,440 (1,310)
190 (190)
200 (255)
675 (515)
655 (400)

Matchline A

Matchline B

1,090 (1,440)

1,090 (1,440)

Connector Lanes

1,920 (1,130)

1,920 (1,130)

SW 10th St

1,935 (1,660)
70 (150)

70 (190)

Page 1

SW 28th Ave

SW 24th Ave

W. Driveway

E. Driveway

Palm Trails Plaza

Page 3

The Lakes at Deerfield Apts Driveway

Horizon Club Driveway

2,535 (3,775)
25 (115)
115 (110)
3,900 (2,815)
75 (155)
195 (85)
105 (70)

2,625 (3,950)
3,930 (2,870)
190 (125)
50 (50)
35 (35)

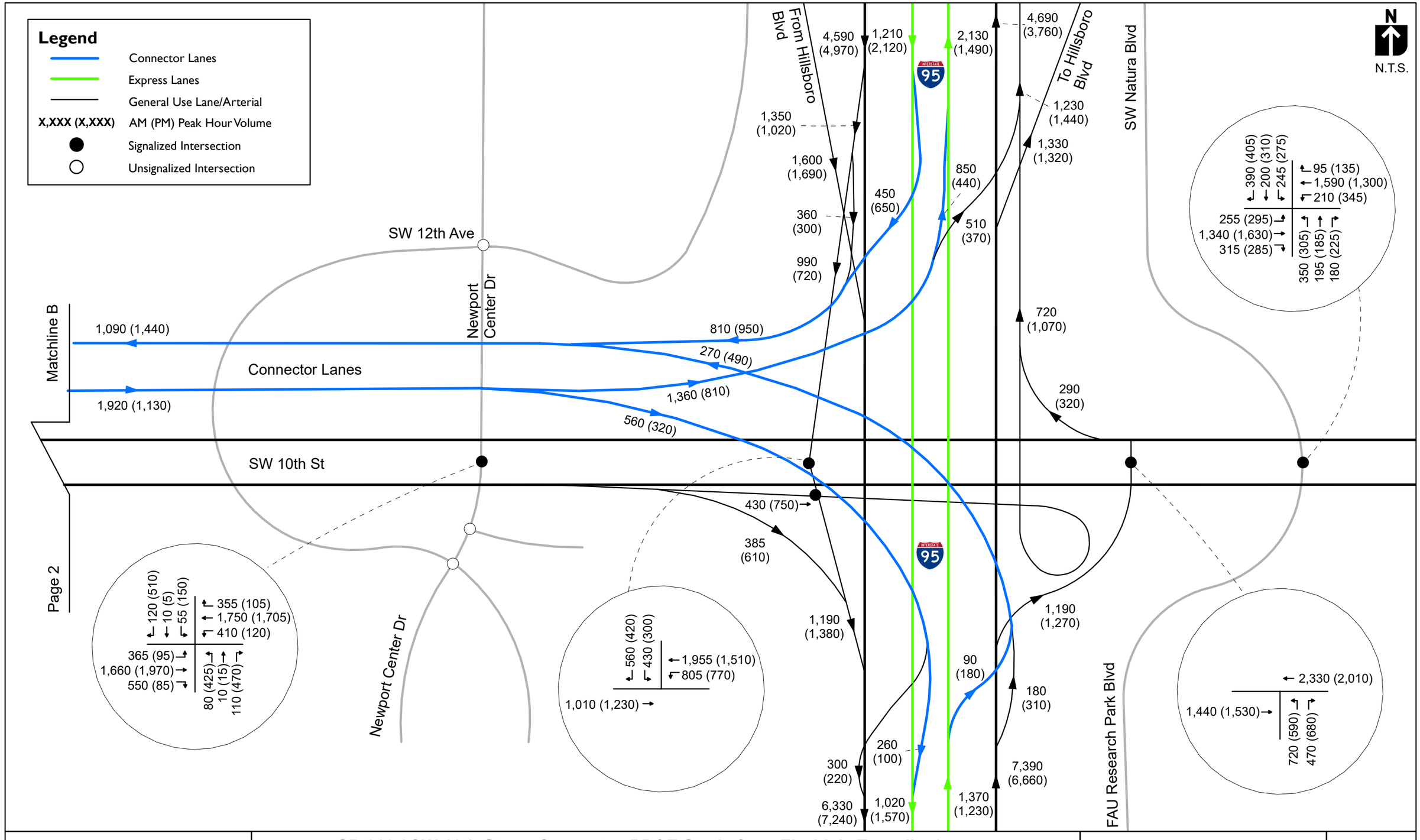
3,905 (2,855)
60 (50)
20 (85)

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 2.12.4
No-Build Alternative
2040 Peak Hour Volumes



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.4** **No-Build Alternative** **2040 Peak Hour Volumes**

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- X,XXX (X,XXX) AM (PM) Peak Hour Volume
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

Industrial Park Access

Matchline A

To WB Sawgrass

From EB Sawgrass ELs

From EB Sawgrass

2,120 (3,330)

3,630 (2,280)

SW 10th St

Waterways Blvd

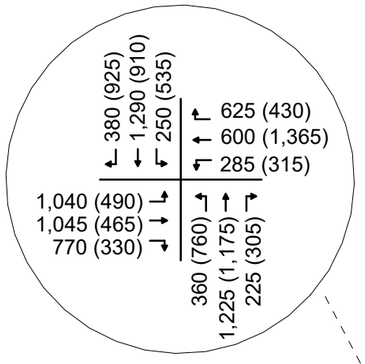
Independence Dr

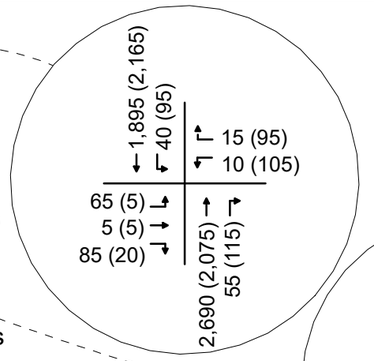
SW 11th Ct

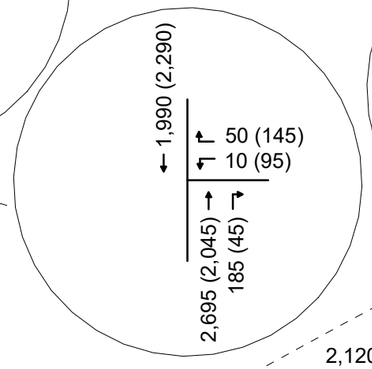
American Way

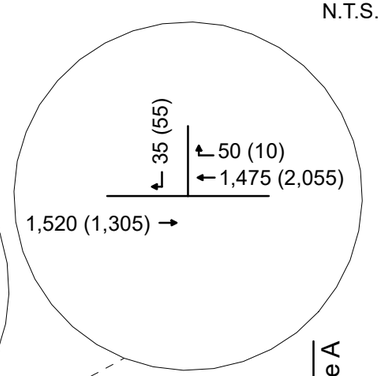
Powerline Rd

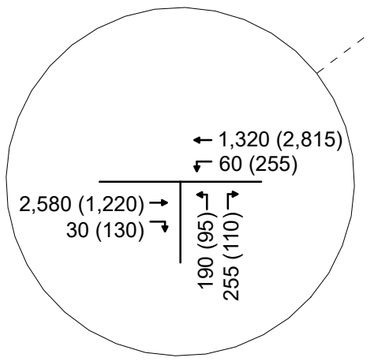
SW 30th Ave

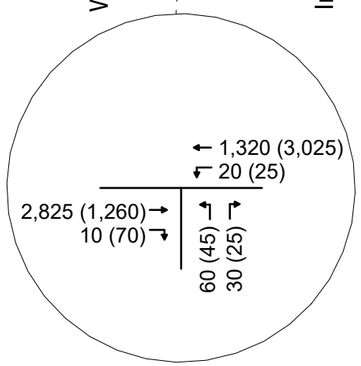


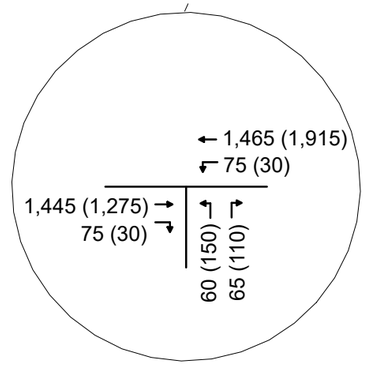












Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

Page 2

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Figure 2.12.5
2040 Without Powerline Road Ramps Alternative Peak Hour Volumes

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- X,XXX (X,XXX) AM (PM) Peak Hour Volume
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

Military Trail

East Drive

310 (615)
530 (830)
490 (440)
500 (540)
935 (1,160)
340 (495)
300 (330)
1,035 (900)
145 (185)
170 (285)
670 (585)
680 (390)

Matchline A

Matchline B

2,120 (3,330)

2,120 (3,330)

2,120 (3,330)

Connector Lanes

3,630 (2,280)

3,630 (2,280)

3,140 (1,960)

3,140 (1,960)

SW 10th St

SW 10th St

1,405 (1,225)
60 (50)
20 (85)

490 (320)

Page 1

Page 3

SW 28th Ave

SW 24th Ave

W. Driveway

E. Driveway

Palm Trails Plaza

The Lakes at Deerfield Apts Driveway

Horizon Club Driveway

1,320 (1,830)
30 (170)
1,430 (1,210)
80 (175)
220 (115)
130 (110)

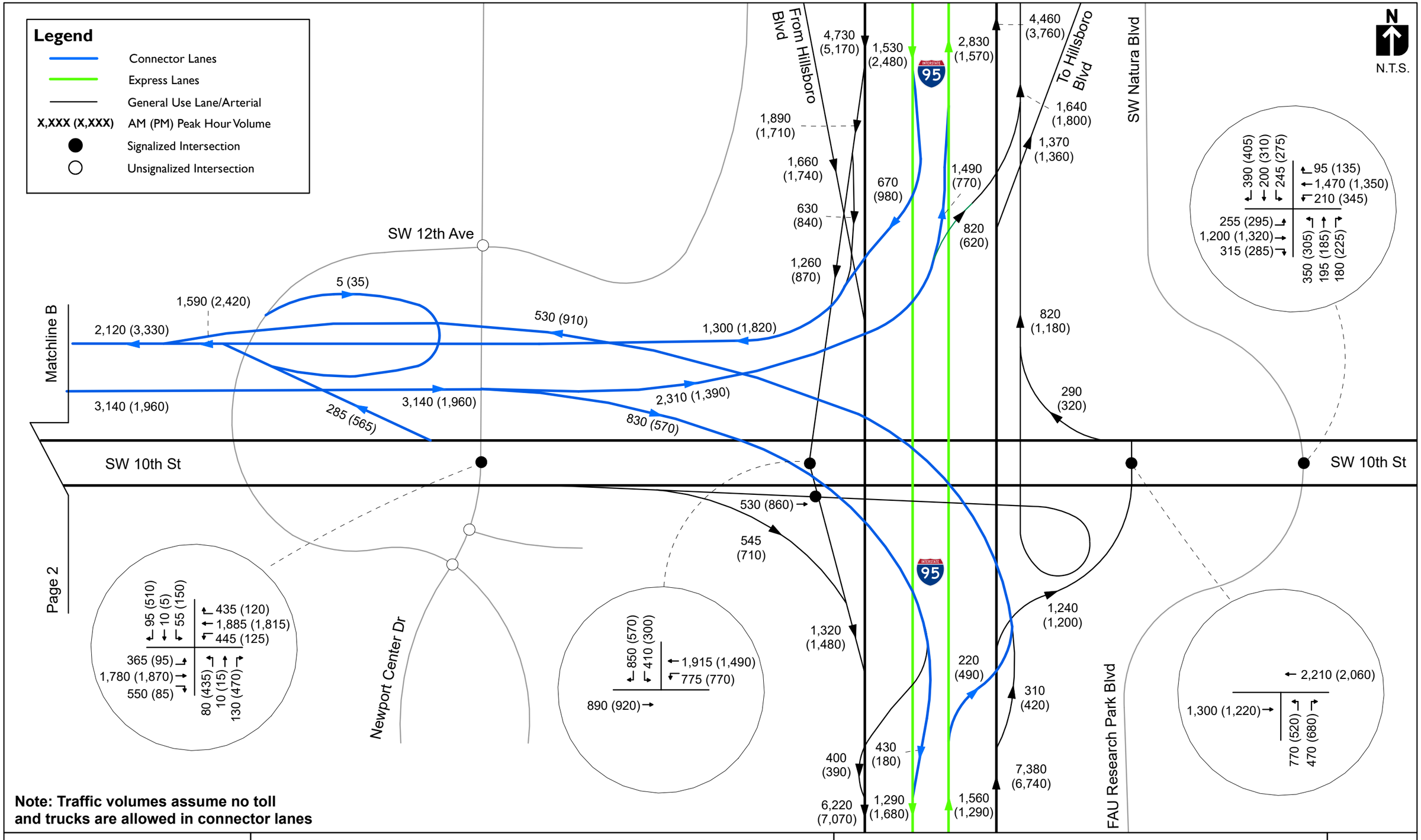
1,300 (1,950)
25 (20)
35 (25)
1,395 (1,215)
165 (105)
50 (50)
35 (35)

1,360 (1,995)
55 (65)
1,410 (1,225)
15 (85)
70 (190)

Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 2.12.5
2040 Without Powerline Road Ramps Alternative
Peak Hour Volumes



Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.5** **2040 Without Powerline Road Ramps Alternative** **Peak Hour Volumes**

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- X,XXX (X,XXX) AM (PM) Peak Hour Volume
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

Industrial Park Access

Matchline A

To WB Sawgrass

From EB Sawgrass ELs

From EB Sawgrass

1,710 (3,530)

3,530 (1,710)

1,710 (3,530)

990 (620)

4,440 (2,860)

910 (1,150)

SW 10th St

Waterways Blvd

Independence Dr

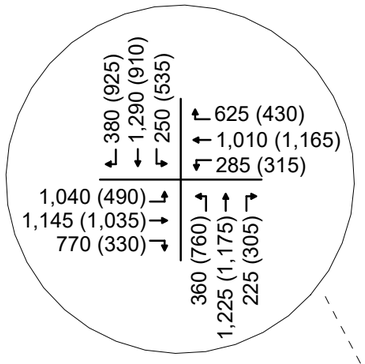
SW 11th Ct

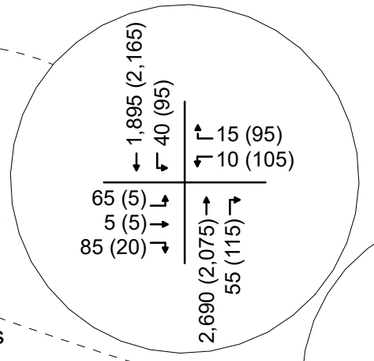
American Way

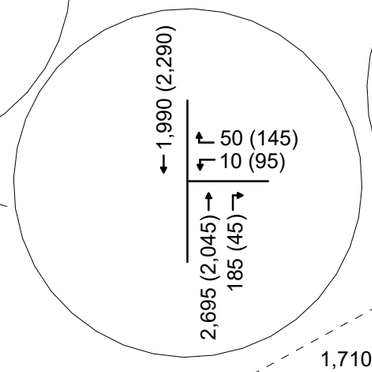
Powerline Rd

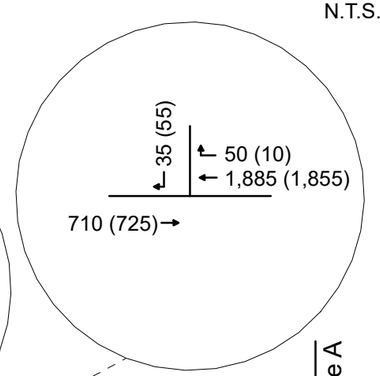
SW 30th Ave

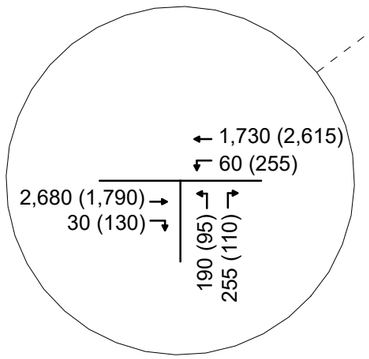
Page 2

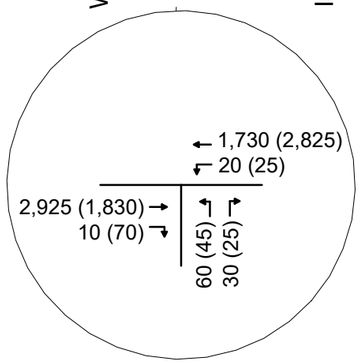


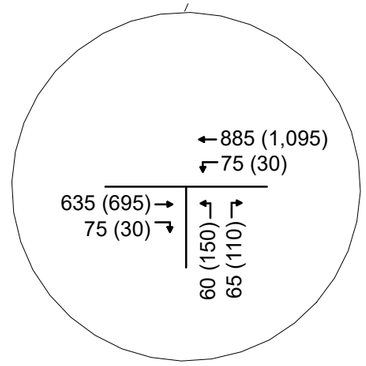






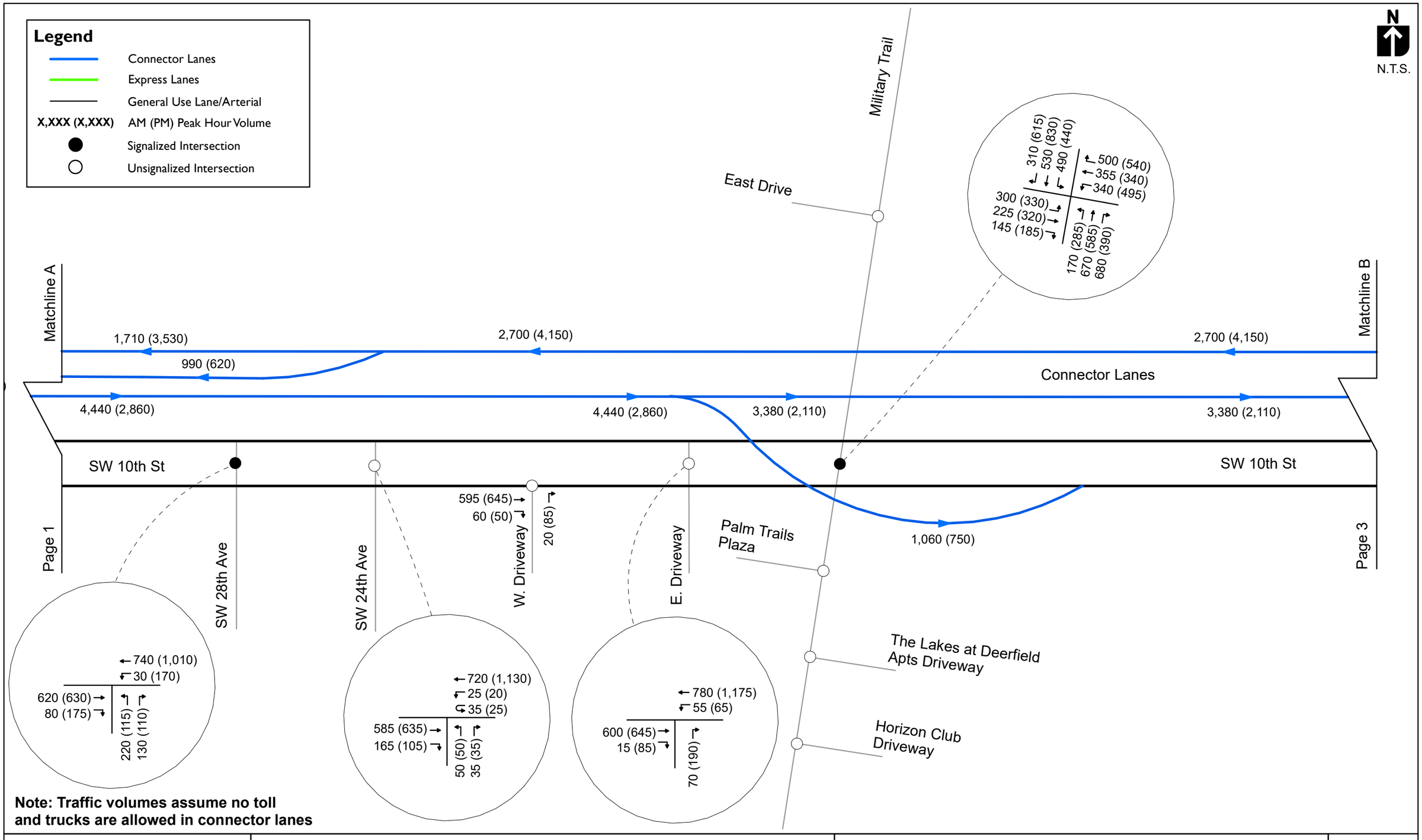






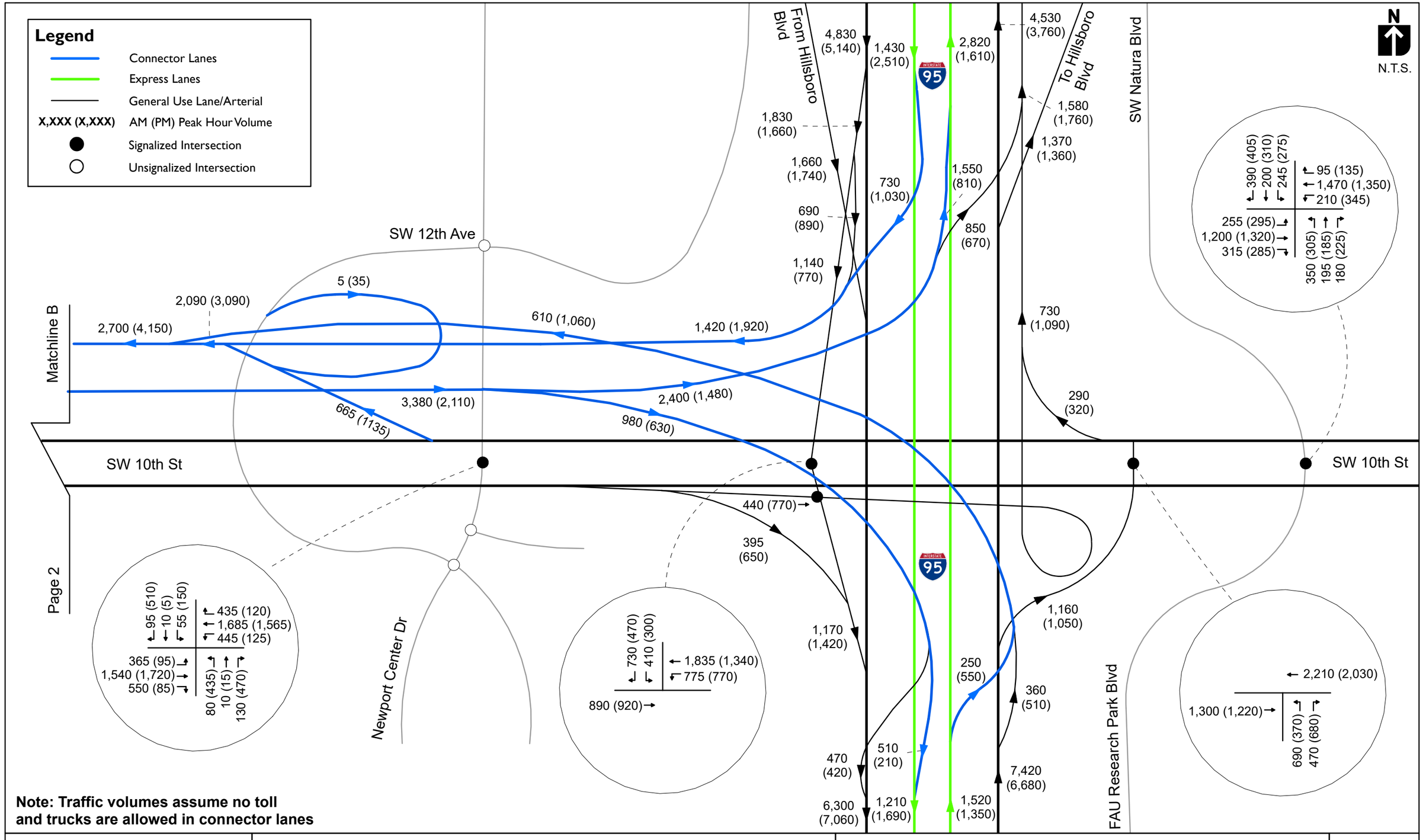
Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.6** **2040 With Powerline Road Ramps Alternative Peak Hour Volumes**



Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.6** **2040 With Powerline Road Ramps Alternative Peak Hour Volumes**



Note: Traffic volumes assume no toll and trucks are allowed in connector lanes

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.6** **2040 With Powerline Road Ramps Alternative Peak Hour Volumes**

FDOT Policy Topic No. 000-525-006c provides LOS targets for the State Highway System. The LOS target for the SW 10th Street corridor and intersections is LOS D. The Build Alternatives aim to improve operational and safety conditions over the existing and No-Build conditions.

2.12.5 Existing Conditions Analysis

The primary objective of the existing conditions analysis is to establish the current operational conditions along the SW 10th Street corridor. The 2016 existing conditions lane geometry for the roadways and intersections within the study area is shown in Figure 2.12.7. The existing geometry, volumes, and signal timings were used to analyze the existing (2016) conditions.

To assess existing traffic capacity along the corridor, the directional peak hour volumes were compared to the roadway capacity. Generalized peak hour directional capacity values from the 2013 FDOT Quality/Level of Service Handbook for an urbanized area were utilized. The posted speed limit on SW 10th Street between Florida's Turnpike and I-95, is 45 mph and 40 mph in various segments. Therefore, the existing conditions roadway capacity for SW 10th Street is based on the LOS D thresholds for a Class I state signalized arterial (40 mph or higher). The capacity adjustment factor for exclusive right turn lanes was applied to all local lane segments along SW 10th Street since all major intersections include exclusive right turn lanes. The results of the volume-to-capacity analysis for existing conditions are shown in Table 2.12.1.

Legend

- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

To WB
Sawgrass

From EB
Sawgrass

SW 10th St

< 3 | < 3 | < 3 | < 3 | < 2 | < 2

4 > | 4 > | 3 > | 3 > | 2 > | 2 > | 2 >

West Dr

Quietwaters
N Driveway

Quietwaters
S Driveway

Driveway F

Industrial Park
Access

Matchline A

Page 2

Waterways Blvd

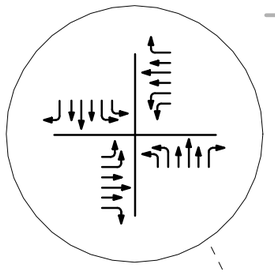
Independence Dr

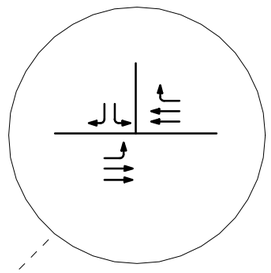
SW 11th Ct

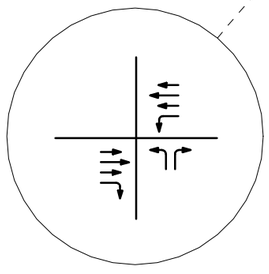
American Way

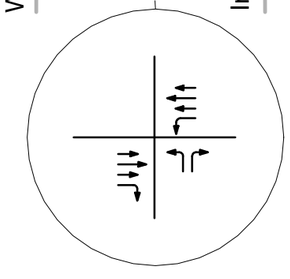
Powerline Rd

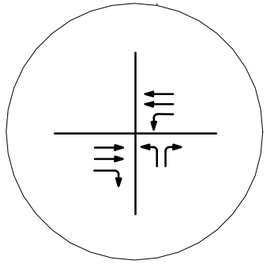
SW 30th Ave











FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.12.17** **Existing Year 2016** **Lane Geometry**

Legend

- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

Military Trail

East Drive

Matchline A

Matchline B

SW 10th St

< 2 < 2 < 2 < 2 < 2 < 3

2 > 2 > 2 > 2 > 3 > 3 > 3 >

SW 10th St

Page 1

Page 3

SW 28th Ave

SW 24th Ave

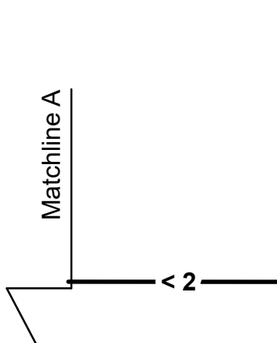
W. Driveway

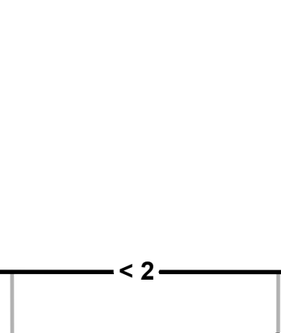
E. Driveway

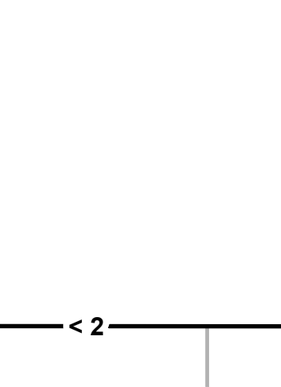
Palm Trails Plaza

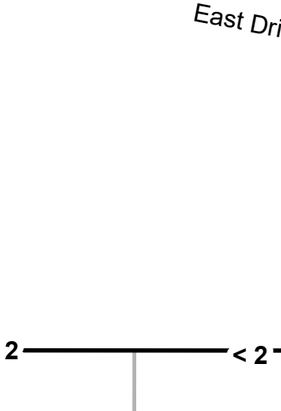
The Lakes at Deerfield Apts Driveway

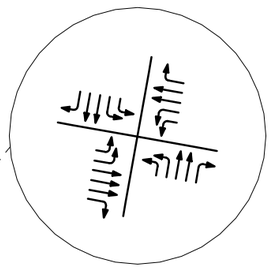
Horizon Club Driveway











SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 2.12.17
Existing Year 2016
Lane Geometry

Legend

- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

SW 12th Ave

From Hillsboro Blvd

To Hillsboro Blvd

SW Natura Blvd

Matchline B

SW 10th St

Newport Center Dr

< 3 < 4 < 3 4 < 4 < 3 < 3

3 > 4 > 4 > 3 > 3 > 3 >

SW 10th St

Page 2

Newport Center Dr

4 < 1 > 4 < 4 < 1 > 4 < 4 < 1 > 4 < 4 < 1 > 4 < 4 < 1 > 4 <

< 1

1 >

FAU Research Park Blvd

Table 2.12.1: Existing Traffic Operational Analysis

SW 10th Street Segments		No. of Lanes	Volume		Capacity (1)	LOS (2)		V/C (3)	
	Location Description		AM	PM		AM	PM	AM	PM
SW 10th Street Eastbound	West of Waterways	4	2,780	1,535	4,242	C	C	0.66	0.36
	Waterways Blvd to Independence Dr	4	3,105	1,635	4,242	C	C	0.73	0.39
	Independence Dr to Powerline Rd	3	3,155	1,665	3,171	D	C	0.99	0.53
	Powerline Rd to west of SW 30th Ave	3	2,580	1,660	3,171	C	C	0.81	0.52
	West of SW 30th Ave to SW 28th Ave	2	2,505	1,850	2,100	F	C	1.19	0.88
	SW 28th Ave to SW 24th Ave	2	2,535	1,795	2,100	F	C	1.21	0.85
	SW 24th Ave to west of Military Trail	2	2,400	1,785	2,100	F	C	1.14	0.85
	West of Military Trail to west of Newport Center Dr	3	3,085	1,950	3,171	C	C	0.97	0.61
	West of Newport Center Drive to I-95 SB On-Ramp	4	3,085	2,285	4,242	C	C	0.73	0.54
	I-95 SB On-Ramp to Natura Blvd	3	2,095	1,795	3,171	C	C	0.66	0.57
	East of Natura Blvd	3	1,360	1,505	3,171	C	C	0.43	0.47
SW 10th Street Westbound	West of Waterways	3	1,730	2,925	3,171	C	C	0.55	0.92
	Waterways Blvd to Independence Dr	3	1,700	3,205	3,171	C	F	0.54	1.01
	Independence Dr to Powerline Rd	3	1,690	3,260	3,171	C	F	0.53	1.03
	Powerline Rd to west of SW 30th Ave	3	1,620	2,560	3,171	C	C	0.51	0.81
	West of SW 30th Ave to SW 28th Ave	2	1,715	2,525	2,100	C	F	0.82	1.2
	SW 28th Ave to SW 24th Ave	2	1,605	2,535	2,100	C	F	0.76	1.21
	SW 24th Ave to Military Trail	2	1,670	2,590	2,100	C	F	0.8	1.23
	Military Trail to west of Newport Center Dr	3	1,835	2,795	3,171	C	C	0.58	0.88
	West of Newport Center Drive to Newport Center Drive	4	1,835	2,795	4,242	C	C	0.43	0.66
	Newport Center Drive to I-95 SB Off-Ramp	3	2,330	2,305	3,171	C	C	0.73	0.73
	I-95 SB Off-Ramp to Natura Blvd	3	2,195	2,025	3,171	C	C	0.69	0.64
	East of Natura Blvd	3	1,545	1,400	3,171	C	C	0.49	0.44

NOTES:
(1) Capacity thresholds from FDOT 2020 Generalized LOS Peak Hour Directional Volumes Table for Urbanized Areas at LOS D for Class I arterial (40 mph or higher), with +5% capacity adjustment for right turn lanes.
(2) LOS = Level of Service
(3) V/C = Ratio of Volume to Capacity

Eastbound SW 10th Street traffic is heavier than westbound traffic during the AM peak hour, while westbound traffic is heaviest during the PM peak hour. During the AM peak hour, eastbound SW 10th Street traffic exceeds the roadway capacity from west of SW 30th Avenue to west of Military Trail. During the PM peak hour, westbound SW 10th Street traffic exceeds capacity from Military Trail to west of SW 30th Avenue, and from Powerline Road to Waterways Boulevard.

Existing conditions intersection analysis was completed using Synchro (version 9.2) software and Highway Capacity Manual (HCM) 2000 intersection analysis methodology. The 2016 existing turning movement volumes, intersection lane configurations, and existing signal timing plans were used to assess the intersection operations during the AM and PM peak hour. A summary of the existing conditions LOS and delays for each of the study intersections along the SW 10th Street corridor is provided in Table 2.12.2. Results show that four intersections operate at a failing LOS in the AM peak hour, while five intersections operate at a failing LOS in the PM peak hour.

Field observations confirm significant queueing along the SW 10th Street corridor during the AM and PM peak hours. Significant queue lengths were observed at the following locations:

AM Peak Hour

- Eastbound at the Powerline Road and SW 10th Street intersection;
- Eastbound and northbound at the Military Trail and SW 10th Street intersection; and
- Eastbound and westbound queues on SW 10th Street between Military Trail and I-95.

PM Peak Hour

- Eastbound, westbound, northbound, and southbound at the Powerline Road and SW 10th Street intersection;
- Eastbound and southbound at the Military Trail and SW 10th Street intersection; and
- Westbound queues on SW 10th Street between Military Trail and I-95.

Table 2.12.2: Existing Conditions Intersection Analysis

SW 10th Street Intersection		Measure	AM	PM
Waterways Blvd	Signalized	LOS	B	B
		Delay (sec)	14	12
Independence Dr	Signalized	LOS	A	B
		Delay (sec)	7	11
Powerline Rd	Signalized	LOS	F	F
		Delay (sec)	88	110
SW 30th Ave	Unsignalized	LOS	F	F
		Delay (sec)	166	372
SW 28th Ave	Signalized	LOS	C	A
		Delay (sec)	29	8
SW 24th Ave	Unsignalized	LOS	F	F
		Delay (sec)	120	114
Military Trail	Signalized	LOS	F	F
		Delay (sec)	86	96
Newport Center Dr	Signalized	LOS	C	D
		Delay (sec)	33	38
I-95 Southbound On Ramp	Signalized	LOS	B	B
		Delay (sec)	19	16
I-95 Southbound Off Ramp	Signalized	LOS	D	D
		Delay (sec)	35	46
I-95 Northbound Ramps	Signalized	LOS	D	F
		Delay (sec)	48	96
Natura Blvd	Signalized	LOS	D	D
		Delay (sec)	38	49

NOTE: Results are documented in the January 2019 SW 10th Street PD&E Study Project Traffic Forecast Memorandum.

2.13 Intersection Layout and Traffic Control

Two interchanges bookend the SW 10th Street project corridor:

- The SW 10th Street and Florida's Turnpike/Sawgrass Expressway interchange; and
- The SW 10th Street and I-95 interchange.

In addition to the two interchanges, the corridor includes seven signalized intersections, three non-signalized full median openings, and two non-signalized directional median openings. The following signalized intersections are located in the project corridor:

- Waterways Boulevard;
- Independence Drive;
- Powerline Road;
- SW 28th Avenue;
- Military Trail;
- Newport Center Drive; and
- I-95 Southbound Entrance Ramp.

For a complete list of median openings see Section 2.5, Table 2.5.1.

2.14 Railroad Crossings

The South Florida Rail Corridor (SFRC)/CSX Railroad lies approximately 0.2 miles east of the Military Trail. SW 10th Street overpasses over the SFRC/CSX Railroad.

2.15 Crash Data and Safety Analysis

FDOT's Crash Analysis Reporting System (CARS) was used to gather historical crash records for the SW 10th Street corridor from Florida's Turnpike/Sawgrass Expressway to I-95. Crashes were gathered for Roadway ID 86472000 (Sawgrass Expressway) from MP 20.647 to 21.835 (Florida's Turnpike to Powerline Road), and Roadway ID 86012000 (SW 10th Street) from MP 0.000 to 2.152 (Powerline Road to I-95). CARS is a database maintained annually by the FDOT for crashes reported along state highway facilities. The database provides information on various characteristics associated with each crash including: collision type, severity, weather conditions, road surface conditions and date/time information. The CARS database was researched to identify, and extract crashes reported along the study corridor during the period from January 1, 2012 through December 31, 2016. The crashes were analyzed to make an assessment of safety conditions along the study corridor. A summary of the data and findings from the safety analysis are summarized below.

Crash data for the SW 10th Street corridor from Florida's Turnpike/Sawgrass Expressway to I-95 revealed that a total of 896 reported crashes occurred during the five-year period from January 2012 through December 2016. There were 342 injury crashes (or 38%) and one fatal crash (occurred in 2015) during the study period. A majority of the crashes experienced along the study corridor were rear end collisions accounting for 490 crashes (or 55%), followed by angle collisions accounting for 102 crashes (or 11%), and 97 sideswipe crashes (or 11%). Approximately 69% of the crashes occurred during daylight conditions, and 26% of the crashes occurred during dark conditions. The remaining 5% of the crashes occurred during dusk or dawn. Approximately 82% of the crashes occurred under dry roadway surface conditions, and 18% occurred under wet roadway surface conditions.

The total number of crashes has increased over the last five years, with an average of 179 crashes per year in the study corridor. The majority of crashes were consistently rear end collisions each year, and the majority of crashes consistently happened during daylight, in clear weather, and dry conditions. In recent years, crashes were more frequent during weekdays. The highest period of crashes was from 6 p.m. to midnight. The most common contributing causes cited for the crashes in the corridor were "Driving in a Careless or Negligent Manner" and "Followed too closely." Table 2.15.1 shows the crash statistics for the SW 10th Street corridor.

Table 2.15.1: Crash History - SW 10th Street from Sawgrass/Turnpike to I-95

	Year					5 Year Total Crashes	Percentage
	2012	2013	2014	2015	2016		
Crash Type							
Rear End	87	81	90	122	110	490	54.7%
Head On	0	1	0	2	0	3	0.3%
Angle	22	19	21	20	20	102	11.4%
Left Turn	2	8	8	8	10	36	4.0%
Right Turn	0	0	0	2	2	4	0.4%
Sideswipe	22	10	20	19	26	97	10.8%
Backed Into	0	0	0	0	1	1	0.1%
Pedestrian	0	0	0	3	0	3	0.3%
Bicycle	0	3	0	3	2	8	0.9%
Fixed Object	13	10	15	6	11	55	6.1%
Other Non-Fixed Object Collisions	0	2	0	0	3	5	0.6%
Non-Collisions	1	1	5	3	7	17	1.9%
Others	11	11	13	21	19	75	8.4%
Total Crashes	**158**	**146**	**172**	**209**	**211**	**896**	**100.0%**

	Year					5 Year Total Crashes	Percentage
	2012	2013	2014	2015	2016		
Crash Severity							
PDO Crashes	100	85	118	112	138	553	61.7%
Fatal Crashes	0	0	0	1	0	1	0.1%
Injury Crashes	58	61	54	96	73	342	38.2%
Lighting Conditions							
Daylight	108	98	110	152	154	622	69.4%
Dusk	8	9	8	7	2	34	3.8%
Dawn	3	0	1	1	2	7	0.8%
Dark	39	39	53	49	53	233	26.0%
Road Surface Conditions							
Dry	121	117	137	177	183	735	82.0%
Wet	37	29	35	32	28	161	18.0%
Time of Crash							
00:00-06:00	13	9	14	15	13	64	7.1%
06:00-09:00	24	18	30	33	42	147	16.4%
09:00-11:00	19	19	16	18	15	87	9.7%
11:00-13:00	16	19	13	19	19	86	9.6%
13:00-15:00	15	16	16	24	30	101	11.3%
15:00-18:00	38	23	32	50	41	184	20.5%
18:00-24:00	33	42	51	50	51	227	25.3%
Contributing Cause							
No Contributing Action	6	13	3	7	6	35	3.9%
Careless or Negligent Manner	19	19	37	39	51	165	18.4%
Failed to Yield Right-Of-Way	15	7	7	14	12	55	6.1%
Improper Backing	2	2	5	1	1	11	1.2%
Improper Turn	2	1	4	5	5	17	1.9%
Followed too Closely	39	27	25	43	31	165	18.4%
Ran Red Light	1	8	4	10	5	28	3.1%
Drove too Fast for Conditions	8	11	5	11	3	38	4.2%
Ran Stop Sign	0	0	1	0	0	1	0.1%
Improper Passing	3	1	3	0	2	9	1.0%
Exceed Posted Speed	2	0	2	0	1	5	0.6%
Failed to Keep In Proper Lane	6	2	6	5	9	28	3.1%
Ran Off Roadway	1	0	1	0	1	3	0.3%
Disregarded Other Traffic Sign	1	0	0	1	0	2	0.2%
Disregarded other Road Markings	0	0	0	0	1	1	0.1%
Over-Correcting/Over-Steering	0	0	3	0	0	3	0.3%
Swerved or Avoided	2	2	0	2	2	8	0.9%
Erratic, Reckless or Aggressive	1	3	0	0	2	6	0.7%
Other Contributing Action	50	50	66	71	79	316	35.3%
Weather Condition							
Clear	94	97	125	167	166	649	72.4%
Cloudy	40	27	22	24	32	145	16.2%
Rain	24	22	25	18	13	102	11.4%

2.15.1 High Crash Locations

FDOT's high crash lists (available from CARS) were reviewed for years 2012 through 2016 to identify High Crash Locations (HCL) within the study corridor. A high crash list is determined each year by FDOT using the CARS database, and the list is available as a Statewide, Districtwide, or Countywide list. The Districtwide list for District 4 HCLs was reviewed. High Crash Locations are determined based on data from similar roadways in similar locations within the District. For an urban area location (such as SW 10th Street) to be on the high crash list, the data must have a confidence level of 99.95%. This means there is a 99.95% confidence level that the crash rate of the location is abnormally high when compared with similar locations within District 4 in that year. Three segments and five intersections along the SW 10th Street corridor were identified as high crash locations (HCLs) during at least one year between 2012 and 2016. The locations on the high crash list are noted in the Table 2.15.2 along with the years in which the locations were listed. More information on the high crash locations is included in the PTAR.

Table 2.15.2: SW 10th Street Corridor High Crash Locations

	Description	Roadway Section ID	Begin MP	End MP	Years on High Crash List
Segments					
1	SW 10th St - Powerline Road to Quiet Waters Business Park driveway east of Powerline Road	86012000	0.000	0.300	2012, 2013, 2014
2	SW 10th St - east of Palm Trails Plaza driveway west of Military Trail, to east of Military Trail	86012000	1.315	1.449	2012, 2013, 2014, 2015, 2016
3	SW 10th St - west of Newport Center Drive to east of Newport Center Drive	86012000	1.749	1.849	2015, 2016
Intersections					
1	SW 10th Street and SW 28th Avenue	86012000	0.699		2013
2	SW 10th Street and Military Trail	86012000	1.427		2012, 2013, 2014, 2015, 2016
3	SW 10th Street and I-95 SB On-Ramp	86012000	1.955		2013
4	SW 10th Street and I-95 SB Off-Ramp	86012000	2.010		2012, 2013, 2015, 2016
5	SW 10th Street and I-95 NB On & Off-Ramp	86012000	2.118	2.149	2012, 2013, 2014, 2015

Note: Locations identified from the FDOT District 4 High Crash Lists available in CARS for years 2012, 2013, 2014, 2015, 2016.

2.16 Drainage

A Conceptual Drainage/Pond Siting Report was prepared for this PD&E Study and is available under separate cover. The purpose of this report is to define the conceptual drainage design, evaluate minimum offsite pond requirements, and identify the recommended stormwater management facility locations.

2.16.1 Existing Drainage System

The existing drainage within the study limits consist primarily of an open swale system that collects and retains roadway runoff, with overflow discharges to the Broward County Water Control District (BCWCD) #2 C-3 and C-2 canals. The existing drainage within the project limits can be divided into two distinct systems, which are then subdivided into several sub-basins based on existing collection and conveyance systems, interconnected stormwater management facilities, and outfalls. The existing drainage systems have been delineated as described in the following paragraphs.

The C-3 Basin for this study is defined as the segment of SW 10th Street from the begin project limits to the centerline of Powerline Road. The receiving waterbody within this basin is the BCWCD #2 C-3 Canal which crosses SW 10th Street via two 60-inch pipes. The C-3 Canal receives runoff from the entire BCWCD #2 C-3 Basin, which consists of the watershed area bounded by the Hillsboro Canal to the north, Powerline Road to the east, Sample Road to the south and Florida's Turnpike to the west. The C-3 Basin has been subdivided into five sub-basins. Within this basin, runoff from SW 10th Street eastbound is primarily retained within grassed swales and conveyed to the grassed swales along the westbound corridor, while runoff from SW 10th Street westbound is accommodated in wide grassed swales before overtopping into the C-3 Canal.

The C-2 Basin is defined as the segment of SW 10th Street from Powerline Road to the end project limits. The receiving waterbody within this basin is the BCWCD #2 C-2 Canal which crosses SW 10th Street via a 72-inch pipe. The C-2 Canal receives runoff from the entire C-2 Basin, which consists of the watershed area bounded by the Hillsboro Canal to the north, Military Trail to the east, Sample Road to the south and Powerline Road to the west.

The C-2 Canal meanders through the Century Village and Deer Creek communities and ultimately discharges to the South Florida Water Management District (SFWMD) Hillsboro Canal. The C-2 Basin has been subdivided into 23 sub-basins, including three offsite sub-basins. Runoff from SW 10th Street eastbound is accommodated within linear dry retention ponds. Runoff from SW 10th Street westbound is accommodated in narrow swales with overtopping into the adjacent Century Village parking lots during larger storm events, with a limited number of inlets and pipes within the SW 10th Street corridor, located mainly along the turn lanes and curb returns.

2.16.2 Wells

The City of Deerfield Beach maintains three public water supply wells (WW-22, WW-23, and FA-2) along the southern side of SW 10th Street, as shown in Figure 2.16.1. Wells WW-22 and WW-23 are constructed into the Biscayne Aquifer whereas FA-2 is constructed into the upper Floridan aquifer, additional information about these wells is contained in Table 2.16.1.

Figure 2.16.1: Deerfield Beach Well Locations

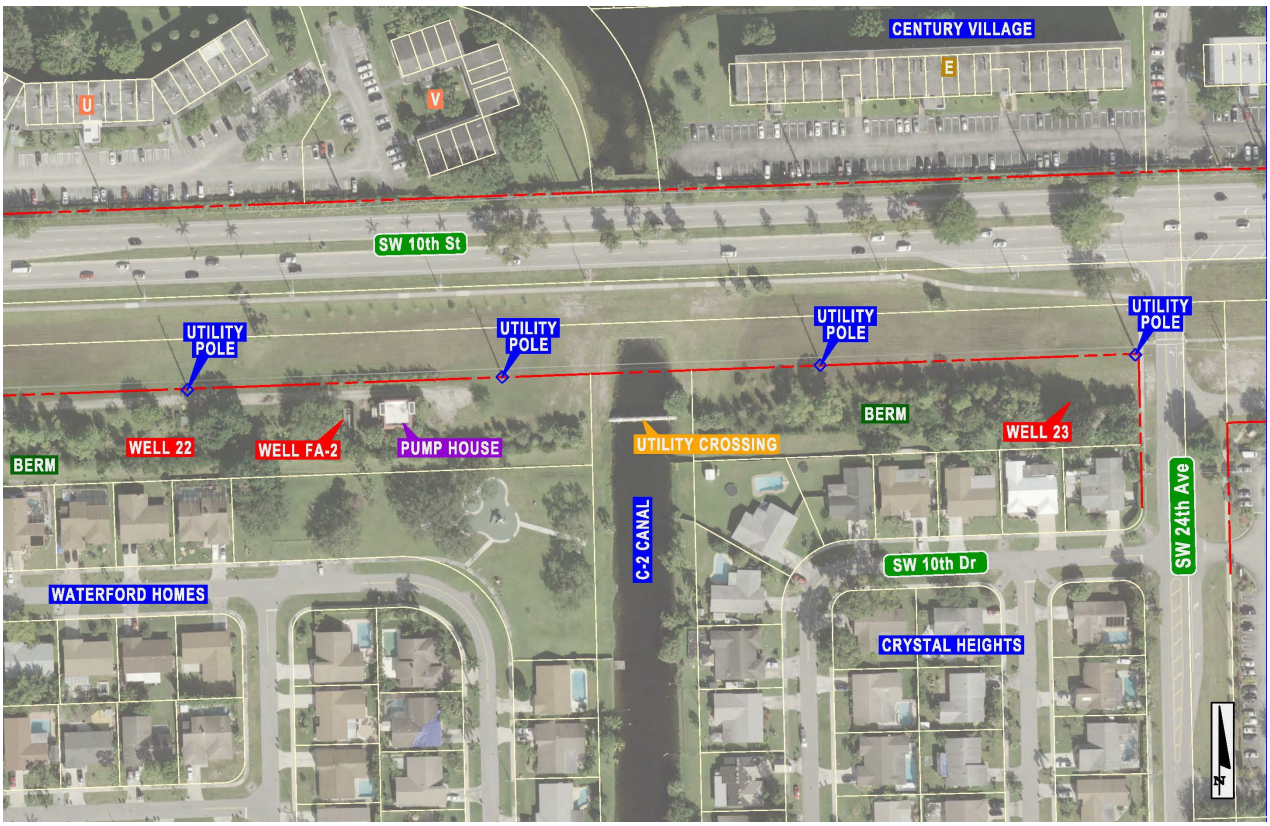


Table 2.16.1: Deerfield Beach Well Construction Details

Well No.	Diameter (inches)	Total Depth (feet)	Casing Depth (feet)	Pump Capacity (Gallons/Minute)
WW-22	14	170	105	2,800
WW-23	14	200	105	2,800
FA-2	12	1,030	915	3,000

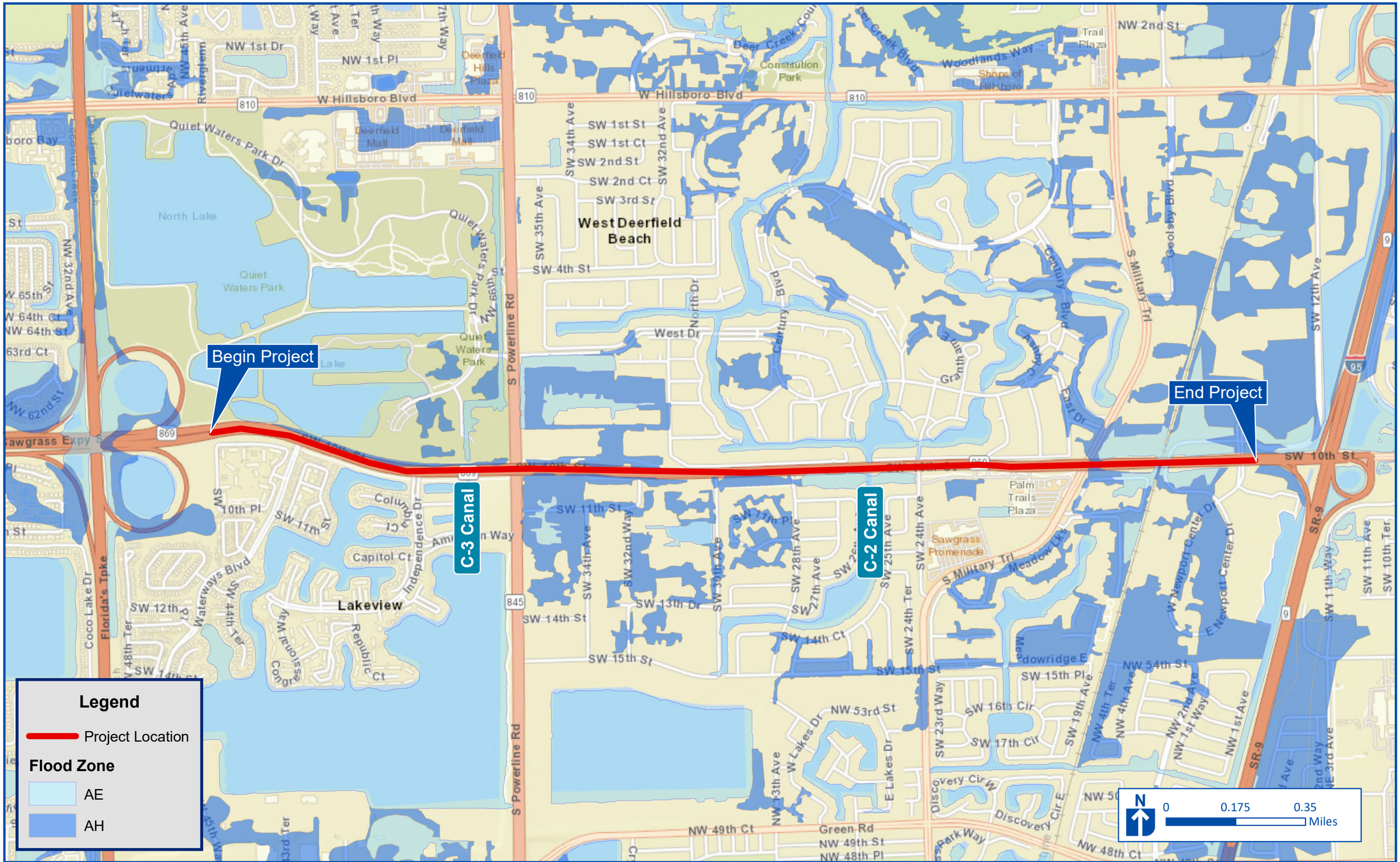
Figure 2.16.2 displays the pump house for the drinking wells located on the City parcel.

Figure 2.16.2: Existing Pump House

2.16.3 Floodplains

The project corridor lies within the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Map (FIRM) Panel 12011C0167, with much of the project area located within Floodplain Zones AH and AE. Zone AH is a special flood hazard area, subject to inundation by the 100-year flood that experiences flood depths of one to three feet (which are usually areas of ponding) with determined base flood elevations. Zone AE is defined as a special flood hazard area subject to inundation by the 100-year flood with determined base flood elevations.

Refer to Figure 2.16.3 for the FEMA Flood Zone Map.



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 2.16.3** **FEMA Flood Map**

2.17 Soils and Geotechnical Data

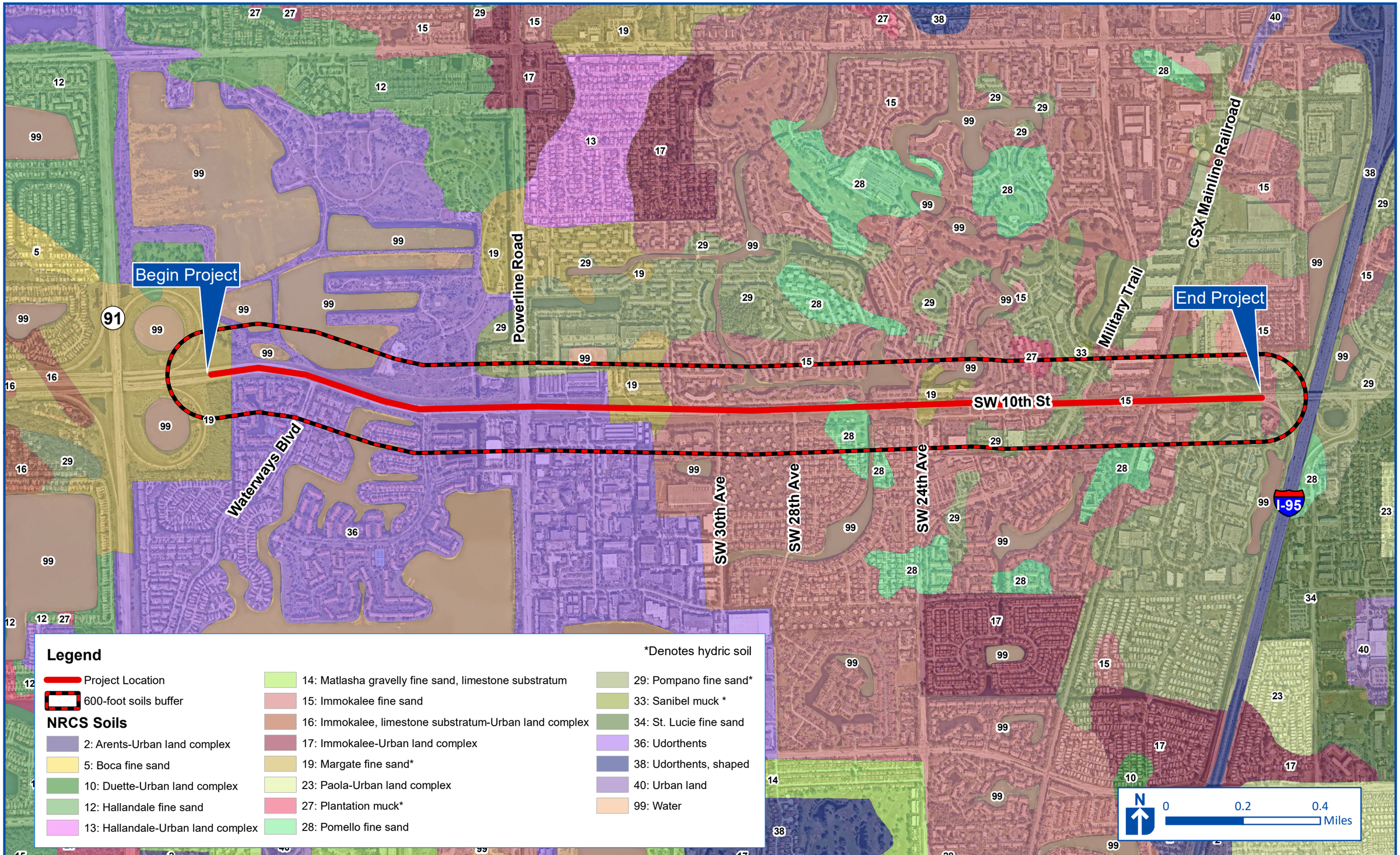
The Soil Map of Broward County published by the United States Department of Agriculture (USDA) was reviewed for general near-surface soil information within the general project vicinity. This information indicates that there are five soil mapping units. The map soil units encountered are as follows:

- Immokalee fine sand;
- Margate fine sand, occasionally ponded;
- Pomello fine sand;
- Pompano fine sand; and
- Udorthents.

The most commonly encountered soil in Broward County was Udorthents, which is characterized by somewhat well drained soil. Figure 2.17.1 displays the soils in the project corridor.

A description of the general profile of the existing soils, within the study limits, was determined by widely spaced soil borings performed throughout the study limits. The depth of the test borings was 15 feet. Soils and soil profiles found in borings drilled for the roadway alignment study generally consisted of seven general types:

- Stratum 1: Light brown to brown sand with trace roots and trace limerock fragments (Topsoil; A-8);
- Stratum 2: Light brown to brown sand with silt, with trace to little limerock fragments (A-3);
- Stratum 2A: Light brown to brown sand and some limestone fragments, with silt to silty (A-1-b);
- Stratum 2B: Dark brown sand with silt, with trace organic (A-3);
- Stratum 3: Light brown sandy to silty limestone;
- Stratum 4: Light brown to brown silty sand with little to some limerock fragments (A-2-4); and
- Stratum 5: Dark brown to black sand with silt, with few organic (A-8).



State Road 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 2.17.1
Soils Map

The majority of the project corridor is underlain with interlayering of Strata 1, 2, 2A and 3. However, Stratum 4 soils were found at numerous boring locations at various depths along the project corridor. Stratum 2B soils were found at only one boring location at four feet below grade. Stratum 5 soils were found at only two boring locations between four- and six-feet depth interval.

Stratum 1 is topsoil and shall be removed during clearing and grubbing in accordance with section 110 of the FDOT Standard Specifications.

Stratum 2 consists of select material and is adequate for subgrade and embankment support, and should be utilized according to FDOT Standard Plans, Index 120-001, fiscal year 2019 – 2020. However, portions may have slightly fine content and are likely to retain some excess moisture and could be difficult to handle, place and compact compared to ordinary A-3 materials.

Stratum 2A soils classified as A-1-b, consist of select material and is adequate for subgrade and embankment support, however these soils have high fine content ranging from six to 22 percent (with average fines content at 12.6 percent) and are likely to retain some excess moisture and could be difficult to handle, place and compact compared to ordinary A-3 materials. Hence, these soils may be used in the roadway subgrade with extra caution, and proper supervision and quality control.

Stratum 2B consists of trace organic and is classified as A-3 materials. These soils are found at only one isolated location at varied depths below grade with organic content varied from 0.7% to 1.8%. The removal of these soils is not necessary. However, these soils should not be used in the subgrade portion of the roadbed.

Stratum 3 consists of limestone. Specialized tools and equipment are necessary to excavate and/or penetrate the limestone layer.

Stratum 4 soils classified as A-2-4 and having fine content ranging between 12 to 23 percent (with average fines content at 17.1 percent). Stratum 4 consists mainly of soils with high fines content and are likely to retain some excess moisture and could be difficult to handle,

place and compact compared to ordinary A-3 materials. Hence, these soils may be used in the subgrade with extra caution, and proper supervision and quality control. A-2-4 material placed below the existing water level must contain less than 15% passing the No. 200 U.S. Standard Sieve.

Stratum 5 soils are classified as A-8. However only two samples are classified as A-8 with an organic content of six percent and are between four and six feet below existing grade. As per FDOT Standard Plans, Index 120-002, fiscal year 2019 – 2020, these soils will need to be removed and replaced with select embankment fill.

This above soil utilization recommendations are preliminary and prepared for the PD&E Study of the project corridor based on a minimum number of soil borings that were widely spaced. During the final design phase, based on final proposed alignment of the project corridor, additional roadway borings will be drilled at close intervals (spacing) and laboratory tests performed in order to evaluate the suitability of the existing subsoils and delineate the horizontal and vertical extents of the unsuitable soils, as deemed necessary.

2.18 Utilities

The existing and proposed utilities located within the study area were identified throughout the project corridor as part of this PD&E Study. A list of the existing Utility Agencies/Owners (UAOs) was obtained by contacting Sunshine 811. A field review was also conducted to further identify any designated existing facilities in the project corridor. All the UAOs identified in the field were also noted on the Sunshine 811 list. The existing UAOs, the identified UAO contacts and facility type are summarized in Table 2.18.1.

Table 2.18.1: Existing Utility Agencies/Owners in Study Area

Utility Agency Owner	Contact	Utility Type	Data Received	Comments
AT&T Florida 8601 W Sunrise Boulevard Plantation, FL 33322	Otis Keeve 954-723-2540 Ok1184@att.com	Communications	03/20/18	Marked plans provided
AT&T Corp 6000 Metro West Blvd, Suite 201 Orlando, FL 32875-7631	Stephen Eriksson (PEA Inc.) 321-662-9263 serikisson@pea-inc.net	Communications	03/20/18	Marked plans provided

Utility Agency Owner	Contact	Utility Type	Data Received	Comments
Broward County Water/ Waste Water 255 W Copans Rd Pompano Beach, FL 33069	David O'Connor 954-831-0910 doconnor@broward.org	Water & Sewer	03/20/18	As-Builts provided
City of Deerfield Beach 290 Goolsby Blvd Deerfield Beach, FL 33442	Allen Fathi 954-420-5521 afathi@deerfield-beach.com	Water & Sewer	02/15/18	As-Builts & Atlas Maps Provided
Comcast Cable 2601 SW 145th Avenue Miramar, FL 33027	Leonard Maxwell-Newbold 954-447-8405 leonard_maxwell-newbold @cable.comcast.com	Communications	03/21/18	Marked plans provided
Crown Castle **(fka FiberNet Direct)** 9250 W. Flagler St. Miami, FL 33174	Danny Haskett 954-602-3323 sezuniga@miramar.fl.gov	Communications	03/15/18	Marked plans provided
Fiberlight 9250 W. Flagler St. Deerfield Beach, FL 33442	Wayne Kramer 561-951-6307 donald.mull@fiberlight.net	Communications	03/20/18	Atlas Map Provided
FP&L Distribution 7200 NW 4th Street Plantation, FL 33317-2211	Byron Sample 954-321-2056 byron.a.sample@fpl.com	Power	03/09/18	Marked plans provided
FP&L Transmission 700 Universe Blvd, TS4/JW Juno Beach, FL 33408	Jeff Joseph 561-951-6307 donald.mull@fiberlight.net	Power (Transmission)	02/15/18	Marked plans provided
Florida Gas Transmission (FGT) 2405 Lucien Way, Suite 200 Maitland, FL 32751	Joe Sanchez 786-838-7171 joseph.e.sanchez @energytransfer.com	Gas	02/15/18	Marked plans provided
CenturyLink (fka Level 3) 1025 El Dorado Blvd Broomfield, Co 80021	Jack Brady 786-495-2170 Jack.brady@centurylink.com	Communications	03/20/18	Marked plans provided
Sprint 201 E. Pine St. Orlando, FL 32801	Mark Caldwell 321-287-9942 Mark.d.caldwell@sprint.com	Communications	03/14/18	Marked plans provided
TECO Peoples Gas 5101 MW 21st Ave, Suite 460 Ft Lauderdale, FL 33309	Max Chamorro 954-453-0812 angel.vargas@fpl.com	Gas	03/14/18	As-Builts Provided
Teleport Comm. America 6000 Metro West Blvd, Suite 201 Orlando, FL 32875-7631	Stephen Erikisson (PEA Inc.) 321-662-9263 serikisson@pea-inc.net	Communications	03/20/18	No Facilities
Verizon/MCI 16563 NW 15th Ave Miami, FL 33169	Todd Mars 786-236-8597 Todd.mars@verizon.com	Communications		No Facilities

Preliminary utility coordination was initiated through written communication to the listed utility contacts. The utility companies were informed of the PD&E study through these notification letters and were requested to provide information regarding the location, type, size, and characteristics of any major utilities along or crossing the existing right-of-way. A preliminary plan set with aerial background was sent to the UAOs for their use in identifying their facilities. UAOs were requested to note if any utility facility is located within the FDOT right-of-way by easement or permit, and to provide an order-of-magnitude worst-case estimate for the cost of relocating any utilities affected by the proposed project.

Based on the initial utility coordination effort, utility facilities were identified within the existing or proposed right-of-way. The general location of the existing utility facilities is based on the UAOs response through the utility contact process. Exact locations of the existing utilities and the extent of impacts will be determined during the final design phase of this project. Coordination with the known UAOs during the final design phase will assist in minimizing relocation adjustments and disruptions of service to the public. Table 2.18.2 provides a summary of the existing facilities within the project corridor.

Table 2.18.2: Existing Utilities in the Study Area

Utility Agency Owner	Limits	Facility
ATT Corp	Florida's Turnpike Mainline Median	BFO
ATT Florida	North side of SW 10th St from Florida's Turnpike to Powerline Rd	(2) BFO
	South side of SW 10th St from Florida's Turnpike to Powerline Rd	(2) BFO
	West side of Powerline Rd north of SW 10th St	BT
	East side of Powerline Rd north of SW 10th St	(2) BFO
	East side of Powerline Rd south of SW 10th St	4-4" BT
	North side of SW 10th St from Powerline Rd to east of Military Trail	OFO
	North side of SW 10th St from Powerline Rd to SW 30th Ave	OFO
	North side of SW 10th St from east of SW 30th Ave to east of Military Trail	(2) BT
	South side of SW 10th St from SW 30th Ave to east of Military Trail	(2) BT
	South side of SW 10th St from west of Powerline Rd to SW 30th Ave	4-4" BT
	South side of SW 10th St from west of SW 30th St to SW 24th Ave	BT
	SW 28th Ave crossing SW 10th St	BT
	SW 24th Ave crossing SW 10th St	OFO
	SW 24th Ave crossing SW 10th St	(8) BT
	South side of SW 10th St west of Military Trail	BT
	North side of SW 10th St west of Military Trail	MH
	West side of Military Trail north of SW 10th St	OT

Utility Agency Owner	Limits	Facility
	West side of Military Trail north of SW 10th St	(11) BT
	East side of Military Trail Crossing SW 10th St	BT
	East side of Military Trail south of SW 10th St	BT
Broward County Water & Sewer	East side of Powerline Rd crossing SW 10th St	48" RW
	West side of Independence Dr crossing SW 10th St	8" WM
	West side of Powerline Rd crossing SW 10th St	8" WM
	West side of Powerline Rd crossing SW 10th St	6" FM
	South side of SW 10th St from Powerline Rd to east of Military Trail	48" RW DIP
City of Deerfield Beach	South side SW 10th St from Waterways Blvd to Powerline Rd (1996)	12" DIP WM
	North side SW 10th St from 500 ft east of Waterways Blvd to Powerline Rd (1998)	12" PVC WM
	Along SW 10th St from Powerline Rd to SW 24th Ave (1976)	20" WM
	East side of Powerline Rd crossing SW 10th St (1986)	20" WM
	East side of Powerline Rd crossing SW 10th St (1978)	16" WM
	North side SW 10th St from 900 ft west of SW 31st Ave to 31st Ave (1977)	8" WM
	North side SW 10th St from SW 31st Ave to east of 28th St (1977)	8" CAS WM
	West of SW 30th Ave crossing SW 10th St heading north (1977)	12" WM
	At SW 30th Ave from SW 10th St heading south (1985)	16" WM
	Between SW 30th and 28th Ave from SW 10th St. heading south (1986)	8" DIP WM
	At SW 28th Ave from SW 10th St heading south (1977)	8" WM
	Along SW 10th St from SW 24th Ave to Military Trail (1974)	24" WM
	Along north side of SW 10th, east of SW 28th Ave to SW 24th Ave (1977)	6" CAS
	At SW 24th Ave from SW 10th St heading south (1977)	24" / 8" WM
	East of SW 24th Ave from SW 10th St heading south (1982)	12" DIP WM
	SW 10th St just west of Military Trail going North (1975)	16" WM
	SW 10th St just east of Military Trail heading north (1982)	16" DIP WM
	South side of SW 10th St from Waterways Blvd to SW 30th St (1996)	8" FM
	At SW 31st Ave from SW 10th St heading north (2003)	4" FM
	Along SW 10th St from SW 30th Ave to east SW 24th Ave (1985)	12" DIP FM
	Along SW 10th St from SW 24th Ave east to Military Rd (1985)	20" DIP FM
	At SW 30th Ave from SW 10th St heading south (1985)	8" PVC FM
	Between SW 28th and 24th Ave from SW 10th St heading south (1977)	6" FM
	At SW 24th Ave from SW 10th St heading south (1980)	8" FM
	SW 10th St heading north, east side of Military (1975)	24" DIP FM
	SW 10th St heading south, east side of Military (1994)	6" PVC FM
	South side SW 10th St from well site east of SW 28th Ave to Military Trail (2009)	24" PVC BRW
	South side SW 10th St from well site west of SW 24th Ave to Military Trail (2009)	16" PVC FRW
	Well Site 450 ft east of SW 28th Ave	Well & Pump
	Well Site 750 ft east of SW 24th Ave	Well & Pump
Comcast	South side of SW 10th St from Waterways Blvd 600 ft to east then crossing north	BFO
	North side of SW 10th St 600 ft west of Waterways Blvd to east side of Powerline Rd	BFO
	North side of SW 10th St Crossing south on east side of Waterways Blvd	BFO
	South side of SW 10th St east of Waterways Blvd to just west of Powerline Rd	OFO
	South side of SW 10th St crossing Powerline Rd	BFO
	East side of Powerline Rd crossing SW 10th St	BFO

Utility Agency Owner	Limits	Facility
	North side of SW 10th St crossing Powerline Rd	BFO
	North side of SW 10th St 1,925 ft from Powerline Rd	OFO
	South side of SW 10th St 900 ft west of east side of SW 30th St	BFO
	North side of SW 10th St 900 ft east of Powerline Rd to east side of Military Trail	BFO
	East side of Military Trail crossing SW 10th St	OFO
	North side of SW 10th St from east side of Military Trail to FEC	OFO
Fiberlight	West side of Military Trail crossing SW 10th St	OFO
Crown Castle Fiber	East side of Powerline Rd crossing SW 10th St	BFO
	South side of SW 10th St from Powerline Rd to west of SW 30th Ave	BFO
	East side of Military Trail Crossing SW 10th St	BFO
Florida Gas Transmission	East R/W of Florida's Turnpike	18"&24"GM
FP&L Distribution	South Side of SW 10th St east of Waterways Blvd to Powerline Rd	OE 13KV
	South side of Powerline Rd crossing SW 10th St	BE 13KV
	East side of Powerline Rd crossing SW 10th St	OE 13KV
	North Side of SW 10th St from Powerline Rd to east of Military Trail	OE 13KV
	North Side of SW 10th St from Powerline Rd to east of Military Trail	BE Duct 13KV
	West side of SW 30th Ave crossing SW 10th St	OE 13KV
	East side of SW 24th Ave crossing SW 10th St	OE 13KV
	West of Military Trail on south side of SW 10th St	BE 13KV
	West side of Military Trail crossing SW 10th St	OE 13KV
	East side of Military Trail north of SW 10th St	BE 13KV
FP&L Transmission	West side of Powerline Rd north of SW 10th St	OE 230KV
	East side of Powerline Rd crossing SW 10th St	OE 230KV
	North side of SW 10th St from Powerline Rd to Military Trail	OE 230KV
	South side of SW 10th St from Powerline Rd to east of Military Trail	OE 230KV
	West side of Military Trail north of SW 10th St	OE 230KV
Level 3	North side of SW 10th St east of Military Trail	12-1.25" BFO
	West side of Military Trail north of SW 10th St	12-1.25" BFO
	East side of Military Trail north of SW 10th St	OFO
Sprint	West side of Military Trail crossing SW 10th St	1-2" BFO
	East side of Military Trail north of SW 10th St	2-2" BFO
	South side of SW 10th St crossing Military Trail	2-2" BFO
	North side of SW 10th St East of Military Trail	2-2" BFO
	South side of SW 10th St East of Military Trail	2-2" BFO
TECO Peoples Gas	East side of Powerline Rd crossing SW 10th St	8" GM
	South side of SW 10th St from Powerline Rd to east of Military Trail	8" GM
Teleport Comm. America	No Facilities	N/A
Verizon/MCI	No Facilities	N/A

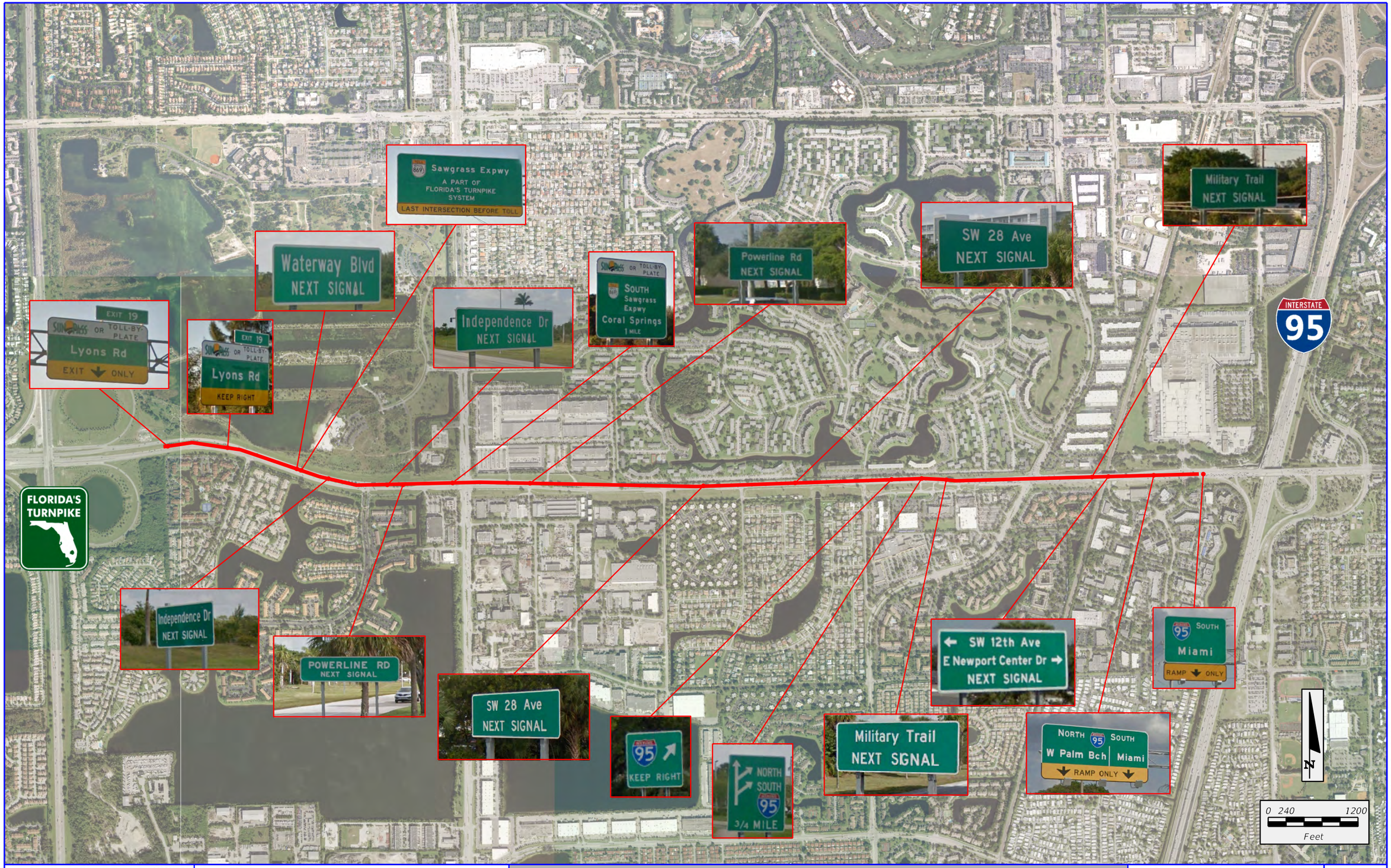
2.19 Lighting

SW 10th Street features single-arm light poles located adjacent to the edge of pavement for both the eastbound and westbound directions. The light pole spacing ranges from approximately 200 to 250 feet on SW 10th Street from Florida's Turnpike/Sawgrass Expressway to Powerline Road. On SW 10th Street from Powerline Road to just west of Military Trail, the single arm light poles are only present on the south side of the road (eastbound direction) with a spacing of 150 feet to 200 feet. From just west of Military Trail to East Newport Center Drive, single arm light poles are present on both sides of the road with an average spacing of 160 feet to 180 feet. Figure 2.19.1 shows an example of the lighting along the corridor.

Figure 2.19.1: Lighting on SW 10th Street

2.20 Signs

An inventory of the existing roadway signage was performed for the project along SW 10th Street. The results of the sign inventory are shown in Figure 2.20.1.



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FDOT / SW 10th Street Connector	SR 869 / SW 10th St Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	Figure 2.20.1 Existing Sign Inventory	SHEET NO. 2-64

2.21 Aesthetics Features

The SW 10th Street project corridor is a typical urban roadway with minimal aesthetic features inside the existing right-of-way. However, a few noteworthy aesthetic features are located within the project area including: median landscaping, and a meandering sidewalk on the south side of the road (eastbound direction).

The existing SW 10th Street has a narrow median filled with palm trees, oak trees, and other assorted trees that are well maintained and provide an aesthetic feature while driving through the corridor. Figure 2.21.1 depicts an example of the median landscaping along SW 10th Street.

Figure 2.21.1: Median Landscaping

In addition, the existing sidewalk located on the south side of SW 10th Street meanders through the existing right-of-way and in places has a significant buffer from the SW 10th Street eastbound traffic as shown in Figures 2.21.2 and 2.21.3. This feature provides an aesthetically pleasing buffer for drivers and pedestrians utilizing the corridor.

Figure 2.21.2: Existing Sidewalk along SW 10th Street

Figure 2.21.3: Existing Sidewalk along SW 10th Street

2.22 Bridges and Structures

There are two canals in the project corridor (Canal C-2 and C-3) which require culverts. The culverts are non-qualifying structures since they are less than 20 feet long and therefore do not require National Bridge Inspection Standard (NBIS) inspections. The only reason non-qualifying culverts would be inspected is if there were signs of distress on the roadway above the structure. However, no such signs of distress have been detected, and therefore, no information is available about these culverts.

3.0 Project Design Controls & Criteria

3.1 Roadway Context Classification

The context classification from Florida's Turnpike to just east of Military Trail is Suburban Residential (C3R). The context classification changes just east of Military Trail to Suburban Commercial (C3C). The context classification remains Suburban Commercial to I-95. The context classification for the project was provided by FDOT District 4 Complete Streets Coordinator.

3.2 Design Control and Criteria

3.2.1 Design Speed

The proposed design speed of the local and managed lanes are 35 mph and 60 mph, respectively.

3.2.2 Pedestrian and Bicycle Requirements

Throughout the project corridor and included in all alternatives, pedestrian and bicycle facilities will be improved and upgraded as follows:

- 12-foot-wide shared use path on the south side of SW 10th Street (eastbound); and
- Crosswalks at all signalized intersections.

3.2.3 Right-of-Way Constraints

The existing right-of-way varies throughout the corridor from 215 feet to 316 feet. Below is a summary of the existing right-of-way along the corridor:

- Florida's Turnpike/Sawgrass Expressway to Powerline Road (~1 mile) – 250 feet of right-of-way;
- Powerline Road to just west of Quiet Waters Business Park Entrance Road (~0.4 miles) – 316 feet of right-of-way;
- Just west of Quiet Waters Business Park Entrance Road to SW 28th Avenue (~0.3 miles) – 250 feet of right-of-way;
- SW 28th Avenue to SW 24th Avenue (~0.3 miles) – 215 feet of right-of-way; and
- SW 24th Avenue to East Newport Center Drive (~0.8 miles) – 250 feet of right-of-way.

Chapter 4 of this report contains an analysis of the various Build Alternatives and proposed right-of-way impacts. Each alternative developed for this study has considered right-of-way minimization strategies due to the residential nature of the area.

3.2.4 Type of Stormwater Facilities

The agencies having stormwater permitting jurisdiction over the proposed improvements include:

- SFWMD; and
- Broward County Environmental Protection and Growth Management Department (BCEPGMD).

By Florida statute, the Department is exempt from local permitting for projects located along the State Highway System. However, the Department is not exempt for projects which require improvements within the local canal right-of-way, or which result in increased discharges to local receiving waters. As such, and as confirmed with both agencies at the FDOT-BCEPGMD and FDOT-SFWMD Drainage-Permitting Coordination Meetings conducted on 02/21/18 and 02/15/18, respectively, both agencies will have jurisdiction over the stormwater permitting for the project.

3.2.4.1 Stormwater Quality Criteria

South Florida Water Management District

The SFWMD requires that all projects meet state surface water quality standards, as set forth in Chapter 17-302, Florida Administrative Code (FAC). According to the SFWMD Applicant's Handbook, Volume II, all projects must meet the following volumetric retention/detention requirements:

1. For wet detention systems, the first inch of runoff from the project or the total runoff from 2.5 inches times the percent of imperviousness, whichever is greater, must be detained on site. A wet detention system is a system that maintains the control elevation at the seasonal high groundwater elevation and does not bleed down more than one-half inch of detention volume in 24 hours;
2. Dry detention systems must provide 75 percent (75%) of the required wet detention volume. Dry detention systems must maintain the control elevation at or above one foot above the seasonal high groundwater elevation;

3. Retention systems must provide 50 percent (50%) of the wet detention volume; and
4. For projects with more than 50 percent (50%) of imperviousness, discharge to the receiving water bodies must be made through baffles, skimmers, or other mechanisms suitable from preventing oil and grease from discharging to or from the retention/detention areas.

Projects having greater than 40% impervious area and which discharge directly to water bodies within a District permitted public water supply wellfield cone of depression, as defined by Broward County Wellfield Protection Ordinance contour for Zone 3 which are not separated from the aquifer by strata at least ten feet thick and have an average saturated hydraulic conductivity of less than 0.1 feet per day, shall provide at least one half inch of dry detention or retention pretreatment as part of the required retention/detention, as confirmed with SFWMD on February 15, 2018. However, no pretreatment is required for this project since none of the alternative stormwater management facilities actually fall within the limits of a permitted public water supply wellfield cone of depression. See the Conceptual Drainage and Pond Siting Report for further details on SFWMD coordination, available under separate cover.

Broward County Environmental Protection and Growth Management

Since the project falls within the BCWCD #2 C-3 Basin and C-2 Basin, designated water quality basins, expansion of the existing stormwater management facilities to treat the additional development is an accepted practice, confirmed by BCEPGMD and SFWMD. Based on review of the Broward County Wet Season Water Table Maps, the Seasonal High Ground Water Table (SHGWT) elevation in the study area ranges from approximately 8.00 to 10.00 feet NGVD (6.50 to 8.50 feet NAVD), with an average SHGWT elevation of 9.00-feet NGVD (7.50-feet NAVD). Input from Mr. Carl Archie with BCWCD #2, indicates that Broward County pumps in accordance with a SFWMD Diversion and Impoundment permit to maintain the entire basin between 9.50 and 10.00 feet NGVD (8.00 to 8.50 feet NAVD).

Accordingly, the BCWCD #2 S-4 control structure is providing approximately 0.50 to 1.00 feet of wet retention depth for the C-2 Basin. As such the proposed expansion should provide 50% of the required wet detention volume, i.e. the first inch of runoff from the project or the total runoff from 2.5 inches times the percent of imperviousness, whichever is greater.

3.2.4.2 Stormwater Quantity Criteria

SFWMD criteria govern peak discharge rate attenuation and attenuation volume by limiting the post-development peak discharge rate to the pre-development peak discharge rate for the 25-year – 72-hour design rainfall event using SFWMD 72-hour rainfall distribution. SFWMD requires that offsite discharge rates be limited to rates not causing adverse impacts to existing off-site properties, and:

- Historic discharge rates,
- Rates determined in previous SFWMD permit action, or
- Basin allowable discharge rates.

SFWMD also requires that provisions be made to replace or otherwise mitigate the loss of historical basin storage provided by the project.

However, since the project falls within the BCWCD #2 water quality basin, with regulated discharge to the SFWMD Hillsboro Canal via the S-4 control structure, both SFWMD and BCEPGMD have agreed that the stormwater quantity criteria for the project will be based on providing an expansion of the waterbodies within the BCWCD #2 basin that offsets existing storage proposed to be filled by the project and which offsets the additional runoff volume created by the project. Additionally, SFWMD has requested a regional stormwater model and application for a master permit for the C-2 basin to ensure that the proposed improvements do not increase stages or discharges.

3.2.5 Design Standards

The context classification of Suburban applies for the length of the project. Table 3.2.1 displays the detailed design standards for context classification Suburban for a 35-mph design speed. Table 3.2.2 displays the design standards for the managed lane facility which is a limited access facility.

Table 3.2.1: Design Standards for C3 Suburban – 35 mph

Design Element	Criteria	Source
Context Classification	C3 Suburban	FDOT
Access Classification	Class 3	Access Management Classification
Design Vehicle	WB-62FL	FDM, Figure 201.5.1
Design Speed/Posted Speed	35 mph	FDOT
Minimum Lane Widths	11 ft (travel) due to SIS	FDM, Table 210.2.1
Pavement Cross Slopes	Travel Lanes (2%)	FDM Figure 210.2.1
Shoulders	Right Shoulder (10 ft, 5 ft paved) Left Shoulder (8 ft, 0 ft paved)	FDM, Table 210.4.1
Sidewalk	6 ft (8 ft max)	FDM, Table 222.1.1
Shared Use Path	10 to 14 feet	FDM Section 224.4
Bicycle Lanes	7 feet (Can be replaced with Shared Use Path)	FDM Sections 223.2.1.1 and 233.2.3
Median Width	22 ft (min 15.5 ft)	FDM, Table 210.3.1
Minimum Border Width	12 ft	FDM, Table 210.7.1
Grades	7% max	FDM, Table 210.10.1
Minimum Grade	0.30%	FDM, Section 210.10.1.1
Max. Change in Grade w/o VC	0.90%	FDM, Table 210.10.2
Vertical Clearance	Over Roadway (16 ft-6 in) Pedestrian over Roadway (17 ft-6 in) Over Railroad (23 ft-6 in) Overhead Sign Structure (17 ft-6 in)	FDM, Table 260.6.1 FDM, Table 260.6.1 FDM, Table 260.6.1 FDM, Section 210.10.3
Min. Length of Horizontal Curve	525 ft (min 400 ft)	FDM, Table 210.8.1
Max. Deflection w/o Horizontal Curve	3°00'00" (700 feet)	FDM, Section 210.8.1
Superelevation	80% of super trans in tangent Superelevation Transition Rate: 1:100	FDM, Section 210.9.1 FDM, Table 210.9.3
Max. Curvature	14°15'00" (emax = 0.05)	FDM, Table 210.9.2
Max. Curvature w/o Superelevation	Normal Crown - 5°00'00" Reverse Crown - 5°15'00" (emax = 0.05)	FDM, Table 210.9.2
Crest Vertical Curve	K = 47; L = 105 ft (min)	FDM, Table 210.10.3 FDM, Table 210.10.4
Sag Vertical Curve	K = 49; L = 105 ft (min)	FDM, Table 210.10.3 FDM, Table 210.10.4
Min. Stopping Sight Distance	250 ft +/- adjustments	FDM, Table 210.11.1
Clear Zone	Travel Lane = 14 ft Auxiliary Lanes = 10 ft	FDM, Table 215.2.1
Median Left Turn Lane Length	145 ft + Queue Length	FDM, Exhibit 212-1
Notes: *FDM = FDOT Design Manual (January 2020), Florida Department of Transportation*		

Table 3.2.2: Design Standards for Expressway – Managed Lanes – 60 mph

Design Element	Criteria	Source
Facility Type	Expressway	FDOT
Access Classification	Class 1 – Area Type 2	FDM, Table 201.3.1
Design Vehicle	WB-62FL	FDM, Figure 201.5.1
Design Speed/Posted Speed	60 mph	FDOT
Minimum Lane Widths	12 ft (travel and auxiliary)	FDM, Section 211.2
Pavement Cross Slopes	Travel Lanes (2%) Right Shoulder (6%) Left Shoulder (5%)	FDM, Table 211.2.3
Median Width	26 ft (with barrier)	FDM, Table 211.3.1
Shoulders	Right Shoulder (12 ft, 10 ft paved) Left Shoulder (8 ft, 4 ft paved)	FDM, Table 211.4.1
Minimum Border Width	94 ft	FDM, Section 211.6
Min. Length of Horizontal Curve	1,800 ft (min 900 ft)	FDM, Table 211.7.1
Max. Deflection w/o Horizontal Curve	0°45'00"	FDM, Section 211.7.1
Grades	3% max	FDM, Table 211.9.1
Sag Vertical Curve	K = 136; L = 800 ft (min)	FDM, Table 211.9.2 FDM, Table 211.9.3
Crest Vertical Curve	K = 245; L = 1,000 ft (min)	FDM, Table 211.9.2 FDM, Table 211.9.3
Min. Stopping Sight Distance	645 ft +/- adjustments	FDM, Table 211.10.1
Max. Curvature	5°15'00" (Dmax)	FDM, Table 210.9.1
Max. Curvature w/o Superelevation	Normal Crown - 0°15'00" Reverse Crown - 0°30'00" (emax = 0.10)	FDM, Table 210.9.1
Superelevation	80% of super trans in tangent Superelevation Transition Rate: 1:225	FDM, Section 210.9.1 FDM, Table 210.9.3
Max. Change in Grade w/o VC	0.40%	FDM, Table 210.10.2
Clear Zone	Travel Lane = 36 ft Auxiliary Lanes = 24 ft	FDM, Table 215.2.1
Vertical Clearance	Over Roadway (16 ft-6 in) Pedestrian over Roadway (17 ft-6 in) Over Railroad (23 ft-6 in) Overhead Sign Structure (17 ft-6 in)	FDM, Table 260.6.1 FDM, Table 260.6.1 FDM, Table 260.6.1 FDM, Section 210.10.3
Notes: *FDM = FDOT Design Manual (January 2020), Florida Department of Transportation*		

4.0 Alternatives Analysis

4.1 Previous Planning Studies

A number of previous studies examining a connection between Florida's Turnpike and I-95 have been completed to determine the optimal method for connecting Florida's Turnpike / Sawgrass Expressway with I-95.

The earliest study, the Deerfield Parkway Corridor Location Study, evaluated a continuation of University Parkway in the east-west direction and was commissioned by the FDOT in 1970 and completed in 1972. The original study was defined as approximately eight-miles in length by two-miles wide. This extended from US 441 to SR A1A in the east-west direction and from Hillsboro Boulevard to NW 48th Street in a north-south direction. Proposed within this corridor was the Deerfield Parkway, a toll-free limited access facility to run from just west of the proposed US 441 interchange to the proposed interchange with I-95.

This project was consistent with the 1985 Recommended Principal Street and Highway Plan – Ft. Lauderdale and Hollywood Urban Area Transportation Study, dated September 1969. This plan was prepared jointly by the FDOT, US Bureau of Public Roads, Broward County and representatives from various affected communities including Deerfield Beach.

A Public Hearing was held on August 19, 1971 in Deerfield Beach, at which time four alternate Parkway alignments ("A", "B", "C", and "D") were publicly presented and discussed. Objection was raised to any Parkway alignment which would pass through the City of Deerfield Beach, which applied to three of the four alternatives presented ("A", "C", and "D"). The study continued on the four alternate Parkway alignments presented at the Public Hearing and, where possible, the study incorporated suggestions derived from public comments. Based on the social, economic, environmental, and engineering factors, Alignment "A" was selected for more detailed study. Figures 4.1.1 and 4.1.2 shows Alignment "A" from the 1972 report. A Draft Environmental Impact Statement (EIS) was prepared in 1972 but was not circulated.

Figure 4.1.1: Deerfield Parkway – Corridor "A" (US 441 to East of Turnpike)

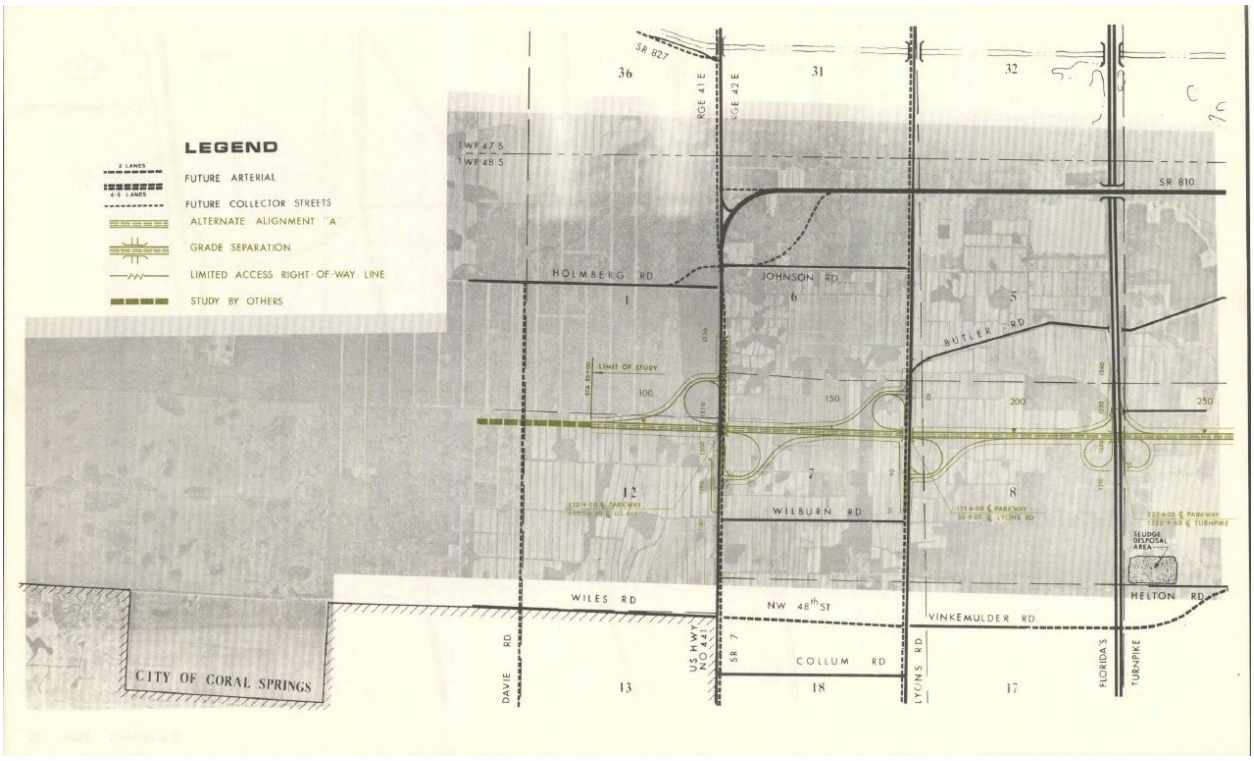
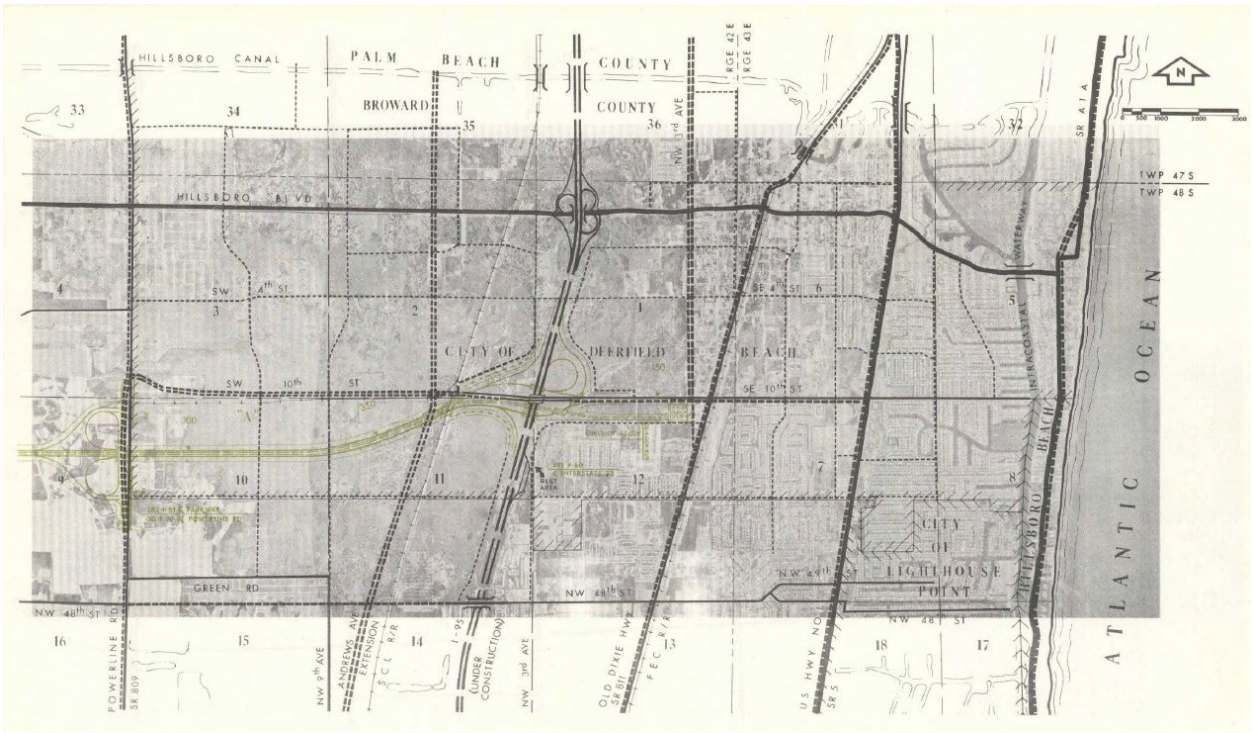
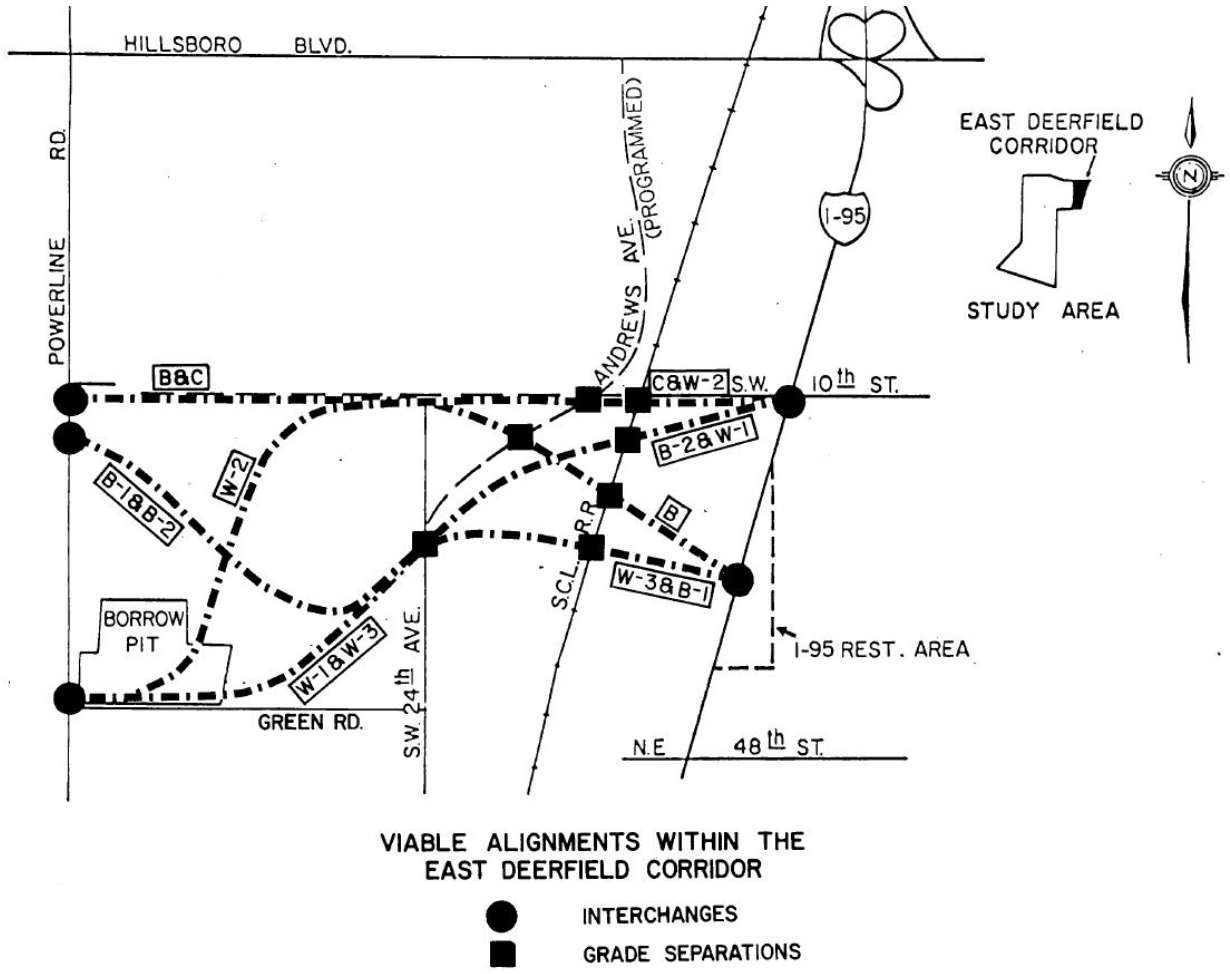


Figure 4.1.2: Deerfield Parkway – Corridor "A" (East of Turnpike to I-95)



In 1979, a Draft EIS was prepared for the University-Deerfield Expressway. This report evaluated an expressway facility linking I-75 at SR 84 to I-95 in Deerfield Beach which had been identified as a needed improvement in Broward County. This expressway linkage between two interstate highways was previously treated as two separate facilities, known as University and Deerfield Parkways. This project involved the construction of a limited access multi-lane expressway from the I-75 interchange with SR 84 north and east for approximately 24 miles to I-95. This facility was evaluated as a toll facility. The study evaluated two alignments within the University Corridor (SR 84 to South of Wiles Road), six alignments in the West Deerfield Corridor (South of Wiles Road at the Conservation Area to Powerline Road) and seven alignments in the East Deerfield Corridor (Powerline Road to I-95). The East Deerfield Beach Corridors are shown in Figure 4.1.3. One of the seven alignments evaluated was co-located with SW 10th Street.

Figure 4.1.3: East Deerfield Corridors



In 1986, Broward County began construction on the Sawgrass Expressway, and it opened two years later in 1988 as shown in Figure 4.1.4.

Figure 4.1.4: Planned Route of Sawgrass Expressway (1988)

In 1990, the Broward MPO 2010 Long Range Transportation Plan (LRTP) included the Sawgrass Expressway Extension. Thus, the FDOT commenced a new PD&E Study evaluating a limited access facility from Florida's Turnpike to I-95 via SW 10th Street. This improvement would complete the "missing link" in a regional expressway system which includes I-95, Florida's Turnpike, the Sawgrass Expressway, I-75 and I-595. The study resulted in an Environmental Assessment (EA) completed and approved in 1993. The study recommended (Alternative D, with Design 2) a six-lane freeway, completion of the Florida's Turnpike interchange at SW 10th Street/Sawgrass Expressway to provide all movements, grade separated interchanges at Powerline Road and Military Trail, parallel frontage roads to provide access to neighboring properties, and grade separation of the freeway over the CSX

railroad and between Florida's Turnpike and Powerline Road to provide access. This alternative also proposed the construction of an access road constructed along the north side of the properties located in the northeast quadrant of the SW 10th Street and Powerline Road intersection. This access road would provide access to the businesses as their direct access to SW 10th Street would be removed for safety reasons. The recommended alternative would mostly remain within the existing right-of-way. Additional right-of-way would be required for the interchanges at Powerline Road and Military Trail. After the completion of the EA, the Broward MPO voted against the project.

In 2008, the FDOT completed a Feasibility Study for the SW 10th Street Connector. The study noted that the 2007 Broward County traffic counts exceeded the 2010 projections from the 1993 PD&E Study by 47% to 97% and indicated that traffic growth was expected to continue. The Feasibility Study concluded that the limited access link was needed to accommodate future regional travel demand. The study recommended further analysis and development of potential congestion solutions during a new PD&E Study. On January 17, 2009, alternatives were presented at a public meeting held by the FDOT. A total of 117 people attended the public meeting and 31 people provided written comments. The two most common comments were:

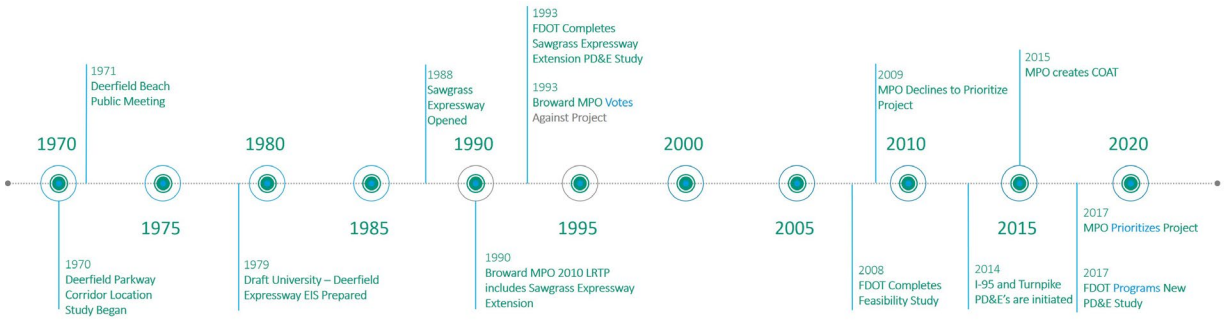
- Existing and/or future noise; and
- Impacts of a flyover/elevated highway.

Due to strong public opposition from Deerfield Beach residents, the Broward MPO decided to take no further action.

In 2014, the Broward MPO noted that with the I-95 from SW 10th Street to Hillsboro Boulevard PD&E Study and the Sawgrass Expressway widening PD&E Studies planned, that the timing was appropriate to explore a new and innovative public involvement process on SW 10th Street. In 2015, the Broward MPO created the COAT. The advisory team was comprised of community businesses and homeowner representatives to obtain input, build a community vision, and ultimately recommend improvements for the corridor to be further evaluated in a future PD&E Study. More information on the results of the COAT are contained in Section 4.1.1. The COAT effort was completed in 2016. In 2017, the Broward

MPO prioritized the SW 10th Street Connector project which led to the start of this current PD&E Study. Figure 4.1.5 shows the timeline of the previous studies.

Figure 4.1.5: Previous Studies Timeline



4.1.1 Community Oversight Advisory Team

The Broward MPO formed a COAT that was tasked with obtaining consensus on a vision for the SW 10th Street corridor. The team was comprised of members from the surrounding community as well as elected and appointed officials. The composition of the team consisted of:

- Nine members from the City of Deerfield Beach:
  - Four residents from communities adjacent to SW 10th Street;
  - Two business representatives; and
  - Three citywide representatives.
- Eight members from the SW 10th Street surrounding area:
  - Two from the City of Coconut Creek;
  - Two from the City of Coral Springs;
  - Two from the City of Parkland; and
  - Two representing Broward County interests.

The COAT, in partnership with the FDOT and the Broward MPO, utilized a robust public involvement plan to engage stakeholders, community representatives, and elected officials. Various viewpoints were developed and vetted through regular meetings facilitated by transportation experts from Broward County, the FDOT, FTE, and transportation consultants. The COAT ultimately provided 18 recommendations and 15 sub-recommendations to the Broward MPO in 2016. The COAT Recommendations are included

in Table 4.1.1 below. One of the key recommendations of the COAT was to study the feasibility of placing the expressway connection in a "depressed" section in order to mitigate noise and visual impacts as illustrated in Figure 4.1.6.

Figure 4.1.6: Conceptual Depressed Section from Broward MPO COAT Study

Table 4.1.1: COAT Recommendations

COAT Recommendation Number	Recommendation
1	Creatively determine if an engineering solution which is environmentally feasible can be provided to improve safety of 10th Street and provide an efficient traffic solution between Sawgrass/Turnpike and I-95 while maintaining quality of life
2	Improve safety while maximizing improvements to traffic flow of 10th Street and roadway intersections and expressway interchanges
2.1	To include public safety accessibility
3	Include near term solutions
3.1	Signal timing improvements – current technology
3.2	Adaptive signal technology

COAT Recommendation Number	Recommendation
3.3	Additional traffic lanes
4	Include a below-grade expressway with at-grade local access roads
4.1	Include extending below-grade expressway, west of westerly residential roadway connection to 10th Street
4.2	Include extending below-grade expressway as close to Military Trail as possible, that would allow Military Trail intersection to remain at-grade (no overpass of Military Trail over Expressway)
5	Minimize, and attempt to eliminate, use of above grade overpass where adjacent to residential areas
6	Improve access for local roadways and expressways west of I-95
6.1	Improve residential access to 10th and expressways from Waterways, Independence Bay, Century Village, Waterford Homes, Waterford Courtyards, and the Renaissance (nursing home)
6.2	Improve commercial access to 10th and expressways for Newport Center, Publix Distribution, Palm Trails Plaza, 10th Street strip mall, industrial area along SW 30th Street, and Sawgrass Promenade
6.3	Improve Sawgrass Expressway and Turnpike connection to I-95
7	Encourage improved access to expressway and 10th Street from local roads east of I-95
8	Include generous tabletop intersections for local roads to improve pedestrian and bike connectivity north and south across 10th Street
9	Prepare noise study and identify mitigation needs required
9.1	Include noise walls (include at the beginning of construction)
9.2	Explore sound proofing for affected homes and businesses
10	Accelerate 10th Street PD&E scoping and consultant selection to catch up with:
10.1	PD&E for Sawgrass/10th Street interchange with the Turnpike
10.2	PD&E for the 10th Street interchange with I-95
11	Create a gateway to north Broward by landscaping along 10th Street and north and south along adjacent connecting roadways, including landscape buffers and berms (by using native species)
11.1	Explore use of revenue generated by tolls for maintenance of landscaping and tabletop parks
12	Minimize impacts to the environment including wetlands and air and water quality
13	Encourage mass transit and carpooling alternatives

COAT Recommendation Number	Recommendation
14	Protect Deerfield Beach's west wellfield
15	Maximize business signage visibility and include temporary signage for local businesses during construction
16	If tolling is planned for expressway, locate toll stations so as not to adversely affect local roadway network
17	Include alternate transportation routes during the construction phase to alleviate congestion once construction begins on SW 10th Street and plans to alleviate congestion on Hillsboro, Sample, Wiles, and SW 18th Street.
17.1	Explore the potential to go under the railroad tracks at Hillsboro Boulevard to alleviate traffic during the construction phase and resolve issues on I-95
18	Install utilities underground

4.2 No-Build Alternative

The No-Build Alternative, as its name implies, retains the existing roadway characteristics. Under this scenario, the existing SW 10th Street corridor would not be improved, and conditions would continue to deteriorate. The No-Build Alternative has certain advantages and disadvantages. The advantages of the No-Build Alternative include:

- No expenditure of public funds;
- No disruption or temporary impacts (air, noise, vibration, travel patterns) due to construction activities; and
- No right-of-way acquisitions.

The disadvantages of the No-Build Alternative include:

- Does not meet the project purpose and need;
- Increased vehicular congestion and delay, which leads to increased travel, time, and delay costs;
- Increased safety concerns;
- Increased emergency response and evacuation time; and
- Decreased air quality.

A noteworthy point is that the No-Build Alternative assumes that the adjacent I-95 interchange improvements are implemented, including the proposed flyovers to and from I-95 and SW 10th Street. These flyovers will need to tie into existing SW 10th Street. This scenario is explored in detail in the PTAR, available under separate cover. This scenario would be difficult to implement due to the merging distance needed in advance of the local intersections. In addition, this option requires reconstruction of a portion of SW 10th Street just west of Military Trail to provide space for the ramp terminals and associated Mechanically Stabilized Earth (MSE) walls for the rising flyover ramp profiles.

4.2.1 No-Build Traffic Analysis

The No-Build Alternative provides a baseline for comparison to the Build Alternatives by assuming the proposed SW 10th Street Connector project is not constructed. It has the same lane geometry as existing conditions along the SW 10th Street corridor from Waterways Boulevard to west of Military Trail. For future year 2040 conditions, changes to the surrounding roadway network are assumed, along with population and employment growth. These changes contribute to significant growth in traffic volumes along SW 10th Street and in the study area by 2040.

Planned and programmed roadway improvements in the area are expected to be constructed by 2040 and are assumed to be in place with the No-Build Alternative. The planned Sawgrass Expressway widening, Florida's Turnpike widening, and I-95 widening for express lanes are assumed to be complete. In addition, the planned Sawgrass Expressway/Turnpike interchange improvements are assumed to be in place. These include new ramps connecting SW 10th Street to and from Florida's Turnpike. Planned I-95 express lanes and interchange improvements at I-95 and SW 10th Street are also assumed to be constructed. The improvements include new ramps connecting the I-95 northbound and southbound general use lanes and express lanes to SW 10th Street west of I-95. The No-Build Alternative lane geometry is shown in Figure 4.2.1.

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > Connector Lane Configuration
- 1 > Express Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

Industrial Park Access

Matchline A

To WB Sawgrass

SW 10th St

< 3 < 3 < 3 < 3 < 2 < 2

From EB Sawgrass

4 > 4 > 3 > 3 > 2 > 2 > 2 >

SW 10th St

Page 2

Waterways Blvd

Independence Dr

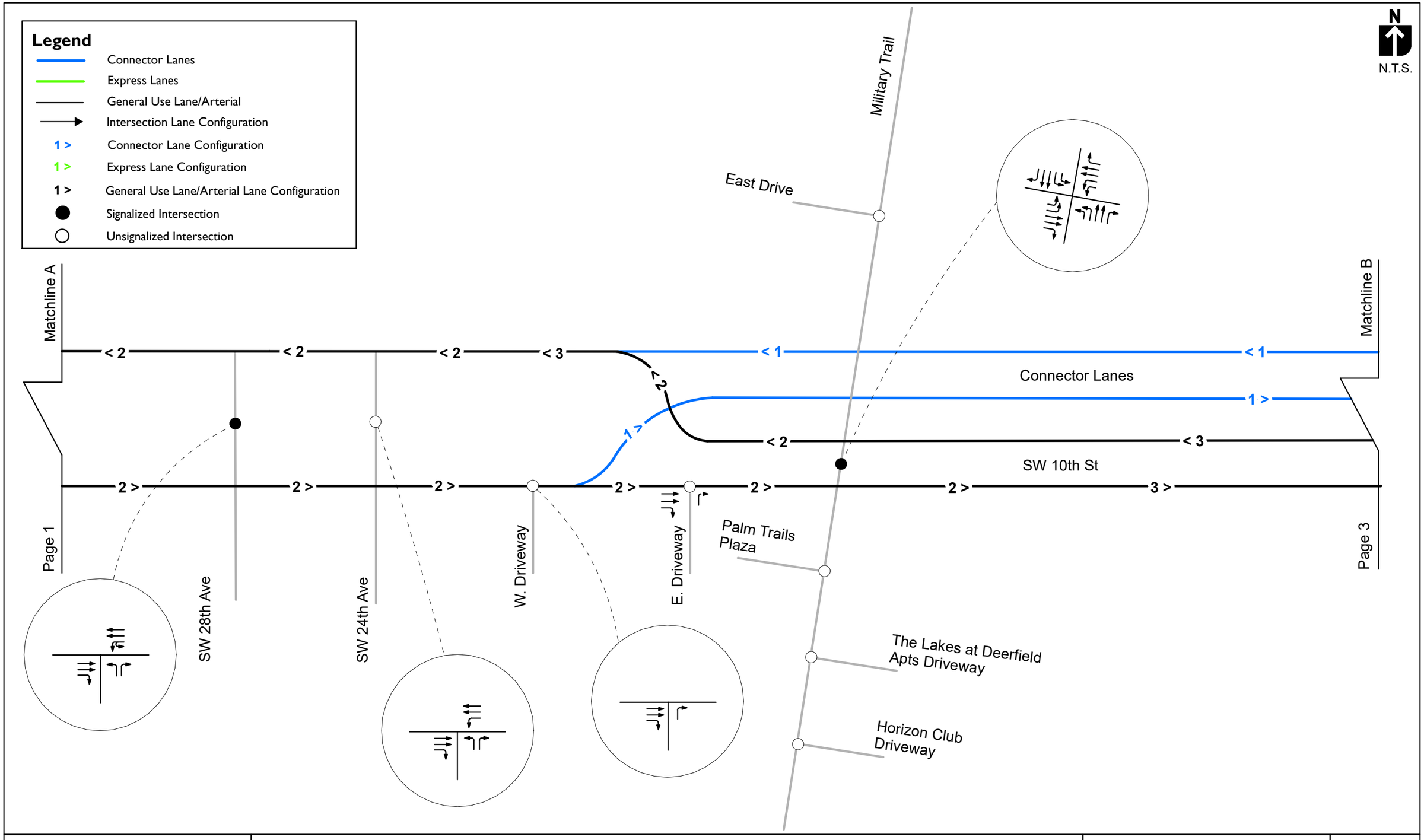
SW 11th Ct

SW 30th Ave

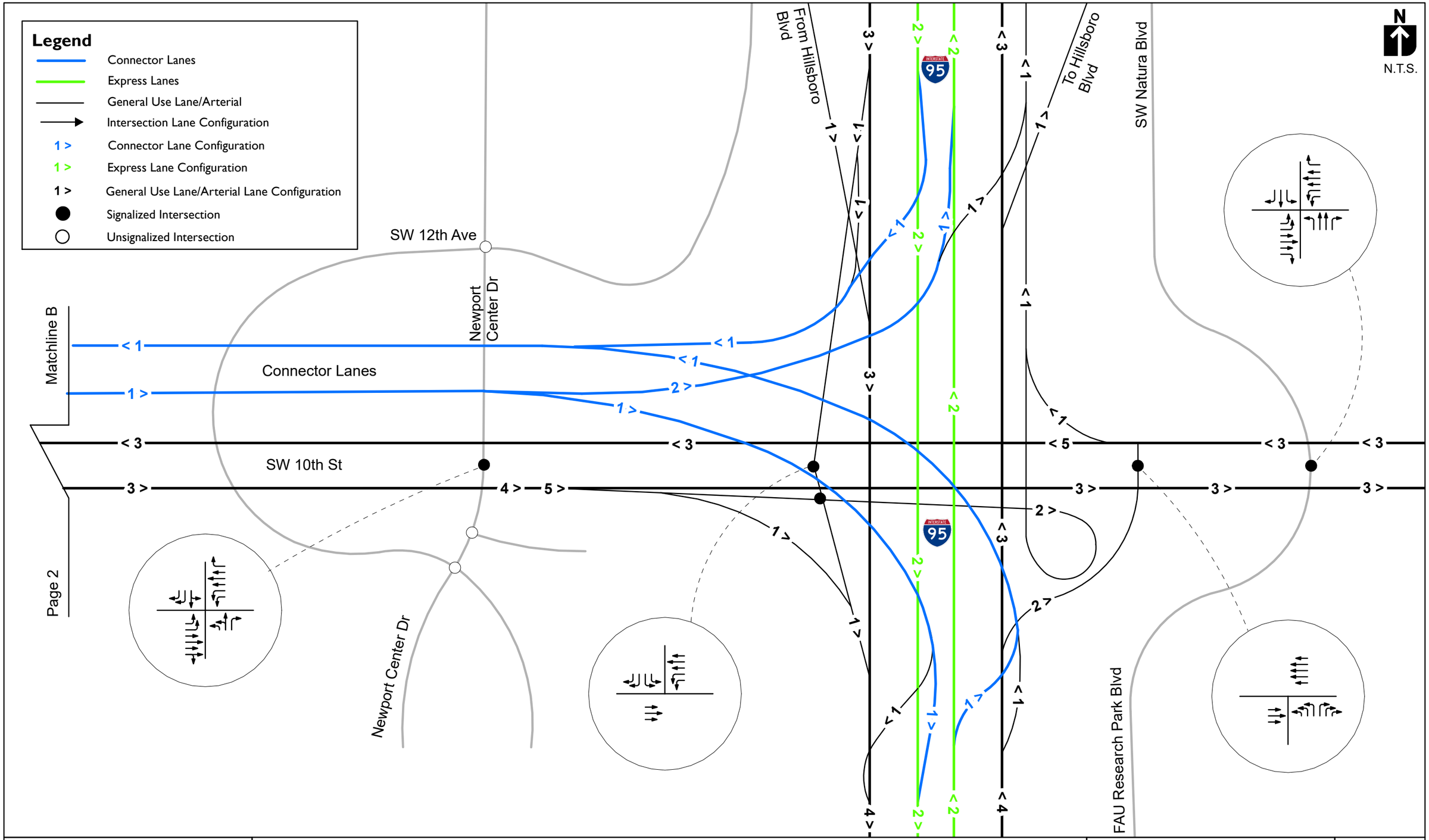
American Way

Powerline Rd

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.2.1** **2040 No-Build Alternative Lane Geometry**



FDOT SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.2.1** **2040 No-Build Alternative Lane Geometry**	**Page 4-12**



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.2.1** **2040 No-Build Alternative** **Lane Geometry**	**Page** **4-13**

The 2040 No-Build peak hour directional volume-to-capacity analysis for the SW 10th Street local lanes is shown in Table 4.2.1. The results show that eastbound volumes are expected to exceed the capacity of the SW 10th Street local lanes between the Sawgrass Expressway and Newport Center Drive in the AM peak hour. Meanwhile, the westbound volumes are expected to exceed the capacity of the SW 10th Street local lanes in the AM peak hour from the managed lanes egress west of Military Trail to Powerline Road.

During the PM peak hour, eastbound volumes will exceed the corridor's capacity from Powerline Road to Newport Center Drive. In addition, westbound SW 10th Street volumes from Military Trail to the Sawgrass Expressway will exceed capacity in the afternoon. Many sections of the local lanes along the corridor are expected to have traffic volumes that will significantly exceed the roadway capacity.

Traffic along the SW 10th Street corridor between Florida's Turnpike and I-95 is expected to increase due to population and employment growth in the region. In addition, interchange improvements and new ramps added on both ends of the corridor will accommodate a larger number of vehicles to and from the Turnpike and I-95. These improvements are expected to significantly increase future travel demand along the SW 10th Street corridor.

As shown in Table 4.2.1, with the travel demand expected to be almost twice the capacity of SW 10th Street in some segments, gridlock along SW 10th Street during peak hours can be expected. Without additional capacity and safety improvements in place along SW 10th Street, the duration of congestion is expected to increase, along with delay and queues along the corridor. The No-Build Alternative does not satisfy the objectives or purpose and need of this project. It fails to improve local traffic flow or increase capacity throughout the corridor and does not address existing operational and safety deficiencies. However, the No-Build Alternative will remain under consideration throughout the alternative analysis and evaluation process.

Table 4.2.1: 2040 No-Build Alternative – Local Lanes Volume-to-Capacity Analysis

SW 10th Street Local Lane Segments		No. of	Volume		Capacity (1)	LOS(2)		V/C (3)	
	Location Description	Lanes	AM	PM		AM	PM	AM	PM
SW 10th Street Eastbound	West of Waterways Blvd	4	5,570	3,010	4,242	F	C	1.31	0.71
	Waterways Blvd to Independence Dr	4	5,775	3,010	4,242	F	C	1.36	0.71
	Independence Dr to Powerline Rd	3	5,795	3,015	3,171	F	C	1.83	0.95
	Powerline Rd to west of SW 30th Ave	2	4,075	2,890	2,100	F	F	1.94	1.38
	West of SW 30th Ave to SW 28th Ave	2	3,975	2,970	2,100	F	F	1.89	1.41
	SW 28th Ave to SW 24th Ave	2	4,120	2,995	2,100	F	F	1.96	1.43
	SW 24th Ave to eastbound managed lane ingress	2	3,965	2,905	2,100	F	F	1.89	1.38
	Eastbound managed lane ingress to Military Trail	2	2,005	1,850	2,100	C	C	0.95	0.88
	Military Trail to west of Newport Center Dr	2	2,575	2,150	2,100	F	F	1.23	1.02
	West of Newport Center Dr to Newport Center Dr	3	2,210	2,055	3,171	C	C	0.70	0.65
	Newport Center Dr to I-95 SB On-Ramp	4	1,825	2,590	4,242	C	C	0.43	0.61
	I-95 SB On-Ramp to I-95 NB Off-Ramp	3	1,440	1,530	3,171	C	C	0.45	0.48
	I-95 NB Off-Ramp to Natura Blvd	3	1,910	2,210	3,171	C	C	0.60	0.70
	East of Natura Blvd	3	1,765	2,130	3,171	C	C	0.56	0.67
SW 10th Street Westbound	West of Waterways Blvd	3	3,010	5,570	3,171	C	F	0.95	1.76
	Waterways Blvd to Independence Dr	3	2,860	5,750	3,171	C	F	0.90	1.81
	Independence Dr to Powerline Rd	3	2,820	5,780	3,171	C	F	0.89	1.82
	Powerline Rd to west of SW 30th Ave	2	2,695	3,980	2,100	F	F	1.28	1.90
	West of SW 30th Ave to SW 28th Ave	2	2,730	3,860	2,100	F	F	1.30	1.84
	SW 28th Ave to SW 24th Ave	2	2,675	4,000	2,100	F	F	1.27	1.90
	SW 24th Ave to westbound managed lanes egress	2	2,625	3,950	2,100	F	F	1.25	1.88
	Westbound managed lane egress to Military Trail	2	1,535	2,510	2,100	C	F	0.73	1.20
	Military Trail to Newport Center Dr	3	1,950	2,640	3,171	C	C	0.61	0.83
	Newport Center Dr to I-95 SB Off-Ramp	3	2,515	1,930	3,171	C	C	0.79	0.61
	I-95 SB Off-Ramp to west of Natura Blvd	5	2,760	2,280	5,313	C	C	0.52	0.43
	West of Natura Park Blvd to east of Natura Blvd	3	2,330	2,010	3,171	C	C	0.73	0.63

NOTES:

(1) Capacity thresholds from FDOT 2020 Generalized LOS Peak Hour Directional Volumes Table for Urbanized Areas at LOS D for Class I arterial (40 mph or higher), with +5% capacity adjustment for right turn lanes.

(2) LOS = Level of Service

(3) V/C = Ratio of Volume to Capacity

4.3 Transportation Systems Management and Operational Alternative

The Transportation System Management and Operations (TSM&O) alternative intends to enhance the efficiency of the current transportation network by implementing established strategies that could be applied to address capacity and operational issues that exist today. The goal of TSM&O strategies is to preserve existing capacity, enhance safety, and improve reliability of the transportation network by establishing systems, services and programs that optimize utilization of the existing infrastructure and show improvements in the transportation network performance. Typical TSM&O improvements include ramp signals, arterial traffic management systems, traffic incident management, work zone traffic management, road weather management, traveler information services, congestion pricing, parking management, traffic control, commercial vehicle operations, transit signal priority-systems, and freight management. These TSM&O strategies are generally applied without any right-of-way acquisition and minimal disruption to the traveling public. While the capital costs associated with TSM&O applications are generally low, these systems do require operations and maintenance funding to deliver the expected outcomes over their useable life.

Other TSM&O Strategies that were considered under this analysis were:

Advanced Traffic Management System (ATMS):

Establish an ATMS network to reduce congestion by improving the efficiency of existing infrastructure. This system would be managed out of the Broward County Regional Transportation Management Center (TMC) and requires Intelligent Transportation System (ITS) infrastructure. ATMS allows traffic engineers to modify signal timing, react to traffic incidents more efficiently, and monitor the transportation network.

Active Arterial Management (AAM):

Implement AAM along the corridor. AAM utilizes sensors and advanced signal control strategies by collecting travel time data and traffic flow characteristics to provide TMC operations staff the ability to adapt signal timings to prevailing traffic conditions.

Traffic Incident Management (TIM):

Expand current TIM strategies utilized in freeway operations to SW 10th Street to improve safety by reducing incident clearance times and minimize secondary crashes. In a freeway environment incident duration times are anticipated to be reduced by 30 to 50% by utilizing typical TIM strategies, which will reduce unscheduled non-recurring delay per person.

Integrated Corridor Management (ICM):

An ICM transportation system is the ultimate objective when it comes to operating and maintaining a complex multi-modal traffic network. ICM involves an integrated approach to transportation along a specific designated corridor or corridors. Multiple agencies and multiple modes are coordinated using shared back office systems and the adoption of compatible strategies. Through an ICM approach, transportation professionals manage the corridor as a multimodal system and make operational decisions for the benefit of the corridor.

Additional operational improvements that were considered under the TSM&O Alternative include:

- Arterial Access Management;
- Signal Phasing and Timing and Coordination Optimization;
- Adaptive Traffic Control Systems;
- Advanced Queue Detection;
- Emergency Vehicle Preemption;
- Transit Signal Priority; and
- Geometric Improvements – add/extend turn lanes, intersection widening, signing and pavement marking, etc.

A 2040 analysis was not performed for the TSM&O Alternative since the major intersections of SW 10th Street at Powerline Road and at Military Trail currently operate at LOS F in both the AM and PM peak. Additionally, the intersection of SW 10th Street at the northbound I-95 ramps operate at LOS F in PM. With these intersections operating at undesirable LOS F, and volumes expected to significantly exceed capacity, the TSM&O alternative alone will not meet the purpose and need of this project.

While it was determined that the TSM&O Alternative does not meet the purpose and need of this project, TSM&O strategies identified in the analysis should move forward for consideration during final design with the Preferred Alternative that is selected in order to ensure a comprehensive transportation network that is operated and managed to the highest level of efficiency available.

4.4 Future Conditions

4.4.1 Future Land Use

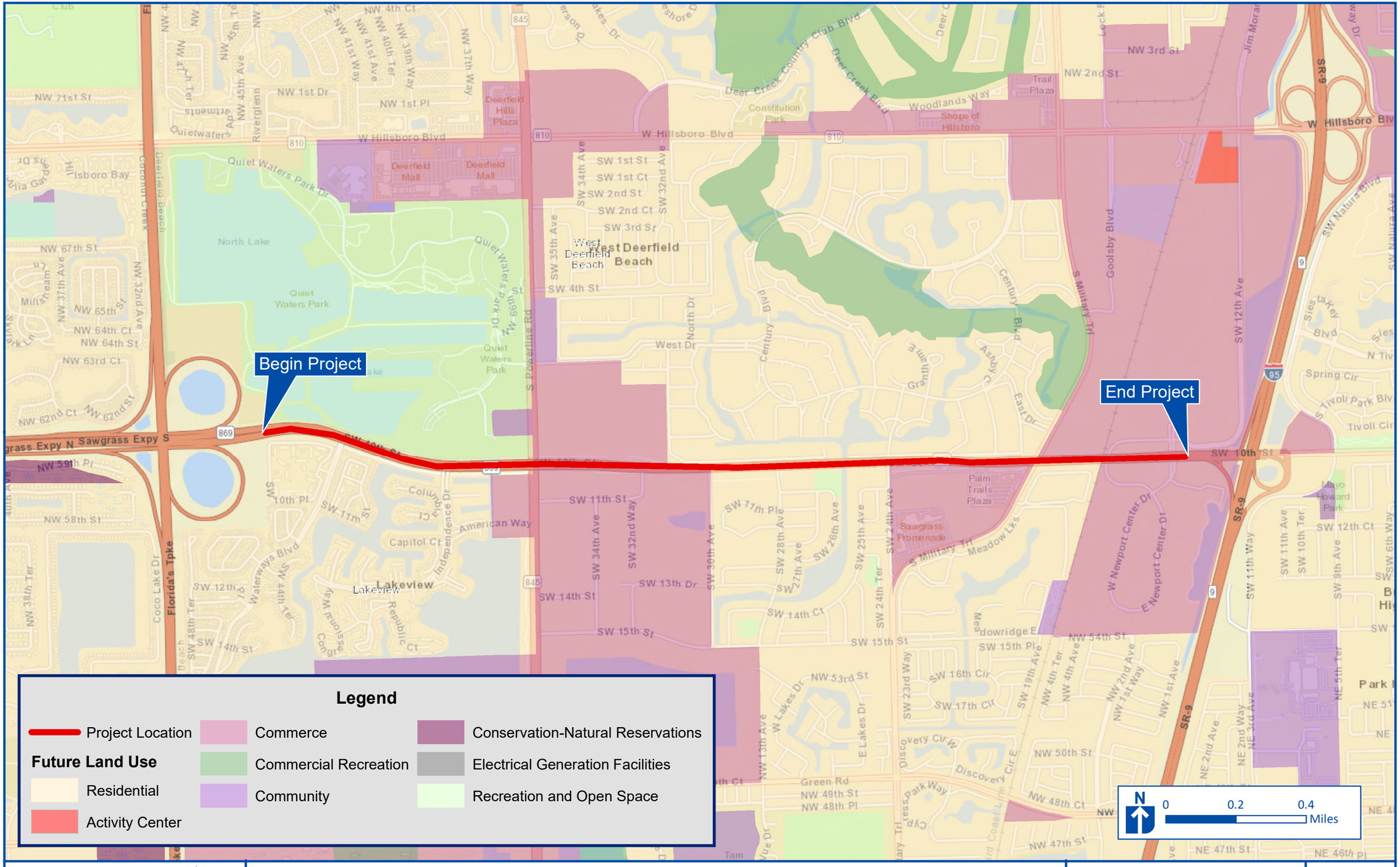
Broward County is mostly built-out in the study area with little undeveloped land in the project corridor. Therefore, significant changes in land use are not anticipated. The Broward County Future Land Use Maps are consistent with the existing land use in the study corridor. The corridor will be mostly residential (multi-family and single family) and commercial. In addition, the Broward County Future Land Use map shows Quiet Waters Park will remain Recreation/Open Space. Figure 4.4.1 shows the Broward County Future Land Use map.

4.4.2 Traffic Analysis

The traffic analysis was completed for the Build Alternatives known as "Without Powerline Road Ramps Alternative" and "With Powerline Road Ramps Alternative." Please note, in the PTAR the "Without Powerline Road Ramps Build Alternative" is referred to as Build Alternative #1, and the "With Powerline Road Ramps Build Alternative" is referred to as Build Alternative #2. These Build Alternatives represent a significant capacity improvement over the No-Build Alternative, most notably a new managed lane freeway facility is proposed to be constructed along the north side of the corridor from the Sawgrass Expressway/Florida's Turnpike to I-95. The Without Powerline Road Ramps Alternative lane geometry is shown in Figure 4.4.2 and the With Powerline Road Ramps Alternative lane geometry is shown in Figure 4.4.3.

4.4.2.1 Build Alternatives - 2040 LOS and V/C Analysis

The directional peak hour volumes were compared to the roadway capacity to assess the 2040 traffic conditions along the corridor under the Build Alternatives.



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.1** **Future Land Use**

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > Connector Lane Configuration
- 1 > Express Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

West Dr

Quietwaters N Driveway

Quietwaters S Driveway

Driveway F

Industrial Park Access

Matchline A

To WB Sawgrass

< 3 — < 4 — < 2 — < 2

Connector Lanes

From EB Sawgrass ELs

2 > — 2 > — 2 >

From EB Sawgrass

< 3 — < 3 — < 3 — < 3 — < 3 — < 3 — < 2

3 > — 3 > — 3 > — 3 > — 2 > — 2 >

SW 10th St

Waterways Blvd

Independence Dr

SW 11th Ct

American Way

Powerline Rd

SW 30th Ave

Page 2

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.2** **2040 Without Powerline Road Ramps Alternative** **Lane Geometry**

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > Connector Lane Configuration
- 1 > Express Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

Matchline A

Matchline B

Connector Lanes

< 2 < 2 < 2 < 2 < 2 < 2 < 3

2 > 2 > 2 > 2 > 2 > 2 > 3 >

1 >

1 >

Page 1

Page 3

SW 10th St

Military Trail

East Drive

SW 28th Ave

SW 24th Ave

W. Driveway

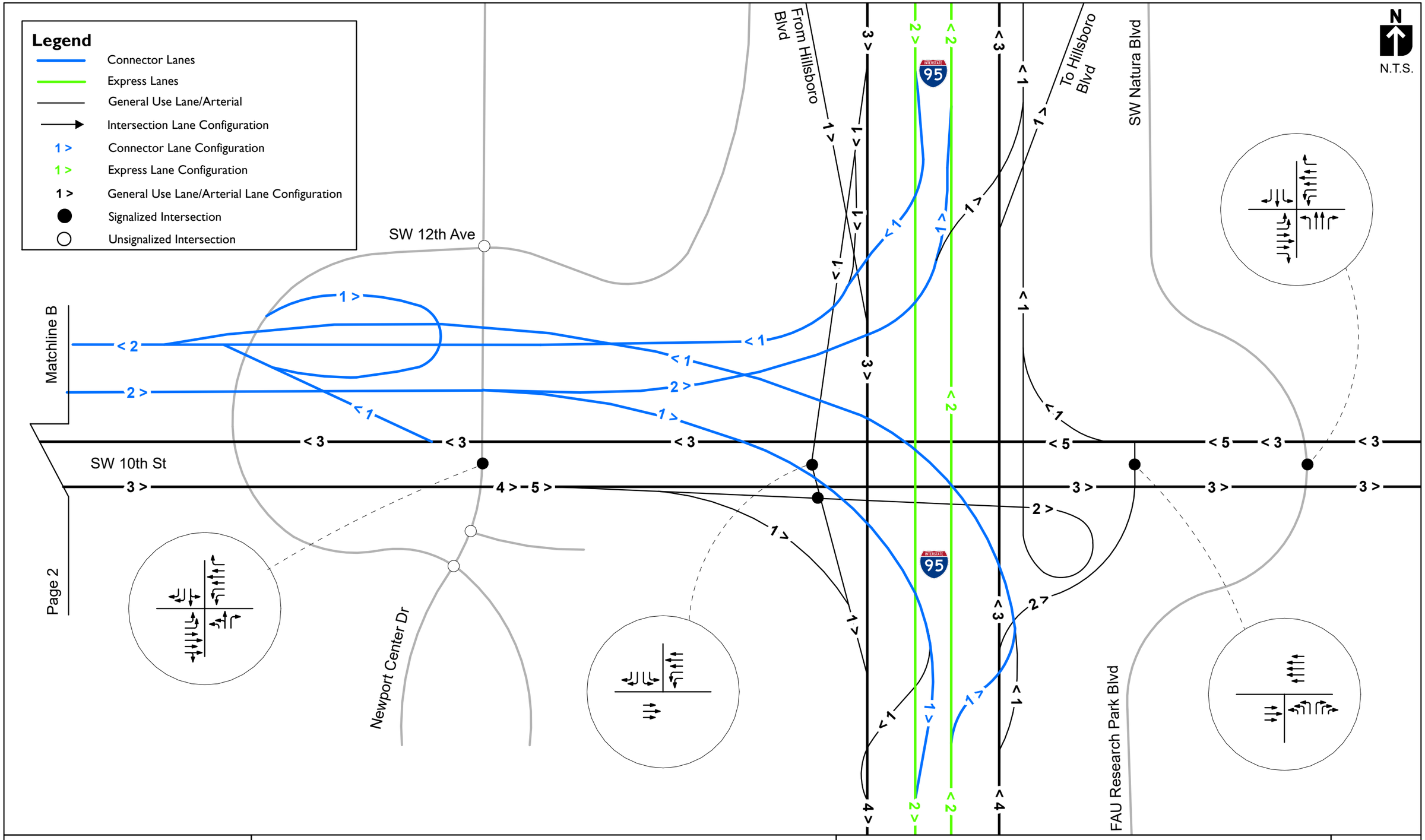
E. Driveway

Palm Trails Plaza

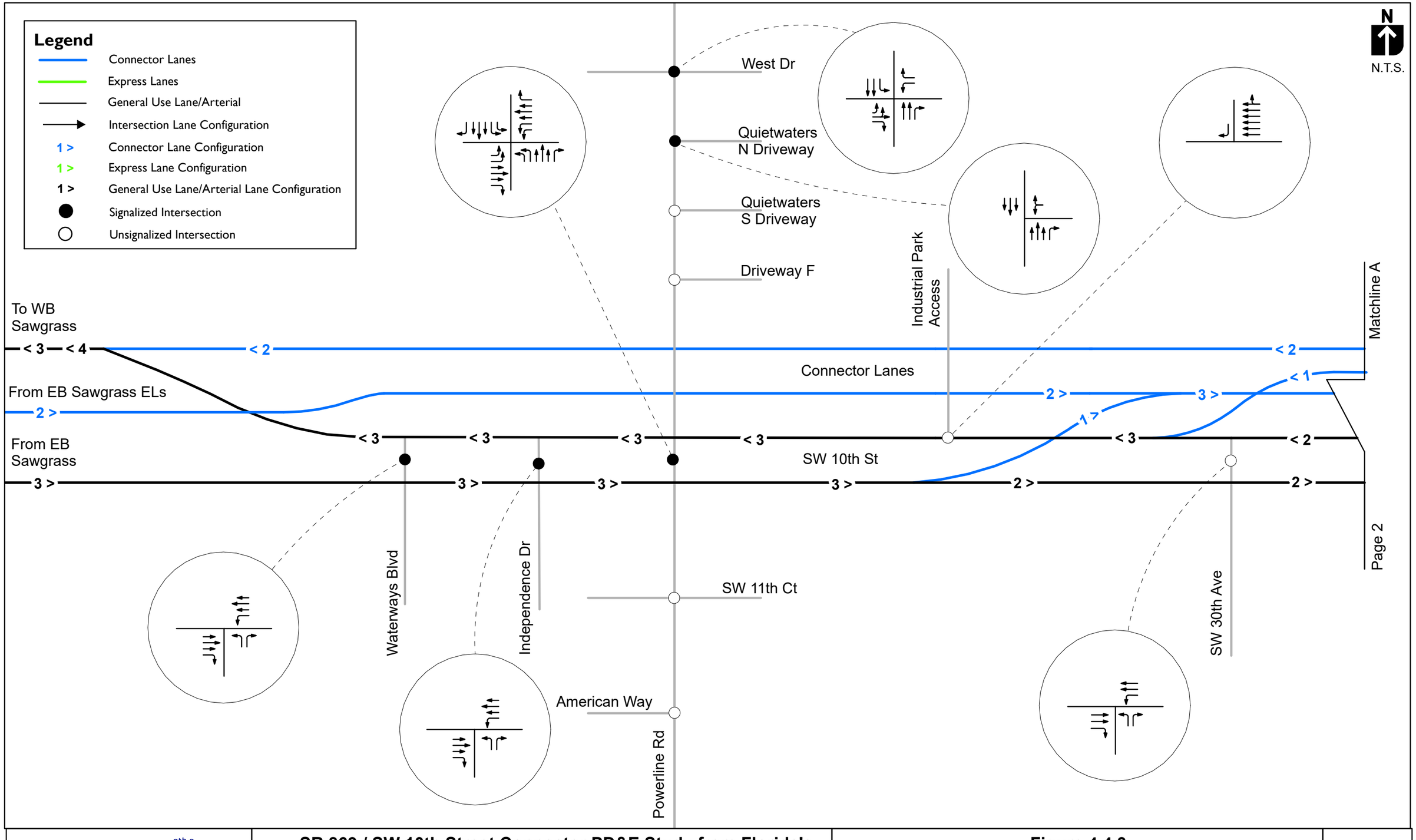
The Lakes at Deerfield Apts Driveway

Horizon Club Driveway

FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.2** **2040 Without Powerline Road Ramps Alternative** **Lane Geometry**



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.2** **2040 Without Powerline Road Ramps Alternative** **Lane Geometry**



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.3** **2040 With Powerline Road Ramps Alternative Lane Geometry**

Legend

- Connector Lanes
- Express Lanes
- General Use Lane/Arterial
- Intersection Lane Configuration
- 1 > Connector Lane Configuration
- 1 > Express Lane Configuration
- 1 > General Use Lane/Arterial Lane Configuration
- Signalized Intersection
- Unsignalized Intersection

N

N.T.S.

Matchline A

Matchline B

Connector Lanes

< 2

< 1

< 3

3 >

2 >

1 >

< 2 | < 2 | < 2 | < 2 | < 3

2 > | 2 > | 2 > | 2 > | 2 > | 3 >

Military Trail

East Drive

SW 10th St

Page 1

Page 3

SW 28th Ave

SW 24th Ave

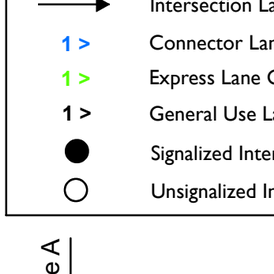
W. Driveway

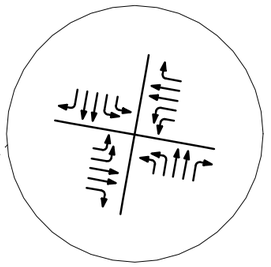
E. Driveway

Palm Trails Plaza

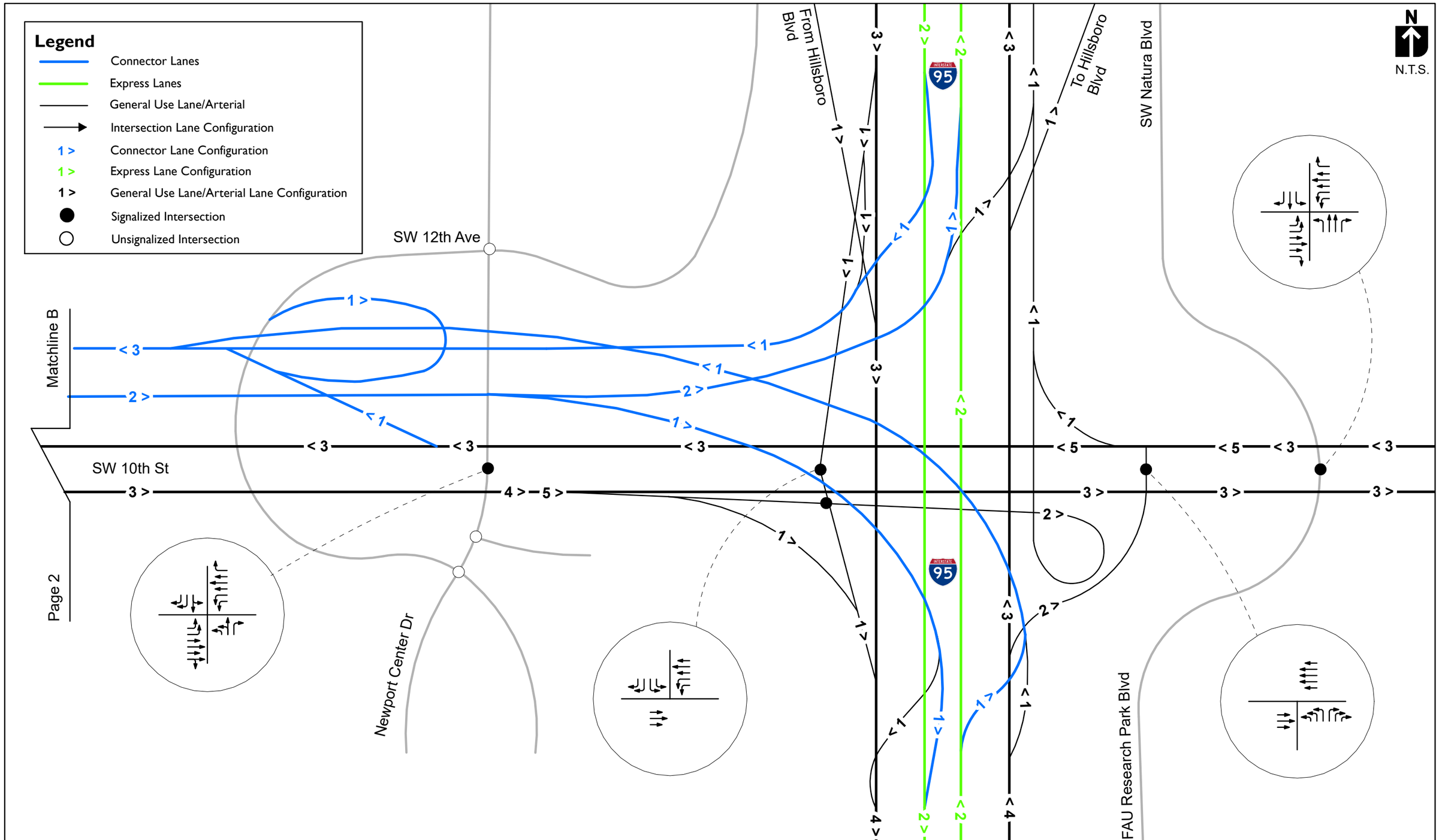
The Lakes at Deerfield Apts Driveway

Horizon Club Driveway





FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.3** **2040 With Powerline Road Ramps Alternative** **Lane Geometry**



FDOT / SW 10th Street Connector	**SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 4.4.3** **2040 With Powerline Road Ramps Alternative Lane Geometry**

Without Powerline Road Ramps Alternative

The resultant LOS and V/C ratios of the SW 10th Street local lanes for the Without Powerline Road Ramps Alternative are summarized in Table 4.4.1, while the managed lanes V/C is reported in Table 4.4.2.

Table 4.4.1: 2040 Without Powerline Rd Ramps Alternative – Local Lanes LOS & V/C

SW 10th Street Local Lane Segments		No. of	Volume		Capacity (1)	LOS(2)		V/C (3)	
	Location Description	Lanes	AM	PM		AM	PM	AM	PM
SW 10th Street Eastbound	West of Waterways Blvd	3	2,610	1,350	2,646	D	D	0.99	0.51
	Waterways Blvd to Independence Dr	3	2,835	1,330	2,646	F	D	1.07	0.50
	Independence Dr to Powerline Rd	3	2,855	1,285	2,646	F	D	1.08	0.49
	Powerline Rd to SW 28th Ave	2	1,520	1,385	1,712	D	D	0.89	0.81
	SW 28th Ave to SW 24th Ave	2	1,560	1,320	1,712	D	D	0.91	0.77
	SW 24th Ave to Military Trail	2	1,480	1,415	1,712	D	D	0.86	0.83
	Military Trail to eastbound managed lanes egress	2	2,205	1,730	1,712	F	F	1.29	1.01
	Eastbound managed lanes egress to Newport Center Dr	3	2,330	1,955	2,646	D	D	0.88	0.74
	Newport Center Dr to I-95 SB On-Ramp	4	1,965	2,490	3,560	D	D	0.55	0.70
	I-95 SB On-Ramp to I-95 NB Off-Ramp	3	1,300	1,220	2,646	D	D	0.49	0.46
	I-95 NB Off-Ramp to Natura Blvd	3	1,770	1,900	2,646	D	D	0.67	0.72
	East of Natura Blvd	3	1,625	1,820	2,646	D	D	0.61	0.69
SW 10th Street Westbound	West of Waterways Blvd	3	1,510	2,910	2,646	D	F	0.57	1.10
	Waterways Blvd to Independence Dr	3	1,380	3,070	2,646	D	F	0.52	1.16
	Independence Dr to Powerline Rd	3	1,340	3,050	2,646	D	F	0.51	1.15
	Powerline Rd to SW 28th Ave	2	1,525	2,110	1,712	D	F	0.89	1.23
	SW 28th Ave to SW 24th Ave	2	1,350	2,000	1,712	D	F	0.79	1.17
	SW 24th Ave to Military Trail	2	1,415	2,060	1,712	D	F	0.83	1.20
	Military Trail to Newport Center Dr/ westbound managed lanes ingress	3	1,775	2,195	2,646	D	D	0.67	0.83
	Newport Center Dr/westbound managed lanes ingress to I-95 SB Off-Ramp	3	2,765	2,060	2,646	F	D	1.04	0.78
	I-95 SB Off-Ramp to west of Natura Blvd	5	2,690	2,260	4,473	D	D	0.60	0.51
	West of Natura Blvd to east of Natura Blvd	3	2,210	2,060	2,646	D	D	0.84	0.78

NOTES
(1) Capacity thresholds from FDOT 2020 Generalized LOS Peak Hour Directional Volumes Table for Urbanized Areas at LOS D for Class II arterial (35 mph or less), with +5% capacity adjustment for right turn lanes. 5LD capacity estimated as 870 additional capacity added to 4LD capacity.
(2) LOS = Level of Service
(3) V/C = Ratio of Volume to Capacity

Table 4.4.2: 2040 Without Powerline Rd Ramps Alternative-Managed Lanes LOS & V/C

SW 10th Street Managed Lane Segments		No. of	Volume		Capacity (1)	V/C (2)	
	Location Description	Lanes	AM	PM		AM	PM
SW 10th Street Eastbound	From west of Waterways Blvd to off ramp east of Military Trail	2	3,630	2,280	3,800	0.96	0.60
	Eastbound off ramp east of Military Trail	1	490	320	1,550	0.32	0.21
	From off ramp east of Military Trail to I-95 direct-connect ramps	2	3,140	1,960	3,800	0.83	0.52
	Direct-connect ramp to northbound I-95 (EL and GP)	2	2,310	1,390	3,800	0.61	0.37
	Direct-connect ramp to southbound I-95 (EL and GP)	1	830	570	1,550	0.54	0.37
SW 10th Street Westbound	From west of Waterways Blvd to on ramp west of Newport Center Drive	2	2,120	3,330	3,800	0.56	0.88
	Direct-connect ramp from northbound I-95 (EL and GP)	1	530	910	1,550	0.34	0.59
	From I-95 NB direct-connect ramp to I-95 southbound direct-connect ramp/local lane ingress	2	1,590	2,420	3,800	0.42	0.64
	Direct-connect ramp from southbound I-95 (EL and GP)	1	1,300	1,820	1,550	0.84	1.17
	Westbound on ramp west of Newport Center Dr	1	285	565	1,550	0.18	0.36
	Westbound (loop) on ramp from Newport Center Dr	1	5	35	1,550	<0.01	0.02

NOTES:
(1) Capacity thresholds (pc/h/ln) from HCMV6.0 Exhibit 12-11 for 55 mph FFS Managed Lane Segments.
(2) V/C = Ratio of Volume to Capacity

Without Powerline Road Ramps Alternative: SW 10th Street Local Lanes

AM Peak Hour

The majority of eastbound traffic in the AM peak hour is estimated to be below capacity at LOS D, except for the segments from Waterways Boulevard to Powerline Road, and from Military Trail to the eastbound managed lanes egress. Westbound traffic will not reach capacity at LOS D except for one segment from Newport Center Drive to the southbound I-95 off-ramp. The eastbound and westbound volume-to-capacity ratios throughout the corridor are below 1.0 except in those segments previously noted.

PM Peak Hour

During the PM peak hour, eastbound traffic will not reach capacity at LOS D throughout the corridor, except for the segment from Military Trail to the managed lanes egress. Westbound traffic is expected to exceed capacity from Military Trail to west of Waterways Boulevard. The eastbound volume-to-capacity ratios throughout the corridor are below 1.0 except in those segments previously noted. The westbound volume-to-capacity ratios are below 1.0 east of Military Trail.

The results in Table 4.4.1 indicate that the SW 10th Street local lanes will generally allow traffic to move freely (at LOS D or better in the peak hours), except for a few segments during the peak hours and potentially westbound west of Military Trail in the PM Peak. However, on those segments where the volumes exceed capacity, the magnitude is much less than under the No-Build Alternative. The additional capacity along SW 10th Street will improve local traffic flow.

Without Powerline Road Ramps Alternative: SW 10th Street Managed Lanes

Table 4.4.2 shows the SW 10th Street managed lanes Without Powerline Road Ramps Alternative peak hour directional volume-to-capacity analysis. Most managed lane segments are expected to have a volume-to-capacity ratio less than 1.0. This indicates that the capacity provided by two lanes in each direction, can accommodate the demand forecasted for the managed lanes. The capacity of the one-lane intermediate entrance and exit ramps west of Newport Center Drive will accommodate the forecasted future volumes. The southbound to westbound one-lane direct connect ramp, however, is overcapacity in the PM peak hour.

With Powerline Road Ramps Alternative

The resultant LOS and V/C ratios of the SW 10th Street local lanes for the With Powerline Road Ramps Alternative are summarized in Table 4.4.3, while the managed lanes V/C is reported in Table 4.4.4.

Table 4.4.3: 2040 With Powerline Rd Ramps Alternative – Local Lanes LOS & V/C

SW 10th Street Local Lane Segments		No. of	Volume		Capacity (1)	LOS(2)		V/C (3)	
	Location Description	Lanes	AM	PM		AM	PM	AM	PM
SW 10th Street Eastbound	West of Waterways Blvd	3	2,710	1,920	2,646	F	D	1.02	0.73
	Waterways Blvd to Independence Dr	3	2,935	1,900	2,646	F	D	1.11	0.72
	Independence Dr to Powerline Rd	3	2,955	1,855	2,646	F	D	1.12	0.70
	Powerline Rd to eastbound managed lanes ingress	3	1,620	1,875	2,646	D	D	0.61	0.71
	Eastbound managed lanes ingress to SW 28th Ave	2	710	805	1,712	C	D	0.41	0.47
	SW 28th Ave to SW 24th Ave	2	750	740	1,712	D	D	0.44	0.43
	SW 24th Ave to Military Trail	2	670	835	1,712	C	D	0.39	0.49
	Military Trail to eastbound managed lanes egress	2	1,395	1,150	1,712	D	D	0.82	0.67
	Eastbound managed lanes egress to Newport Center Dr	3	2,090	1,805	2,646	D	D	0.79	0.68
	Newport Center Dr to I-95 SB On-Ramp	4	1,725	2,340	3,560	D	D	0.48	0.66
	I-95 SB On-Ramp to I-95 NB Off-Ramp	3	1,300	1,220	2,646	D	D	0.49	0.46
	I-95 NB Off-Ramp to Natura Blvd	3	1,770	1,900	2,646	D	D	0.67	0.72
	East of Natura Blvd	3	1,625	1,820	2,646	D	D	0.61	0.69
SW 10th Street Westbound	West of Waterways Blvd	3	1,920	2,710	2,646	D	F	0.73	1.02
	Waterways Blvd to Independence Dr	3	1,790	2,870	2,646	D	F	0.68	1.08
	Independence Dr to Powerline Rd	3	1,750	2,850	2,646	D	F	0.66	1.08
	Powerline Rd to SW 30th Ave/ westbound managed lanes egress	3	1,935	1,910	2,646	D	D	0.73	0.72
	SW 30th Ave/westbound managed lanes egress to SW 28th Ave	2	960	1,125	1,712	D	D	0.56	0.66
	SW 28th Ave to SW 24th Ave	2	770	1,180	1,712	D	D	0.45	0.69
	SW 24th Ave to Military Trail	2	835	1,240	1,712	D	D	0.49	0.72
	Military Trail to Newport Center Dr/ westbound managed lanes ingress	3	1,195	1,375	2,646	D	D	0.45	0.52
	Newport Center Dr/westbound managed lanes ingress to I-95 SB Off-Ramp	3	2,565	1,810	2,646	D	D	0.97	0.68
	I-95 SB Off-Ramp to west of Natura Blvd	5	2,610	2,110	4,473	D	D	0.58	0.47
	West of Natura Blvd to east of Natura Blvd	3	2,210	2,060	2,646	D	D	0.84	0.78

NOTES
(1) Capacity thresholds from FDOT 2020 Generalized LOS Peak Hour Directional Volumes Table for Urbanized Areas at LOS D for Class II arterial (35 mph or less), with +5% capacity adjustment for right turn lanes. 5LD capacity estimated as 870 additional capacity added to 4LD capacity.
(2) LOS = Level of Service
(3) V/C = Ratio of Volume to Capacity

Table 4.4.4: 2040 With Powerline Rd Ramps Alternative – Managed Lanes LOS & V/C

SW 10th Street Managed Lane Segments		No. of	Volume		Capacity (1)	V/C (2)	
	Location Description	Lanes	AM	PM		AM	PM
SW 10th Street Eastbound	From west of Waterways Blvd to on ramp west of SW 30th Ave	2	3,530	1,710	3,800	0.93	0.45
	Eastbound on ramp west of SW 30th Ave	1	910	1,150	1,550	0.59	0.74
	From on ramp west of SW 30th Ave to off ramp east of Military Trail	3	4,440	2,860	5,700	0.78	0.50
	Eastbound off ramp east of Military Trail	1	1,060	750	1,550	0.68	0.48
	From off ramp east of Military Trail to I-95 direct-connect ramps	2	3,380	2,110	3,800	0.89	0.56
	Direct-connect ramp to northbound 95 express	2	2,400	1,480	3,800	0.63	0.39
	Direct-connect ramp to southbound 95 express	1	980	630	1,550	0.63	0.41
SW 10th Street Westbound	From west of Waterways Blvd to off ramp west of SW 24th Ave	2	1,710	3,530	3,800	0.45	0.93
	Westbound off ramp west of SW 24th Ave	1	990	620	1,550	0.64	0.40
	From off ramp west of SW 24th Ave to on ramp west of Newport Center Drive	3	2,700	4,150	5,700	0.47	0.73
	Direct-connect ramp from northbound I-95 (EL and GP)	1	610	1,060	1,550	0.39	0.68
	From I-95 NB direct-connect ramp to I-95 southbound direct-connect ramp/local lane ingress	2	2,090	3,090	3,800	0.55	0.81
	Direct-connect ramp from southbound I-95 (EL and GP)	1	1,420	1,920	1,550	0.92	1.24
	Westbound on ramp west of Newport Center Dr	1	665	1,135	1,550	0.43	0.73
	Westbound (loop) on ramp from Newport Center Dr	1	5	35	1,550	<0.01	0.02

NOTES:
(1) Capacity thresholds (pc/h/ln) from HCMV6.0 Exhibit 12-11 for 55 mph FFS Managed Lane Segments.
(2) V/C = Ratio of Volume to Capacity

With Powerline Road Ramps Alternative: SW 10th Street Local Lanes

AM Peak Hour

The majority of eastbound traffic in the AM peak hour under the With Powerline Road Ramps Alternative will be less than the capacity threshold at LOS D, except for the segments from west of Waterways Boulevard to Powerline Road. Westbound traffic will be less than capacity at LOS D for all segments. The eastbound and westbound volume-to-capacity ratios throughout the corridor are below 1.0 except in those segments previously noted.

PM Peak Hour

During the PM peak hour, eastbound traffic will be less than capacity at LOS D throughout the corridor, with volume-to-capacity ratios below 1.0. Westbound traffic will be less than capacity at LOS D, except between Powerline Road and west of Waterways Boulevard.

The results in Table 4.4.3 indicate that the SW 10th Street local lanes will generally allow traffic to move freely (at LOS D or better), except for a few segments during the peak hours. However, on those few segments where the volumes exceed capacity, the magnitude is much less than under the No-Build Alternative. The additional capacity along SW 10th Street will improve local traffic flow.

With Powerline Road Ramps Alternative: SW 10th Street Managed Lanes

Table 4.4.4 shows the SW 10th Street managed lanes With Powerline Road Ramps Alternative peak hour directional volume-to-capacity analysis. Most managed lane segments are expected to have a volume-to-capacity ratio less than 1.0. This indicates that the capacity provided by two lanes in each direction, along with an auxiliary lane between the ingress and egress points, can accommodate the demand forecasted for the managed lanes. The capacity of the one-lane intermediate entrance and exit ramps between Powerline Road and Newport Center Drive will accommodate the forecasted future volumes. The southbound to westbound one-lane direct connect ramp, however, is overcapacity in the PM peak hour.

4.4.2.2 2040 VISSIM Analysis

VISSIM microsimulation for the No-Build Alternative and Build Alternatives was also completed to analyze and compare the operations of the SW 10th Street study corridor. The 2040 VISSIM analysis included the local lanes, signalized intersections, managed lanes freeway segments, and entry and exit ramps. The detailed VISSIM microsimulation operational analysis is documented in the PTAR and findings are summarized below.

VISSIM analysis of the Build Alternatives for the 2040 AM and PM peak hours shows substantial benefits when compared to the No-Build Alternative.

Intersection Analysis

Intersection Analysis – AM Peak Hour

The 2040 AM peak hour VISSIM analysis indicates the following SW 10th Street intersections will operate below the LOS D target under the No-Build Alternative, as shown in Table 4.4.5:

- Waterways Boulevard intersection (LOS F); and
- Powerline Road intersection (LOS F).

The Build Alternatives' 2040 AM peak hour results show all study area intersections operating at an acceptable level of service (D or better). Table 4.4.6 and Table 4.4.7 show the AM peak hour intersection operational results for the Without Powerline Road Ramps Alternative and With Powerline Road Ramps Alternative, respectively.

Intersection Analysis – PM Peak Hour

The No-Build Alternative 2040 PM peak hour findings indicate the following SW 10th Street intersections are expected to operate below the LOS D target, as shown in Table 4.4.5:

- Waterways Boulevard intersection (LOS F);
- Independence Drive intersection (LOS E);
- Powerline Road intersection (LOS F);
- SW 30th Avenue intersection (LOS E);
- SW 28th Street intersection (LOS F);
- Military Trail intersection (LOS F);
- Newport Center Drive intersection (LOS F);

- I-95 ramps terminal intersections (LOS F);
- Natura Boulevard intersection (LOS F)

During the 2040 PM peak hour, all but one of the study area intersections will operate at LOS E or F under the No-Build Alternative. The PM peak hour results for the Build Alternatives indicate that all study area intersections operate at an acceptable level of service (D or better). Table 4.4.6 and Table 4.4.7 show the PM peak hour intersection operational results for the Without Powerline Road Ramps Alternative and With Powerline Road Ramps Alternative, respectively.

Table 4.4.5: No-Build Alternative Intersection Analysis

SW 10th Street Intersection		Measure	AM	PM
Waterways Blvd	Signalized	LOS	F	F
		Delay (sec)	144.8	200+
Independence Dr	Signalized	LOS	C	E
		Delay (sec)	29.3	74.9
Powerline Rd	Signalized	LOS	F	F
		Delay (sec)	89.5	141.9
SW 30th Ave	Unsignalized	LOS	C	E
		Delay (sec)	15.5	43.9
SW 28th Ave	Signalized	LOS	D	F
		Delay (sec)	43.8	106.3
SW 24th Ave	Unsignalized	LOS	B	B
		Delay (sec)	14.4	11.7
Military Trail	Signalized	LOS	D	F
		Delay (sec)	54.1	200+
Newport Center Dr	Signalized	LOS	C	F
		Delay (sec)	30.7	167.5
I-95 Ramps	Signalized	LOS	D	F
		Delay (sec)	47.9	200+
Natura Blvd	Signalized	LOS	D	F
		Delay (sec)	42.9	200+

NOTE: Intersection LOS estimated based on VISSIM node delay results and HCM intersection LOS delay thresholds for signalized intersections and stop controlled intersections.

Table 4.4.6: Without Powerline Road Ramps Alternative Intersection Analysis

SW 10th Street Intersection		Measure	AM	PM
Waterways Blvd	Signalized	LOS	B	B
		Delay (sec)	12.1	10.4
Independence Dr	Signalized	LOS	A	A
		Delay (sec)	6.7	3.7
Powerline Rd	Signalized	LOS	D	D
		Delay (sec)	49.6	50.1
SW 30th Ave	Unsignalized	LOS	A	A
		Delay (sec)	2.8	2.4
SW 28th Ave	Signalized	LOS	B	B
		Delay (sec)	11.9	14.0
SW 24th Ave	Unsignalized	LOS	A	A
		Delay (sec)	1.5	1.3
Military Trail	Signalized	LOS	D	D
		Delay (sec)	49.4	54.2
Newport Center Dr	Signalized	LOS	D	D
		Delay (sec)	44.2	40.8
I-95 Ramps	Signalized	LOS	D	D
		Delay (sec)	44.5	37.5
Natura Blvd	Signalized	LOS	D	D
		Delay (sec)	41.5	46.3

NOTE: Intersection LOS estimated based on VISSIM node delay results and HCM intersection LOS delay thresholds for signalized intersections and stop controlled intersections

Table 4.4.7: With Powerline Road Ramps Alternative Intersection Analysis

SW 10th Street Intersection		Measure	AM	PM
Waterways Blvd	Signalized	LOS	B	B
		Delay (sec)	11.7	11.6
Independence Dr	Signalized	LOS	A	A
		Delay (sec)	9.8	3.3
Powerline Rd	Signalized	LOS	D	D
		Delay (sec)	51.6	54.2
SW 30th Ave	Unsignalized	LOS	A	A
		Delay (sec)	1.3	2.3
SW 28th Ave	Signalized	LOS	B	B
		Delay (sec)	18.3	14.6
SW 24th Ave	Unsignalized	LOS	A	A
		Delay (sec)	1.1	0.8
Military Trail	Signalized	LOS	D	D
		Delay (sec)	46.8	48.6
Newport Center Dr	Signalized	LOS	C	D
		Delay (sec)	29.1	36.7
I-95 Ramps	Signalized	LOS	D	C
		Delay (sec)	43.2	32.6
Natura Blvd	Signalized	LOS	D	D
		Delay (sec)	42.7	48.4

NOTE: Intersection LOS estimated based on VISSIM node delay results and HCM intersection LOS delay thresholds for signalized intersections and stop controlled intersections

Link Evaluation

AM Peak Hour

The No-Build Alternative and Build Alternatives 2040 AM and PM peak hour operations along SW 10th Street were evaluated in terms of average travel speed. During the 2040 AM peak hour, the No-Build Alternative is characterized by high levels of congestion in both directions of travel on SW 10th Street. This is caused by extensive queueing originating at the Powerline Road intersection, which results in low speeds throughout the network.

The Build Alternatives each show significantly reduced queuing across the entire network. Local lane speeds are consistent with the expected speed limit (35 mph) in both directions on SW 10th Street and the managed lanes will operate at free-flow speeds.

PM Peak Hour

For the No-Build Alternative, the 2040 PM peak hour results revealed severe queuing and traffic metering along the SW 10th Street corridor in both directions. Queues originating at the Powerline Road intersection cause network-wide gridlock along the corridor. In the westbound direction, this impacts most of the intersecting side streets and arterials along SW 10th Street, as well as mainline operations in both directions on I-95. Additionally, the southbound I-95 ramp terminal and direct connect ramps from I-95 to SW 10th Street experience congestion, which extends to both the I-95 southbound general use lanes and express lanes.

The Build Alternatives, however, provide significantly improved performance in both directions on SW 10th Street during the future 2040 PM peak hour. Local lane speeds are appropriate, and the managed lanes operate at free-flow speeds. Additionally, the Build Alternatives prevent queuing on the I-95 off-ramps and ensures the direct connect ramps do not impact the I-95 mainline or managed lane performance.

The addition of the managed lanes removes a significant portion of the demand on the SW 10th Street local lanes, allowing those drivers and the surrounding facilities to operate with significantly less delay. The reduction of volume on the SW 10th Street local lanes minimizes bottlenecks that severely impact the I-95 general purpose lanes and I-95 managed lane facilities that are apparent under the No-Build Alternative.

Managed Lanes Ingress/Egress Weave Evaluation

The With Powerline Road Ramps Alternative includes a weaving section between the managed lane intermediate ingress and egress locations in the eastbound direction and in the westbound direction. To analyze the operations, the densities and speeds of vehicles traveling through these sections of the managed lanes were evaluated. The managed lanes will operate acceptably with an auxiliary lane (third lane) provided between the ingress and egress ramps to accommodate vehicles, including truck traffic, expected to enter the managed lanes and then immediately exit the connector.

Weave Evaluation – AM Peak Hour

During the 2040 AM peak, in the eastbound direction, LOS D or better is maintained for all segments, including the two-lane segment prior to the ingress point, the three lane segment between the managed lane ingress and egress points, and the two lane segment past the egress point. In the westbound direction, LOS D or better is achieved for all segments as well. All individual lanes in the eastbound and westbound directions experience average speeds of 50 mph or higher.

Weave Evaluation – PM Peak Hour

In both the eastbound and westbound directions, LOS D or better is maintained for all segments before, after, and between the managed lane ingress and egress points. The eastbound and westbound individual lanes all have average speeds of 50 mph or higher.

Travel Times

The 2040 Build Alternatives' peak hour peak direction travel time for vehicles on SW 10th Street local lanes between Florida's Turnpike and I-95 in the eastbound direction during the AM peak hour is estimated to take between seven and eight minutes, which is identical to the westbound travel time during the PM peak hour. When compared with the 2040 No-Build travel times of 12 to 13 minutes in the eastbound direction during the AM peak hour, and more than 30 minutes in the westbound direction during the PM peak hour, this represents a significant travel time savings. The average travel time is 3 to 5 minutes less in the AM for eastbound traffic, and more than 20 minutes less in the PM for westbound traffic. The congestion seen throughout the network on the local lanes under the No-Build Alternative is addressed with either Build Alternative.

The average travel time savings is even greater for traffic taking the SW 10th Street managed lanes in either 2040 Build Alternative. Compared with travel times under the No-Build Alternative, the Build Alternatives' managed lane travel time savings are eight to ten minutes for eastbound traffic during the AM peak hour, and more than 25 minutes for westbound traffic during the PM peak hour.

4.4.2.3 Summary of Results

Future traffic volumes along the SW 10th Street corridor between Florida's Turnpike and I-95 are expected to increase due to the expected population and employment growth in the region. In addition, the adjacent interchange improvements and new ramps connecting to SW 10th Street on both ends of the corridor will facilitate an increase in traffic along the roadway. Additional capacity along SW 10th Street provided by the new managed lanes is expected to accommodate at least 49% of the total SW 10th Street corridor traffic. Removing this traffic from the local lanes by allowing it to use the managed lanes provides a significant benefit to operations along the SW 10th Street local lanes. These benefits include reduced delays and queues experienced by the motoring public.

The results of the local lane and managed lane traffic analysis shows that the Build Alternatives satisfy the objectives and purpose and need of this project. The Build Alternatives increase capacity throughout the corridor and improves traffic flow in the local lanes by providing a separate managed lane facility. This reduces the future 2040 traffic volumes in the local lanes. Allowing trucks in the managed lanes, and not tolling the connector, will maximize the utilization of the new connector lanes and allow the majority of traffic to essentially bypass portions of the local lanes, which will significantly alleviate traffic congestion in the local lanes, reduce delays, and improve the operations of the overall corridor. Improving operations in the local lanes will also help address existing corridor safety deficiencies associated with excessive congestion.

In addition to the benefits noted above for both Build Alternatives, the Build Alternative With Powerline Road Ramps, provides managed lane access east of Powerline Road. This encourages additional traffic to enter and exit the managed lanes at this point, which further lowers the volume in the local lanes, and provides enhanced access for local trips.

4.5 Tier 1 Alternatives

This PD&E Study commenced by evaluating a SW 10th Street corridor with two distinct envelopes within the existing right-of-way:

- One envelope for local lanes; and
- A second envelope for managed lanes connecting the Sawgrass Expressway with I-95.

Based on the COAT recommendations, the initial alternatives in this PD&E study focuses on a managed lane alternative that features a managed lane profile that is one "level" below the existing ground (i.e., a "depressed" section) in conjunction with an adjacent local road system. This depressed section is commensurate with the COAT recommendations in Table 4.1.1, specifically:

- No. 4 – Include a below-grade expressway with at-grade local access roads;
    - No. 4.1 – Include extending below-grade expressway west of westerly residential roadway connection to SW 10th Street;
    - No. 4.2 – Include extending below-grade expressway as close to Military Trail as possible that would allow Military Trail intersection to remain at-grade (no overpass of Military Trail over expressway);
- No. 5 – Minimize and attempt to eliminate the use of above-grade overpasses where adjacent to residential areas;
- No. 8 – Include generous table-top intersections for local roads to improve pedestrian and bicycle connectivity north and south across SW 10th Street; and

The COAT also requested that the local lanes be lower speed with pedestrian and bicycle features, aesthetic treatments, and generous landscaping. The proposed design speed of the local and managed lanes are 35 mph and 60 mph, respectively. The discussion on context classification is contained in Section 3.1.

Subsequent to the Public Kickoff Meeting held November 15, 2017, two primary alternatives, a "North Alternative" and a "Center Alternative" were developed and carried forward to the Alternatives Public Workshop No. 1 held on April 24, 2018. Both alternatives feature two distinct roadway facilities within the existing right-of-way corridor– one for managed lanes and a second for local lanes.

Both alternatives utilized the following typical section dimensions:

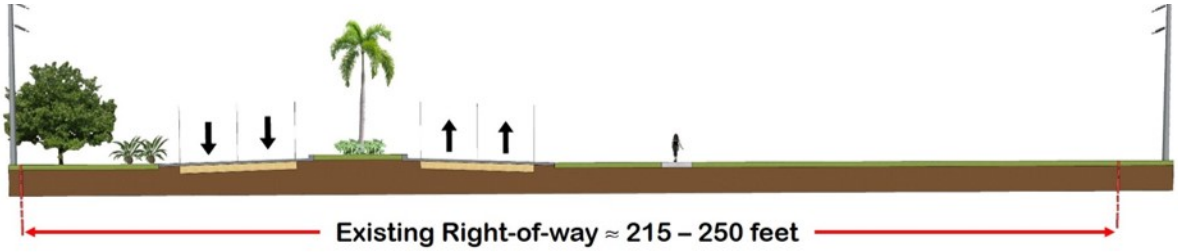
- Managed lanes:
  - Four 12-foot-wide managed lanes (two in each direction);
    - Depressed section from west of Powerline Road to east of SW 28th Avenue;
  - One auxiliary lane in each direction connecting the local entrance and exit ramps; and
  - Eight-foot inside shoulders and 12-foot outside shoulders.
- Local lanes:
  - Two 11-foot through lanes in each direction;
  - Median width of 15.5 to 22 feet where applicable;
  - Seven-foot buffered bicycle lane; and
  - Six-foot sidewalk.

The two alternatives are described in detail below and can be distinguished from each other by the location of the managed lanes within the existing right-of-way.

4.5.1 Center Alternative

As seen in Figure 4.5.1, the existing right-of-way width ranges from 215 to 250 feet. This distance is generally sufficient to accommodate four managed lanes and four local lanes. However, when ingress/egress ramps and auxiliary lanes are added, additional right-of-way is needed, although this proposed right-of-way is generally limited to narrow slivers of acquisition along the corridor.

Figure 4.5.1: Existing Right-of-Way

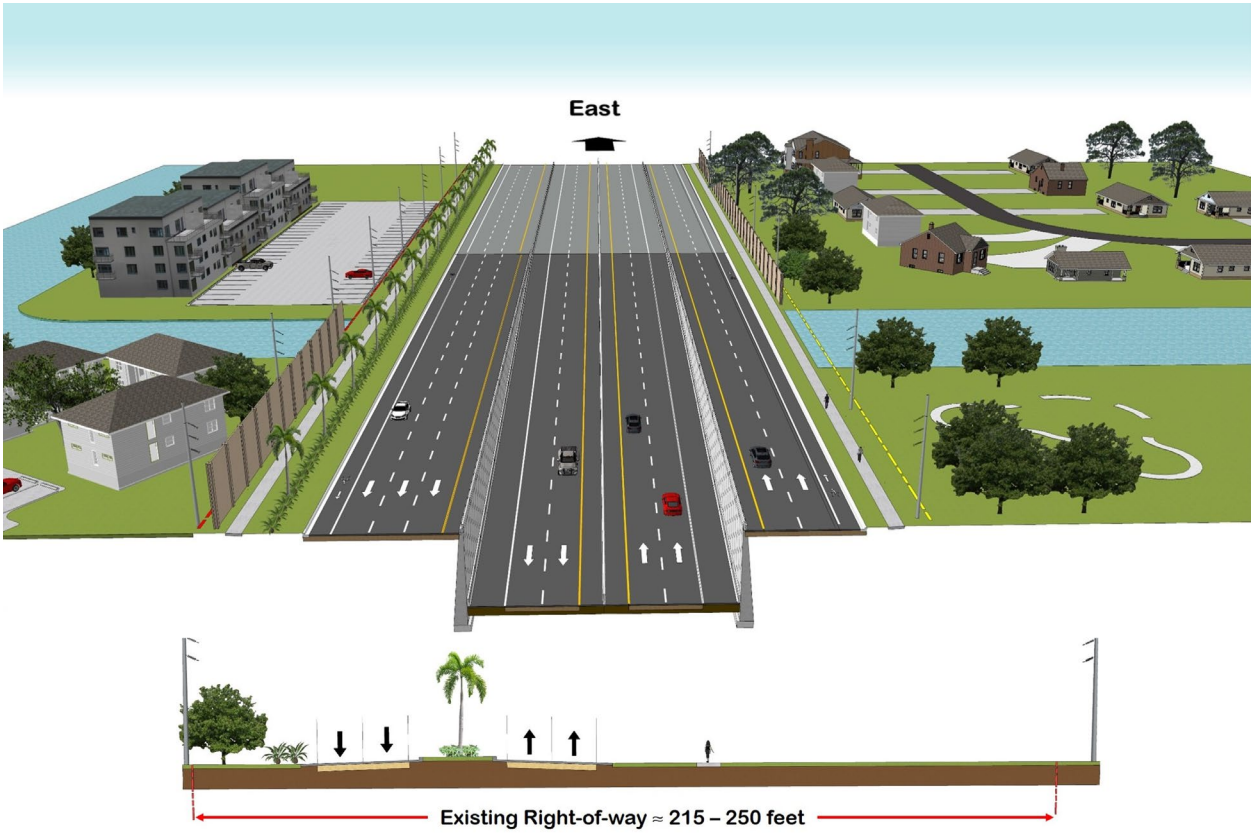


A noteworthy point is that the existing local lanes are positioned towards the north side of the existing right-of-way line as seen in Figure 4.5.1. FP&L also maintains an aerial transmission line with the poles located just outside of the existing right-of-way and within the Century Village community. The aerial lines and supporting arms protrude over the landscaping located along the north right-of-way line. The location of this transmission line is a major constraint and causes both the Center and North Alternatives to hold this right-of-way line and impact the south side of the corridor, if necessary. A smaller FP&L transmission line is located inside of the south side right-of-way line as shown in Figure 4.5.2.

Figure 4.5.2: Existing Corridor Showing FP&L Transmission Lines (Looking East)

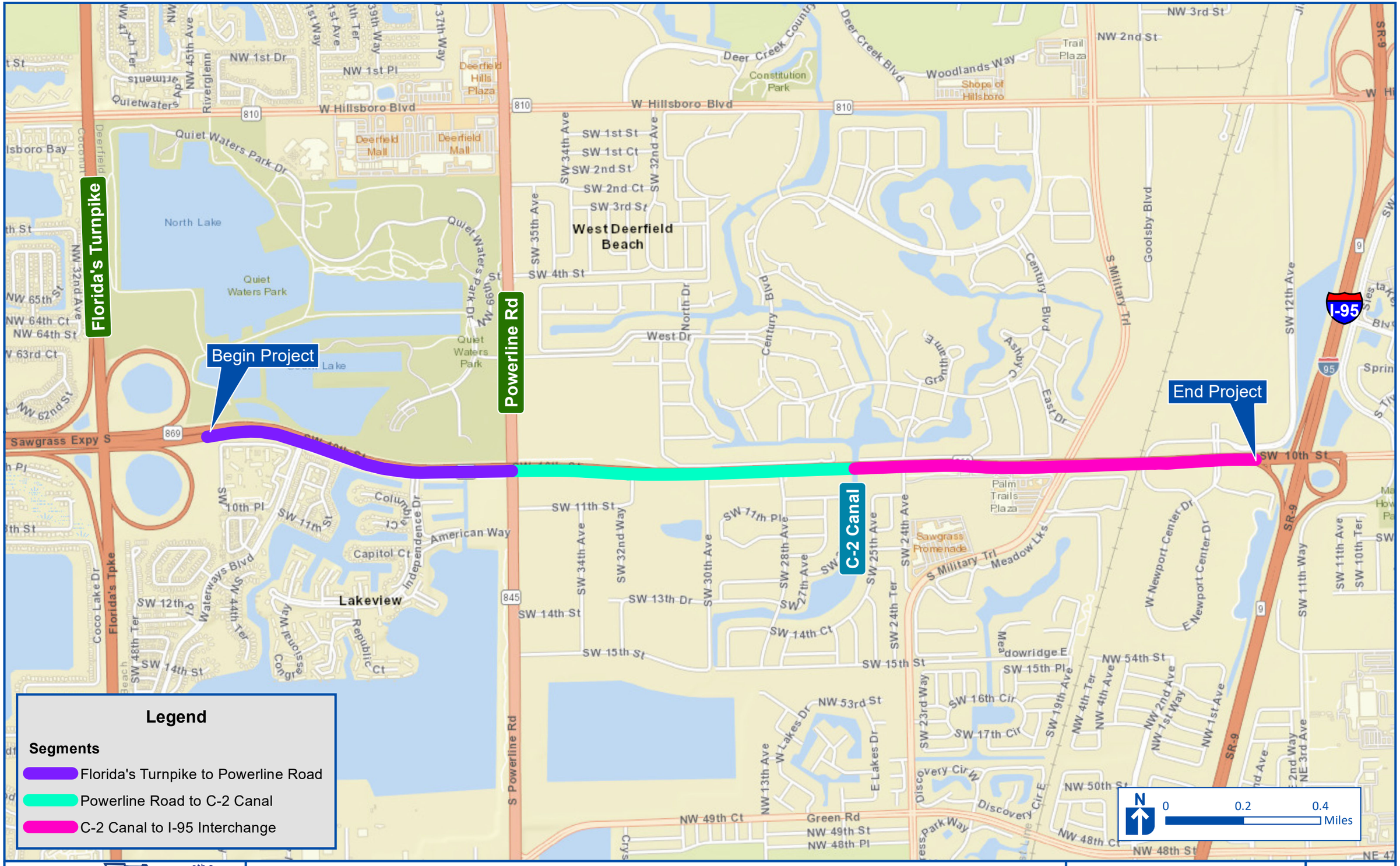
As can be seen in Figure 4.5.3, the local lanes are reconstructed as one-way frontage roads on either side of the managed lanes, which are located generally within the center of the existing right-of-way.

Figure 4.5.3: Center Alternative Typical Section



This alternative positions the managed lanes in the center of the existing right-of-way. One-way frontage roads are located on each side of the managed lanes to facilitate local access. For the purposes of explaining the concepts, the corridor can be subdivided into three general segments, as seen in Figure 4.5.4:

- Florida's Turnpike to just east of Powerline Road;
- Just east of Powerline Road to the C-2 Canal; and
- The C-2 Canal to the I-95 interchange.



Legend

Segments

- Florida's Turnpike to Powerline Road
- Powerline Road to C-2 Canal
- C-2 Canal to I-95 Interchange

N 0 0.2 0.4 Miles

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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Figure 4.5.4
SW 10th Street Segment Map

The following discussion describes the Center Alternative in each of the aforementioned segments.

Florida's Turnpike to just East of Powerline Road

At the western project limit, the Center Alternative begins with a tie-in to the existing Sawgrass Expressway. In the eastbound direction, the mainline Sawgrass Expressway forms four lanes; the inside two become the two eastbound managed lanes that convey traffic to I-95 through the SW 10th Street corridor. The outside two lanes form the beginning of the local SW 10th Street eastbound through lanes. A ramp emanating from the existing collector-distributor system through the interchange with Florida's Turnpike forms an outer third lane, which ends and merges into the inside two local lanes just east of the Powerline Road intersection.

A short overpass carries the managed lanes over an at-grade intersection of the two frontage roads and Waterways Boulevard, thereby allowing residents of the Waterways community full access to and from the Sawgrass Expressway to the west and local SW 10th Street to the east. The managed lanes profile grade line continues downward underground such that the profile passes beneath an at-grade Powerline Road intersection. An important point to note is that, unlike the Waterways Boulevard intersection, the Independence Drive intersection has access to only the local eastbound SW 10th Street frontage road. The downgrading profile grade line in the vicinity of Independence Bay precludes a full intersection from being accommodated, since accommodating another overpass while passing beneath Powerline Road is not feasible when considering the maximum allowable profile grades.

In the westbound direction, three local through lanes are carried across the Powerline Road intersection. The inside lane accommodates left-turning vehicles into Waterways Boulevard and ultimately ends just west of this intersection. The remaining two through lanes continue to the Florida's Turnpike interchange, where the outer-most lane forms the beginning of the westbound collector-distributor system, while the inside lane joins the two westbound managed lanes to form three managed lanes continuing westward.

No direct impacts to Quiet Waters Park were identified, although the ground anchors needed to stabilize the temporary sheet piling for construction of the depressed managed lanes

extend beyond the north-side existing right-of-way line by approximately 80 feet. The depressed section traversing beneath Powerline Road, must also pass beneath the C-3 Canal located just west of the Powerline Road intersection. In order to eliminate a direct use impact to Quiet Waters Park, the south side of the roadway requires acquisition of right-of-way. This right-of-way impacts the existing frontage along the Independence Bay community retention ponds as well as narrow right-of-way acquisitions from the sports complex and Shell gas station. Narrow strips of right-of-way are also required on each side of Powerline Road.

The Center Alternative features managed lanes centered between two one-way local SW 10th Street lanes that are based on the FDOT standard urban typical section except for the median treatment. These local lanes feature seven-foot buffered bicycle lanes and six-foot sidewalks on both sides of the corridor. At the intersection with Waterways Boulevard, the outside paved shoulder adjacent to the three through lanes is converted to a seven-foot buffered bicycle lane in the eastbound direction. Conversely, the buffered bicycle lane transitions to a full-width shoulder in the westbound direction at this intersection, where both sets of sidewalks terminate.

The Powerline Road intersection features triple left-turn lanes on all four legs of the intersection. The southbound right-turn lane requires two lanes, and right-turn on red will not be permitted. Because the managed lanes pass beneath Powerline Road, advanced U-turns can be accommodated by lengthening the structure over the depressed managed lanes and adding a spur emanating from the eastbound and westbound inside left turn lanes. The unused portion of the structure can be used for landscaping, also known as a "landscape lid." The intersection would function similar to a Single Point Urban Interchange (SPUI).

Just East of Powerline Road to the C-2 Canal

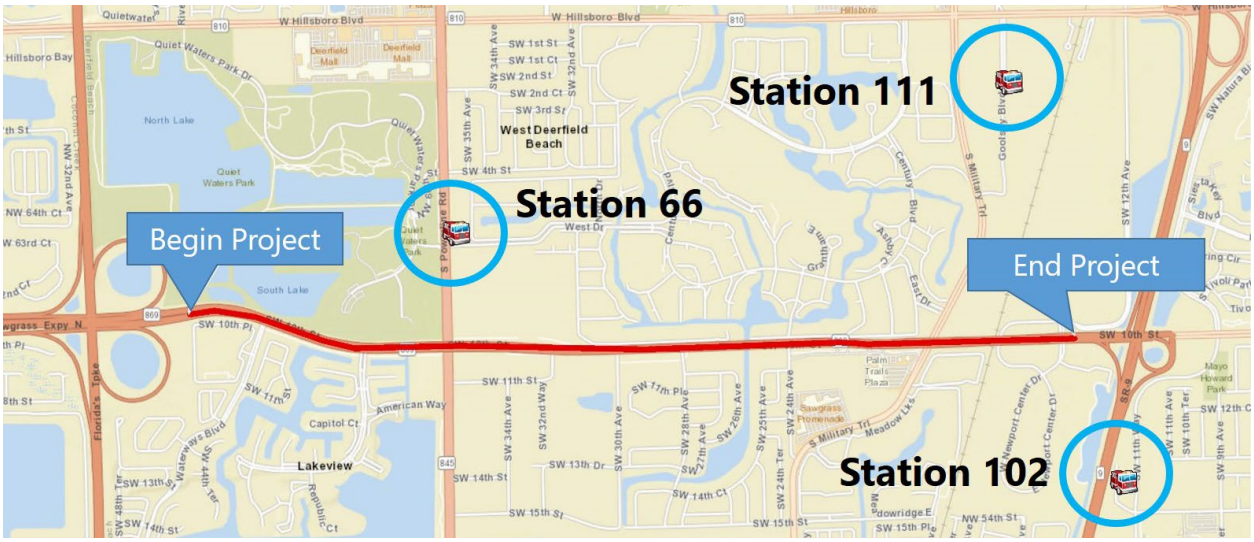
Moving eastward from Powerline Road to the C-2 Canal, the westbound triple left-turn lanes are partially cantilevered over the depressed managed lanes. By extending beams across the managed lanes for several hundred feet past the advanced U-turn, the managed lanes are "tucked" beneath the westbound triple left turn lane in order to reduce right-of-way impacts on the north side. As can be seen in Figure 4.5.5, this encroachment of the at-grade left-turn lanes atop the depressed managed lanes is facilitated by beams exposed to the open air rather than covered by a deck.

A separate study was undertaken to determine the maximum length of covered section that is permissible before adherence to tunnel criteria is required. The study team researched the National Fire Protection Association guidelines as well as met with the local first responders, whose locations are shown in Figure 4.5.6. The consensus is that incorporating life safety systems for tunnels would not be required until the covered section exceeds 700 feet. As a result, the cantilevered portion is configured so that the managed lanes beneath the cantilevered section are "daylighted" to the open space above.

Figure 4.5.5: Cantilevered Westbound Left Turn Lanes Approaching Powerline Road

Figure 4.5.5 also displays "landscape lids," which were alluded to in two COAT recommendations (8 and 11.1). These landscape lids are structures that are approximately 100 feet wide by 300 feet long and whose sole purpose is to provide space for landscaping. A total of four landscape lids are proposed in the Center Alternative, one of which facilitates the connection of the westbound exit ramp to a signalized intersection at SW 28th Avenue.

Figure 4.5.6: Emergency Service Locations in Corridor Vicinity



At a constructability meeting with FDOT, District 4 held on February 16, 2016, the consensus of the project team was to isolate the landscape lids with continuous concrete barrier wall. Concern was expressed that any transition to curb and gutter along the landscape lid could cause vehicles to vault over the barrier wall at the ends of the lids. Another decision was that the general public should not have access to the landscape lids. Under-bridge lighting will be included beneath the landscape lids bridge decks.

SW 10th Street is currently connected to the communities along its southern boundary by three sideroads: SW 30th Avenue, SW 28th Avenue, and SW 24th Avenue. All three sideroads currently have full median openings that allow unrestricted left-turns to and from these sideroads, although SW 28th Avenue is the sole intersection that is signalized. The Center Alternative provides only one full median opening at SW 28th Avenue while the other two intersections would be converted to "right in, right out." The SW 28th Avenue intersection would then function similar to a tight diamond interchange, with two sets of traffic signals and short left turn storage areas on the bridge deck above the depressed managed lanes as shown in Figure 4.5.7.

Approaching the C-2 Canal, the managed lanes begin transitioning from a depressed profile just east of the canal as the profile upgrades to a second-level overpass above Military Trail.

Figure 4.5.7: SW 28th Avenue Intersection with Center Alternative

The C-2 Canal to the I-95 Interchange

A key component of connecting Florida's Turnpike/Sawgrass Expressway with I-95 is the inclusion of entrance and exit ramps to and from the local lanes. The incorporation of ramps is also consistent with a COAT recommendation regarding access to both SW 10th Street and the managed lanes. Once the managed lane profile rises to an at-grade elevation east of the C-2 Canal, the incorporation of ingress/egress ramps is relatively straightforward and can be accommodated by short slip ramps that emanate to and from the inside local lanes. The location of the managed lanes between the one-way local lanes favors the inclusion of east- and westbound entrance and exit ramps on either side of Military Trail. In the eastbound direction, the entrance ramp is positioned just prior to the incline that raises the managed lane profile over Military Trail. Eastbound vehicles on SW 10th Street wishing to enter the managed lane system would exit local SW 10th Street on the left and enter the managed lanes on the right, where an auxiliary lane carries traffic across Military Trail to either merge into the eastbound managed lanes for access to the I-95 express lanes or to exit onto local SW 10th Street. In this case, the entrance-exit combination functions as a bypass to the Military Trail intersection. In the westbound direction, a similar maneuver occurs, with right-hand ingress occurring just west of the SW 12th Street intersection. Traffic either merges into the westbound managed lanes or exits from the right-hand auxiliary lane onto the inside lane of local SW 10th Street.

As seen in Figure 4.5.8, the managed lanes convey traffic to and from the median express lanes on I-95. The highest flyover ramp, the northbound to westbound movement, shown in orange below, is a fourth-level structure. The I-95 interchange and the I-95 widening are being evaluated by the FDOT as a separate PD&E study, the I-95 from South of SW 10th Street to North of Hillsboro Road PD&E Study, which is available under separate cover (FM# 436964-1).

Figure 4.5.8: SW 10th Street and I-95 Interchange – Center Alternative

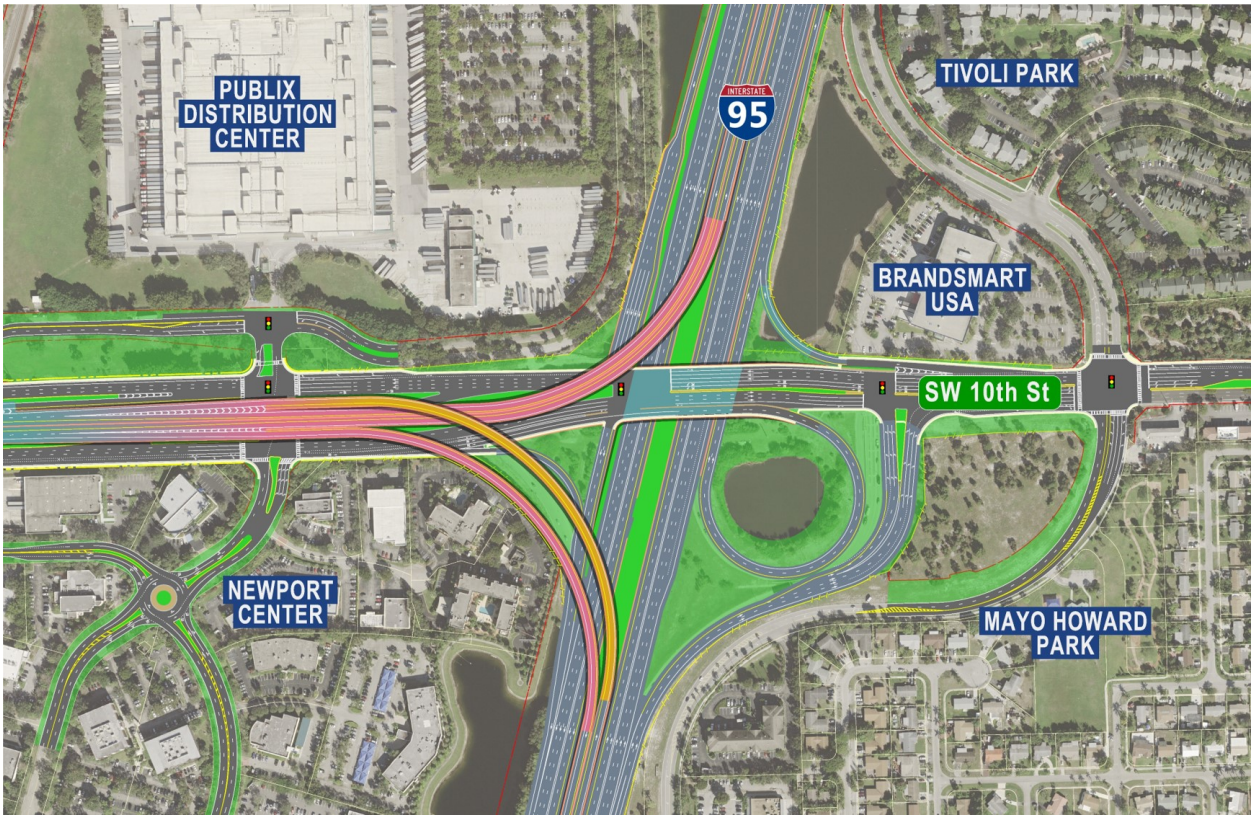
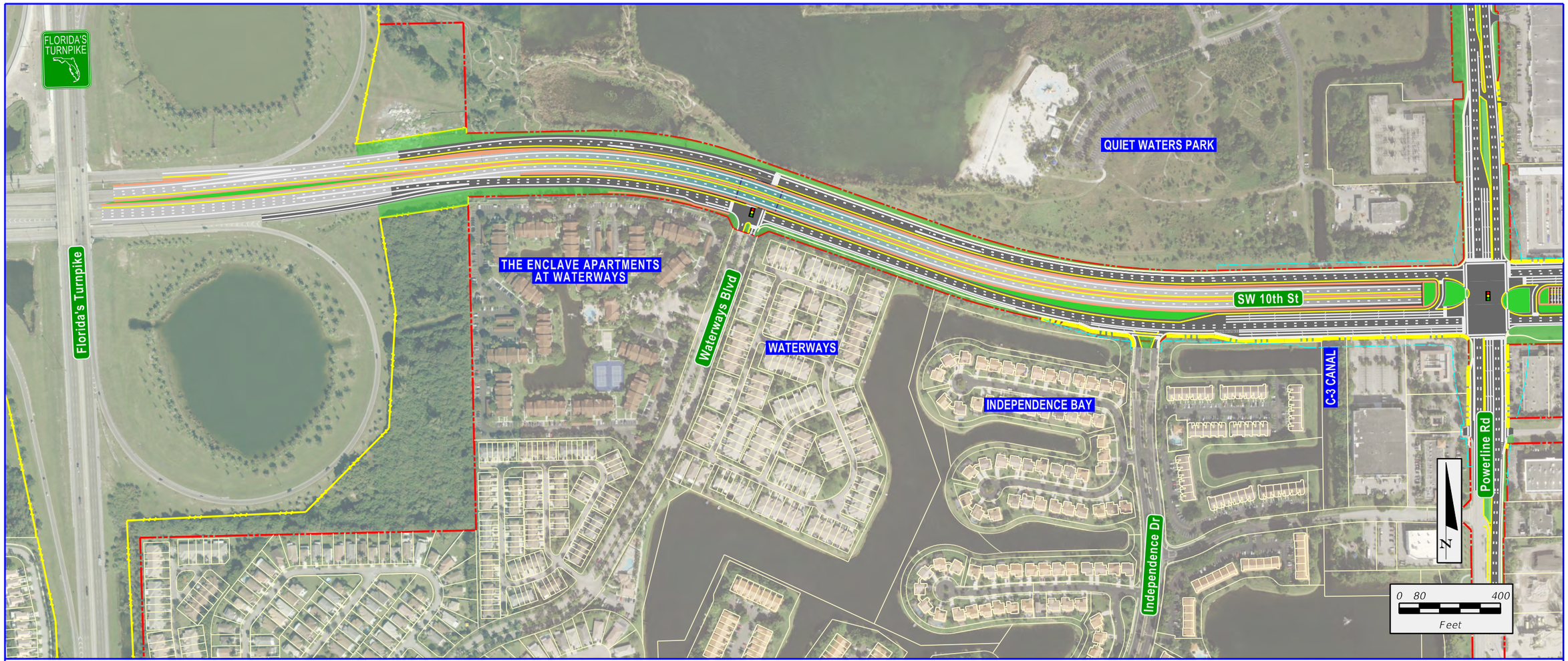
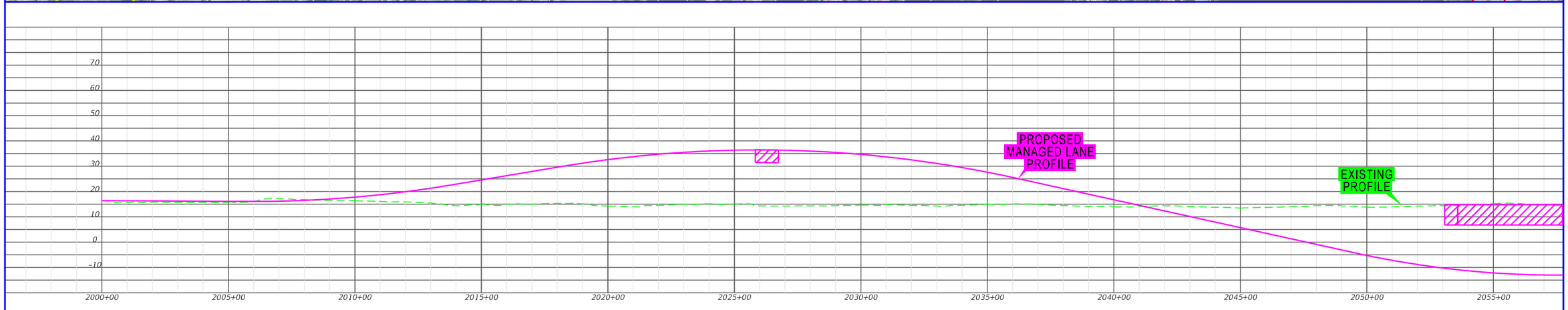


Figure 4.5.9 provides a three-sheet plan and profile overview of the Center Alternative. More detailed drawings can be found in Appendix A. The color gradients on the pavement convey that the profile is in transition. Figures 4.5.10 through 4.5.13 provide three dimensional views/renderings of the Center Alternative, which were presented to the public on April 24, 2018 at Alternatives Public Workshop No. 1.





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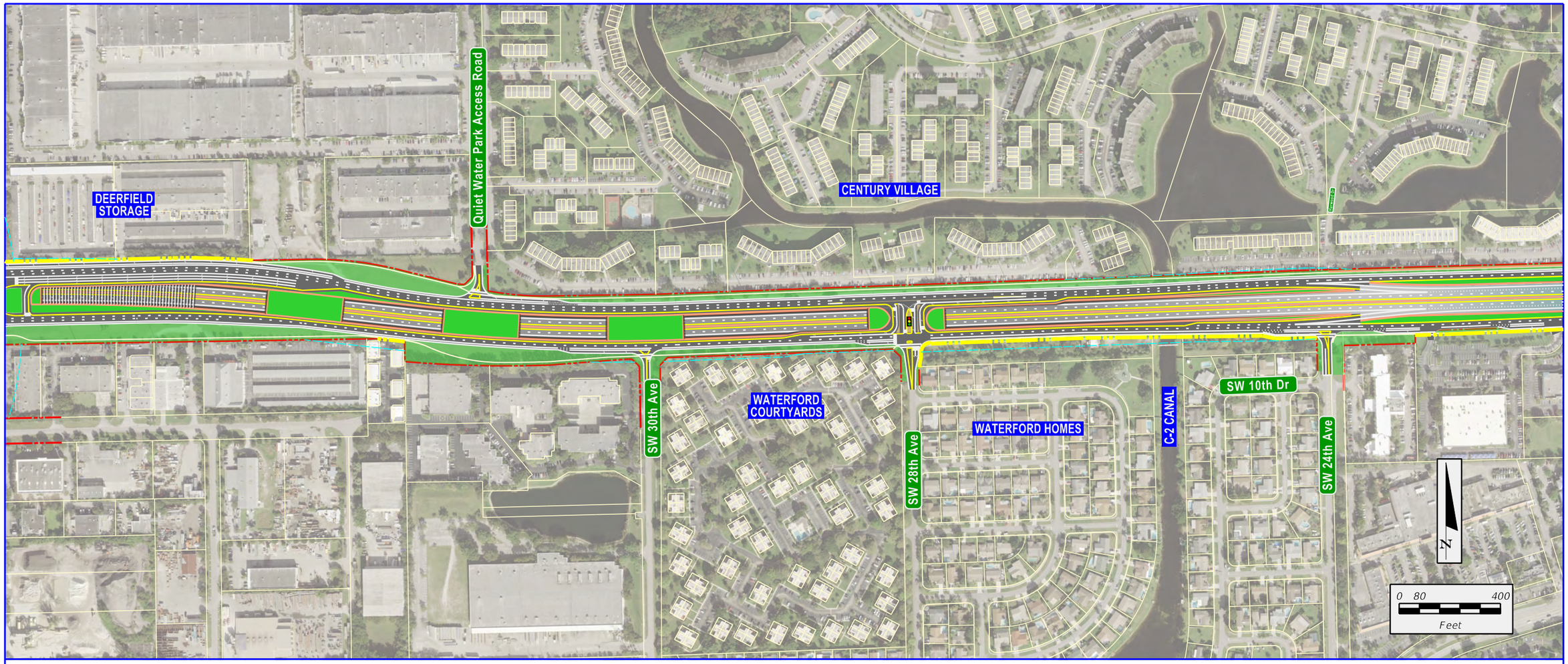
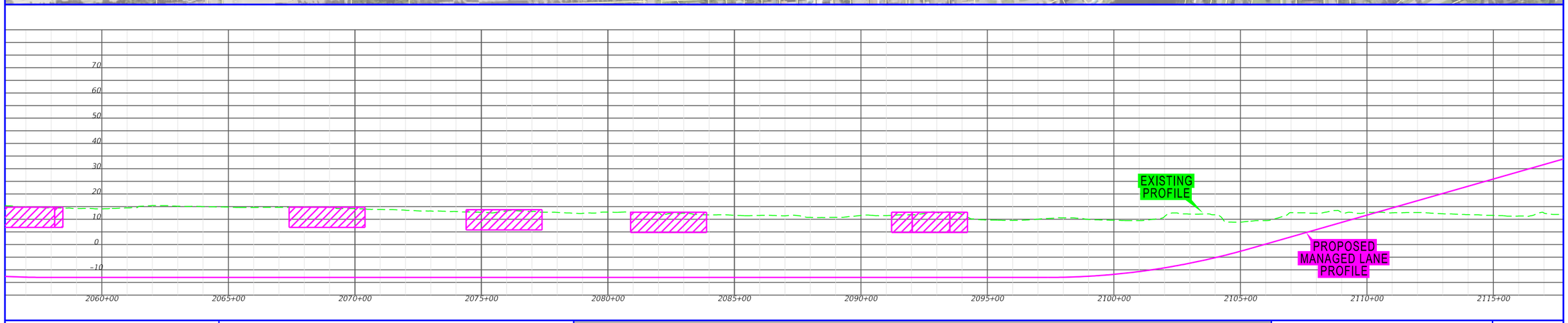
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.9
CENTER ALIGNMENT ALTERNATIVE
1 OF 3

SHEET NO.
4-50





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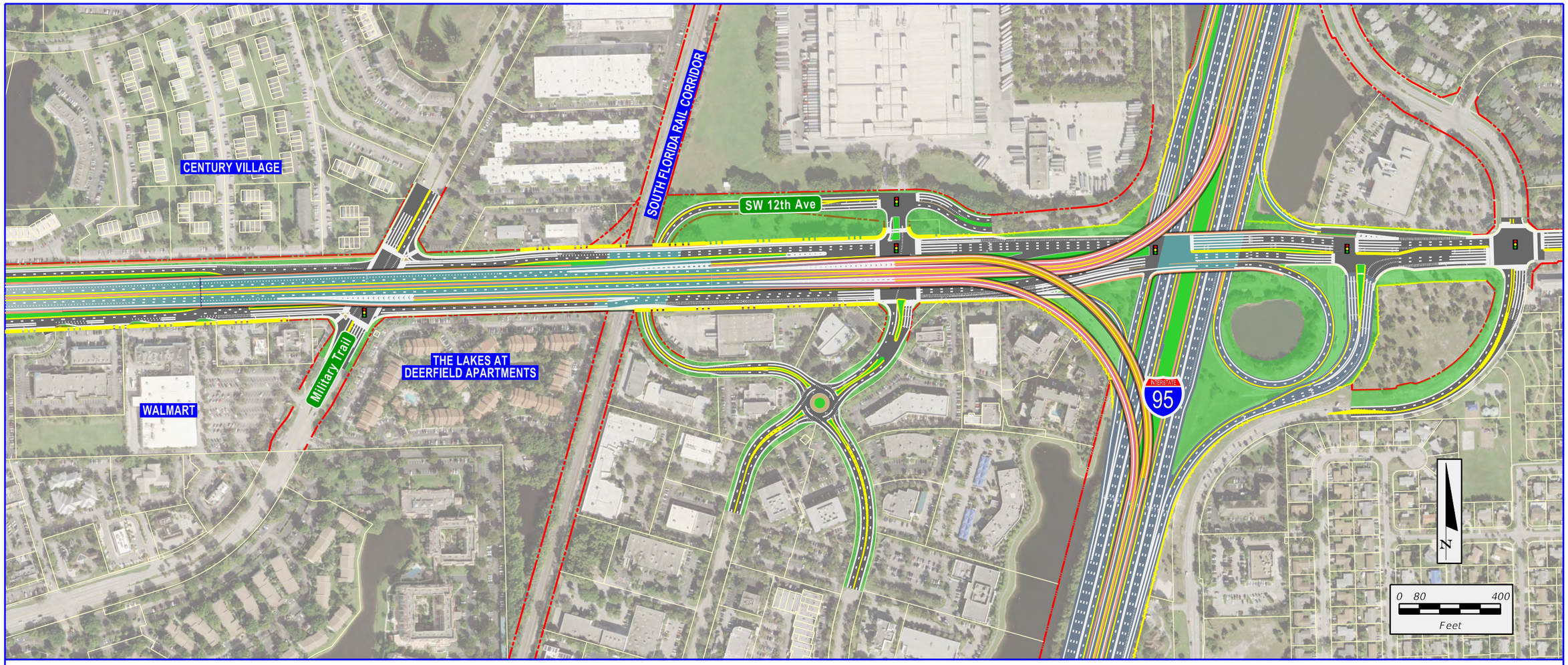
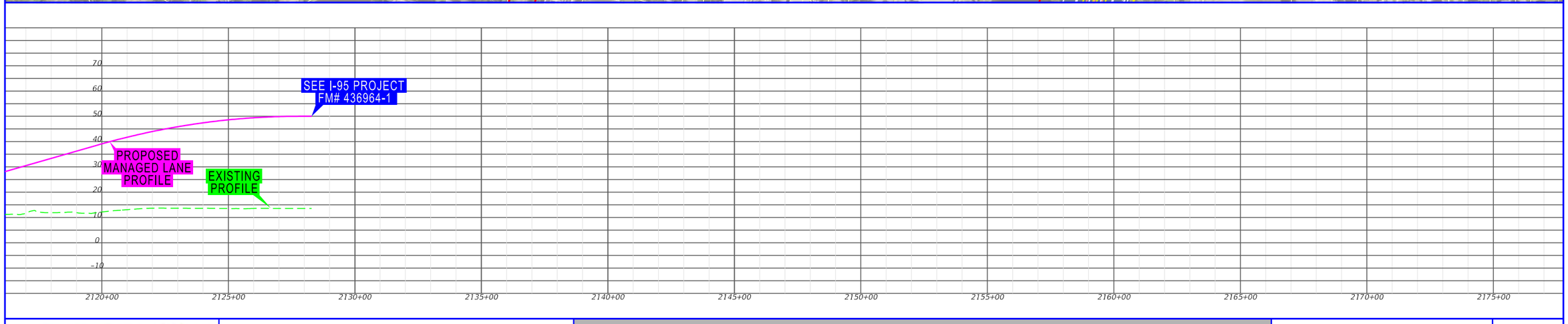
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.9
CENTER ALIGNMENT ALTERNATIVE
2 OF 3

SHEET NO.
4-51





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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.9
CENTER ALIGNMENT ALTERNATIVE
3 OF 3

SHEET NO.
4-52

Figure 4.5.10: Center Alternative – Looking Northwest at Waterways Blvd. Overpass

Figure 4.5.11: Center Alternative – Looking Southwest at Powerline Road

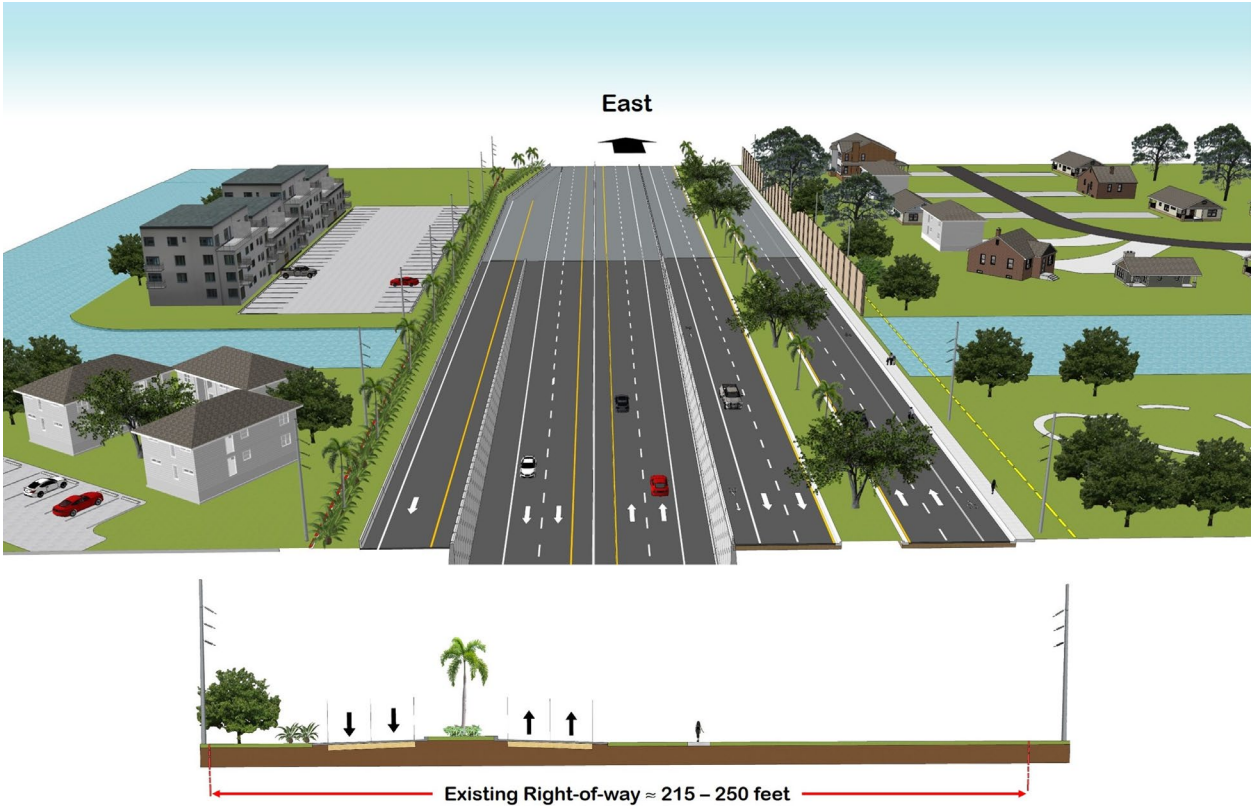
Figure 4.5.12: Center Alternative – Looking West at SW 28th Avenue Intersection

Figure 4.5.13: Center Alternative – Looking West at Depressed Section (East End)

4.5.2 North Alternative

Similar to the Center Alternative, the North Alternative utilizes two distinct envelopes for the managed and local lanes. The primary difference between the Center and North Alternatives is that the North Alternative places the managed lanes towards the northern half of the existing right-of-way and the local lanes along the southern half. The rationale for this configuration is that the local lanes should be positioned adjacent to the southern communities of Waterways, Independence Bay, Waterford Courtyards, and Waterford Homes, where the sideroads are located. By contrast, Century Village has no direct access to SW 10th Street. Figure 4.5.14 displays the typical section of the North Alternative relative to the existing typical section.

Figure 4.5.14: North Alternative Typical Section



As with the Center Alternative, the North Alternative seeks to avoid relocation of the north transmission line. The following discussion describes the North Alternative.

Florida's Turnpike to just east of Powerline Road

Beginning at Florida's Turnpike and moving in the eastbound direction, the two eastbound mainline lanes from the Sawgrass Expressway widen from two to four lanes just east of the Turnpike overpass. These four lanes then diverge, with the inside two lanes conveying traffic to the eastbound managed lanes and the outer two lanes joining the collector-distributor lane emanating from the Turnpike interchange. These three outer lanes then convey traffic to the Powerline Road intersection and beyond. The two inside lanes destined for the eastbound managed lanes rise to a second level in order to span the westbound local lanes and position the eastbound managed lanes on the north side of the right-of-way. This positioning places the eastbound managed lanes between the westbound managed lanes and the westbound local lanes.

In the westbound direction, three local lanes approach the Powerline Road from the east and continue through the intersection. Full signalized intersections are provided at Waterways Boulevard and Independence Bay Drive – an important distinction from the Center Alternative. Just west of the Independence Bay Drive intersection, the inside lane of the three lanes transitions into a left-only lane into southbound Waterways Boulevard. The remaining two lanes pass beneath the overpassing eastbound managed lanes and join with the two westbound managed lanes emanating from the I-95 interchange. Three of the four lanes then continue westward as the mainline Sawgrass Expressway, while the outermost lane forms the collector-distributor lane through the Florida's Turnpike interchange.

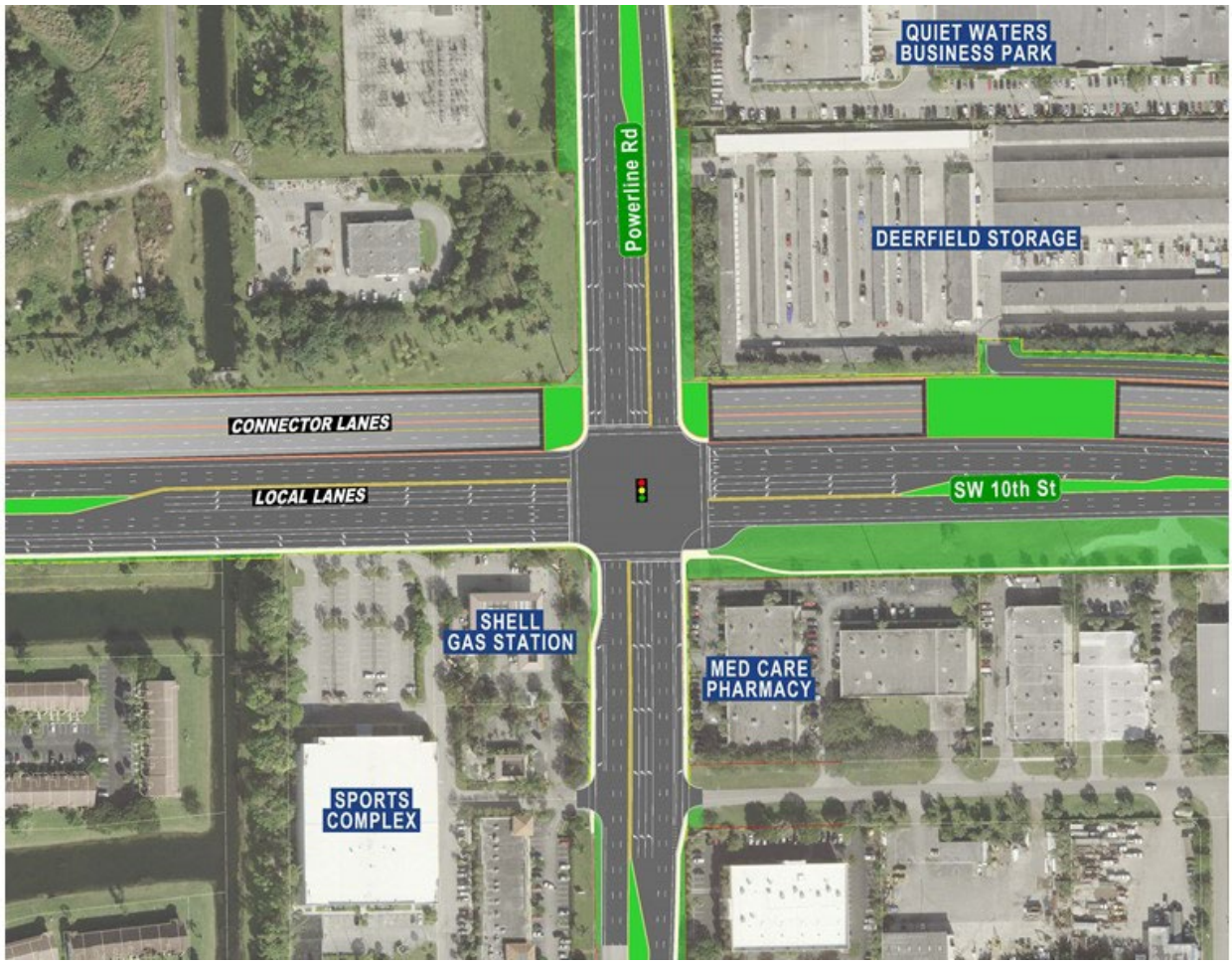
Just east of Independence Bay Drive, both the eastbound and westbound managed lanes begin their descent to a below-grade section in advance of Powerline Road. Extending this depressed section westward such that the overpass at Waterways Boulevard could be lowered was investigated. However, depressing the roadway through the Waterways Boulevard intersection was examined but was not carried forward for the following reasons:

- Proximity of Quiet Waters Park and the recreational lake adjacent to the north-side right-of-way;
- Difficulty in establishing ground anchors for sheet piling in the lake vicinity;
- Potential for extensive groundwater intrusion into a depressed section due to the close lake proximity;

- Difficulty in depressing managed lanes through Waterways Boulevard intersection and meeting expressway design speeds while rising to match the existing grade in advance of the Turnpike overpass; and
- Potential for additional right-of-way due to need for more retaining wall space and separation of movements due to differing profile grades.

The Powerline Road intersection is similar to the Center Alternative version, with triple left turn movements in each quadrant coupled with southbound dual right-turn lanes. Small strips of right-of-way are needed from commercial properties. The southeast corner of the Powerline Road intersection features a pavement "bulb-out" to accommodate tractor-trailers making a westbound U-turn movement. Figure 4.5.15 displays the Powerline Road intersection for the North Alternative.

Figure 4.5.15: North Alternative at Powerline Road



Just east of Powerline Road to the C-2 Canal

Figure 4.5.15 also shows a sample of the landscape lids. The North Alternative features a total of six landscape lids, with three of them partially occupied with intersection pavement.

East of Powerline Road, the outside eastbound local lane separates from the inside two lanes to form a forced exit and ramp terminal for the eastbound entrance ramp onto the managed lanes. To complete this configuration, the exiting ramp terminal from the eastbound local lane must downgrade to a depressed section and pass beneath the eastbound and westbound local lanes before joining the eastbound managed lanes, which are also depressed at this location. Figure 4.5.16 highlights this depressed and reverse-curving ramp. Note that the ramp also forms an eastbound auxiliary lane for over 2,000 feet before conveying traffic to an exit ramp above Military Trail.

As previously mentioned, the North Alternative provides unrestricted access to the sideroads along the south side of the corridor. However, access to Quiet Waters Business Park from the local lanes is also facilitated with the North Alternative. As seen in Figure 4.5.16, a proposed right-of-way acquisition on the north side of the corridor provides space for a two-way access road. A full median can be accommodated by a positioning a landscape lid across from the existing access road and striping a portion of this bridge deck as a directional median opening. While a full median opening currently exists, a directional median opening provides an opportunity for eastbound left-turns into the facility. By comparison, the Center Alternative accommodates only “right-in, right-out” movements.

To accommodate the westbound exit ramp, which is located on the north side of the managed lanes, the managed lanes are positioned such that the offset from the north-side right-of-way line and the outside barrier wall is 36 feet. To transition the managed lane alignment to this position, a reverse curve with inside edge-of-pavement radii of 7,024 feet and 6,054 feet is used. These two curves are separated by a short tangent of 343 feet and require superelevation rates slightly higher than those of a reverse crown.

QUIET WATERS BUSINESS PARK

DEERFIELD STORAGE

Quiet Water Park Access Road

NEWPORT

PUBLIC STORAGE

EASTBOUND ENTRANCE RAMP

SW 30th Ave

WATERFORD COURTYARDS

N

0 40 200

Feet

$FILE$

$TIME$

$DATE$

$USER$

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.16
NORTH ALTERNATIVE
EASTBOUND ENTRANCE RAMP

SHEET NO.

4-59

At SW 28th Avenue, the 36-foot vacant envelope along the northern right-of-way line becomes occupied with the westbound exit ramp, which curves 90 degrees southward via a 114-foot radius. An at-grade, signalized intersection with SW 28th Avenue is accommodated above the depressed managed lanes via a 300-foot-long bridge deck, the unused portion of which functions as a potential area for landscaping.

Approaching the C-2 Canal from the west, the profile grade line of the managed lanes begins rising from the depressed section just east of the bridge deck over the SW 28th Avenue intersection. However, this profile continues to be partially depressed as it crosses the C-2 Canal, requiring either a pump station or equalizing pipe.

Right-of-way impacts for the North Alternative include a corner clip of the public storage facility on the south side of SW 10th Street across from the Quiet Waters Business Park access road, a "strip" acquisition of Waterford Courtyards for a right-turn lane, and approximately 30 feet of acquisition from City of Deerfield Beach property adjacent to Waterford Homes. This parcel includes the wells and pump house for the City drinking water along with an existing landscaped berm.

The C-2 Canal to the I-95 Interchange

Approaching Military Trail from the west, the managed lane profile rises from the depressed section at SW 28th Avenue and continues rising above Military Trail and the eastbound left-turn lanes tucked beneath the extended overpass. In the eastbound direction, the auxiliary lane formed from the eastbound entrance ramp becomes a forced exit in advance of Military Trail. This auxiliary lane forms a ramp gore and exit ramp that braids across the Military Trail intersection, ultimately joining the local SW 10th Street through lanes across the CSX railroad tracks. This junction forms three approach lanes to the signalized intersection at SW 12th Avenue

In the westbound direction, the westbound managed lanes exit ramp at SW 28th Avenue is created from an auxiliary lane that is formed from a local entrance loop ramp emanating from SW 12th Avenue and westbound SW 10th Street. The managed lanes are added and dropped via four flyover ramps that provide direct, system-to-system connections between the managed lanes and the proposed express lanes located within the median of I-95 as shown

in Figure 4.5.17. As noted in the Center Alternative description, the I-95 improvements and the I-95 interchange are included in a separate PD&E study available under separate cover (FM# 436964-1).

Figure 4.5.17: SW 10th Street and I-95 Interchange – North Alternative

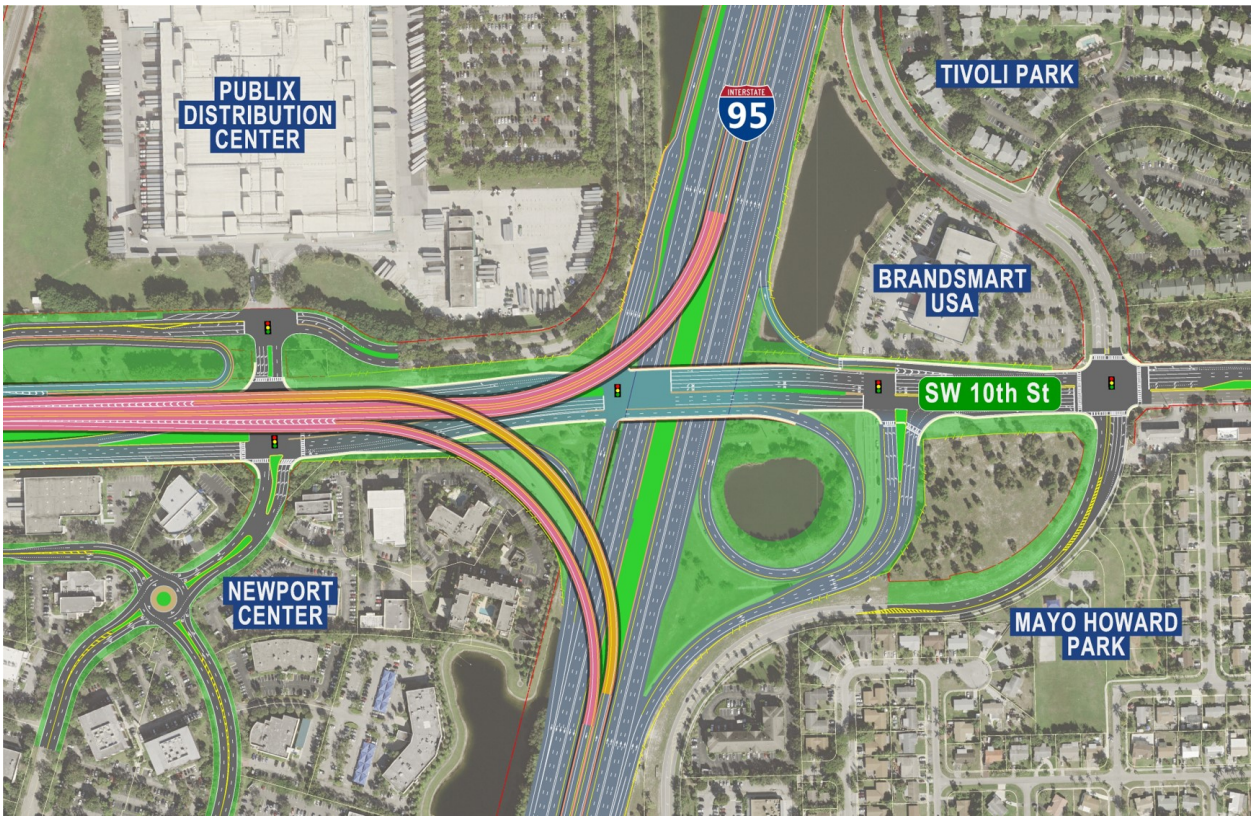
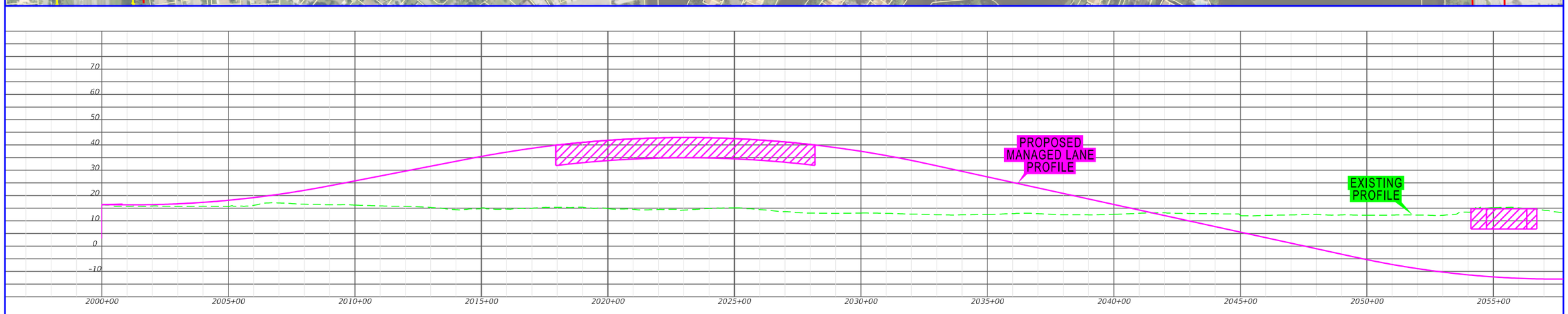


Figure 4.5.18 provides a three-sheet plan and profile overview of the North Alternative. More detailed drawings can be found in Appendix A. The color gradients on the pavement convey that the profile is in transition. Figures 4.5.19 through 4.5.22 provide three dimensional views/renderings of the North Alternative, which were presented to the public on April 24, 2018 at Public Alternatives Public Workshop No. 1. The Center and North Alternatives are compared in an evaluation matrix in Section 4.5.3.



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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.18
NORTH ALIGNMENT ALTERNATIVE
1 OF 3

SHEET NO.
4-62

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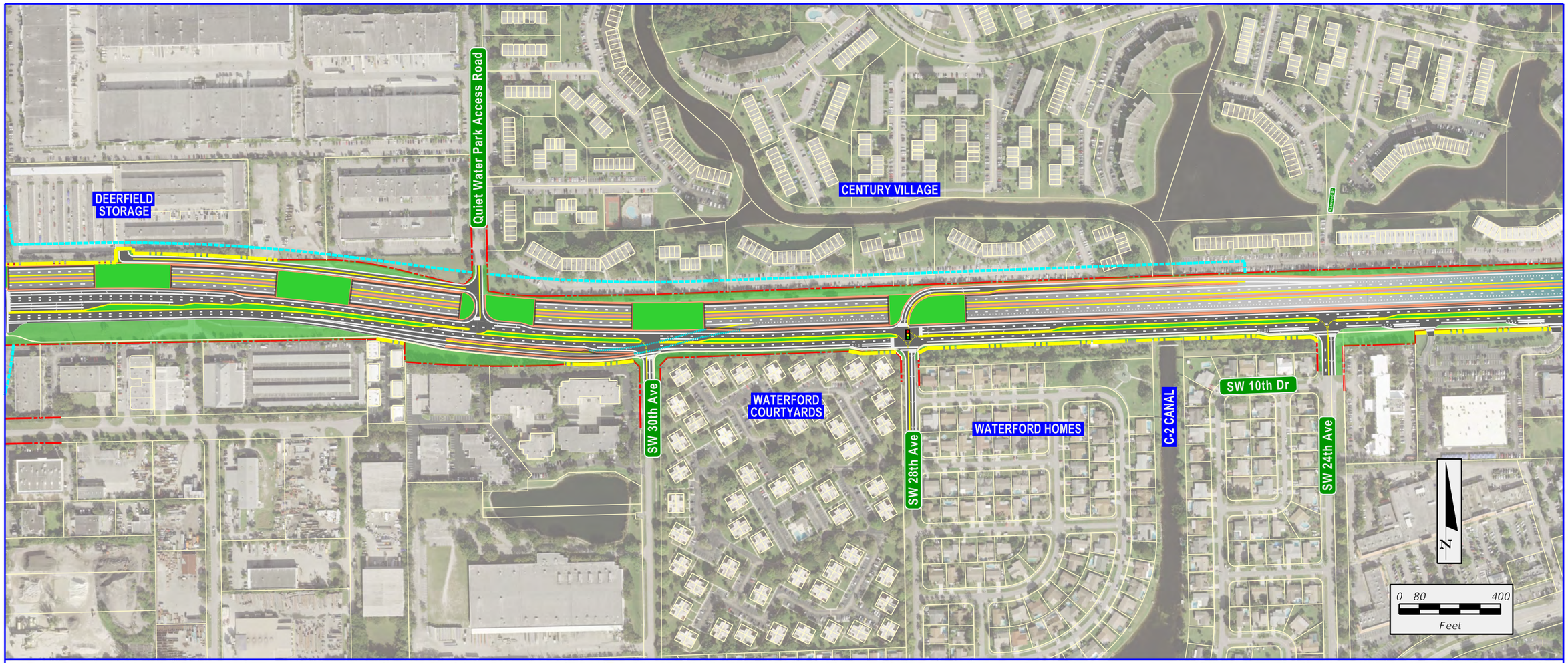

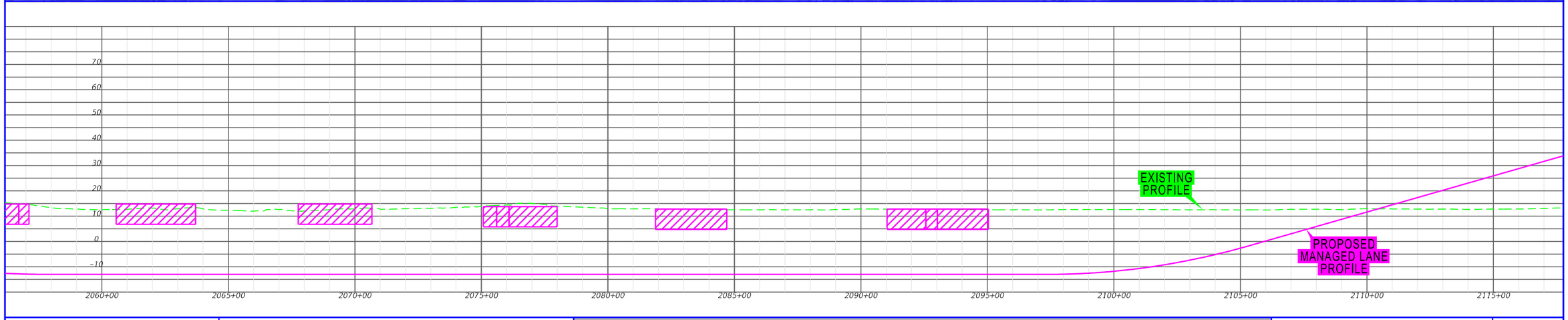

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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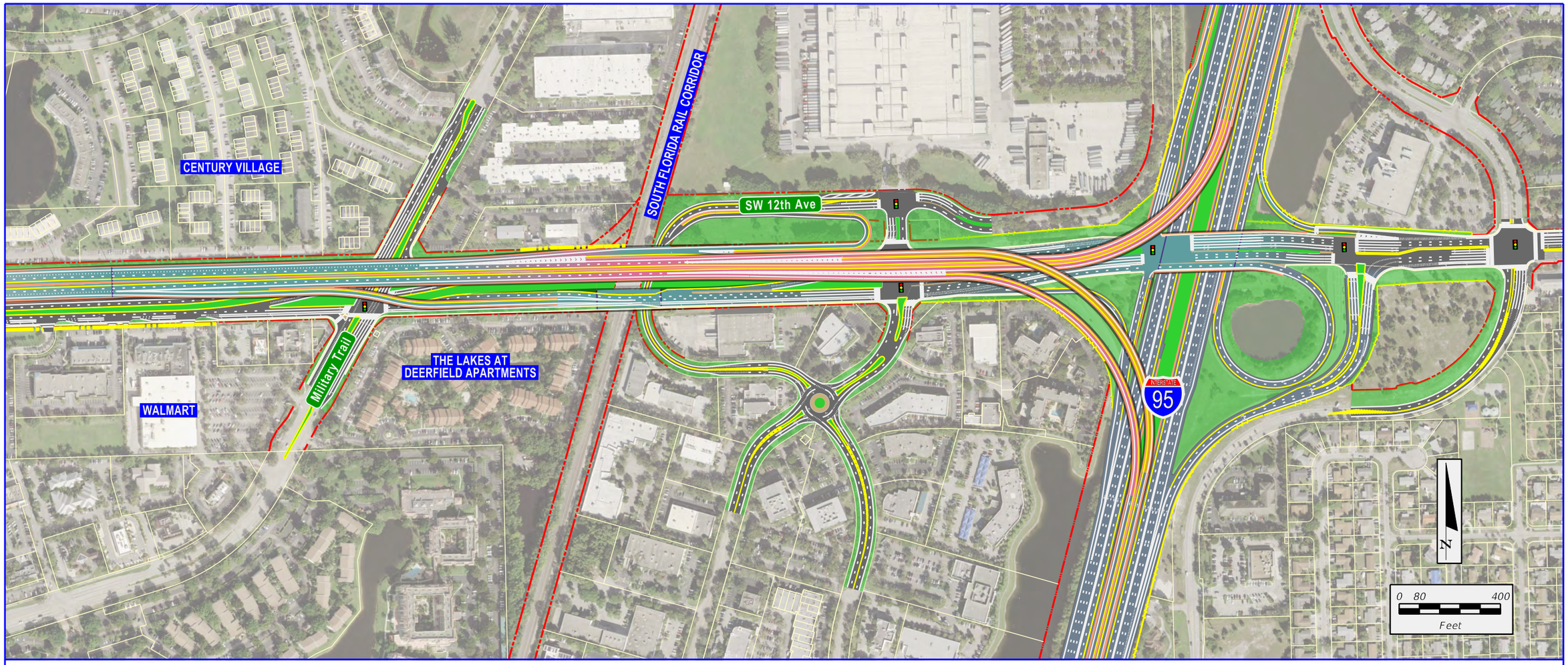
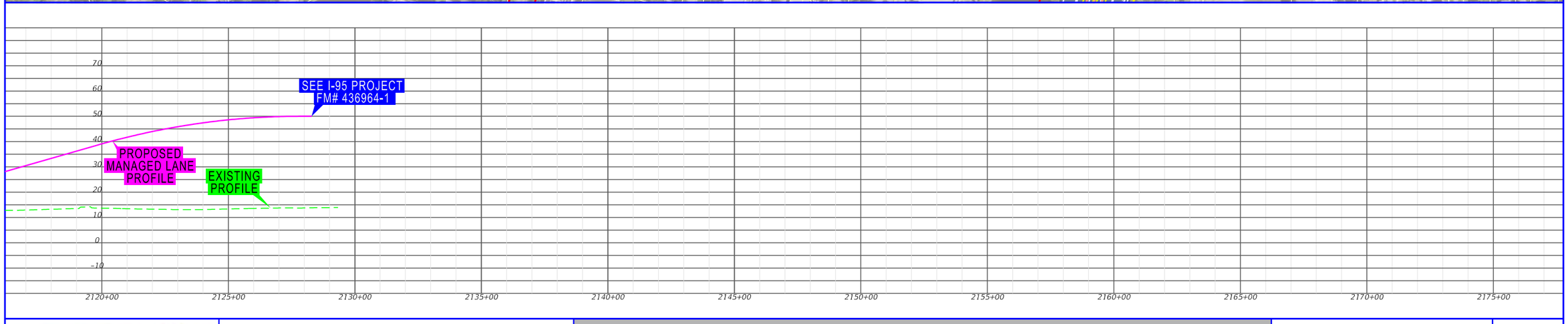
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.18
NORTH ALIGNMENT ALTERNATIVE
2 OF 3

SHEET NO.
4-63





SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.5.18
NORTH ALIGNMENT
ALTERNATIVE
3 OF 3

SHEET NO.
4-64

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Figure 4.5.19: North Alternative-Looking Northwest at Waterways Blvd. Overpass

Figure 4.5.20: North Alternative-Looking Southwest at Powerline Road

Figure 4.5.21: North Alternative-Looking West at SW 28th Avenue Intersection

Figure 4.5.22: North Alternative-Looking West at Depressed Section (East End)

4.5.3 Center Alternative vs. North Alternative

The Center and North Alternatives each have distinct advantages and disadvantages, which are summarized below:

Center Alternative

Primary Advantages:

- Better facilitates entrance and exit ramps due to the close proximity of the one-way frontage roads to the managed lanes;
- Less severe right-of-way impacts due to location of entrance and exit ramps east of C-2 Canal;
- No right-of-way impacts to Waterford Courtyards; and
- Avoids direct impacts to City of Deerfield Beach pump house.

Primary Disadvantages

- Restricts sideroad access to "right-in, right-out" at Independence Bay, SW 30th Avenue, and SW 24th Avenue; and
- To accommodate full median opening and signalized intersection at SW 28th Avenue, requires beginning depressed section just east of C-2 Canal, thereby requiring a pump station or equalizing pipe.

North Alternative

Primary Advantages:

- Provides two distinct envelopes for both managed lanes and local SW 10th Street;
- Concentrates pedestrian facilities along south side of corridor near the residential communities; and
- Provides full median openings at Independence Bay, SW 30th Avenue, SW 28th Avenue, and SW 30th Avenue.

Primary Disadvantages

- Requires additional right-of-way for eastbound entrance ramp and westbound exit ramp; and
- Entrance and exit ramps are located west of the C-2 Canal, where right-of-way acquisition is more impactful.

The evaluation matrix comparing the Center and North Alternatives is shown in Table 4.5.1. This matrix was presented to the public on April 24, 2018 at the Alternatives Public Workshop No. 1.

Table 4.5.1: Evaluation Matrix: North Alternative vs. Center Alternative

Criteria	North Alignment Alternative (1)	Center Alignment Alternative (1)
Traffic Operations and Safety		
Safety	↑	↑
Emergency Response Times	↑	↑
Intersection Delay (Local Street)	↓	↓
Intersection Level of Service	AM / PM	AM / PM
Waterways Boulevard	C / C	C / C
Independence Bay	A / A	Unsignalized
Powerline Road	E / E	E / E
SW 30th Avenue	Unsignalized	Unsignalized
SW 28th Avenue	D / D	C / C
SW 24th Avenue	Unsignalized	Unsignalized
Military Trail	E / E	E / D
Segment Level of Service (west / middle / east)	F / E / D	F / F / F
Local SW 10th Street Demand (Vehicle Trips) West of Powerline Road / West of Military Trail	54,000 / 28,000	56,400 / 31,700
Managed Lanes Demand (Vehicle Trips) West of Powerline Road / West of Military Trail	33,600 / 54,200	33,600 / 54,200
Direct Access to Managed Lanes	✓	✓
Access from Side Streets and Properties		
Side Street Access Changes	*0*	*3*
Driveway Access Changes	*3*	*3*
Social and Economic		
Commercial Parcels Impacted	11	19
Residential Parcels Impacted	6	4
Government Parcels Impacted	1	2
Acres of Permanent Impacts	2.10	2.49

Criteria	North Alignment Alternative (1)	Center Alignment Alternative (1)
Acres of Temporary Impacts (Construction Easements)	7.95	3.96
Potential Number of Commercial Relocations	2	2
Potential Number of Residential Relocations	0	0
Consistent with COAT Recommendations (18 main, 15 sub categories = 33 total) **29** apply to SW 10th Street Connector	**22** of 29, 7 are TBD	19 of 29, 7 are TBD
Cultural		
Section 4(f) Resources Impacted (Quiet Waters Park)	Yes	Yes
Permanent Section 4(f) Use (ac)	TBD	TBD
Temporary Section 4(f) Use (ac)	1.82	0.63
Natural Environment		
Wetland Impacts	Similar	Similar
Surface Water Impacts		
Protected Species and Habitat Impacts		
Physical Environment		
Noise Walls	TBD	TBD
Permanent Pumps for Drainage	Yes	Yes
Aesthetics/Visual Impacts	Similar	Similar
Multimodal		
Pedestrian Facilities	1	2
Bicycle Facilities	2	2
Utilities		
City of Deerfield Beach Wells Impacted	TBD	TBD
Total Number of Utilities Impacted	8	8
Requires Relocation of Transmission Poles and all Buried Utilities	Yes	Yes
FP&L Substation Impacted	Yes	Yes
Utility Relocation Costs	$$$$	$$$$
Constructability		
Construction Duration (does not include utility relocation timeframe)	3 to 5 years	3 to 5 years
Project Cost		
Construction	$$$$$	$$$$$
Right-of-way	TBD	TBD
Maintenance	TBD	TBD
Total Costs	**TBD**	**TBD**

Denotes More Favorable Criteria
TBD To Be Determined

Notes:

(1) Assumes 2040 conditions with I-95, Sawgrass, and Turnpike managed lanes, interchange improvements, and SW 10th Street Connector with one entrance/exit ramp in each direction to/from the managed lanes.

Based on feedback received at numerous community meetings and Alternative Public Workshop No. 1, the Northern Alignment Alternative was carried through to the next level of analysis. Also, based on feedback, additional alternatives with a shorter depressed section and hybrid alternatives were developed and evaluated in Tier 2. Each new alternative was based on the North Alignment concept with the managed lanes facility placed in the northern part of the right-of-way and the local SW 10th Street lanes located in the southern portion of the corridor. Tier 2 Alternatives were evaluated within a similar right-of-way footprint but have differing profiles for the managed lanes facility. The local SW 10th Street profile will remain at-grade.

Section 4.6 describes the Tier 2 Alternatives (North Alternative and its various sub-alternatives) that were developed.

4.6 Tier 2 Alternatives

The following subsections describe three alternatives that were carried forward to a second Alternatives Public Workshop held on November 29, 2018. The North Alternative mentioned in Section 4.5.2 was re-titled as the "Full Depressed Alternative" (Section 4.6.1) and compared to a "Partial Depressed Alternative." This Partial Depressed Alternative has three sub-alternatives, which are described in Section 4.6.2. The third alternative presented is entitled the "Non-Depressed, No Managed Lane Access Alternative" and is discussed in Section 4.6.3.

From a structural standpoint, the alternatives are composed of standard bridges and depressed roadways, typically called Depressed Sections (DS). DS are non-conventional structures in Florida because they need to support large hydrostatic forces, resulting from the high-water table in South Florida. To build a DS, a temporary Support of Excavation (SOE) structure is required to provide the necessary workspace for construction below grade and to build the permanent retaining structure. The SOE design is driven by the need to retain large hydrostatic and lateral earth pressures. There are several known SOE systems in the industry that can be used; however, for this PD&E study, a conventional and proven system that uses an anchored temporary sheet pile wall system is assumed. This system was

successfully used in the DS construction of the Kinney Tunnel, Okeechobee Road, and Port of Miami Tunnel projects in South Florida, at locations of comparable SOE cuts.

An evaluation matrix at the end of the alternative's discussion compares these three alternatives. Appendix B contains plan and profile sheets of each alternative and sub-alternative.

4.6.1 Full Depressed Alternative

The Full Depressed Alternative is essentially the same alternative that was presented at the April 24, 2018 Alternatives Public Workshop No. 1. No changes were made to the horizontal or vertical geometry. The alternative has the following features:

- Eastbound overpass at Waterways Boulevard intersection;
- Mainline managed lanes beneath Powerline Road;
- Eastbound entrance ramp and auxiliary lane extending to eastbound exit ramp;
- Westbound exit ramp and auxiliary lane terminating at "T" intersection at SW 28th Avenue;
- Six landscape lids, including two that facilitate local intersections (access road to Quiet Waters Business Park and SW 28th Avenue); and
- Extended eastbound structure over Military Trail to accommodate at-grade braided left-hand turn lanes on local eastbound SW 10th Street.

Two permanent pump stations were added to this alternative in order to pump storm water from the depressed section. These pump stations are located on the south side of the right-of-way across from Quiet Waters Business Park and along the north side adjacent to Century Village, where additional right-of-way is necessary to accommodate the pump station. Two pump stations are also necessary at the C-2 Canal. Figure 4.6.1 displays the pump stations that were added to this alternative, while Figures 4.6.2 to 4.6.5 display renderings of this alternative. Note that the pump stations can also be seen in the perspective views.

Appendix G contains the technical memorandum which describes the preliminary analysis of the pump station design for the alternatives presented at the November 29, 2018 Public Alternatives Workshop including the Full Depressed Alternative.

DEERFIELD STORAGE

Quiet Water Park Access Road

CENTURY VILLAGE

PUMP STATIONS & ADDITIONAL RIGHT-OF-WAY

PUMP STATION

SW 30th Ave

WATERFORD COURTYARDS

SW 28th Ave

PUMP STATION & ADDITIONAL RIGHT-OF-WAY

WATERFORD HOMES

C-2 CANAL

N

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Feet

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SW 10th Street Connector

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LEGEND

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.1
FULL DEPRESSED ALTERNATIVE PUMP STATION LOCATIONS

SHEET NO.

4-72

Figure 4.6.2: Full Depressed Alternative – Powerline Road

Figure 4.6.3: Full Depressed Alternative – Landscape Lids

Figure 4.6.4: Full Depressed Alternative – Looking East at Pump Station

Figure 4.6.5: Full Depressed Alternative – Looking West

Of the three alternatives carried forward to the second Alternatives Public Workshop, the Full Depressed Alternative has the highest degree of structural complexity. Below are the pertinent aspects of the structural components of this alternative:

1. The length of the fully depressed roadway is approximately 6,875 feet, and the typical width is 100.42 feet between the faces of the retaining walls;
2. The DS results in a maximum cut depth of approximately 40 feet and a typical width of 114.08 feet. The SOE cut depth is measured from the bottom of tremie seal to existing or proposed ground. The large depth of the SOE results from the depths of the bridges being supported by the DS walls, the 16.5-foot minimum vertical clearance to the riding surface, depth of structural slab, and depth of tremie seal.
3. The earth retaining system will need at least one row of soil anchors in the temporary (sheet piling) walls to support lateral earth pressure and water pressure.
4. Ground anchors in the tremie/slab system will also be required to hold down the tremie due to large vertical water pressures. The ground anchors are only needed temporarily since in the final conditions, the weight of the tremie, bottom slab, walls and barriers overcome the vertical hydrostatic pressures.

In this alternative, the ground anchors are assumed to be arranged in a square grid, with anchors spaced at 10-foot intervals in two directions and at an approximate in-ground depth of at least 50 feet. The soil anchors or horizontal anchors required to support the vertical temporary walls are assumed to provide a bond capacity of 2.5 kips per square foot (this value requires confirmation in the design phase of the project). The estimated horizontal projection is in excess of 90 feet on each side of the SOE. This length presents a challenge as it extends beyond the existing right-of-way limits of the project.

This concept also features seven bridges, six of which are supported on the DS permanent retaining walls. The bridges are located at Waterway Boulevard, Powerline Road, the access road for Quiet Waters Business Park, SW 28th Avenue plus three stand-alone landscape lids. The depressed section bridges use Florida I-beams (FIB) 45 for the superstructure spaced at approximately 10-foot intervals with eight-inch concrete decks.

Figure 4.6.6 shows the typical section at the DS including the SOE. Note the temporary soil anchors for the lateral wall and temporary ground anchors in the tremie seal to hold it down to counteract uplift hydrostatic pressure.

Figure 4.6.6: Full Depressed Alternative Typical Section

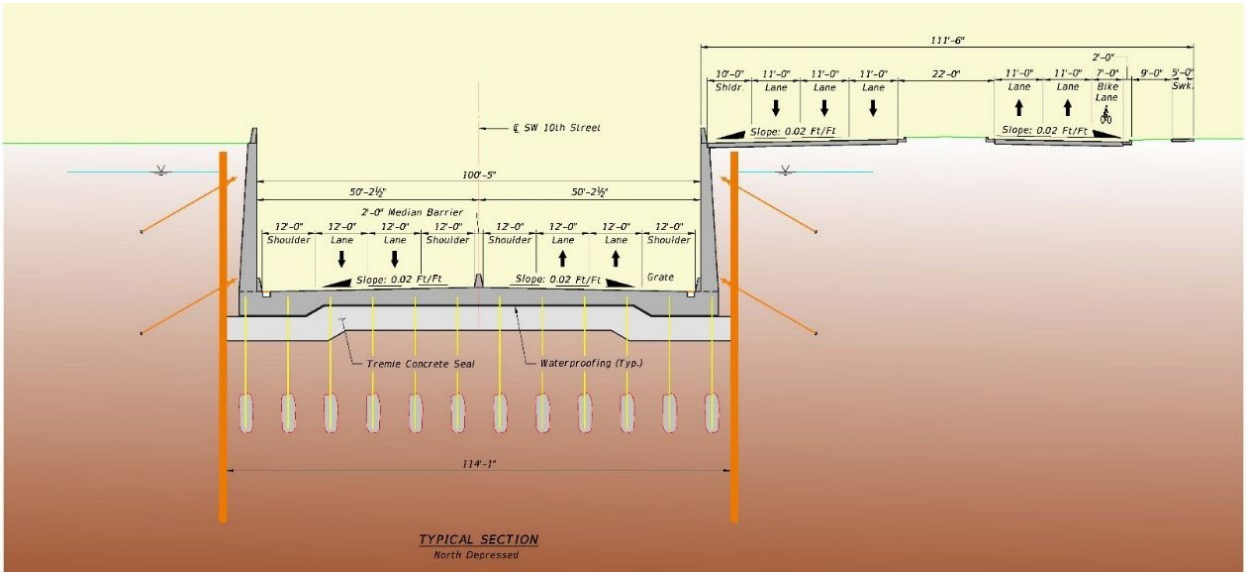
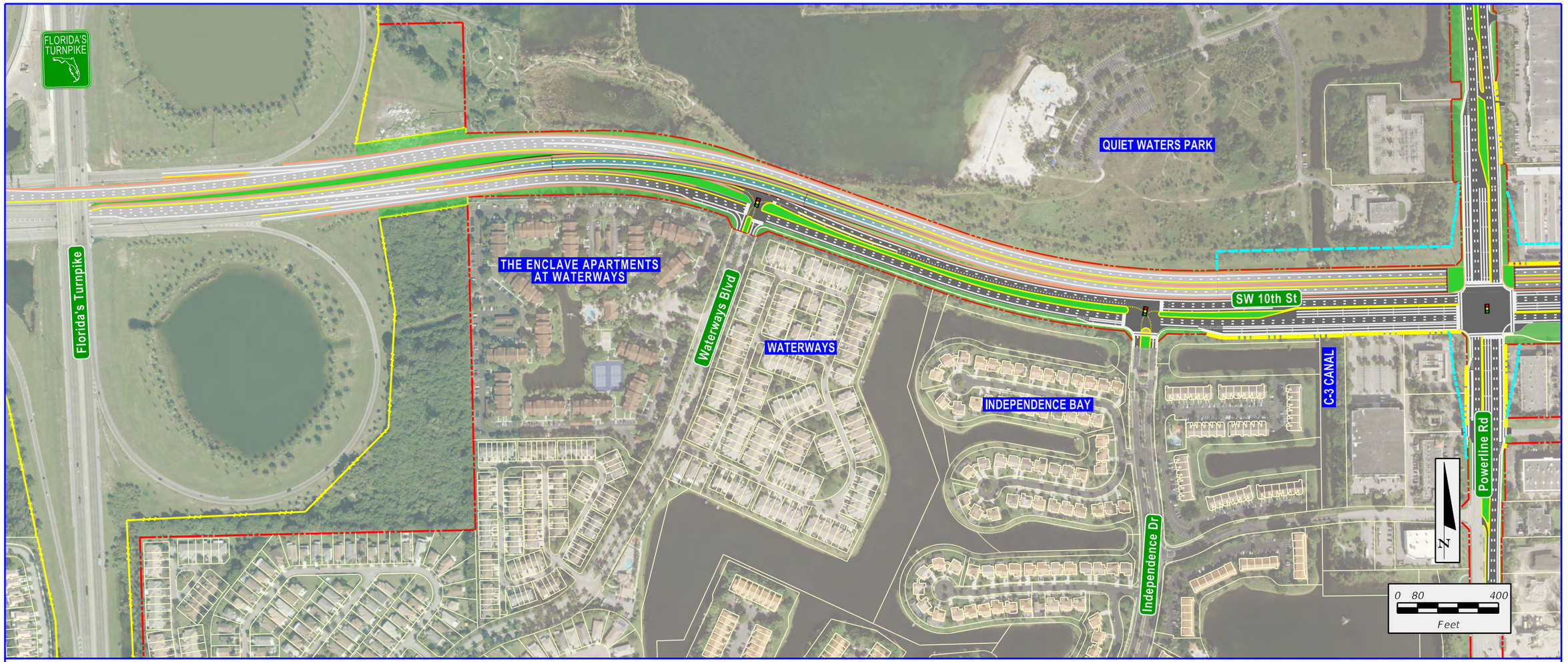
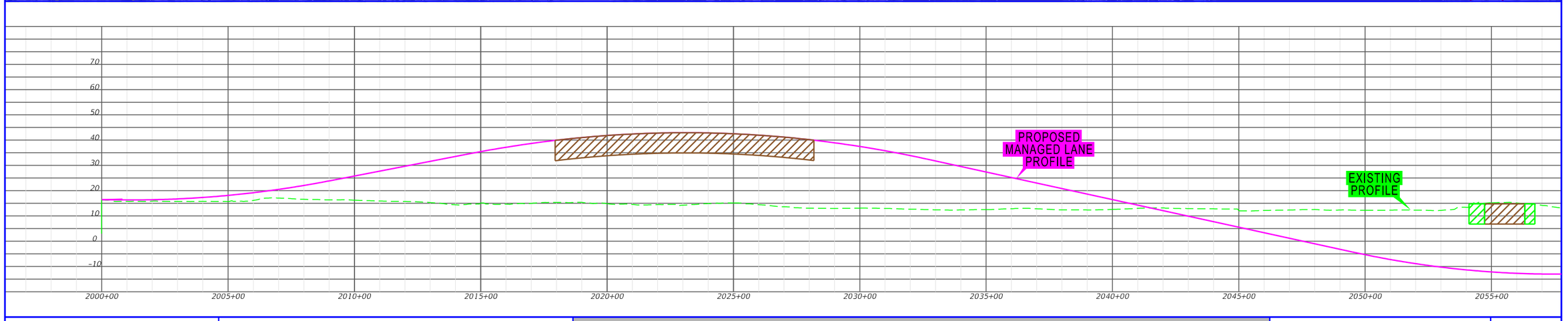


Figure 4.6.7 displays an overview of the plan and profile for the Full Depressed Alternative.





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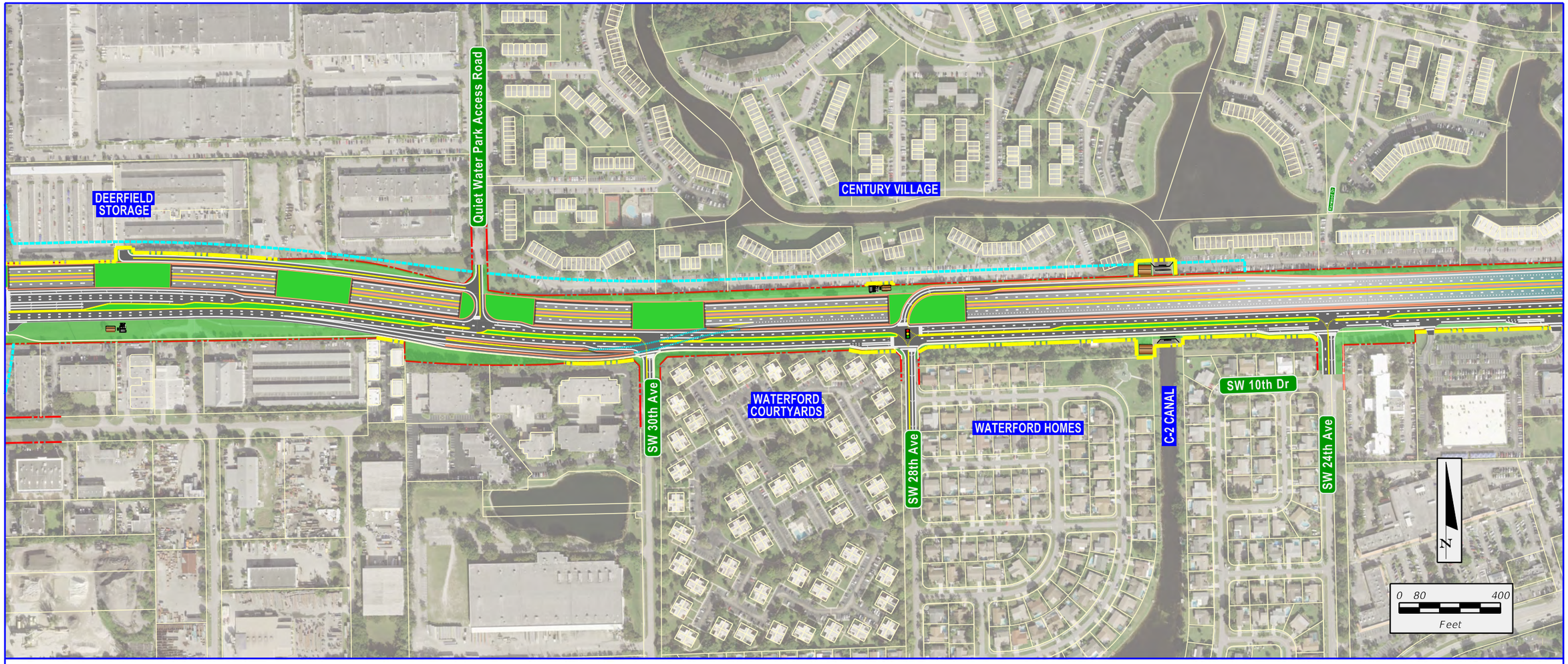
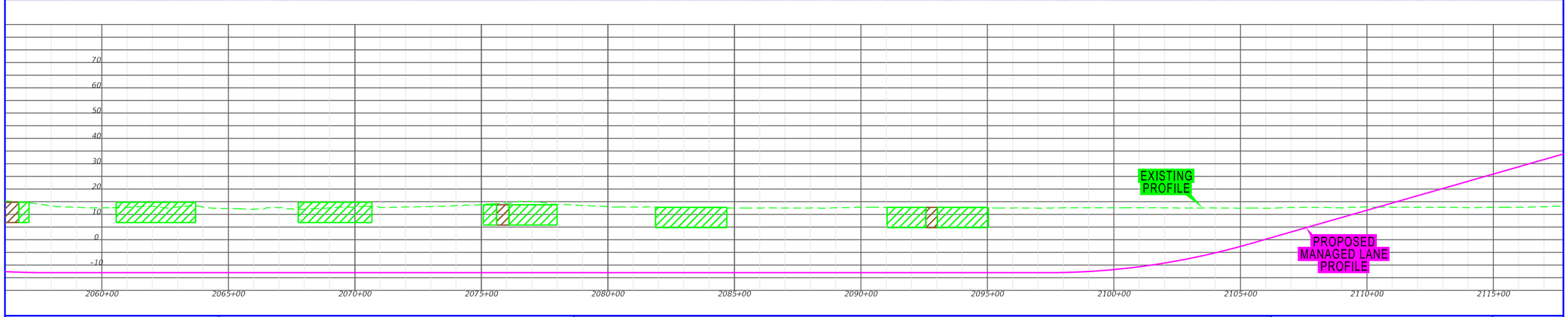
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.7
FULL DEPRESSED ALTERNATIVE
1 OF 3

SHEET NO.
4-77





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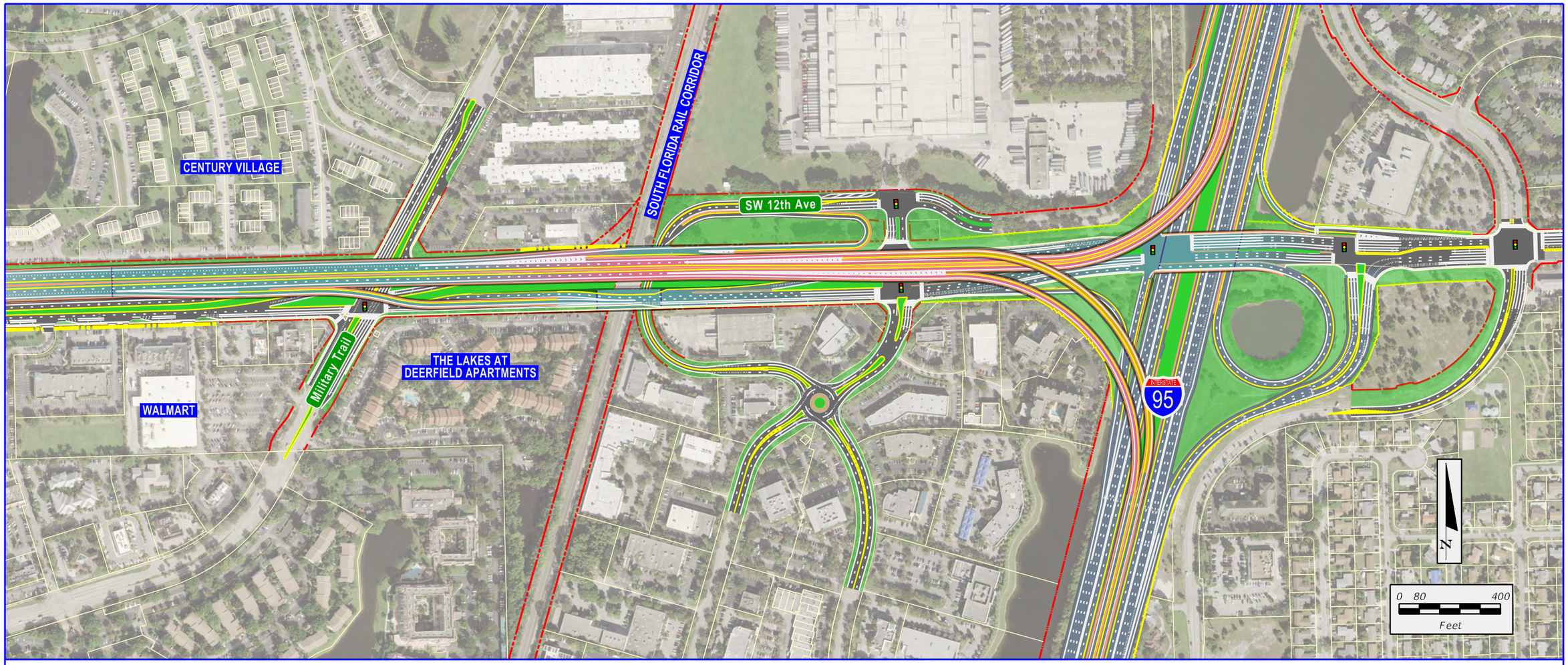
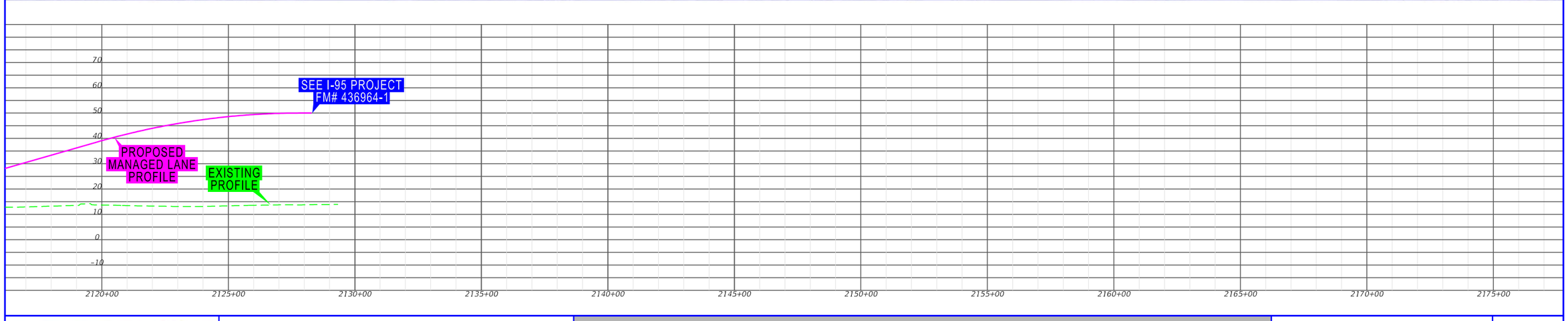
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.7
FULL DEPRESSED ALTERNATIVE
2 OF 3

SHEET NO.
4-78





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LEGEND

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.7
FULL DEPRESSED ALTERNATIVE
3 OF 3

SHEET NO.
4-79

4.6.2 Partial Depressed Alternative

The Partial Depressed Alternative is comprised of three options that isolate the limits of the managed lane depressed section to accommodate the westbound exit ramp braid such that no elevated structure is necessary. With the Full Depressed Alternative, the westbound exit ramp curves 90 degrees and terminates at a signalized intersection with SW 28th Avenue. This configuration was deemed to be undesirable due to the sharp curvature and the possibility that northbound vehicles on SW 28th Avenue may travel the wrong way on the exit ramp. In lieu of this "T" intersection, the westbound exit ramp was re-configured to merge into westbound local SW 10th Street as a parallel-type entrance ramp. The following grade-separated options were then developed and examined:

1. Depressed Westbound Exit Ramp;
2. Depressed Eastbound Managed Lanes; and
3. Depressed Eastbound and Westbound Managed Lanes.

The three sub-alternatives listed above are essentially identical alternatives that differ only in how the westbound exit ramp from the managed lanes is "braided" over or under the managed lanes to the westbound local lanes. Consequently, the portion of the project west of and just east of Powerline Road is identical for all three sub-alternatives.

From a structural standpoint, the Partial Depressed Alternative features four bridges from Florida's Turnpike to just west of Military Trail that are common to all three sub-alternatives. These structures include the braided ramp at Waterways Boulevard, the overpass at Powerline Road, the overpass for the relocated Quiet Waters Business Park access road, and the eastbound flyover entrance ramp to the managed lanes. Below is a brief description of the details of these structures:

- Eastbound managed lanes over westbound local lanes at Waterways Boulevard: The proposed ramp structure over Waterways is 1,010 feet in length and is framed using five spans of approximately 200 feet. The five span structure utilizes continuous curved steel I-girders that are supported by concrete end bents, and integral straddle piers. A superstructure depth of eight feet is used to provide a minimum of 16.5 feet of vertical clearance to the roadway below. This depth is consistent with American Association of State Highway and Transportation Officials (AASHTO) span to depth rations for

continuous steel superstructure units. Precast, prestressed concrete piling is utilized at all foundation units. Pier protection barrier is placed to protect the columns of the substructure units. Per FDM Section 121.3.2, this structure is classified as a category 2 structure due to the presence of straddle piers and integral caps. This structure is a point of controversy with respect to the Waterways community.

- Managed Lanes over Powerline Road: This structure consists of a two-span 280-foot-long bridge that utilizes prestressed concrete girders. The first span is 200 feet long, and the superstructure is framed using FIB 96. The second span is 80 feet long, while the superstructure fascia beams use FIB 96 and the interior beams are comprised of FIB 36. The center pier is a framed two column concrete pier.
- Managed Lanes over Quiet Waters Business Park Access Road: This structure consists of a single span, 142-foot-long bridge using prestressed concrete girders. The superstructure consists of FIB 63; the girders rests on end bents that are wrapped around by MSE walls.
- SW 10th Street Eastbound Entrance Ramp Flyover Bridge: This structure consists of a four-span horizontally curved 510-foot-long structure. The first and fourth spans are 105 feet long, whereas the second and third spans are 150 feet in length. The bridge superstructure is comprised of continuous steel plate girder system with 66-inch-deep steel webs. The substructure is made of conventional single-column hammerhead concrete piers; however, the center pier is a straddle-pier with a post-tensioned straddle-cap of approximately 64 feet in length. Because of the need to maintain a low profile, the center pier-cap is made integral with the steel superstructure.

Figures 4.6.8 to 4.6.10 display sectional views of the conceptual substructure at the Powerline Road overpass as well as the eastbound entrance ramp flyover bridge.

Figure 4.6.8: Conceptual Bridge Pier at Powerline Road Overpass

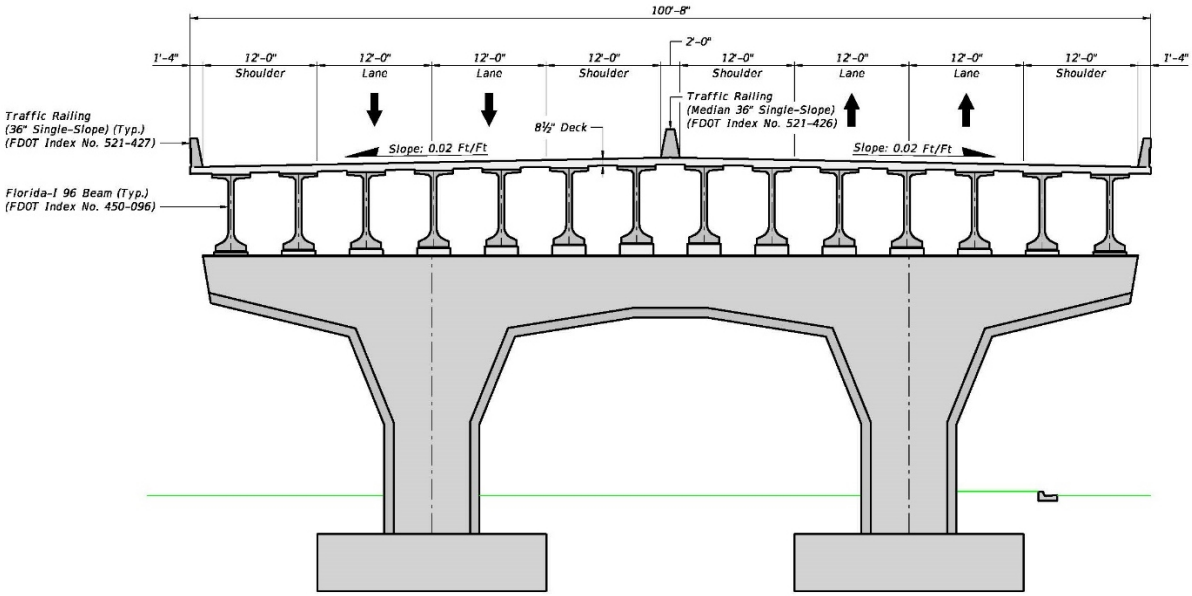


Figure 4.6.9: Conceptual Pier for Eastbound Entrance Ramp (Hammerhead)

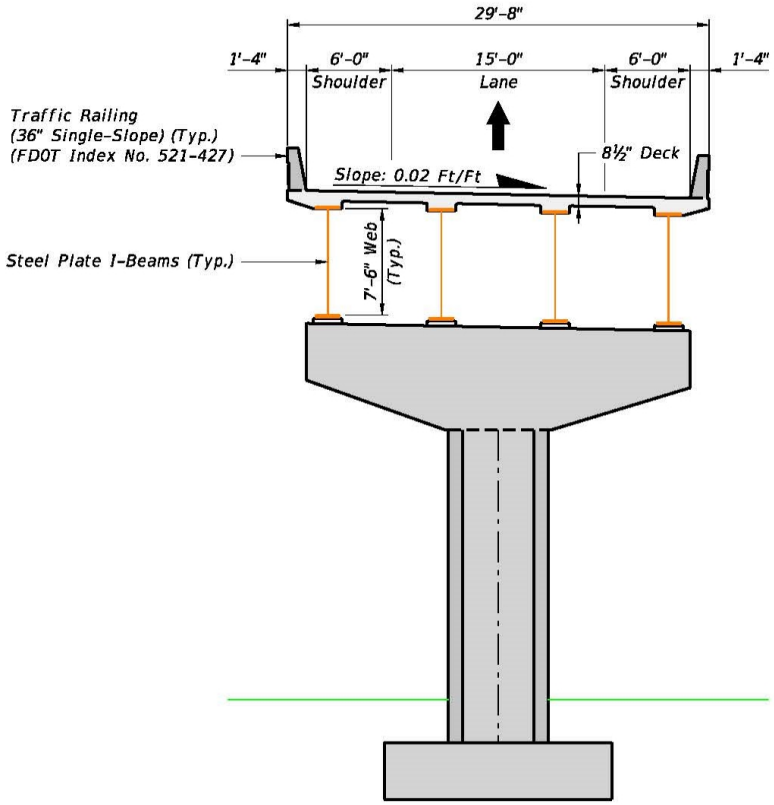
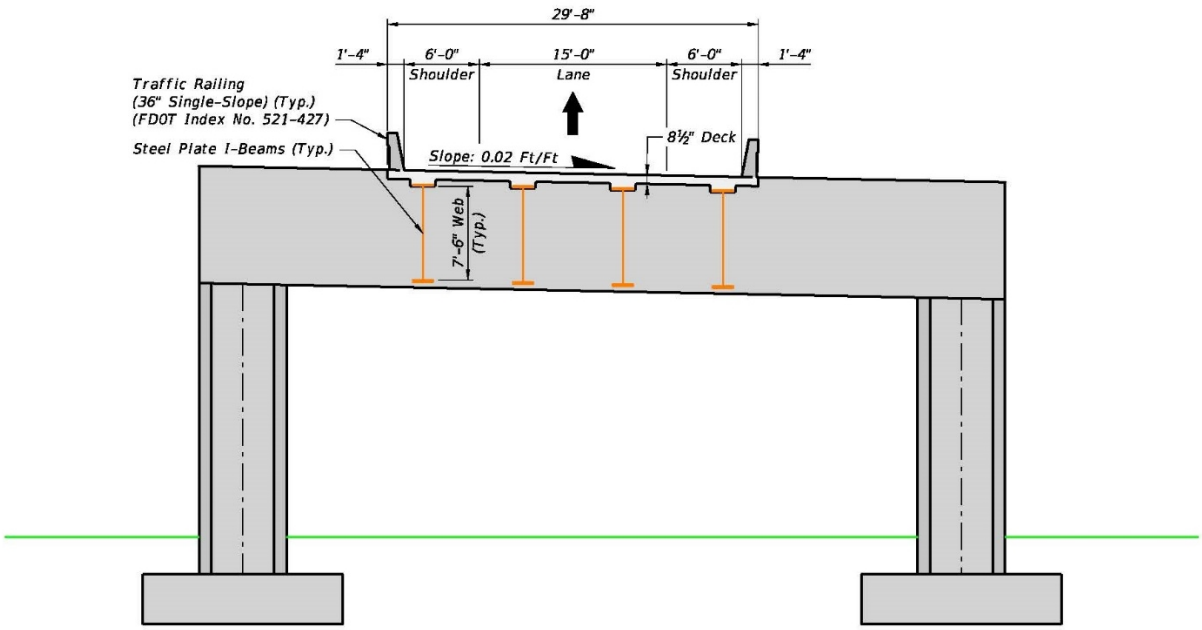


Figure 4.6.10: Conceptual Pier for Eastbound Entrance Ramp (Straddle Bent)

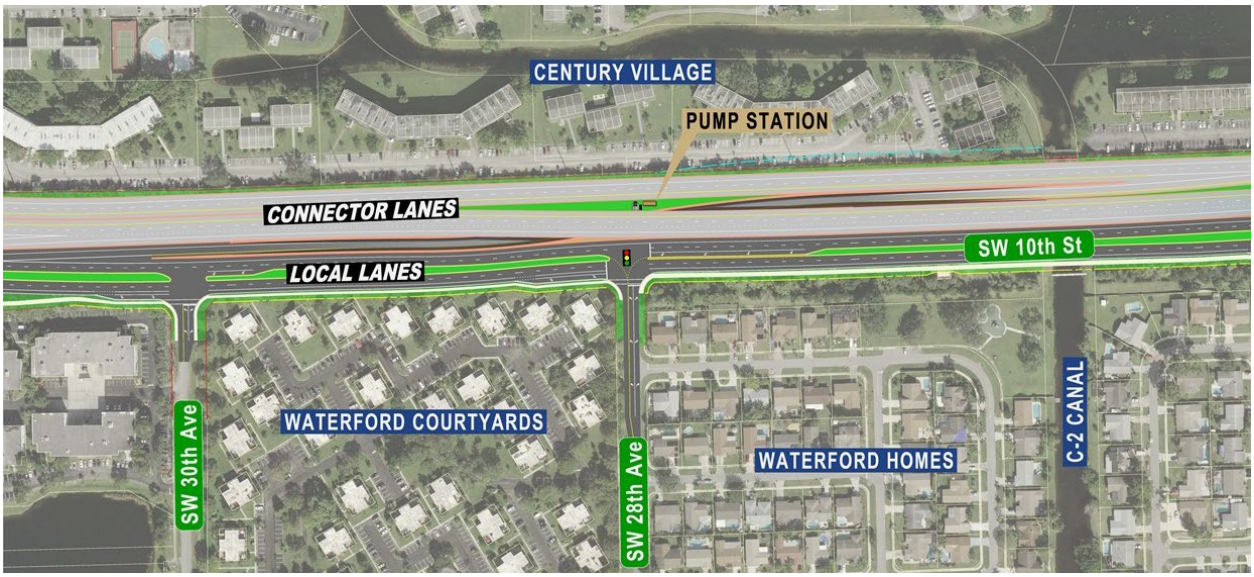


4.6.2.1 Depressed Westbound Exit Ramp

One economical method of eliminating a braided ramp overpass is to keep the local and managed lanes at the existing grade and depress the westbound exit ramp such that it passes beneath the eastbound managed lanes. This configuration requires placing the local westbound entrance ramp (east of Military Trail) on the left-hand side. While not conventional, a left-hand exit movement reduces the distance of the ramp braid across the managed lanes, since the ramp must braid beneath only the eastbound lanes as opposed to both the eastbound and westbound managed lanes. Figure 4.6.11 displays the depressed westbound exit ramp and shows the left-hand exit movement from the managed lanes coupled with the right-hand entrance on the local westbound lanes.

To provide space for the left-hand exit ramp, the eastbound managed lane departs from the westbound lanes and shifts southward via a normal-crown reverse curve before curving northward again to follow the westbound auxiliary lane.

Figure 4.6.11: Depressed Westbound Exit Ramp



The design speed of the exit ramp is 35 mph; however, the K values for the crest and sag vertical curves exceed the FDOT minimum values due to the length of curve governing. The westbound exit ramp transitions via a reverse curve with radii of 3,967 and 2,300 feet to be adjacent to the westbound local lanes and forms an outer third lane approaching Powerline Road. In order to eliminate direct impacts to Century Village, the outside of the westbound concrete barrier wall is set 10 feet from the existing right-of-way line. To accommodate the ramp braid by depressing the ramp, the alignment shift of the eastbound managed lanes requires the acquisition of additional right-of-way along the south side of local SW 10th Street. A swath of additional right-of-way up to 15 feet wide is required from Waterford Courtyards, while a swath of approximately 20 feet is required from the City-owned property east of SW 28th Avenue.

A noteworthy point is that the existing pump station for the City of Deerfield Beach wells would be located adjacent to the proposed curb line and may require the use of concrete barrier and curb-to-barrier transitions. The proposed sidewalk along the south side of local SW 10th Street is six feet in the vicinity of Waterford Courtyards and 10 feet along the City-owned property. This additional sidewalk width between SW 28th Avenue and SW 30th Avenue is proposed to facilitate pedestrian activity but can be adjusted in the design phase as the engineering is refined. The distance behind the proposed sidewalk is 10 feet in order

to accommodate potential noise walls and relocated utilities. Figures 4.6.12 to 4.6.15 display the associated renderings for this alternative.

Figure 4.6.12: Depressed Westbound Exit Ramp Looking West

Figure 4.6.13: Depressed Westbound Exit Ramp Looking West

Figure 4.6.14: Depressed Westbound Exit Ramp Looking East

Figure 4.6.15: Depressed Westbound Exit Ramp Looking East

The unique segment of the Depressed Westbound Exit Ramp Alternative is the left-hand westbound exit ramp that drops below grade and passes beneath the at-grade eastbound managed lanes. The length of the depressed exit ramp is approximately 1,900 feet, from just east of SW 30th Avenue to just west of the C-2 Canal. In this scenario, the DS has a maximum cut depth at the lowest point of the profile of approximately 32 feet and a SOE width of 43.3 feet. The SOE cut is measured from the bottom of tremie seal to existing or proposed ground.

Atop this depressed westbound exit ramp are eastbound managed lanes, which are located at-grade but are supported by a 417-foot-long structure consisting of 12x48 Florida Slab Beam (FSBs) spanning 29.4 feet between DS walls.

Similar to the Full Depressed Alternative, the ground anchors are arranged in a square grid at an approximate 10-foot spacing. The soil (horizontal) anchors to support the vertical temporary walls require an estimated horizontal projection of approximately 54 feet on each side of the SOE. The lengths fall well within the right-of-way limits of the project – a distinct advantage over other alternatives. Figure 4.6.16 shows conceptual sectional views at the DS including the SOE. Note that temporary soil anchors are needed for the lateral wall and temporary ground anchors to hold down the tremie.

Figure 4.6.16: Sectional Views for Depressed Westbound Exit Ramp

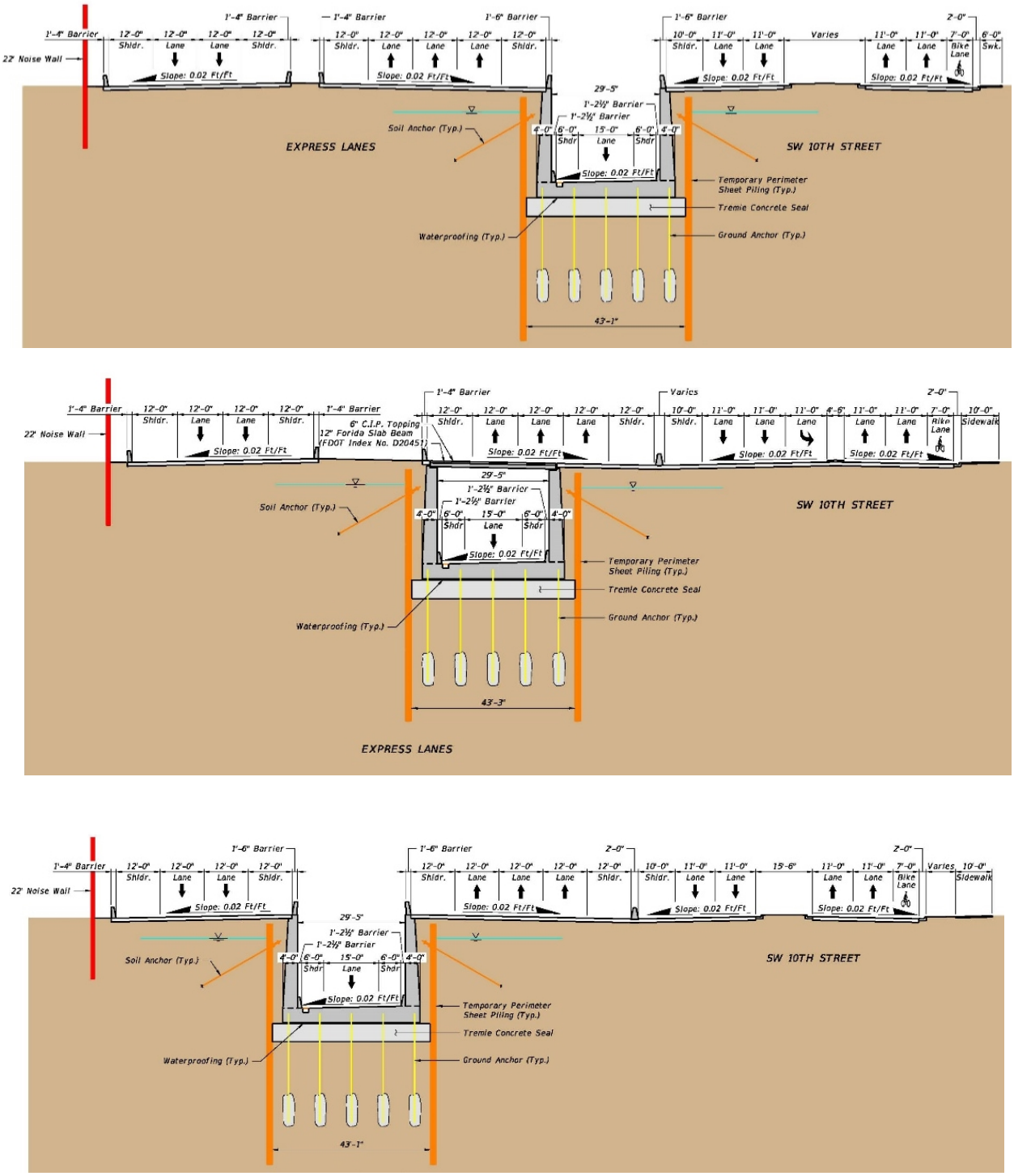
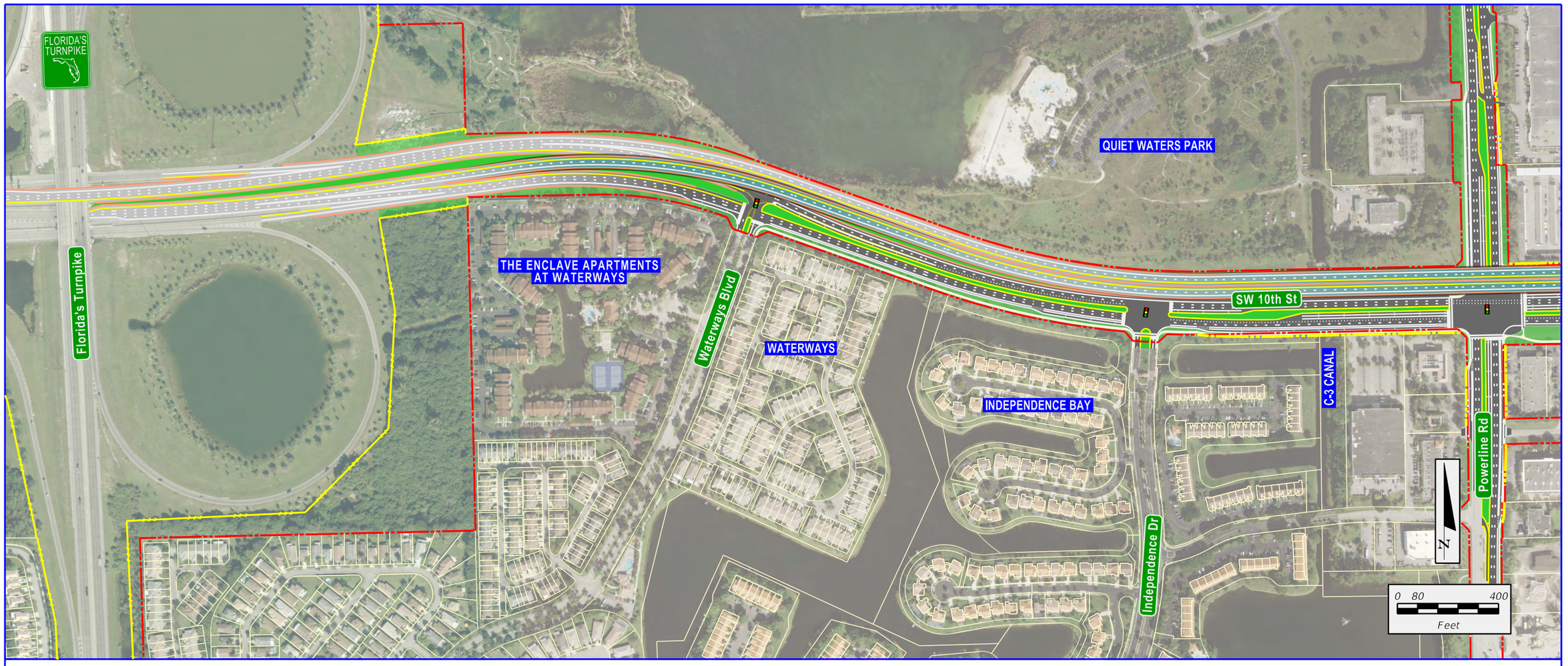
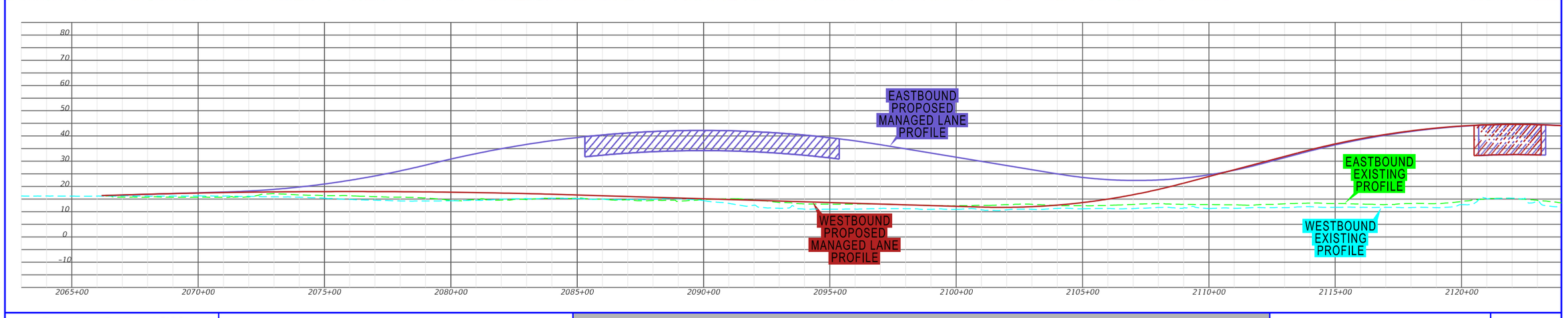


Figure 4.6.17 depicts the plan and profile of the Depressed Westbound Exit Ramp Alternative.





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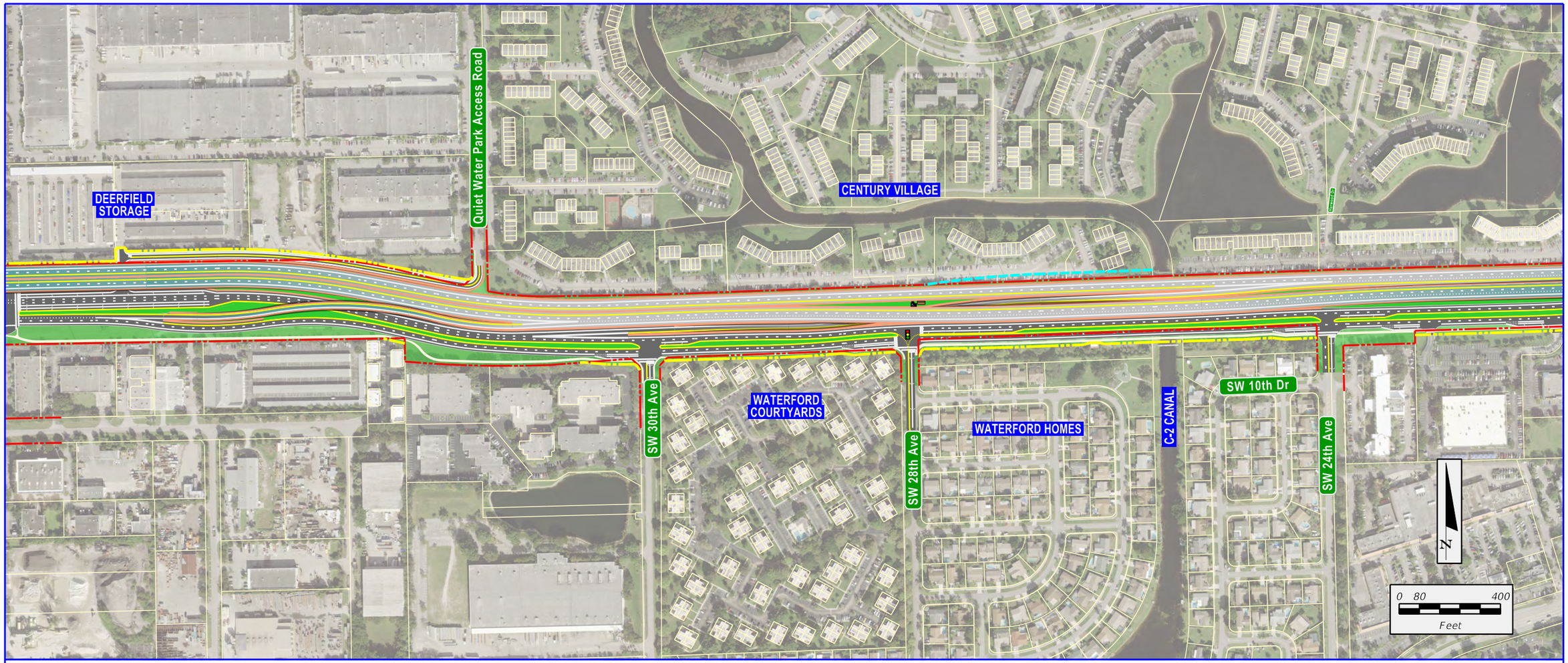
Financial Project ID: 439891-1-22-02, ETDM No: 14291

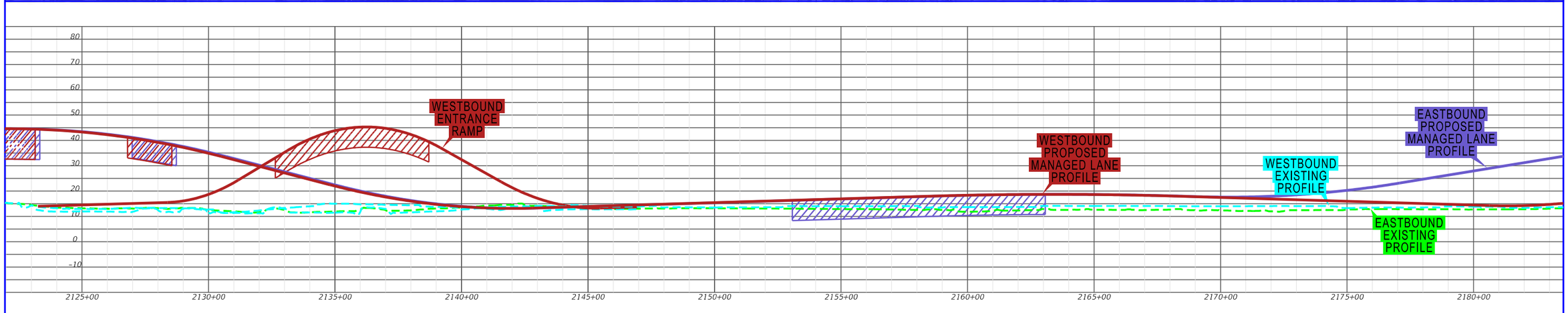
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.17
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE
1 OF 3

SHEET NO.
4-89





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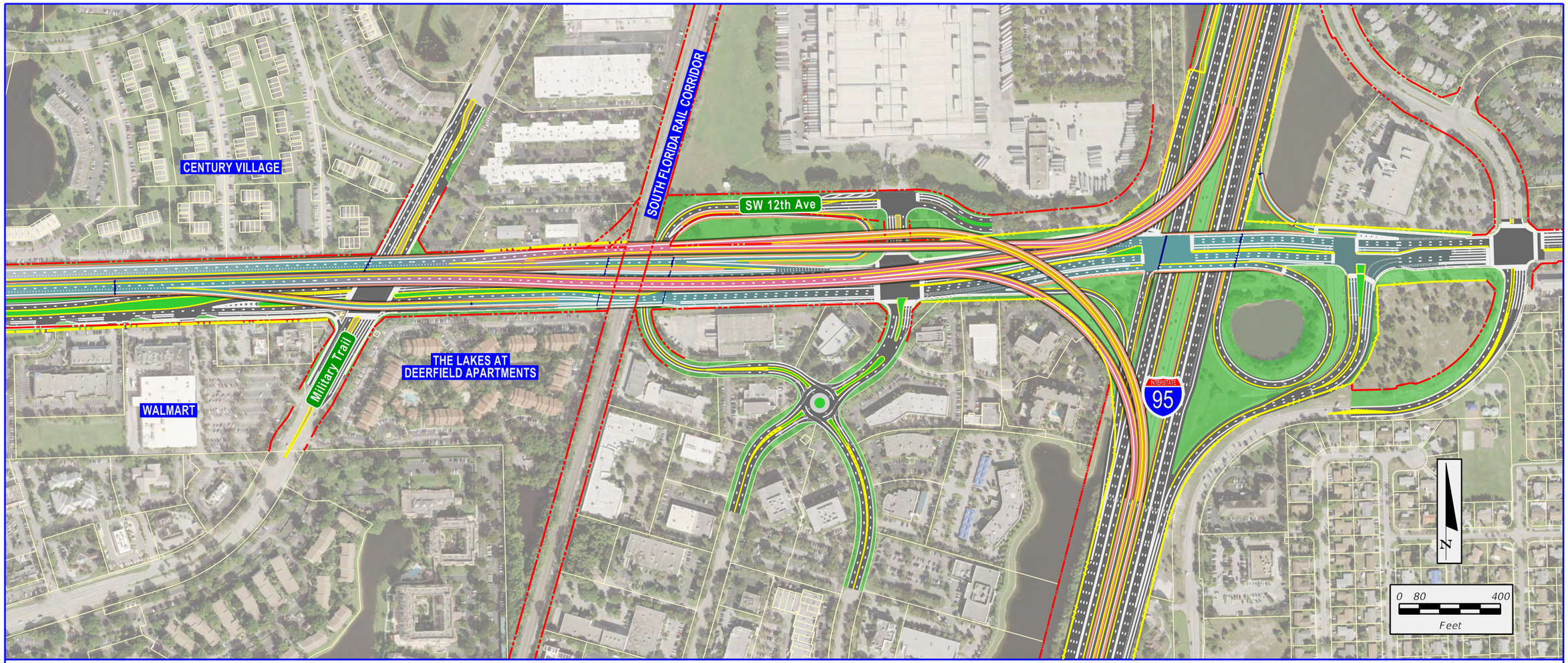
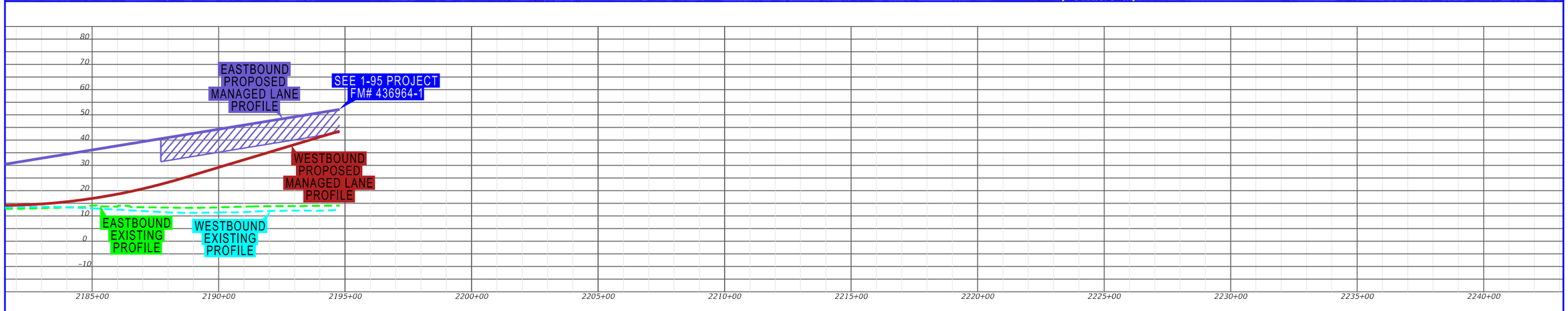
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.17
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE
2 OF 3

SHEET NO.
4-90





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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.17
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE
3 OF 3

SHEET NO.
4-91

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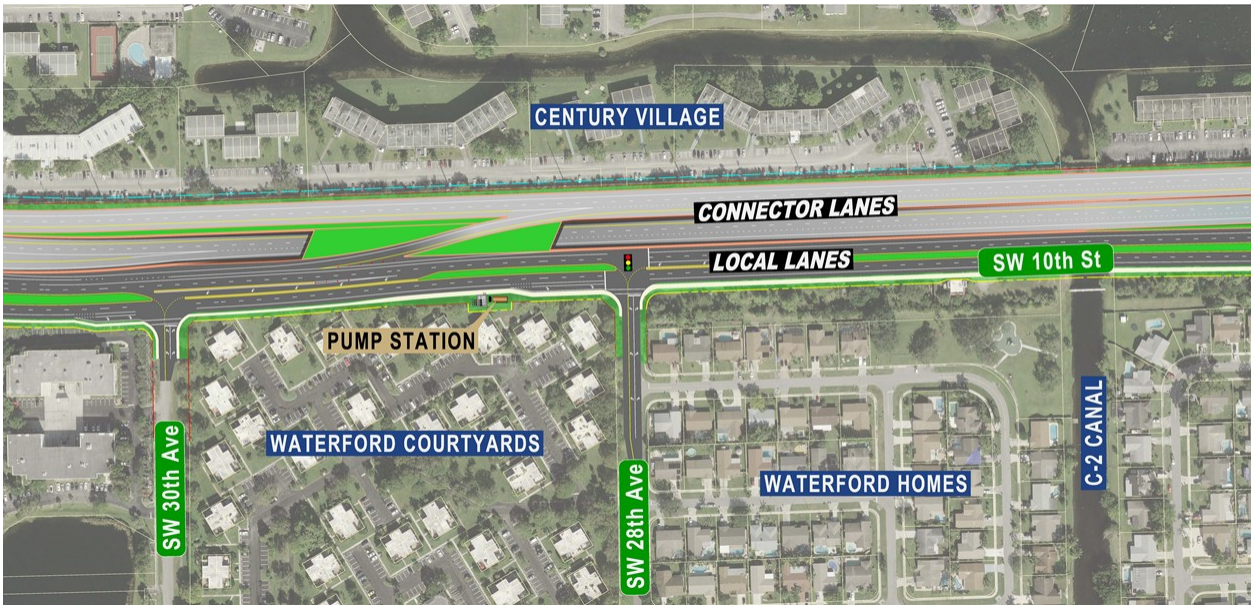
4.6.2.2 Depressed Eastbound Managed Lanes

A variation on the Depressed Westbound Exit Ramp Alternative is to swap the profiles such that the ramp profile is placed at-grade along with the westbound managed lanes, and the eastbound managed lanes are depressed. Under this scenario, the eastbound managed lanes (but not the westbound managed lanes) pass beneath an at-grade exit ramp. Figure 4.6.18 displays this configuration.

Figure 4.6.18: Depressed Eastbound Managed Lanes



As compared to the Depressed Westbound Exit Ramp Alternative, the Depressed Eastbound Managed Lanes Alternative requires only a slight departure from the adjacent westbound managed lanes in order to accommodate the wider retaining wall configuration for the depressed section. The westbound exit ramp transitions above the depressed eastbound lanes via reverse curves with radii of 1,754 and 1,837 feet. Due to the skew angle of the braided ramp, the structure supporting the reverse-curving ramp geometry must be relatively long at 550 feet. The portion of the structure that is not driving surface is proposed to be a landscaped lid. As with the Depressed Westbound Exit Ramp Alternative, the westbound exit ramp forms the third local lane in the westbound direction approaching Powerline Road.

The right-of-way impacts of the Depressed Eastbound Managed Lanes Alternative are slightly less than the Depressed Westbound Exit Ramp Alternative. At the Waterford

Courtyards condominiums, the right-of-way required ranges from zero to 16 feet, and slightly less property is needed from the City-owned parcel east of SW 28th Avenue (approximately 16 feet). However, siting a permanent pump station for this alternative is a challenge, as the separation between the local and managed lanes is reduced. As a result, right-of-way acquisition of approximately 100 feet by 20 feet is needed from Waterford Courtyards for the pump station. Figures 4.6.19 to 4.6.22 display the associated renderings.

Figure 4.6.19: Depressed Eastbound Managed Lanes Looking West

Figure 4.6.20: Depressed Eastbound Managed Lanes Looking West

Figure 4.6.21: Depressed Eastbound Managed Lanes Looking East

Figure 4.6.22: Depressed Eastbound Managed Lanes Looking East

The structure carrying the westbound exit ramp over the eastbound managed lanes extends approximately 520 feet as the westbound exit ramp is on a reverse curve alignment. The bridge spans 64.5 feet between DS walls and is configured using FIB 36 at a 12-foot beam spacing.

The eastbound depressed section extends approximately 2,580 feet from SW 30th Avenue to just west of the C-2 Canal. The DS conveys three eastbound managed lanes with a total width ranging from 60 to 78 feet. The DS must provide a minimum vertical clearance of 16.5 feet; however, the lowest point in the profile is located approximately 260 feet into the covered portion of this DS. As a result, the maximum cut depth is approximately 34 feet, where the SOE requires a width of 76.08 feet. The SOE cut is measured from the bottom of tremie seal to existing or proposed ground. The challenges of this DS are similar to those of the Full Depressed Alternative.

Figure 4.6.23 shows three sectional views of the DS including the SOE. Note that temporary soil anchors are required for the lateral wall and temporary ground anchors to hold down the tremie.

Figure 4.6.23: Sectional Views for Depressed Eastbound Managed Lanes Alternative

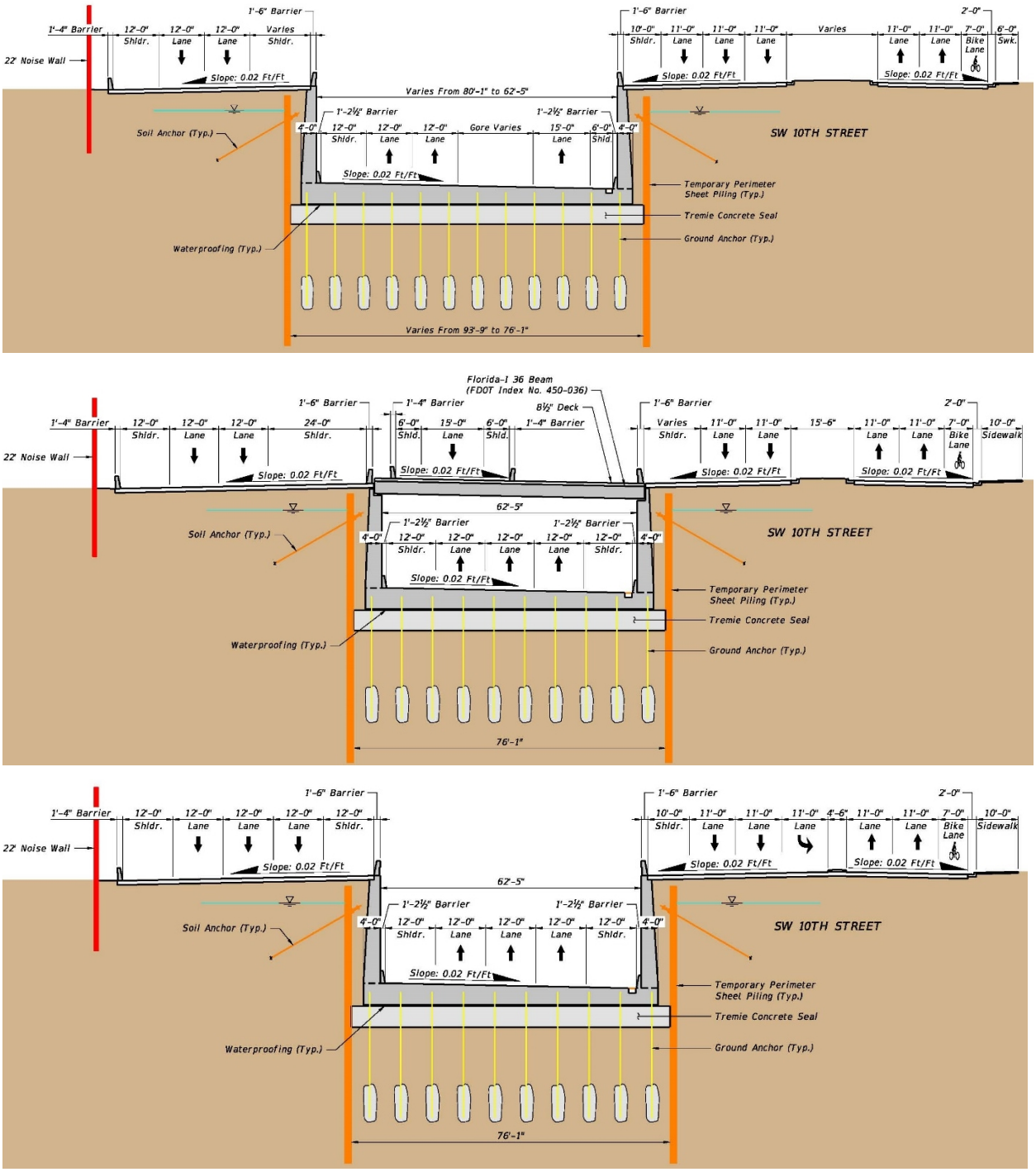
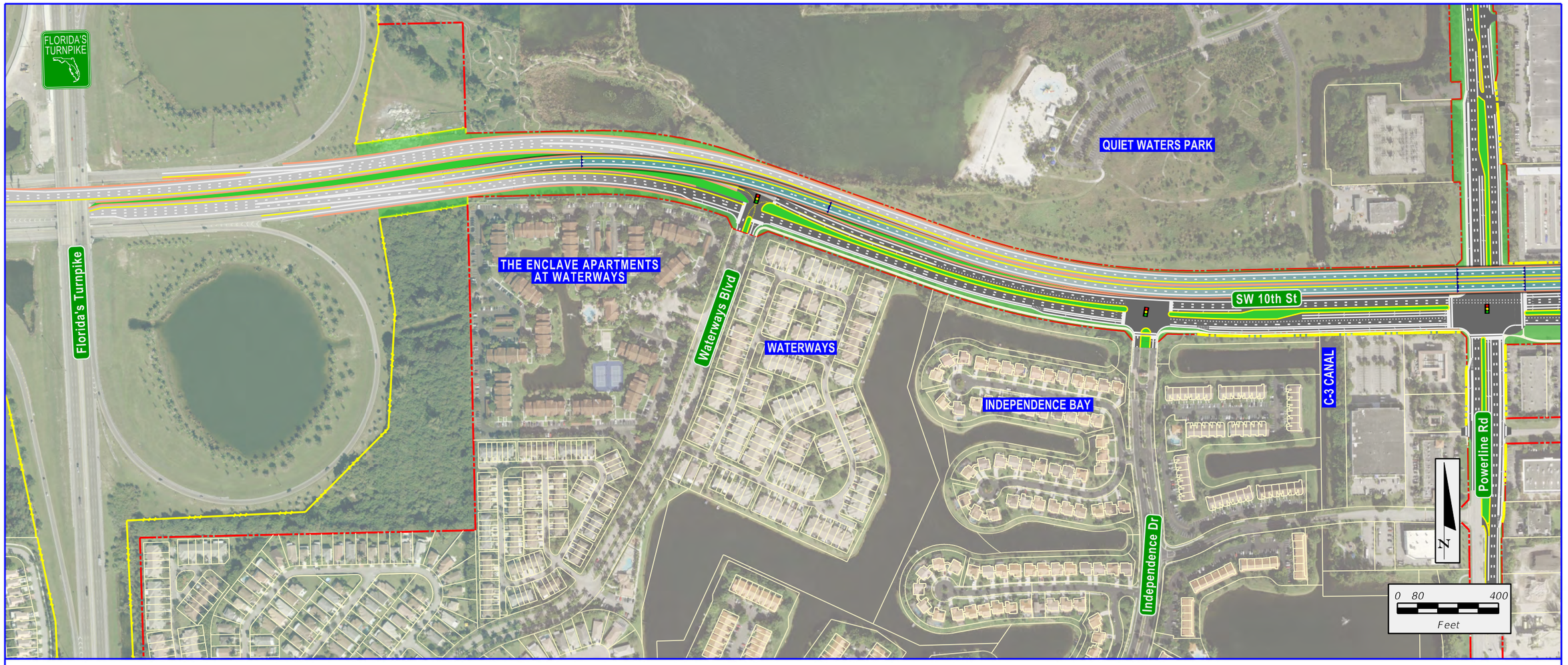
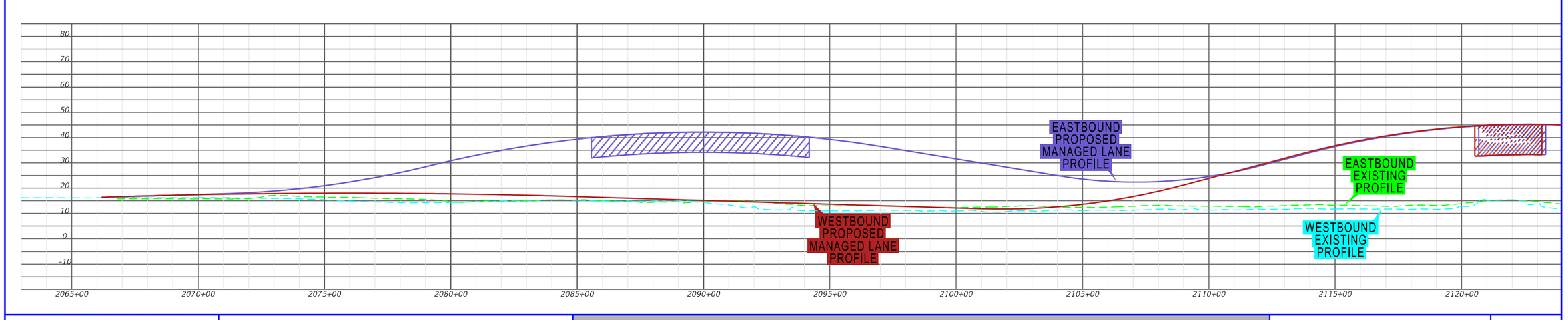


Figure 4.6.24 summarizes the plan and profile of the Depressed Eastbound Managed Lanes Alternative.





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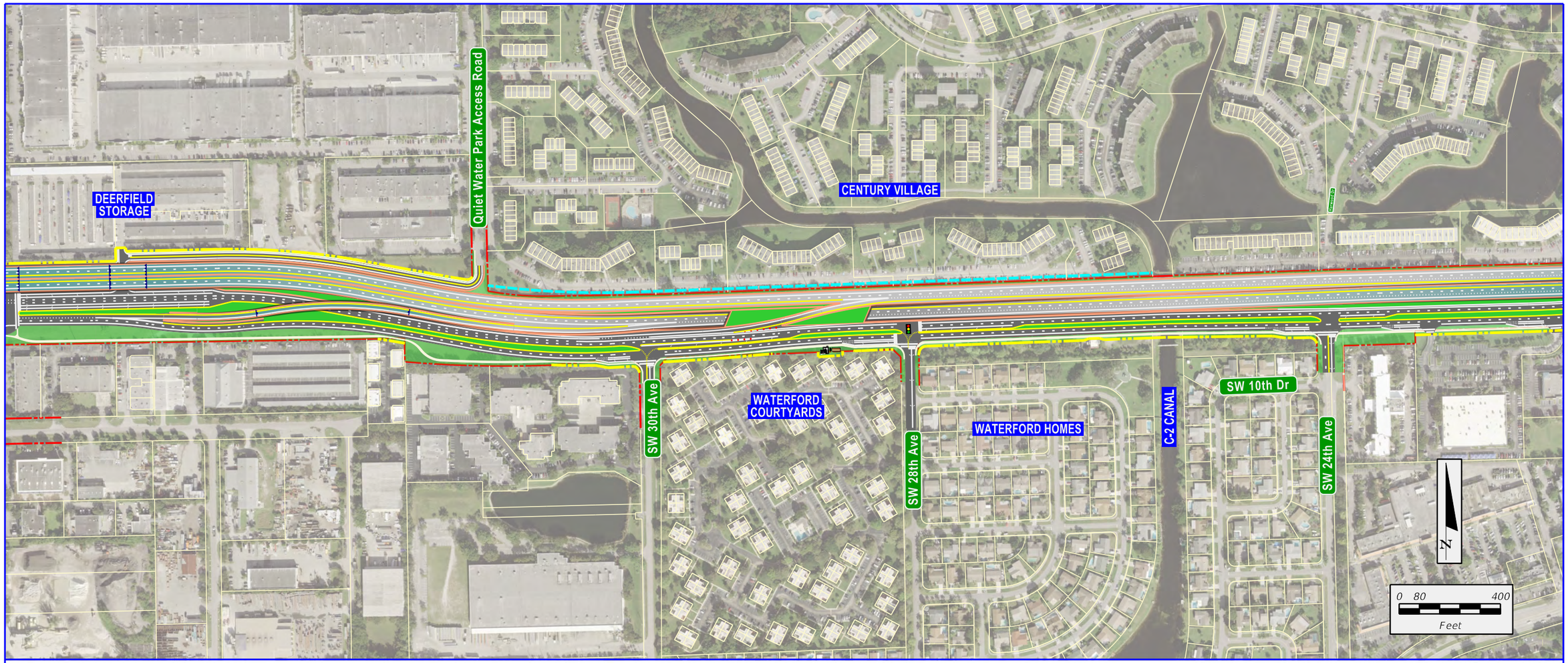
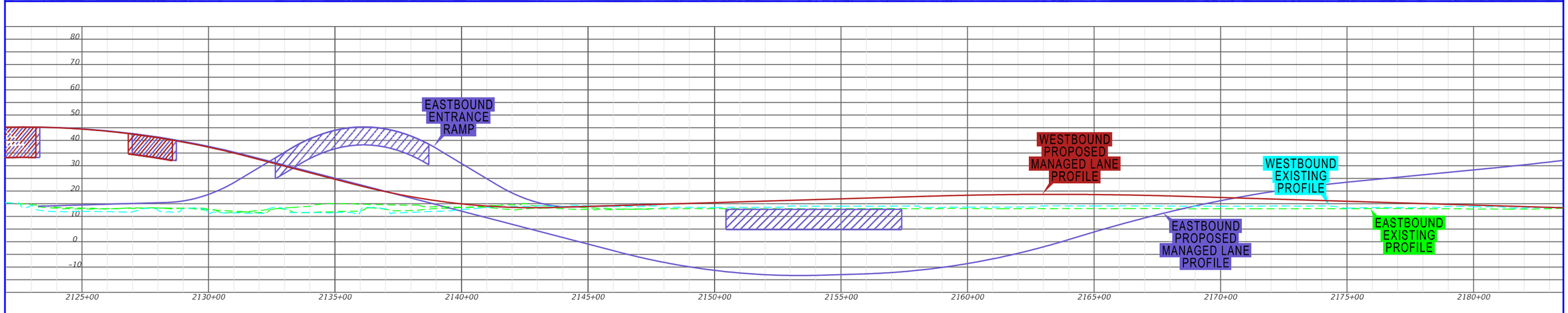
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.24
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE
1 OF 3

SHEET NO.
4-97





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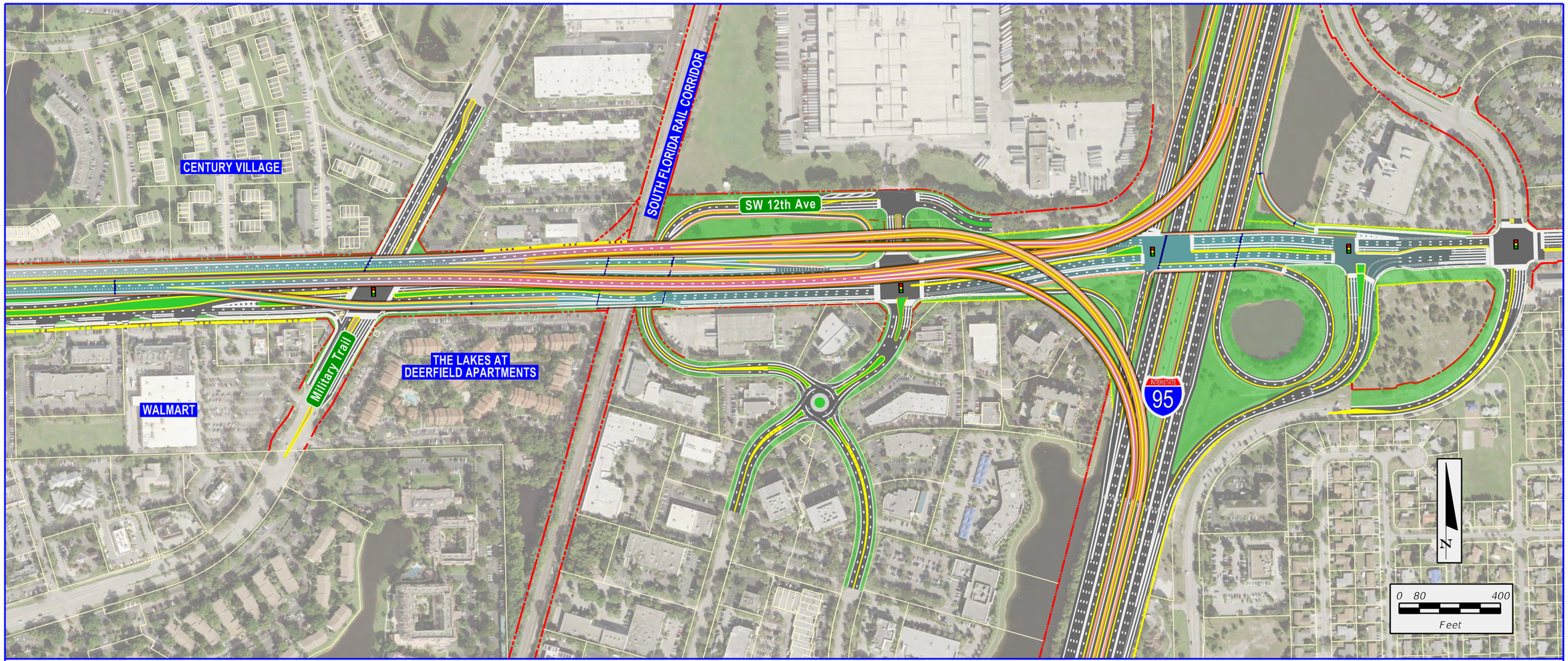
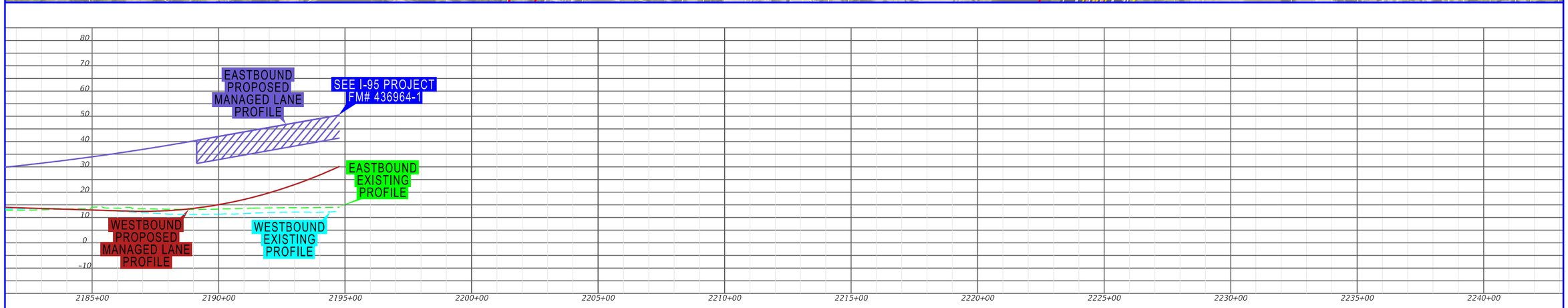
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.24
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE
2 OF 3

SHEET NO.
4-98





SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.24
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE 3 OF 3

SHEET NO. 4-99

4.6.2.3 Depressed Eastbound and Westbound Managed Lanes

The third sub-alternative of the Partial Depressed Alternative is similar to the Depressed Eastbound Managed Lanes Alternative except that, instead of a left-hand exit ramp, a right-hand exit ramp is used. Under this scenario, a right-hand entrance ramp is located west of Military Trail, thereby creating an auxiliary lane on the north side of the westbound managed lanes. This auxiliary lane then forms the westbound exit ramp, which provides 1,440 feet between the painted gore nose and the reverse curves of radii of 1,530 and 1,546. Figure 4.6.25 displays this right-hand exit ramp and braided crossing.

Figure 4.6.25: Depressed Eastbound & Westbound Managed Lanes

A noteworthy point is that no tangent is located between the reverse curves. Compared to the Depressed Eastbound Managed Lanes Alternative, a longer structure (692 feet) is needed to facilitate the at-grade crossing of the westbound exit ramp above the eastbound and westbound managed lanes.

The back of concrete barrier wall along the westbound exit ramp is located 10 feet from the existing right-of-way line (consistent with the other three alternatives). To provide space along the north side for this exit ramp and auxiliary lane, the mainline managed lanes are shifted southward via normal crown reverse curves. A right-of-way swath of up to five feet (up to 15 feet at the right-turn lane for SW 28th Avenue) is required from Waterford

Courtyards. East of SW 28th Avenue, the right-of-way required from the City-owned parcel is approximately the same as the Depressed Westbound Exit Ramp Alternative (20 feet) but is around 15 feet less than the Depressed Eastbound Managed Lane Alternative. Hence, of the three Partial Depressed Alternatives, the Depressed Eastbound and Westbound Managed Lanes Alternative has the least impacts to the City-owned parcel and pump house.

Locating a permanent pump station for stormwater removal in the depressed section is particularly challenging. Due to the southerly shift of the managed lane alignment to provide space for the westbound exit ramp, a width ranging from 10 to 30 feet exists just north of the ramp structure. This space is not anticipated to be sufficient for a permanent pump station with ingress/egress for maintenance vehicles, and a right-of-way acquisition from Century Village may be required. Moreover, any maintenance access must be provided to and from the exit ramp itself, potentially compromising safety on the exit ramp. Finally, the pump station may be located partially within Century Village and would require suitable fencing and aesthetic treatments. Figures 4.6.26 to 4.6.29 display the associated renderings for this alternative.

Figure 4.6.26: Depressed Eastbound & Westbound Managed Lanes Looking West

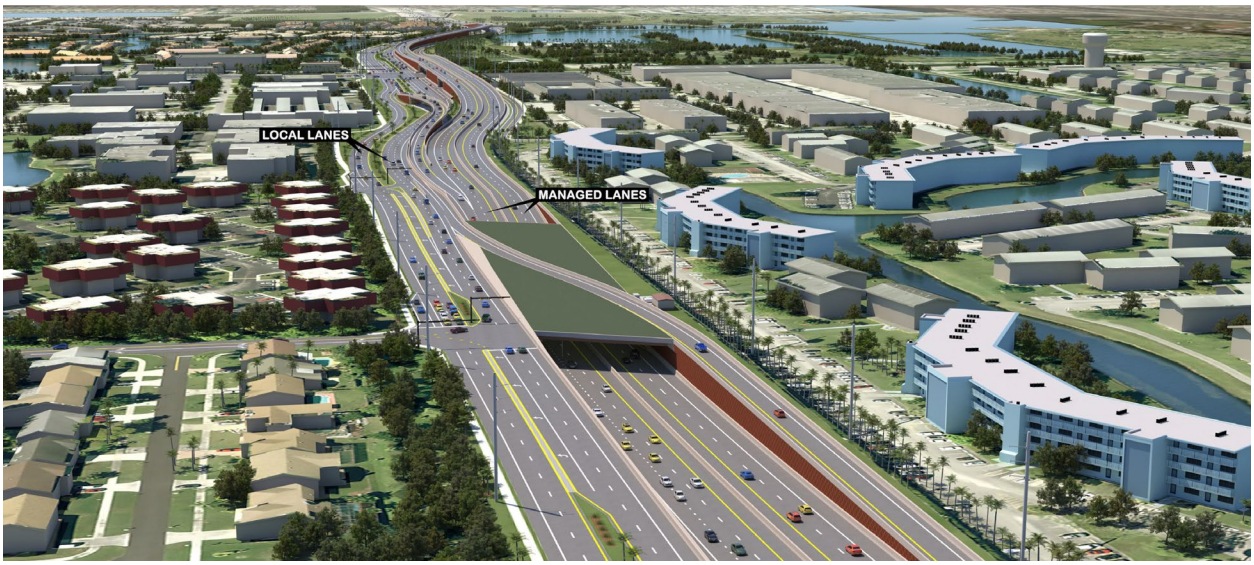


Figure 4.6.27: Depressed Eastbound & Westbound Managed Lanes Looking West

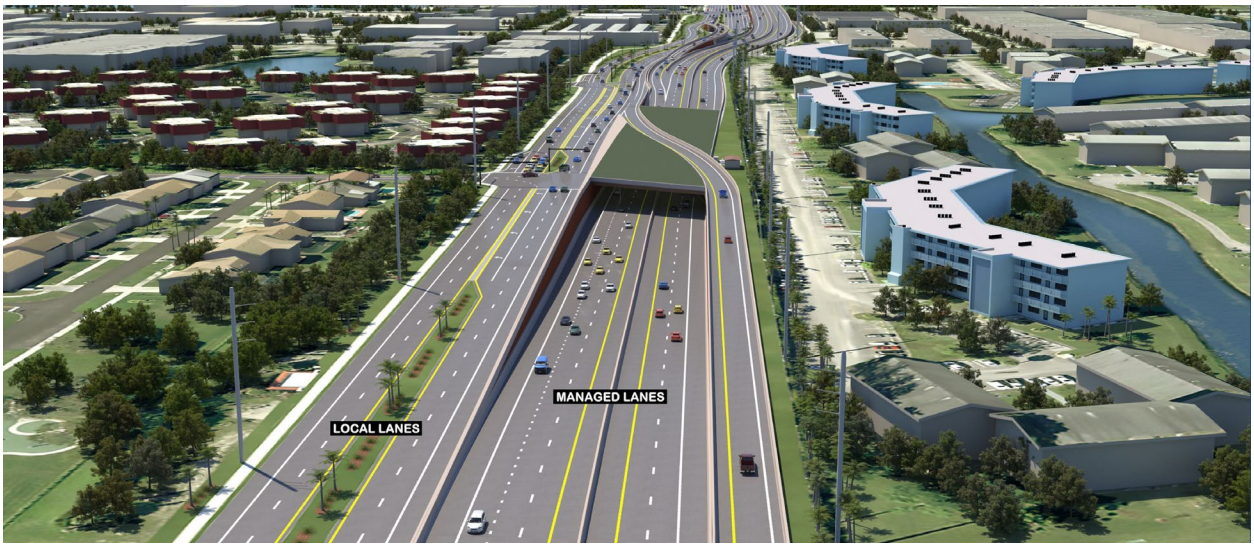


Figure 4.6.28: Depressed Eastbound & Westbound Managed Lanes Looking East

Figure 4.6.29: Depressed Eastbound & Westbound Managed Lanes Looking East

The bridge carrying the westbound exit ramp over the eastbound and westbound managed lanes extends approximately 652 feet as the westbound exit ramp is on a reverse curve alignment. The bridge or lid is comprised of FIB 54 at nine-foot beam spacing and spans approximately 112.5 feet between DS walls.

As with the Depressed Eastbound Managed Lanes, the depressed limits extend approximately 2,450 feet from SW 30th Avenue to just west of the C-2 Canal. The DS accommodates three eastbound and two westbound managed lanes with a width ranging from 110 to 128 feet. The DS has a maximum cut depth of approximately 32 feet and a SOE width of 126.08 feet. The SOE cut is measured from the bottom of tremie seal to existing or proposed ground. The challenges of this DS are similar to those of the Full Depressed Alternative; however, the large width will require a large number of cells and large amount of storm water to dewater.

Figure 4.6.30 shows the sectional views at the DS including the wide SOE. Note that temporary soil anchors are required for the lateral wall and a large amount of temporary ground anchors are needed to hold down the tremie seal.

Figure 4.6.30: Sectional Views for Depressed Eastbound & Westbound Managed Lanes Alternative

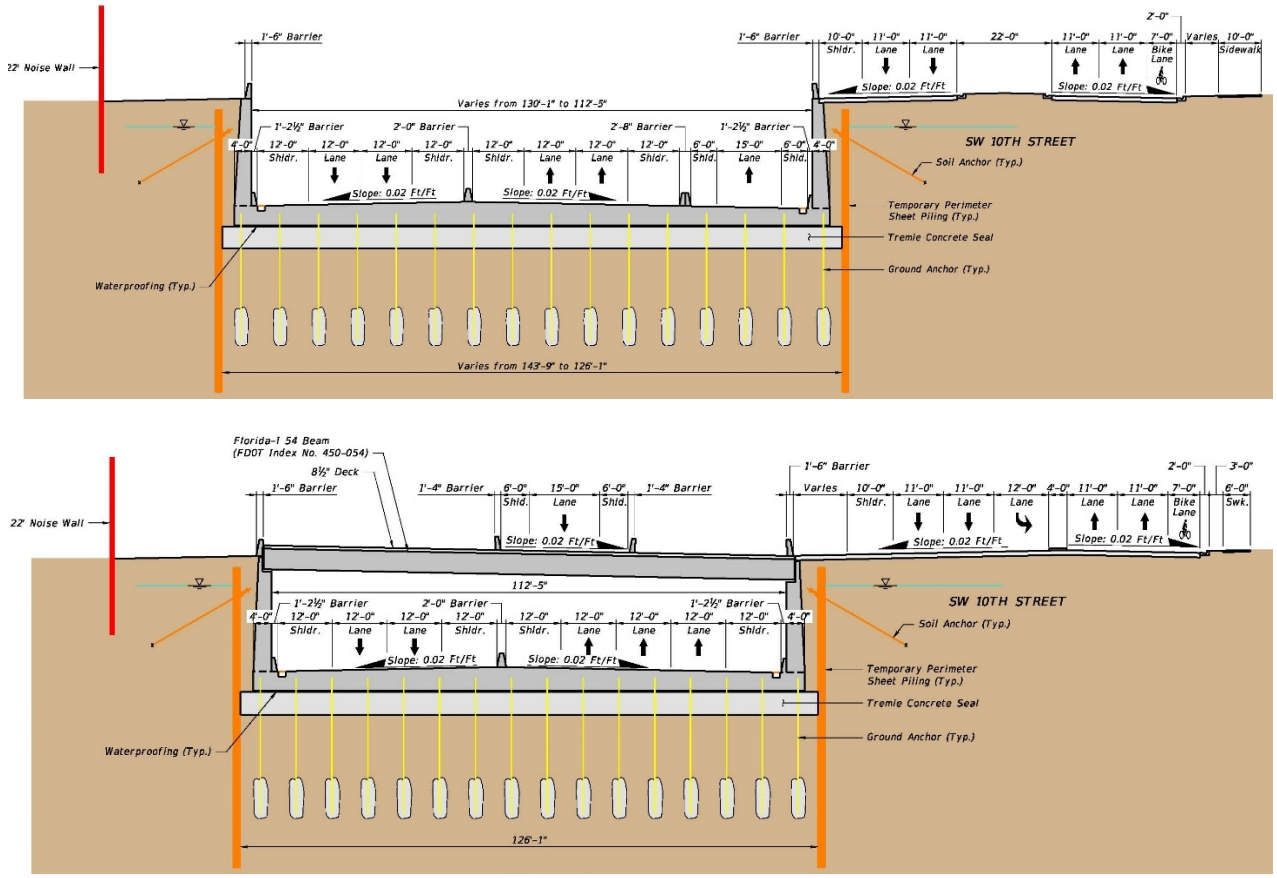
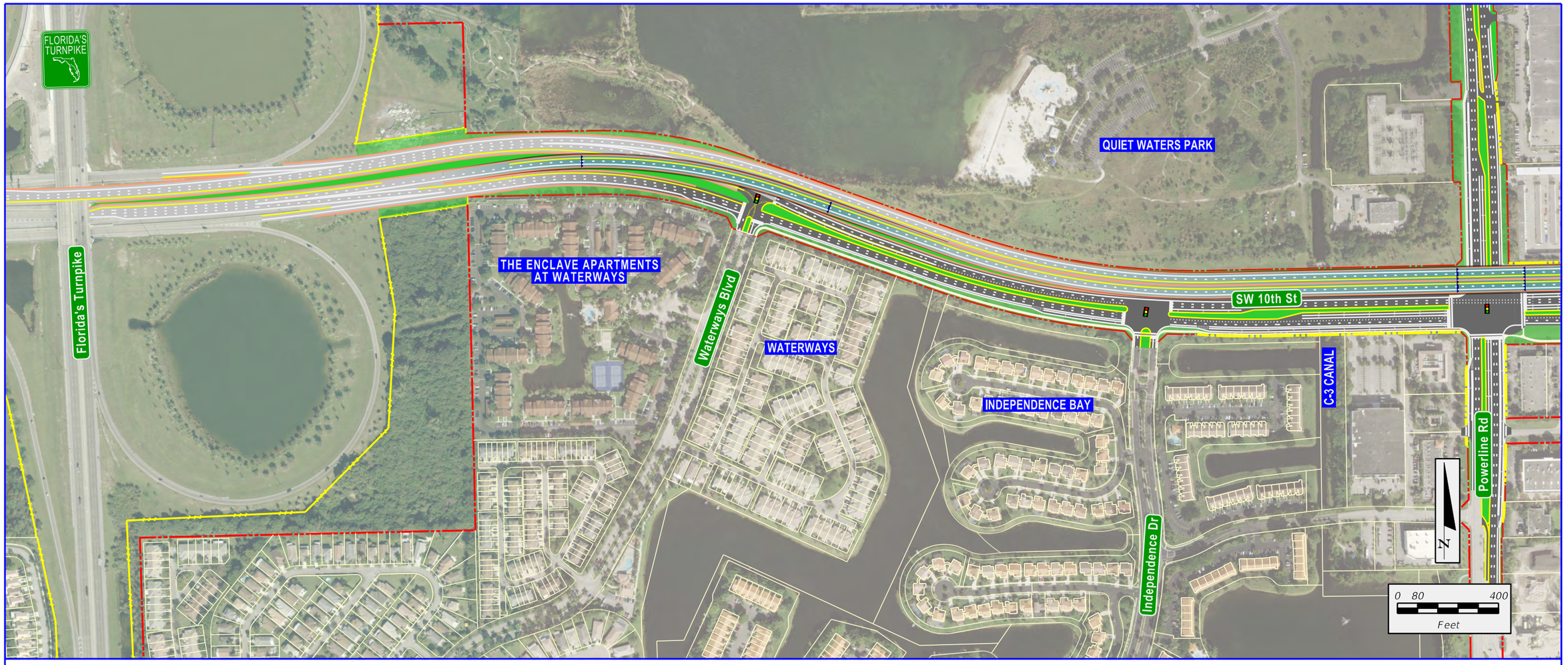
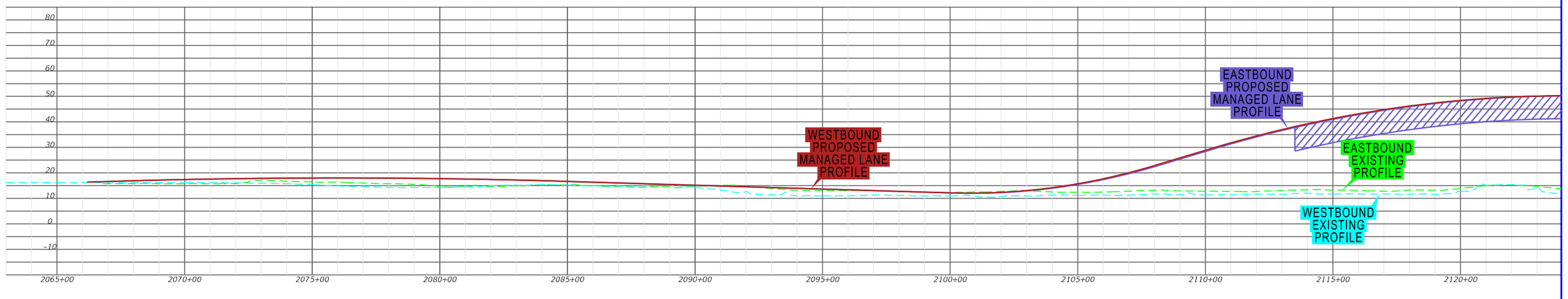


Figure 4.6.31 depicts the plan and profile for the Depressed Eastbound and Westbound Managed Lanes Alternative.





SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
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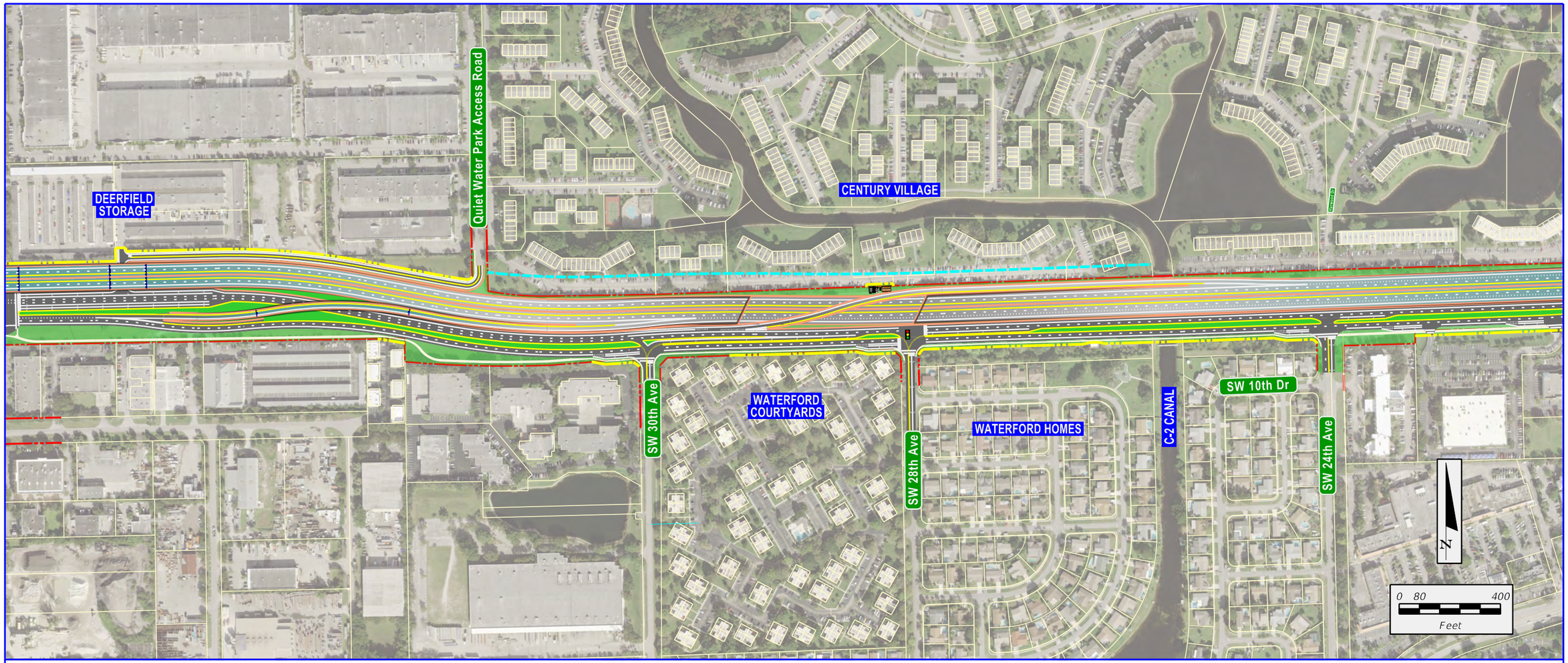
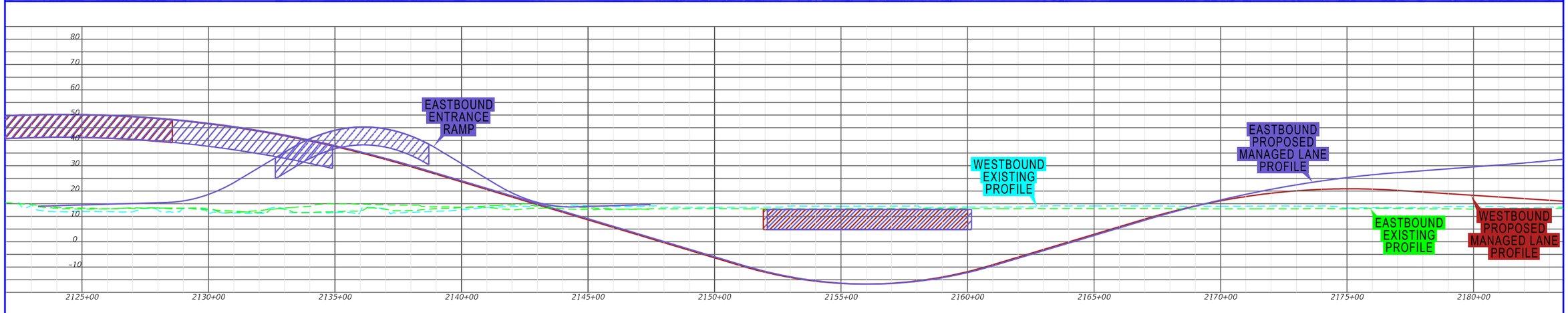
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.31
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE 1 OF 3

SHEET NO.
4-105





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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

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- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.31
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE 2 OF 3

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CENTURY VILLAGE

SOUTH FLORIDA RAIL CORRIDOR

SW 12th Ave

Military Trail

THE LAKES AT DEERFIELD APARTMENTS

WALMART

INTERSTATE 95

N

0 80 400

Feet

80
70
60
50
40
30
20
10
0
-10

EASTBOUND PROPOSED MANAGED LANE PROFILE

SEE I-95 PROJECT FM# 436964-1

WESTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING PROFILE

EASTBOUND EXISTING PROFILE

2185+00 2190+00 2195+00 2200+00 2205+00 2210+00 2215+00 2220+00 2225+00 2230+00 2235+00 2240+00

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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FIGURE 4.6.31
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE 3 OF 3

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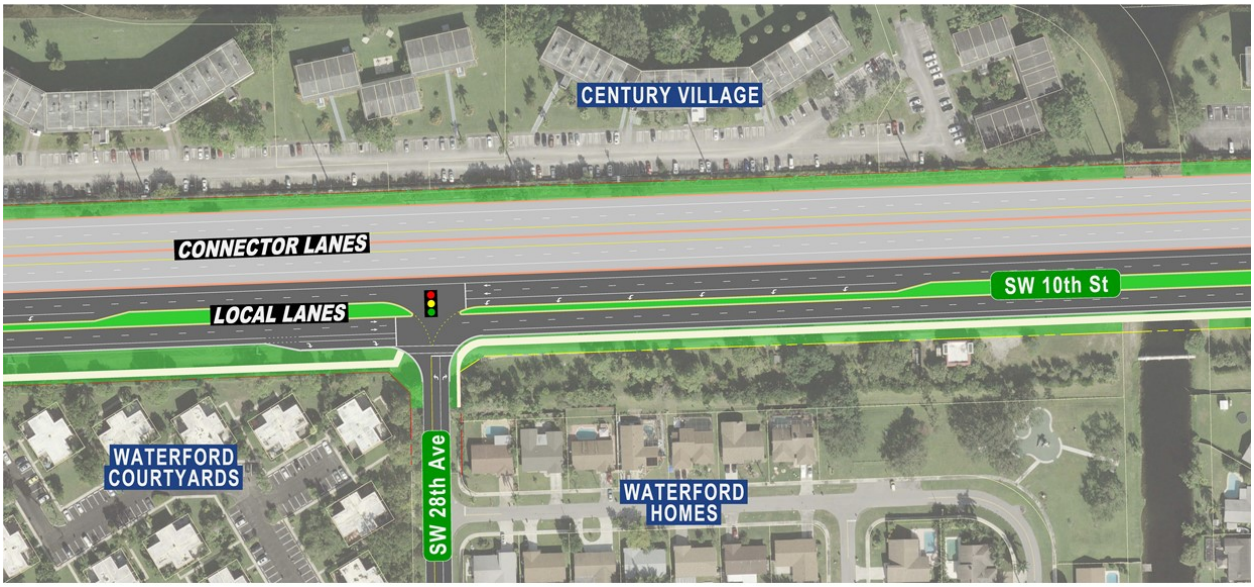
4.6.3 Non-Depressed/No Managed Lane Access Alternative

One of the primary challenges of this corridor is whether or not to provide ingress and egress between the local SW 10th lanes and the managed lanes. The inclusion of ramps within the SW 10th Street corridor coupled with the inclusion of depressed elements, as seen with the Partial Depressed Alternative, increases the right-of-way footprint, increases utility relocations (including the south side FP&L transmission line), and increases the construction cost. As an alternative to both the Full and Partial Depressed Alternatives, both of which feature ingress/egress ramps, a third alternative was developed that strives to minimize construction cost, right-of-way impacts, and construction complexity. This alternative, entitled the "Non-Depressed/No Managed Lane Access Alternative", requires minimal right-of-way and affords the most space for enhanced pedestrian accommodations as well as landscaping. Figure 4.6.32 illustrates the additional space within the existing right-of-way when ramps and access points are not present.

Figure 4.6.32: Non-Depressed/No Managed Lane Access Alternative



At the west portion of the project, the Non-Depressed/No Managed Lane Access Alternative is identical to the Partial Depressed Alternative. The managed lane profile spans Military trail and ties into the existing grade near the west end of Century Village. A right-in/right-out access road to Quiet Waters Business Park continues to be featured, since the existing median opening will be removed. The first primary difference between the Non-Depressed/No

Managed Lane Access Alternative and the Partial Depressed Alternative is the elimination of the braided eastbound entrance ramp to the managed lanes. Similarly, the elimination of the braided westbound exit ramp affords considerably more space within the existing right-of-way. If the proposed managed lanes and local SW 10th Street lanes are located immediately adjacent to each other and separated by a concrete barrier wall, the impacts are minimized such that most of the FP&L poles for the south side transmission line would be able to remain. As seen in the alternative's evaluation matrix in Table 4.7.1, the proposed utility relocation cost is essentially halved.

Approaching Military Trail, the lack of entrance and exit ramps also eliminates the need for any potential auxiliary lane in each direction. The eastbound exit ramp and westbound entrance ramp located above and east of Military Trail, respectively, are also eliminated. Access to and from the managed lanes must therefore be facilitated by other planned ingress/egress points located on I-95. These points are addressed in the PD&E study for the adjacent project, I-95 from SW 10th Street to Hillsboro Boulevard PD&E Study (FM# 436964-1), currently in progress.

The Non-Depressed/No Managed Lane Alternative has the same structural configuration as described at the beginning of the Partial Depressed section (Waterways, Powerline Road, Quiet Waters Business Park Access Road). Because this alternative lacks entrance and exit ramps along SW 10th Street, no ramp braiding is proposed and consequently no elevated or depressed elements are present between SW 30th Avenue and Military Trail.

The Non-Depressed alternative has the smallest overall right-of-way footprint from an acreage standpoint, but it has the most estimated business relocations due to the need for additional lanes approaching Military Trail. The relocations are a result of impacts to parking lots and not direct impacts to buildings. While the Non-Depressed/No Managed Lane Access Alternative has the smallest footprint and least impacts of all the alternatives examined, the lack of ingress/egress ramps does not sufficiently reduce the amount of through traffic on local SW 10th Street. Figures 4.6.33 and 4.6.34 show the estimated traffic times for the existing conditions, No-Build Alternative, and the Build Alternatives for the eastbound a.m. and westbound p.m. periods.

Figure 4.6.33: SW 10th Street Eastbound Travel Time (Florida's Turnpike to I-95)

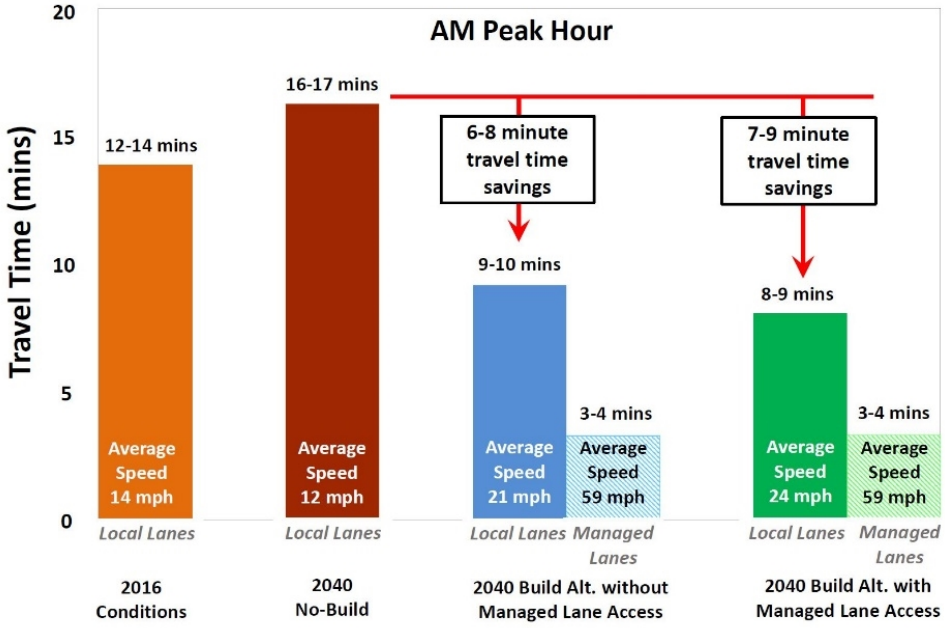
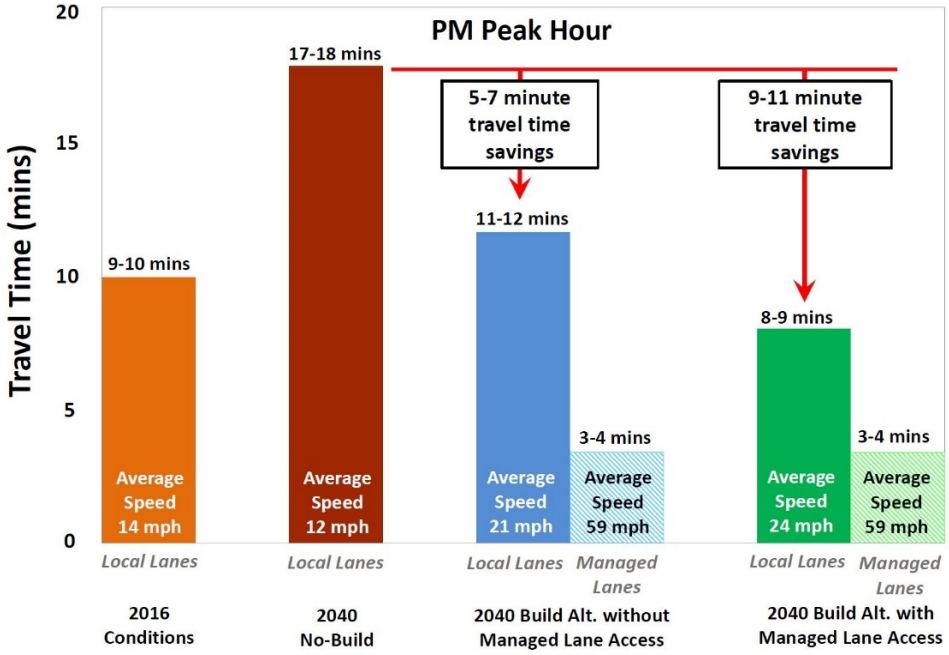


Figure 4.6.34: SW 10th Street Westbound Travel Time (I-95 to Florida's Turnpike)



As can be seen by these two figures, the Build Alternative with ingress and egress (green bars) improves travel times in the design year more than the Build Alternative without access (blue bars). Both Build Alternatives provide significant travel time savings compared to the No-Build Alternative.

Figures 4.6.35 to 4.6.38 display the associated renderings, and Figure 4.6.39 displays the plan and profile of the Non-Depressed/No Managed Lane Access Alternative.

Figure 4.6.35: Non-Depressed/No Managed Lane Access Alternative Looking West

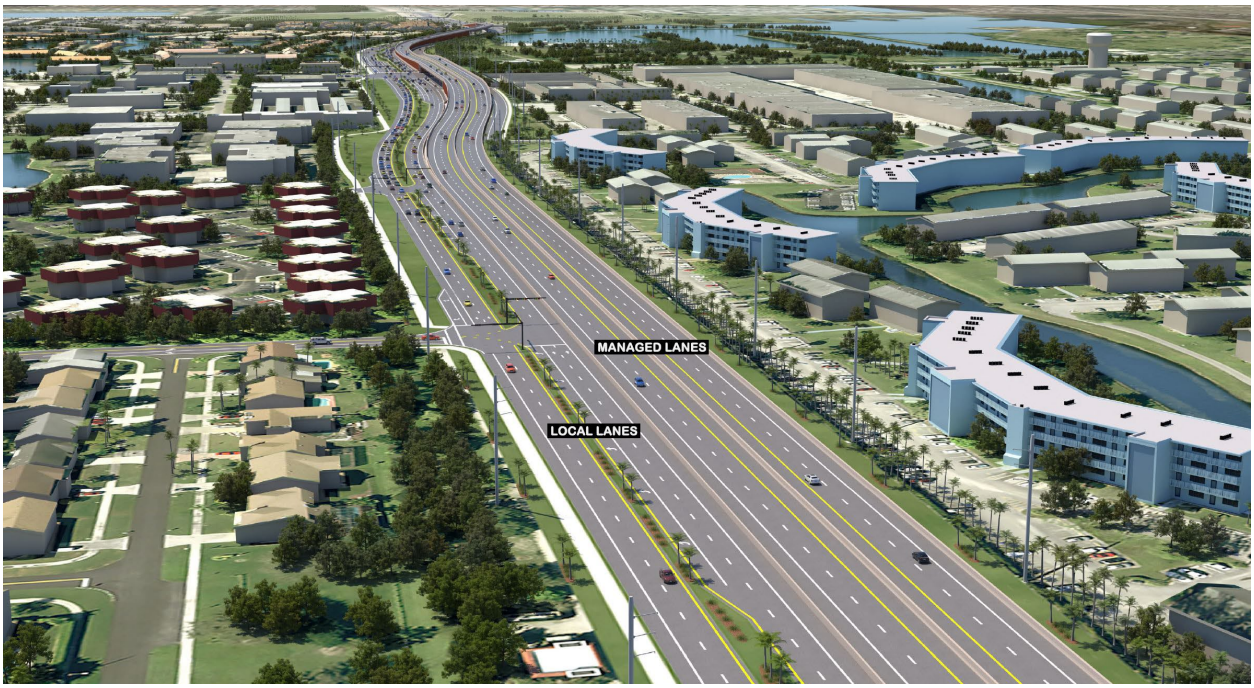
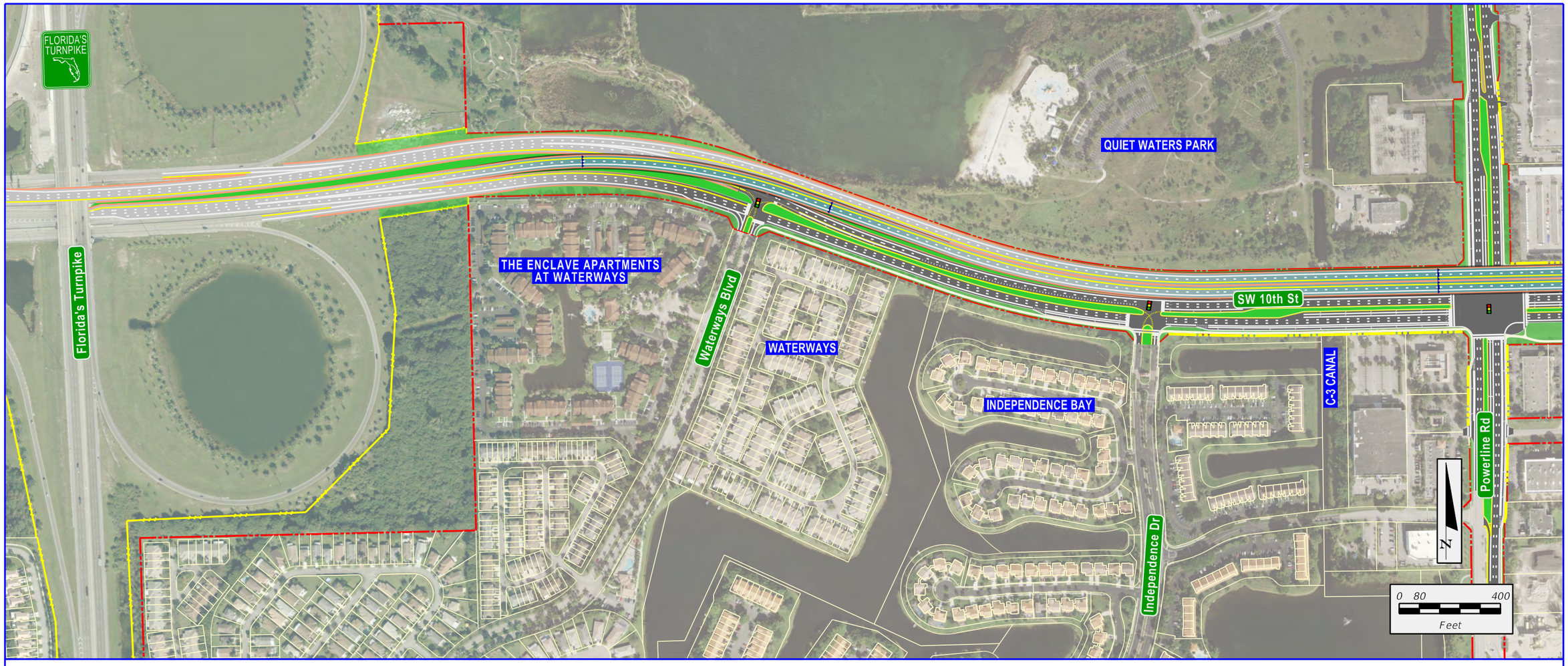
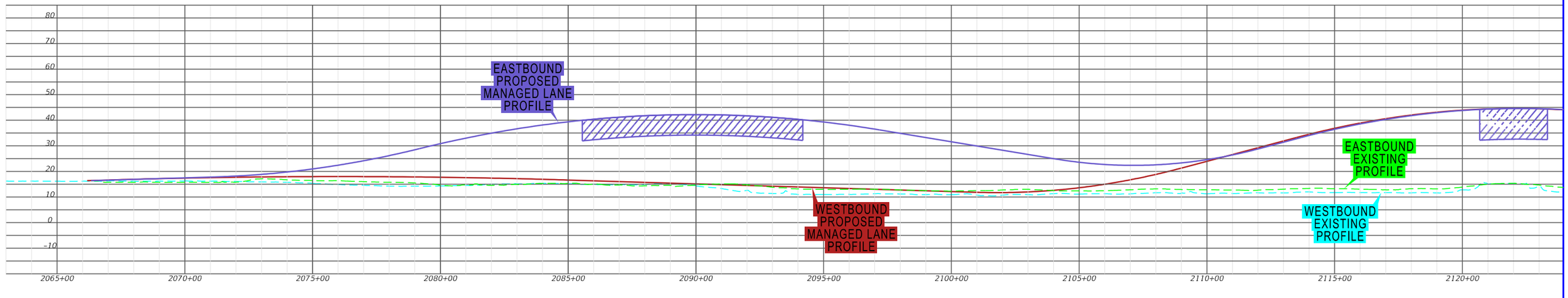


Figure 4.6.36: Non-Depressed/No Managed Lane Access Alternative Looking East

Figure 4.6.37: Non-Depressed/No Managed Lane Access Alternative Looking West

Figure 4.6.38: Non-Depressed/No Managed Lane Access Alternative Looking West





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Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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- PROPOSED 4TH LEVEL BRIDGE
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- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.6.39
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE 1 OF 3

SHEET NO.
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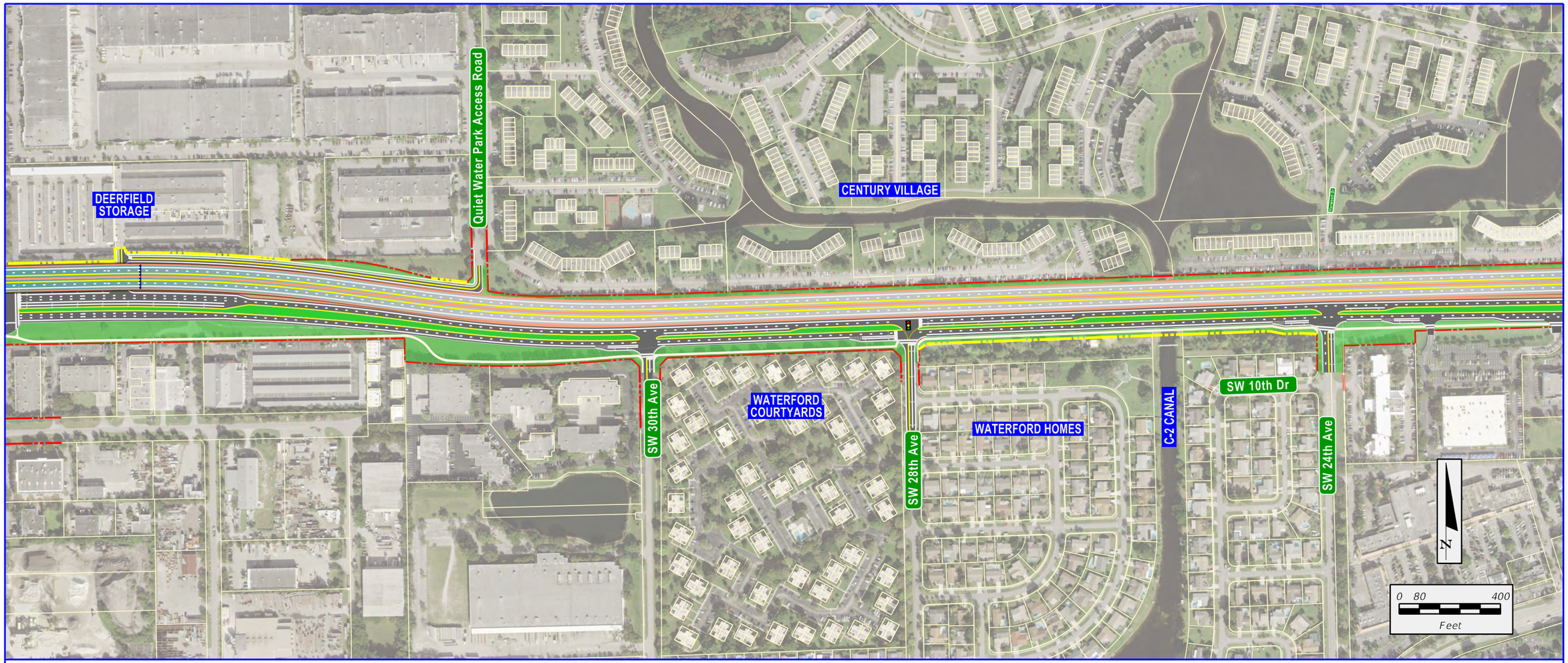

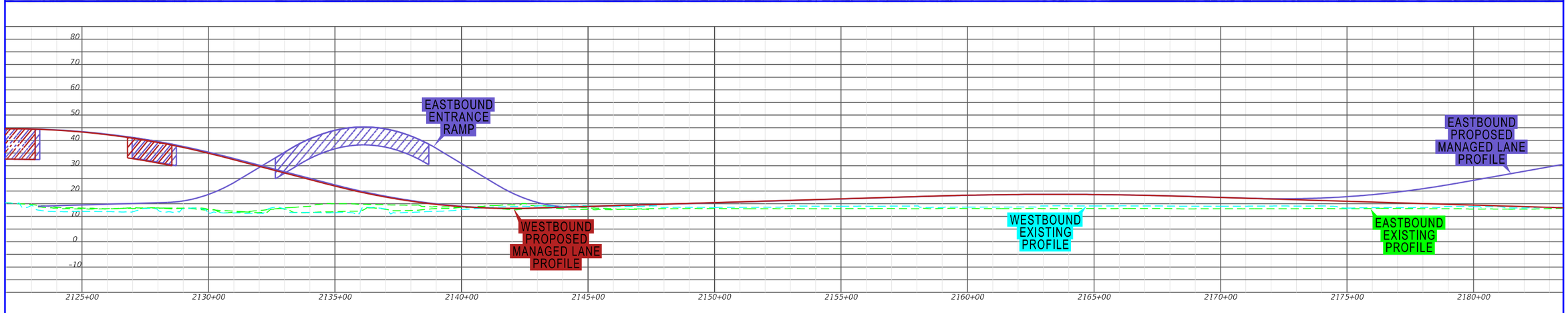

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FIGURE 4.6.39
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE 2 OF 3

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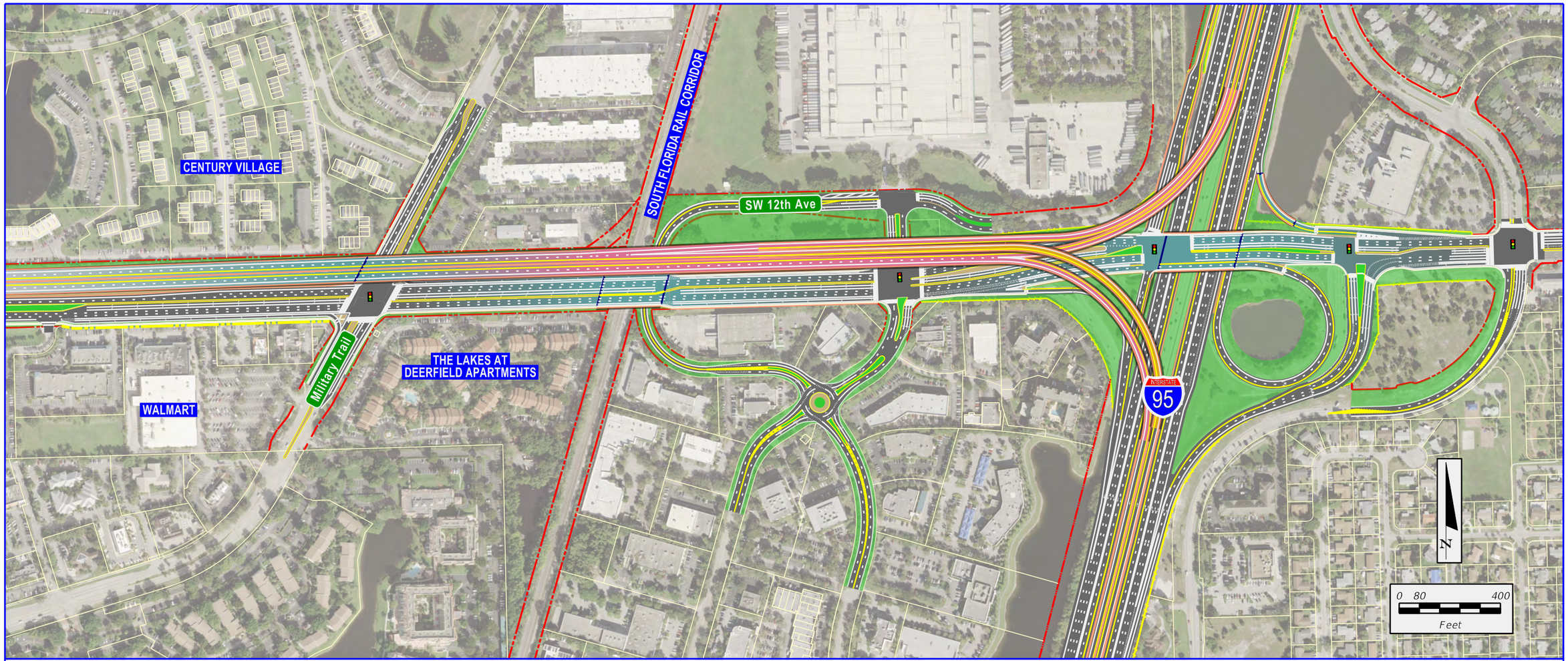

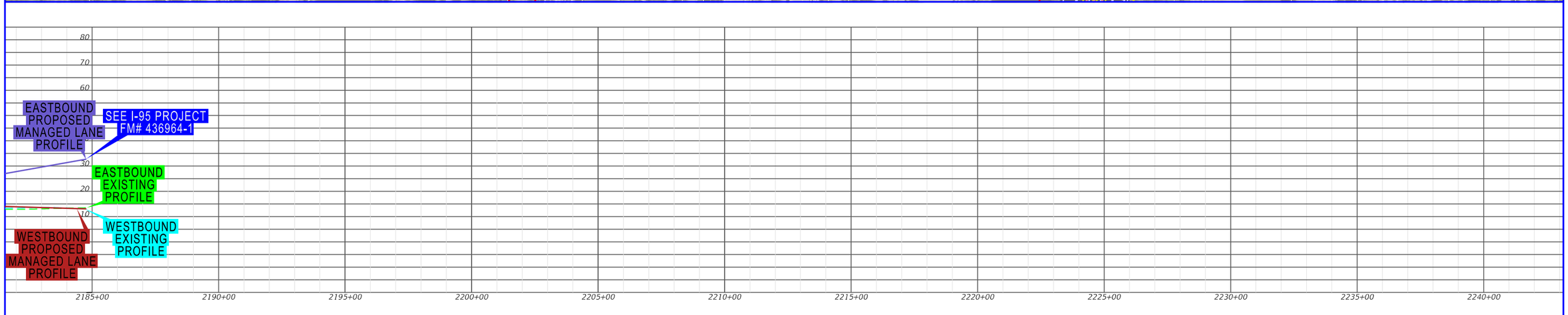

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FIGURE 4.6.39
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE 3 OF 3

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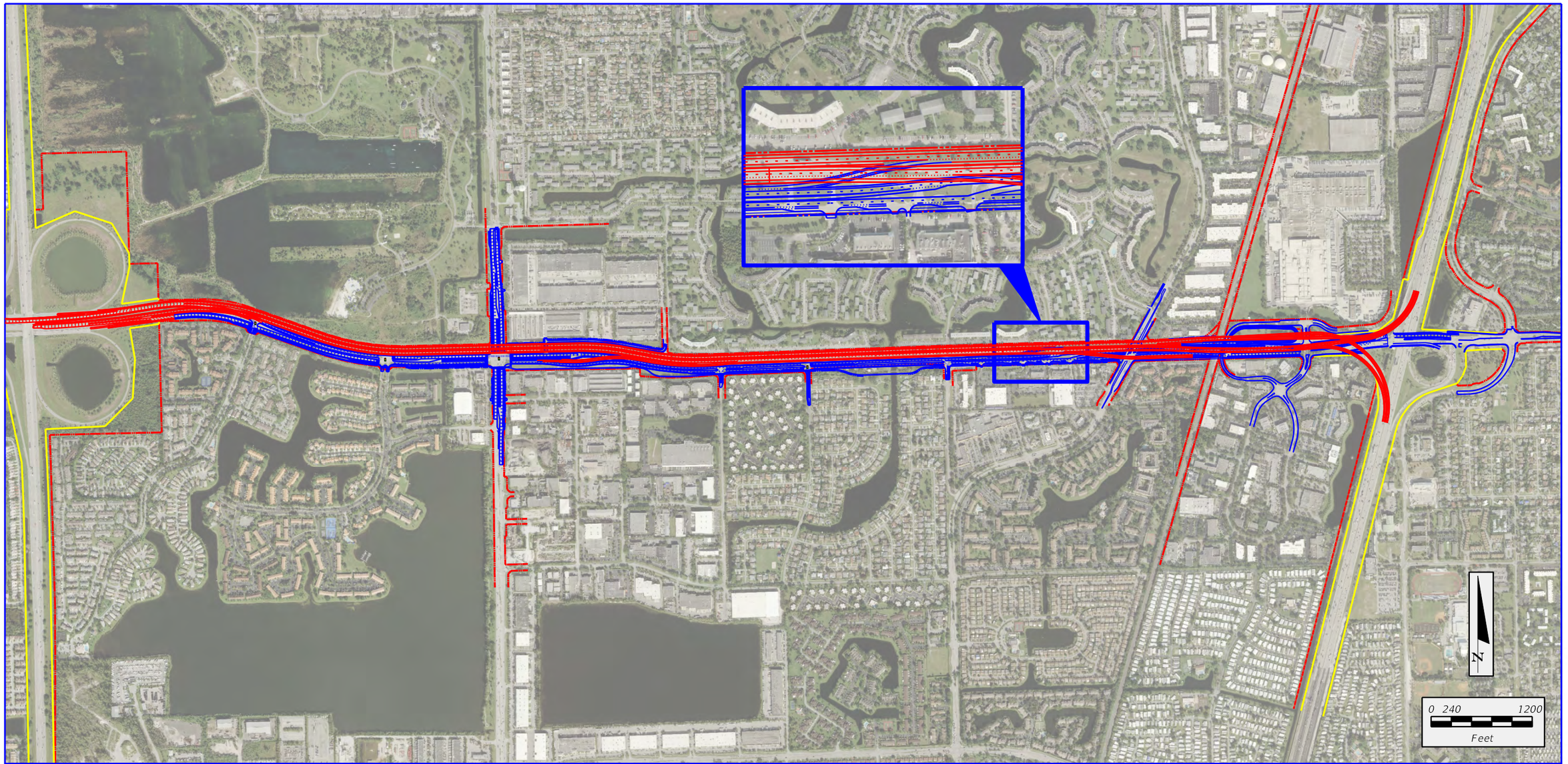
4.6.3.1 Non-Depressed/No Managed Lane Access with Westbound Exit Ramp

A variation of the Non-Depressed/No Managed Lane Access Alternative was developed in an attempt to include an exit ramp but eliminate the depressed element as with the Partial Depressed Alternative. This variation is similar to the Depressed Westbound Exit Ramp Alternative except that the westbound exit ramp is shifted eastward such that the ramp passes beneath the elevated eastbound lanes. This grade separation is possible by extending the eastbound portion of the overpass above Military Trail. In this configuration, the westbound managed lanes return to an at-grade profile via a 5% downgrade while the eastbound managed lanes are elevated for an additional 500 feet. Figure 4.6.40 displays the plan and profile of this concept.

The benefit of this alternative is that it eliminates the ramp braid west of the canal and the expanded right-of-way footprint caused by the ramp terminals. Right-of-way impacts to Waterford Courtyards are eliminated and impacts to the City-owned parcel are also reduced. This alternative is also less costly and easier to construct than the Partial Depressed Alternatives.

The concern with this alternative is the lengthened eastbound structure and its associated visual impacts to Century Village. This alternative also is not consistent with the COAT recommendation to minimize the raised overpasses along the project. Safety concerns were also expressed regarding the 5% downgrading profile while accommodating a weaving movement. The immediate slower-speed (35 mph) westbound exit ramp located at the bottom of the downgrade was also mentioned as a concern, although the gore spacing between the westbound entrance and exit ramps complied with the AASHTO minimum.

This alternative was not carried forward to the November 29, 2018 Alternatives Public Workshop No. 2 and was dropped from further consideration.



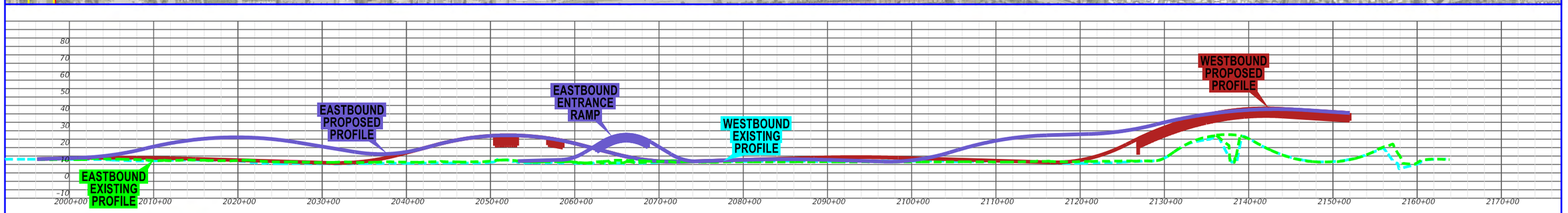


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FIGURE 4.6.40
NON-DEPRESSED / NO MANAGED LANE ACCESS WITH WESTBOUND EXIT RAMP ALTERNATIVE

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4-117

4.7 Tier 2 – Comparative Alternatives Evaluation

The subsequent sections compare the five Build Alternatives described above in terms of engineering, environmental, and social impacts. Where applicable, each subsection contains a comparison table of the alternatives.

A summary and relative comparison of the pertinent impacts of the five Build Alternatives are displayed in Table 4.7.1.

4.7.1 Aesthetic Impacts

One of the few aesthetic features of the existing SW 10th Street corridor is the landscaping in the median. All of the Build Alternatives will reduce the amount of "green space" available for landscaping. However, there is "green space" with each alternative and landscaping will be maximized in the space available.

All of the Build Alternatives include an overpass at Waterways Boulevard. The Pioneer Grove (Deerfield Beach) Design Standards were referenced to complete an aesthetics approach for the overpass at Waterways Boulevard. This aesthetics approach is shown in Figures 4.7.1 and 4.7.2

Figure 4.7.1: Waterways Boulevard Aesthetics

Table 4.7.1: Alternatives Evaluation Matrix

	No-Build [1]	Full Depressed [2]	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access [3]
			Westbound Exit Ramp [2]	Eastbound Managed Lanes [2]	Eastbound & Westbound Managed Lanes [2]	
Safety and Traffic Operations						
Crash Occurrence	Increases	Decreases	Decreases	Decreases	Decreases	Decreases
Emergency Response Times	Increases	Decreases	Decreases	Decreases	Decreases	Decreases
Anticipated 2040 Travel Time – Turnpike to I-95 (Eastbound - AM; Minutes/Vehicle)	12 to 14 (Local Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	9 to 10 (Local lanes) 3 to 4 (Managed Lanes)
Anticipated 2040 Travel Time – Turnpike to I-95 (Westbound - PM; Minutes/Vehicle)	9 to 10 (Local Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	8 to 9 (Local lanes) 3 to 4 (Managed Lanes)	11 to 12 (Local lanes) 3 to 4 (Managed Lanes)
Entrance & Exit Ramps to/from Managed Lanes	N/A	Yes	Yes	Yes	Yes	No
Promotes Regional Connectivity/System Linkage	None	Highest	Highest	Highest	Highest	Moderate
Right-of-Way Impacts						
Right-of-way required for Roadway?	No	Yes	Yes	Yes	Yes	Yes
Parcels Impacted (Permanent/Temporary)	None	25 / 12	24 / 1	24 / 2	23 / 1	15 / 0
Acres Impacted (Permanent/Temporary)	None	2.6 / 8.0	3.9 / 0.4	3.3 / 0.9	3.7 / 3.7	1.7 / 0
Potential Companion Parcels Impacted (Permanent/Temporary) [4]	None	204 / 312	204 / 104	204 / 312	204 / 312	None
Potential Number of Commercial Relocations	None	4	8	2	2	9
Right-of-way required for Pump Stations?	No	Yes	No	Yes	Yes	No
Right-of-Way Costs ($ million)	None	37.4	44.2	42.2	43.0	33.0
Cultural						
Section 4(f) Resources Impacted (Quiet Waters Park)	None	Yes (Below Ground)	No	No	No	No
Permanent Section 4(f) Use (acres)	0	TBD	0	0	0	0
Temporary Section 4(f) Use (acres)	0	1.8	0	0	0	0
Physical/Natural Environment						
Noise Receptors Impacted	None	Yes	Yes	Yes	Yes	Yes
Wetlands/Species Impacted	None	Low	Low	Low	Low	Low
Potential Impacts to City Wellfield	None	TBD	TBD	TBD	TBD	None
Permanent Pumps for Drainage Required	No	Yes	Yes	Yes	Yes	No
Landscaping Potential	None	Moderate	Low	Low	Low	High
Aesthetic Potential	None	Moderate	Moderate	Moderate	Moderate	High
Multimodal						
Potential for Express Bus Routes	None	Yes	Yes	Yes	Yes	Yes
Pedestrian Facilities	Same as existing	Improved	Improved	Improved	Improved	Most Improved
Bicycle Facilities	Same as existing	Improved	Improved	Improved	Improved	Most Improved
Utilities						
Requires Relocation of Transmission Poles	No	Yes	Yes	Yes	Yes	No
Utilities at FP&L Substation at Powerline Road impacted	No	Yes	No	No	No	No
Utility Relocation Costs ($ million) [5]	0	36	26	26	26	18
Construction						
Road Construction Duration (Does not include time for utility relocation)	None	4 to 5 years	3 to 4 years	3 to 4 years	3 to 4 years	2 to 3 years

	No-Build (1)	Full Depressed (2)	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access (3)
			Westbound Exit Ramp (2)	Eastbound Managed Lanes (2)	Eastbound & Westbound Managed Lanes (2)	
Dewatering Ponds Required During Construction	No	Yes	Yes	Yes	Yes	No
Construction Impacts (Noise, De-watering, Vibrations)	None	Highest	High	High	High	Lowest
Project Cost ($ millions)						
Construction ($ million)	0	631	215	304	320	127
Right-of-way ($ million)	0	37.4	44.2	42.2	43.0	33
Utility Relocation ($ million)	0	35.6	26.4	26.4	26.4	18.1
Maintenance ($ million/year)	0	0.4	0.2	0.3	0.4	0
Total Costs ($ million)	**0**	**704**	**286**	**373**	**389**	**178**

1. Assumes 2040 conditions with I-95, Sawgrass, and Turnpike managed lanes implemented but no improvements at the interchanges.
2. Assumes 2040 conditions with I-95, Sawgrass, and Turnpike managed lanes, interchange improvements, and SW 10th Street Connector with 1 entrance/exit ramp in each direction to/from the managed lanes.
3. An At-Grade Alternative based on the North Alignment requires an elevated westbound exit ramp from the managed lanes and an overpass at Powerline Road. This alternative is currently not being considered and is not being shown. Preliminary criteria rankings shown are based on logic.
4. Companion parcels are defined as properties adjacent to common or shared property within a community (as seen with condominiums).
5. Utility costs are approximate grand totals and do not account for reimbursable/non-reimbursable costs for utility companies.

Figure 4.7.2: Waterways Boulevard Aesthetics

Potential aesthetic enhancements considered for all Build Alternatives are as follows:

- Decorative facades around bridge columns, decks, and beams;
- Colored beams on bridges;
- Florida-friendly landscaping;
- Colored stone pattern on retaining walls and noise barriers; and
- Benches along the sidewalk.

The details of the aesthetic package will be completed during the final design/Request for Proposal (RFP) phase.

4.7.2 Relocation Potential

A summary of the preliminary right-of-way analysis for each alternative is shown in Table 4.7.2. The Non-Depressed/No Managed Lane Access Alternative impacts significantly less parcels than the other alternatives (15 compared to 23 to 25) but requires nine relocations. However, the Depressed Eastbound Managed Lane and Eastbound and Westbound Managed Lane Alternatives have the fewest relocations at only two. None of the alternatives require residential relocations.

Table 4.7.2: Right-of-Way Comparison

	Full Depressed	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access
		Westbound Exit Ramp	Eastbound Managed Lanes	Eastbound & Westbound Managed Lanes	
Total Parcels Impacted	25	24	24	23	15
Commercial	*16*	*17*	*16*	*17*	*12*
Residential	*4*	*4*	*5*	*3*	*0*
Unimproved	*5*	*3*	*3*	*3*	*3*
Total Relocations	4	8	2	2	9
Residential	*0*	*0*	*0*	*0*	*0*
Commercial	*4*	*8*	*2*	*2*	*9*
Number of Parcels impacted by Temporary Easements	12	1	2	1	0
Right-of-way Cost ($ million)	37.4	44.2	42.2	43.0	33.0

4.7.3 Cultural Impacts

There are no archeological resources, resource groups, structures or historic cemeteries recommended for listing on the NRHP. Therefore, there will be no cultural resource impacts with any of the Build Alternatives.

4.7.3.1 Section 4(f) Impacts

Four of the five Build Alternatives have no Section 4(f) impacts. The only alternative with section 4(f) impacts is the Full Depressed Alternative. The Full Depressed Alternative impacts Quiet Waters Park due to the depressed section under Powerline Road. Temporary Construction Easements (TCEs) will be required in Quiet Waters Park for the ground anchors and to accommodate maintenance of traffic as described below.

A depressed section requires excavation to a depth of 40 feet and a cross section width of approximately 100 feet. Cranes will drive sheet piling deep into the ground to allow for excavation. Due to the depth of the excavation and the lateral forces exerted on the sheet piling, soil anchors are used to hold the sheet piling in place during construction. The soil anchors extend horizontally from the sheet piling for a length of approximately 75 feet, therefore extending underground into Quiet Waters Park and necessitating a TCE. Impacts to Quiet Waters Park are limited to temporary subsurface impacts due to these soil anchors,

and no trenching or ground disturbance in the park is required. The maximum TCE area for this subsurface impact is approximately 9,100 square feet. Following construction, the soil anchors are no longer needed and can remain buried in place to avoid additional impacts to the park. A TCE will be required for the Powerline Road intersection in the northwest corner of the intersection and impacts a maximum of approximately 70,000 square feet of Quiet Waters Park. There are no amenities proposed or existing that would be impacted by the TCEs, which are temporary.

Although the proposed project will require construction easements (sub-surface and surface) from Quiet Waters Park and access to the park may be temporarily impacted - but not closed - due to maintenance of traffic during construction, no recreational facilities will be negatively impacted by the project and no permanent right-of-way acquisition is required.

4.7.4 Natural Environment Impacts

The Build Alternatives were developed to maximize the use of the existing right-of-way and to minimize affecting the natural environment of the area. The proposed floodplain, wetland, and surface water impacts for each Build Alternative are discussed below.

4.7.4.1 Protected Species and Habitat

A Protected Species and Habitat Assessment was conducted in accordance with the FDOT PD&E Manual and is included as part of the *Natural Resources Evaluation* (NRE). Based on the data and literature review and subsequent field surveys, five federally listed species and seven state listed species may occur within the SW 10th Street study area. Surveys for gopher tortoise burrows, Florida burrowing owl, and listed plants were conducted in September 2017. The project is not located within any USFWS designated critical habitat. Table 4.7.3 includes the effect determinations for the federally listed species evaluated in the project corridor. More information on the protected species and habitat are contained in Section 6.2.5 and also in the NRE, available under separate cover.

Table 4.7.3: Federally Listed Species Effect Determinations

Federally Listed Species	Effect Determination
Florida bonneted bat	No effect
West Indian manatee	No effect
Everglade snail kite	May affect, not likely to adversely affect
Wood stork	May affect, not likely to adversely affect
Eastern indigo snake	May affect, not likely to adversely affect

In a letter dated October 30, 2018, the USFWS determined that the project was not likely to adversely affect any federally listed species or designated critical habitat. No adverse effects are anticipated to the state listed species.

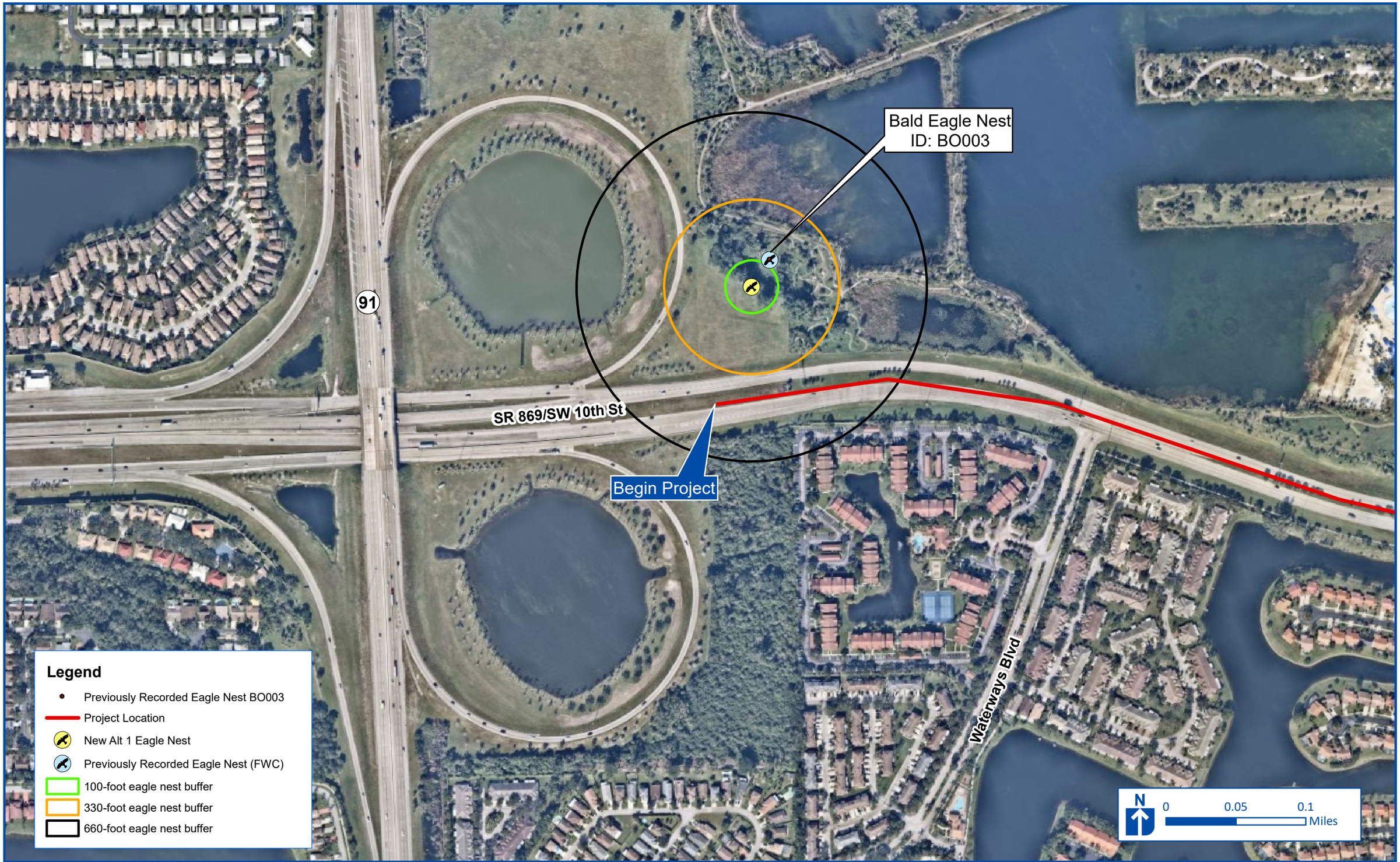
The FTE is conducting a separate PD&E Study along the Sawgrass Expressway which is at the western end of the project study area. As part of the Sawgrass PD&E study, FTE conducted bald eagle monitoring from October 2017 through May 2018 to determine the status of an existing eagle nest (Nest ID BO003). This nest was no longer remaining; however, an alternate nest (Alternate Nest 1) was identified and is located approximately 458 feet north of the Sawgrass Expressway/SW 10th Street interchange. Construction for SW 10th Street improvements will occur within 330 feet from the eagle's nest as shown on Figure 4.7.3 (existing SW 10th Street/Sawgrass Expressway is within the 330-foot buffer). Coordination will occur with USFWS to determine measures to protect the eagle's nest during construction.

4.7.4.2 Wetlands and Other Surface Waters

There are no wetland impacts associated with any of the Build Alternatives. All of the Build Alternatives have similar surface water impacts ranging from 2.3 to 2.4 acres. Table 4.7.4 summarizes the surface water impacts for the Build Alternatives.

Table 4.7.4: Surface Water Impacts

	Full Depressed	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access
		Westbound Exit Ramp	Eastbound Managed Lanes	Eastbound & Westbound Managed Lanes	
Surface Water Impacts (acres)	2.34	2.38	2.35	2.38	2.30



State Road 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 4.7.3
Bald Eagle Nest Map

4.7.4.3 Floodplains

The project will result in minimal encroachments to floodplains. Encroachments resulting from the construction of the preferred alternative will be fully compensated within the proposed stormwater management facilities to insure there will be no increase in flood elevations and/or limits. Based on the proposed improvements, in the C-3 Canal Basin, a minimum pond volume of 5,727 cubic yards (CY), or 3.6 acre-feet, is required to offset 100-year floodplain encroachment volume. The C-3 Canal Basin proposed pond will provide at least 44,835 CY (27.8 acre-feet) of compensation volume, with a surplus compensation volume of 39,107 CY (24.2 acre-feet). In the C-2 Canal Basin, a minimum pond volume of 27,540 CY (17.1 acre-feet) is required to offset the 100-year floodplain encroachment volume. The C-2 Canal Basin proposed pond will provide at least 100,769 CY (62.5 acre-feet) of compensation volume, with a surplus compensation volume of 73,229 CY (45.4 acre-feet).

The proposed drainage system will perform hydraulically in a manner equal to or greater than the existing system, and floodplain surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

4.7.5 Physical Environment Impacts

The physical environment impacts related to the Build Alternatives are discussed below.

4.7.5.1 Highway Traffic Noise

A traffic noise study was performed in accordance with 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010) and the FDOT's PD&E Manual. The Noise Study Report (NSR), available under separate cover, includes recommended noise barriers, which will be coordinated with affected stakeholders and incorporated into the Preferred Alternative. Section 6.2.7 contains more detailed information on the NSR and its recommendations.

4.7.5.2 Air Quality Impacts

An Air Quality screening dated August 2019 was conducted for this project and the results are contained within the Air Quality Technical Memorandum (AQTM). The proposed project is located in Broward County, which is currently designated as being in attainment for the following criteria air pollutants: ozone, nitrogen dioxide, particulate matter (2.5 microns in size and 10 microns in size), sulfur dioxide, carbon monoxide, and lead.

The Westbound Depressed Exit Ramp was utilized as a representative Build Alternative for the air quality analysis. Each of the Build Alternatives are anticipated to have similar impacts.

The Build Alternative and the No-Build Alternative were subjected to a carbon monoxide (CO) screening model that makes various conservative worst-case assumptions related to site conditions, meteorology, and traffic. The FDOT's screening model, CO Florida 2012, uses the United States Environmental Protection Agency (USEPA) software [Motor Vehicle Emission Simulator (MOVES) version 2010a and CAL3QHC] to produce estimates of one-hour and eight-hour CO concentrations at default air quality receptor locations. The one-hour and eight-hour estimates can be directly compared to the one- and eight-hour National Ambient Air Quality Standards for CO that are 35 parts per million (ppm) and nine ppm, respectively.

The highest total traffic volumes for the No-Build Alternative and Build Alternative are associated with the SW 10th Street and Powerline Road intersection. Both the No-Build Alternative and Build Alternative were evaluated for the design year 2040. Estimates of CO were predicted for the default receptors that are located 10 feet to 150 feet from the edge of the roadway. Based on the results from the screening model, the highest project-related CO one- and eight-hour levels are not predicted to meet or exceed the one- or eight-hour National Ambient Air Quality Standards for this pollutant with either the No-Build Alternative or Build Alternative. As such, the project "passes" the screening model.

The project is in an area which is designated in attainment for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project. Construction activities will cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These

impacts will be minimized by adherence to all applicable State and local regulations and to the FDOT Standard Specifications for Road and Bridge Construction.

The project is expected to improve traffic flow through the addition of managed lanes that will relieve congestion along the local SW 10th Street, leading to an enhancement in operational capacity and overall traffic operations, which should reduce operational greenhouse gas emissions.

4.7.5.3 Contamination Impacts

A total of 23 potentially contaminated and/or known to be contaminated sites were identified along the project corridor with risk evaluation ratings ranging from No Risk to High Risk. A summary of the risk assessments for the proposed project is presented in Table 4.7.5.

Table 4.7.5: Summary of Potential Contamination Sites Risk Assessments

Risk Assessment Category	Number of Sites
No	1
Low	11
Medium	10
High	1

The Build Alternatives impact between six and seven potentially contaminated sites as shown in Table 4.7.6. All of the Build Alternatives impact the following contamination sites:

- 1 – Shell First Coast Energy – Medium Ranking;
- 2 – City of Deerfield Beach Well – Low Ranking;
- 4 – Med Care Pharmacy – Low Ranking; and

17 – Cen-Deer Management, Inc./Nanaks Landscaping/Trolley Tours – Medium Risk.

Table 4.7.6: Summary of Potential Contamination Sites Impacted

	Full Depressed	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access
		Westbound Exit Ramp	Eastbound Managed Lanes	Eastbound & Westbound Managed Lanes	
No	0	0	0	0	0
Low	4	4	4	4	3
Medium	3	3	3	2	3
High	0	0	0	0	0
Total	**7**	**7**	**7**	**6**	**6**

Additional sites impacted by the Full Depressed Alternative include:

- 3 – Home Aide Diagnostics Inc. – Low Ranking;
- 9 – United Wholesale – Low Ranking; and
- 10 – Brothers Dry Cleaning Inc. – Medium Ranking.

Additional sites impacted by the Westbound Exit Ramp and Eastbound Managed Lanes Alternatives include:

- 7 – Devcon – Low Ranking;
- 9 – United Wholesale – Low Ranking; and
- 10 – Brothers Dry Cleaning Inc. – Medium Ranking.

The Eastbound and Westbound Managed Lanes Alternative also impacts the following additional sites:

- 7 – Devcon – Low Ranking; and
- 9 – United Wholesale – Low Ranking.

The Non-Depressed No Managed Lane Access Alternative also impacts two additional sites:

- 7 – Devcon – Low Ranking; and
- 10 – Brothers Dry Cleaning Inc. – Medium Ranking.

FDOT will schedule Level II sampling once right-of-way and pond locations are determined. Level II Contamination Assessment investigations are recommended for any areas that have proposed dewatering or subsurface work activities (e.g. pole foundations, drainage features) occurring adjacent to or at any of these sites. As dewatering will be necessary during

construction, a SFWMD Water Use Permit will be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). Any dewatering operations in the vicinity of potentially contaminated areas shall be limited to low-flow and short-term. A dewatering plan may be necessary to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, State, and local laws and regulations.

4.7.5.4 Wells

An analysis of the plans and Deerfield Beach well field data (discussed in Section 2.16.2) was performed, and no adverse impacts are anticipated to the existing public water supply wells as a result of the With and Without Ramp Alternatives. Below is a summary of the pertinent information, for a more detailed analysis refer to Appendix I.

- The proposed construction dewatering associated with the depressed element of the With Ramp Alternative will occur inside of sheet piled cells. The sheet piling and tremie seal will isolate the individual cells from the surrounding subsurface area and prevent the infiltration of ground water into the excavation. Conversely, the sheet piling and tremie seal will preclude drawdown of the water table outside of the excavation area. Thus, the area inside the cells may be pumped dry to facilitate excavation and construction of the depressed roadway section. The SFWMD considers the use of sheet pile as an effective physical barrier to prevent drawdown of the water table due to short-term construction dewatering activities.
- The total depths of the two Biscayne aquifer wells (WW-22 and WW-23) are 170 and 200 feet below land surface, respectively, and are cased to approximately 105 feet. The depressed roadway will be constructed in cells, each approximately 100 feet long and 40 feet deep. The sheet piling will be constructed to depths of 90 feet, with ground anchors extending 50 feet below the tremie seal. The sheet pile walls will be sealed using grout to preclude ground water infiltration. Thus, the excavation activities will not intersect the water-bearing zone for these two production wells.
- Each depressed cell is estimated to require approximately two months to complete. Thus, the duration of the dewatering will be short-term. The SFWMD does not require corresponding impact analysis for short-term dewatering to include nearby water wells due to the limited duration at which potential impacts could occur.

- The intermediate confining unit between the surficial aquifer and the underlying Floridan aquifer will preclude any hydraulic influence on the FA-2 Floridan aquifer well.
- The primary production zone for the two Biscayne aquifer wells (WW-22 and WW-23) is between approximately 100 to 200 feet below sea level, a depth which is 60 to 160 feet below the base of the depressed roadway section. As such, the completed depressed roadway will not physically interfere with the production zone of the well.
- The Biscayne aquifer is highly transmissive in the vicinity of SW 10th Street. Groundwater modeling performed for the City of Deerfield Beach's Water Use Permit demonstrated that the depressed roadway is within the 0.1-foot drawdown contour for WW-22 and WW-23. The limited amount of drawdown predicted to occur in the surficial aquifer suggest that the depressed roadway will have little to no effect on the two wells.
- The depressed roadway section and wells WW-22 and WW-23 are located within the Northern Broward County Recharge System (NBCRS). The system is a diversion and impoundment project consisting of several canals that capture rainfall and runoff to maintain water levels in the surficial aquifer and recharge wetlands. The NBCRS will regionally maintain water levels in the surficial aquifer including the areas of WW-22, WW-23, and the depressed roadway. Furthermore, the two wells are located immediately adjacent to the C-2 canal, which maximizes the amount of recharge to the aquifer.

4.7.5.5 Utilities and Railroad

There are no anticipated railroad impacts associated with this project. The proposed managed lanes and local SW 10th Street will overpass the SFRC/CSX railroad. Coordination has been ongoing through the adjacent I-95 PD&E Study (FM Number 436964-1). Conservative utility relocation estimates were requested as part of the utility coordination process through the utility contact letter and subsequent follow-up with each UAO. The total combined estimated cost for relocations (as provided by the UAOs) is $35.6 million as shown in Table 4.7.7. For more information on utility impacts, reference the Utility Assessment Package, available under separate cover.

Table 4.7.7: Estimated Cost of Utility Impacts for the Full Depressed Alternative

Utility Agency Owner	Total Cost
ATT Corp	$ 0
ATT Florida	$ 5,475,250
Broward County Water & Sewer	$ 1,696,000
City of Deerfield Beach	$ 3,333,000
Comcast	$ 1,393,500
Crown Castle Fiber	$ 255,000
Fiberlight LLC	$ 10,000
Florida Gas Transmission	$ 0
FP&L Distribution	$ 9,547,500
FP&L Transmission	$ 12,600,000
CenturyLink	$ 800,000
Sprint	$ 100,000
TECO Peoples Gas	$ 393,000
Teleport Comm. America	$ 0
Verizon/MCI	$ 0
Total Utility Relocation Cost	**$ 35,603,250**

The costs indicated above are the "worst case scenario" and apply to the Full Depressed Alternative. Engineering judgement was used to determine the approximate percentage of costs applicable for the Partial Depressed Alternatives and the Non-Depressed/No Managed Lane Access Alternative. The utility relocation costs for the Partial Depressed Alternatives are assumed to be approximately 80% of the Full Depressed Alternative for a total of $26 million. The utility relocation costs for the Non-Depressed No Managed Lane Access Alternative is assumed to be approximately 50% of the Full Depressed Alternative for a total of around $18 million.

4.7.6 Cost Estimates

The FDOT Long Range Estimates (LRE) was used to determine construction costs. A summary of the costs for the five Build Alternatives is included in Table 4.7.8. Detailed cost estimates are included in Appendix F.

Table 4.7.8: Alternatives Cost Estimates

	Full Depressed	Partial Depressed Alternatives			Non-Depressed No Managed Lane Access
		Westbound Exit Ramp	Eastbound Managed Lanes	Eastbound & Westbound Managed Lanes	
Construction Cost ($ million)	631	215	304	320	127
Right-of-way Cost ($ million)	37.4	44.2	42.2	43.0	33.0
Utility Relocation ($ million)	35.6	26.4	26.4	26.4	18.1
Maintenance Cost ($ millions/year)	0.4	0.2	0.3	0.4	0
Total Costs ($ millions)	**704**	**286**	**373**	**389**	**178**

4.7.7 Value Engineering Study

The purpose of the Value Engineering (VE) Study is to ensure that the project objectives are addressed, and the project remains cost effective, constructible, and makes the most efficient use of resources. A Cost Risk Assessment and Value Engineering (CRAVE) study was conducted during the following time periods:

- April 16, 2018 to April 19, 2018;
- May 8, 2018 to May 11, 2018; and
- July 7, 2018 to July 9, 2018.

The CRAVE study identified 18 risks that carry both potential schedule and cost impacts to the project. The CRAVE team generated 103 ideas to mitigate for the 18 potential risks and ultimately recommended 32 VE recommendations. A summary of the 32 recommendations are contained in Table 4.7.9.

Table 4.7.9: Value Engineering Recommendations

VE #	Description	Savings $ Million (Cost Increase)	Disposition
1	Create an at-grade alignment	$415.4	Non-Depressed/No Managed Lane Access Alternative developed and shown at second Alternatives Public Workshop
2	Begin depressed section west of canal	$47.7	Incorporated in Partial Depressed – Depressed EB & WB Managed Lanes Alternative
3	Use cantilever roadway over depressed section	($0.5)	Full Depressed Alternative utilizes this configuration at Powerline Road for EB right-turn lane. The WB exit ramp also utilizes a cantilever section.
4	Construct semi-depressed section	$47.4	Due to the need to braid a WB exit ramp over or under managed lanes, a semi-depressed section is not feasible considering the need to tie into existing sideroads and avoid substantial sideroad grade changes and reconstruction.
5	Temporary U-turns on Powerline Road	$11.6	Restricting left-turns and utilizing downstream U-turns (as a Michigan left-turn) would be difficult to implement due to the amount of truck traffic and the size of the bulb-outs needed to accommodate a truck U-turn.
6	Early utility relocation package	$0.0	Coordination with FP&L has already begun. FDOT will continue to advance utility relocation prior to letting.
7	Construct a stormwater treatment facility (CDS units)	$0.0	Currently, Continuous Deflective Separation System (CDS) units are not under consideration for permanent drainage but may be useful for temporary dewatering. This option may be considered in the next phase.
8	Eliminate covered sections of depressed section	$4.1	This option applies to the Full Depressed and Partial Depressed Alternatives. Depending on the alternative selected and the configuration of any depressed element, this recommendation may be implemented.
9	Implement an extraordinary public awareness campaign	($1.0)	FDOT is in the process of expanding its public awareness campaign and will continue to utilize innovative techniques throughout PD&E, design, and construction phases.
10	Implement livable community opportunities	($1.5)	Local SW 10th Street is being considered as a "complete street" with a lower operating speed (35 mph) and wide (8-foot) sidewalks with noise walls and landscaping.
11	Develop one-lane roundabout	$0.0	The peak hour volumes on this project are too high to consider a roundabout at any intersection on this project. Moreover, a roundabout would require more right-of-way. The I-95 PD&E study is recommending a roundabout at Newport Center Drive.
12	Accommodate transit	($19.0)	Bus rapid transit will have the ability to utilize the managed lanes as well as local SW 10th Street. The existing bus turnout in the SW quadrant of Powerline Road will be replaced.
13	Implement truck staging strategies	$0.0	Truck staging areas will likely be necessary and will be considered in the final design phase.

VE #	Description	Savings $ Million (Cost Increase)	Disposition
14	TSM&O strategies during construction	($0.2)	TSM&O strategies were considered in a separate document prepared in late 2017. These strategies, by themselves, do not meet the purpose and need for the project. However, some TSM&O recommendations will be incorporated into the Preferred Alternative.
15	Maximize use of MSE walls	$0.0	MSE walls are used anytime an extensive fill slope is needed.
16	Realign direct connect structures	$7.5	The flyover ramps at I-95 have undergone several redesigns in the PD&E phase to optimize the structural configuration.
17	Seek right-of-way donations from local municipalities	$1.6	FDOT will work with the City of Deerfield Beach regarding impacts to the City parcel.
18	Create a rail spur for hauling and delivery	$4.6	Due to the extremely limited remaining right-of-way, constructing a railroad spur is considered not feasible.
19	Transfer utility relocations to contractor	$0.0	Water and sewer could be considered for relocation by the design-build teams. Several utilities, such as fiber optic and transmission lines, would be beyond the abilities of a design-build team.
20	Use accelerated bridge construction	$0.5	Accelerated bridge construction, along with numerous other construction incentives, will be examined in the final design phase.
21	Use alternative tie back methods	$4.5	Alternative tie-back methods are being examined and will depend on the alternative carried forward.
22	Use CM/GC delivery method	$4.0	FDOT is evaluating alternative contracting options and plans to hire a Corridor Design Consultant to assist in determining the optimal method to work as the construction manager or general contractor.
23	Use displaced left turns (EB and WB) at Military	($1.4)	Displaced left turns would require additional right-of-way at the Powerline Road intersection and are currently not being considered.
24	Build a second access to Waterways community	($2.7)	A second access to the Waterways community would require displacing existing homes or the clubhouse and is currently not under consideration.
25	Modify work restrictions and sound wall construction	$0.0	Depending on the final results of the noise study and recommended barrier placement, FDOT will consider installing ground-mounted noise walls as the first item of work.
26	Use compensatory stormwater treatment strategy	$0.0	Due to the volume of storm water requiring treatment, compensatory treatment is not considered desirable.
27	Use Turnpike right-of-way for ponds	$0.0	Potential pond sites under consideration are all located within Century Village. Florida's Turnpike right-of-way is located west of the project limits.
28	Implement TSM&O strategies	($1.8)	TSM&O strategies are being evaluated and will be implemented where possible.

VE #	Description	Savings $ Million (Cost Increase)	Disposition
29	Industry Outreach	$0.0	FDOT has employed an aggressive outreach program and will consider holding an industry forum prior to the project advertisement.
30	Construction staging strategies	$0.0	The design-build teams will be expected to develop innovating construction staging techniques.
31	Use soil mixing, ground anchors, and cellular construction	$77.5	The design-build teams will also need to consider optimal methods of constructing a depressed section should any one of these options be carried forward.
32	Eliminate intermediate access to managed lanes	$15.3	The Non-Depressed/No Managed Lanes Access Alternative eliminates ingress/egress to and from the managed lanes along SW 10th Street.

4.7.8 Tier 2 Summary

4.7.8.1 Advantages and Disadvantages

Each of the alternatives have distinct advantages and disadvantages. Below is a summary of the major differences between the three primary Build Alternatives and the No-Build Alternative.

No-Build Alternative

Primary Advantages

- No new expenditure for roadway design, utility relocations, right-of-way acquisition, or construction costs;
- No disruption or temporary impacts (air, noise, vibration, travel patterns) due to construction activities;
- No right-of-way acquisition or business relocations; and
- No impacts to the natural environment.

Primary Disadvantages

- Does not meet the project's purpose and need;
- Increased vehicular congestion and delay, which leads to increased travel costs;
- Increased safety concerns;
- Increased emergency response and evacuation time; and
- Decreased air quality.

Full Depressed Alternative

Primary Advantages

- Includes the longest section of depressed roadway and is most consistent with the COAT recommendations; and
- Includes entrance and exit ramps to and from the local SW 10th Street and managed lanes.

Primary Disadvantages

- Most disruptive to the surrounding community;
- May require right-of-way from Waterford Courtyards and Century Village;
- Impacts Quiet Waters Park; and
- Is the most difficult and expensive to construct.

Partial Depressed Alternative

Primary Advantages

- Includes a depressed section to comply with COAT recommendations; and
- Includes entrance and exit ramps to and from the local SW 10th Street and managed lanes.

Primary Disadvantages

- May require right-of-way from Waterford Courtyards and Century Village; and
- Is moderately expensive to construct.

Non-Depressed/No Managed Lane Access Alternative

Primary Advantages

- Easiest and least expensive to construct;
- No impacts to the City of Deerfield Beach Wellfield and FP&L transmission lines; and
- Has the least amount of right-of-way impacts.

Primary Disadvantages

- Does not include entrance and exit ramps to and from the local SW 10th Street and managed lanes;
- Does not include a depressed section and is least consistent with COAT recommendations; and
- Has the greatest number of commercial relocations.

Appendix B displays the concept plan sheets pertaining to the Tier 2 Alternatives.

4.7.8.2 Conclusion

Subsequent to the November 29, 2018 Alternatives Public Workshop, the COAT was re-engaged for a series of three meetings held on April 25, May 16, and June 6, 2019. In addition, numerous meetings were held with elected officials and stakeholders in an effort to select a Preferred Alternative and move to a Public Hearing. The Broward MPO was also engaged for several meetings and provided input on modifications to the alternatives presented at the second Alternatives Public Workshop. As a result of those meetings, the following modifications were made:

- The braided ramp configuration in the vicinity of the Waterways neighborhood was redesigned such that the overpass was shifted west by elevating the westbound local lanes over the eastbound lanes in lieu of eastbound over westbound as shown at the November 29, 2018 Alternatives Public Workshop. The new redesign moves the overpass west of Waterways Boulevard and minimizes impacts to the Waterways community.
- To mitigate the elimination of a full median opening on SW 10th Street into Quiet Waters Business Park, a new signalized full median opening has been added to the concept on the north leg of Powerline Road, just south of West Drive.
- Allow trucks in the managed lanes (change in FDOT policy).
- Determined not to toll the managed lanes.
- Add a 10-foot shared use path along south side of SW 10th Street between Waterways Boulevard and Powerline Road; and
- Include an eight-foot sidewalk along south side of SW 10th Street between Powerline Road and Military Trail.

Based on the evaluation matrix as well as public comments and stakeholder meetings, the FDOT selected the Partial Depressed – Westbound Exit Ramp Alternative as the Preferred Alternative and a Public Hearing was planned for October 29, 2019.

At the October 10, 2019 MPO Board meeting, the City of Deerfield Beach officials and Broward MPO Board raised concerns that the FDOT Preferred Alternative was not

addressing the COAT recommendations to their expectations. As a result, FDOT decided to postpone the Public Hearing. Subsequently, City staff met with the FDOT and identified five concerns regarding the project:

1. Managed lanes do not connect directly to I-95 General Purpose Lanes;
2. Needs more Complete Street elements on local SW 10th Street;
3. Not enough depressed section elements;
4. Not enough green space; and
5. Will not provide full access to/from Turnpike from Local SW 10th Street (related to the Sawgrass Expressway/Florida's Turnpike project (FM Number 437153-1)).

As a result, the FDOT developed and evaluated solutions that could be incorporated into the project and has coordinated with the City to get feedback. As a result, the following improvements were added to the project:

- Direct connections from the Connector Road to the I-95 general purpose and express lanes (improvements included in FM Number 437153-1);
- Addition of a 12-foot-wide shared use path, instead of buffered bicycle lanes and sidewalk; and
- Included more green space and landscaping.

This revised concept is now referred to as the "With Powerline Road Ramps" Alternative.

A second concept was also developed to further address concerns from the City. This alternative is identical to the one previously described except that it removes the two ramps providing access to Powerline Road (including the depressed exit ramp). This alternative is referred to as the "Without Powerline Road Ramps" Alternative. The removal of the Powerline Road access ramps provides an additional 30 feet of green space in the middle of the corridor (where the ramps were located) and moves local SW 10th Street approximately 50 feet further away from homes on the south. These two new alternatives are described in Section 4.8 as the "Tier 3" alternatives.

4.8 Tier 3 Alternatives

The With Powerline Road Ramp and Without Powerline Road Ramp Alternatives are variations on the Depressed Westbound Exit Ramp Alternative described in Section 4.6.2.

The difference between these two alternatives is the section of the corridor between Powerline Road and Military Trail, the alternatives focus on the inclusion/exclusion of the depressed westbound exit ramp and elevated eastbound entrance ramp that conveys traffic to and from the Powerline Road vicinity. The two alternatives are therefore entitled as follows:

- **With Powerline Road Access Ramps (With Ramp Alternative)** – Based on Depressed Westbound Exit Ramp Alternative but includes direct connection ramps to I-95 general purpose and express lanes and a 12-foot-wide shared use path; and
- **Without Powerline Road Access Ramps (Without Ramp Alternative)** – A variation on the With Ramp Alternative except it does not include the two ramps serving Powerline Road (including the depressed westbound exit ramp).

The primary difference in the two alternatives, therefore, is the right-of-way footprint and associated impacts caused by the depressed westbound exit ramp and elevated eastbound entrance ramp in the central section of the corridor. Both alternatives have the following common revisions (described in Section 4.7.8.2):

1. Revisions to west-end geometry in the vicinity of the Waterways community;
2. Access revisions to Quiet Waters Business Park along Powerline Road;
3. Elimination of bicycle lanes in favor of a 12-foot-wide shared use path along the south side;
4. The allowance of trucks on the managed lanes;
5. No tolling of the managed lanes;
6. Flyover connections to both the I-95 express and general use lanes (included on adjacent I-95 PD&E study; and
7. Enhanced landscaping.

Both the With Ramp and Without Ramp Alternatives were carried forward to a Public Hearing anticipated to be held from October 12-15, 2020.

The subsequent sections describe the With and Without Ramp Alternatives in more detail.

4.8.1 With and Without Ramp Alternatives

The With and Without Ramp Alternatives are identical from the western terminus at the interchange with Florida's Turnpike to Powerline Road. FTE is planning major improvements to the Sawgrass Expressway and the interchange at Florida's Turnpike. The improvements proposed for SW 10th Street have undergone numerous reviews from FTE to ensure that these improvements are compatible with the ultimate interchange geometry. For the purposes of this PD&E study, the With and Without Ramp Alternatives are proposed to stand alone independently and therefore tie into the existing Sawgrass Expressway.

Florida's Turnpike to Powerline Road

In the eastbound direction, the existing Sawgrass Expressway is comprised of two mainline lanes and two collector-distributor lanes that serve the Lyons Road and Turnpike eastbound entrance and exit ramps. Immediately east of the Turnpike overpass, the mainline lanes expand to four lanes, with the left two lanes diverging to form the eastbound managed lanes and the right two lanes forming two of the three local SW 10th Street lanes. The third local lane is formed as the two existing collector-distributor lanes diverge into an eastbound-northbound loop ramp and an inside lane that joins the two mainline lines, thereby forming three local lanes to Powerline Road. Signalized intersections at Waterways Boulevard and Independence Drive are proposed, along with a 12-foot-wide shared use path that begins at Waterways Boulevard. An existing fourth eastbound lane that functions as acceleration lane between Waterways Boulevard and Independence Drive will be reconstructed in the new configuration. The proposed median width is 22 feet and widens to accommodate dual 11-foot left turn lanes approaching Powerline Road. The median is sufficiently wide to accommodate a third turn lane in the future and still maintain a four-foot traffic separator.

In the westbound direction beginning at Powerline Road and moving westward, the three local lanes are separated from the managed lanes by a landscaped area of between seven and 20 feet. Just west of the Waterways Boulevard intersection, the three westbound local lanes overpass the eastbound and westbound managed lanes via a 1,000-foot-long structure supported by straddle bents. MSE wall is required on the approach and departing ends of this bridge, which also contains a "stub" at its west end in order to accommodate a future northbound ramp to Florida's Turnpike. On the downward grade of this overpass, the two inside lanes merge with the two managed lanes to form the mainline Sawgrass Expressway

while the outside lane exits to form a collector-distributor system that serves the Turnpike and Lyons Road interchange ramps.

No proposed right-of-way is needed between Florida's Turnpike and Independence Drive. By holding the back of the north-side concrete barrier to five feet from the existing right-of-way on the north side, impacts to Quiet Waters Park can be avoided. However, a swath of up to 19 feet of proposed right-of-way is required from the south side of the roadway between Independence Drive and Powerline Road. This proposed right-of-way impacts a retention pond, sports complex parking, and the adjacent Shell station. Figures 4.8.1 and 4.8.2 displays various renderings between Florida's Turnpike and Powerline Road.

Powerline Road to Military Trail

The improvements to Powerline Road are similar to the improvements described earlier in this chapter. Powerline Road will be reconfigured to a six-lane facility to accommodate dual left-turn lanes in all four quadrants of the intersection. However, the traffic separators adjacent to each left-turn bay are sufficiently wide to accommodate a third left-turn in the future, if necessary.

With the addition of managed lanes, the existing full median opening from SW 10th Street into Quiet Waters Business Park must be removed. To mitigate the removal of this median opening and the loss of truck mobility, a partial signalized median opening is proposed on Powerline Road, just south of West Drive as shown in Figure 4.8.3. This median opening allows vehicles to turn left out of the business park. However, vehicles traveling south on Powerline Road are not permitted to turn left into the park – only exiting vehicles may turn left. This partial signalized median opening is approximately 300 feet south of the existing signalized intersection at West Drive, but these signals will be operated from the same controller so that green time for the intersections is synchronized.

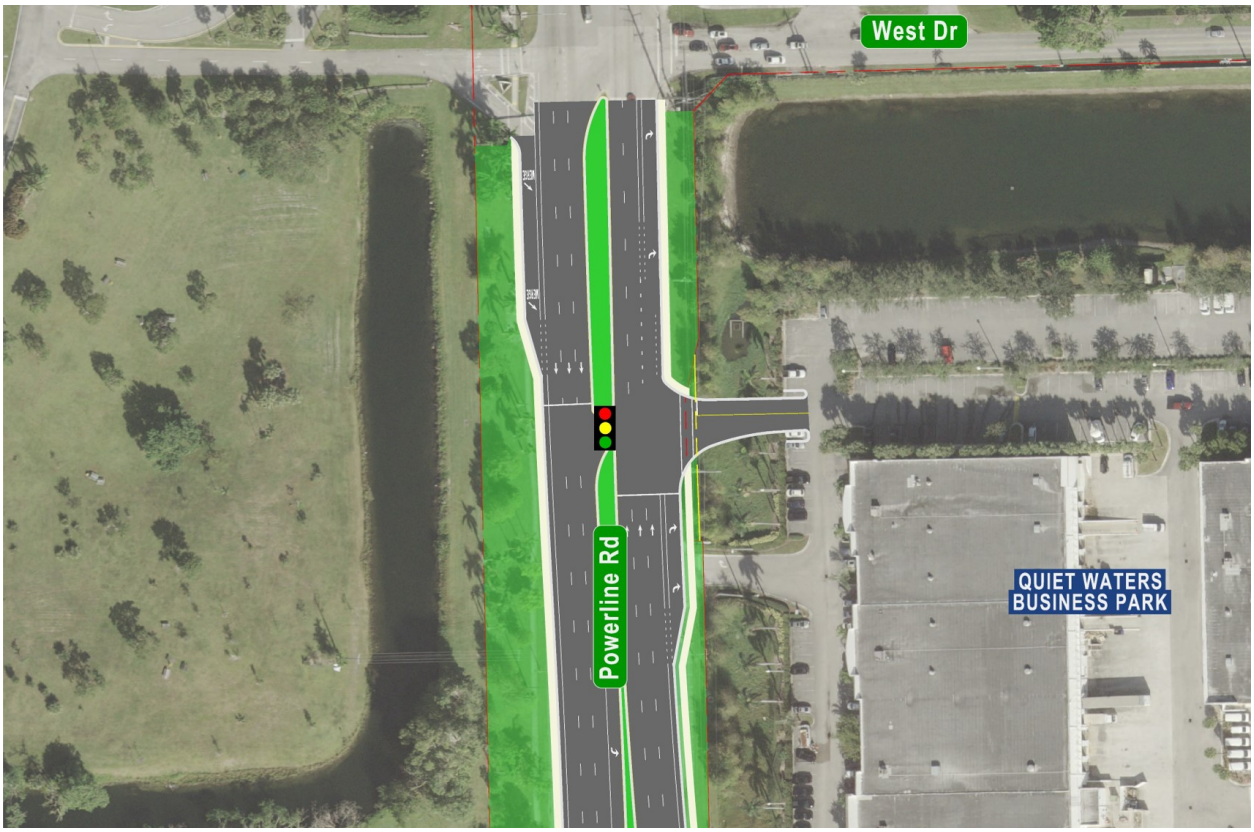
Figure 4.8.1: Renderings at Waterways Boulevard

Figure 4.8.2: Renderings at Independence Drive

East of Independence – Looking West

East of Independence – Looking East With Ramps to Powerline Road

Figure 4.8.3: Powerline Road at Quiet Waters Business Park Intersection



The bridge carrying the managed lanes over Powerline Road consists of a single-span bridge of approximately 260 feet in length supported by steel I-girders. The adjacent single-span structure to the east overpassing the service road accessing Quiet Waters Business Park is approximately 142 feet in length consisting of FIB 72s. The two structures are separated by an MSE wall section in order to reduce structure cost. Figure 4.8.4 shows the SW 10th Street managed lane bridge over Powerline Road.

Both the With and Without Ramp Alternatives have identical horizontal and vertical alignments over Powerline Road and the service road to Quiet Waters Business Park. Just east of the service road structure, the centerline of the managed lanes transitions southward via a 2,763-foot radius followed by a 303-foot tangent and a series of opposing curves of 2,823, 2,941, 4,237 feet. The initial curve of 2,763 feet requires a design variation for minimum length of curve (565 feet versus the 900 feet required).

Figure 4.8.4: SW 10th Street Managed Lanes over Powerline Road

The differences between the With and Without Ramp Alternatives are apparent beginning immediately east of Powerline Road to Military Trail. The local lanes for the With Ramp Alternative begin to deflect southward via a one-degree deflection immediately west of the westbound stop bar at the Powerline Road intersection. This eastbound lane deflection allows the inside lane to develop into the eastbound entrance ramp, which follows a reverse curvature of 1,528 feet while inclining at 6% to pass over the westbound local lanes. Further separation of the eastbound lanes is enabled by a series of three reverse curves with radii of 1,528, 1,506, and 1,324 feet as measured from the inside edge of pavement. These curves are normal crown at 35 mph. Approaching Powerline Road in the westbound direction, the inside edge of pavement transitions beneath the elevated eastbound entrance ramp flyover by reverse curves of 1,352 and 2,246 feet separated by a 337-foot tangent section. At the Powerline Road intersection, the widened median accommodates dual left-turn lanes while providing space for a future third lane, if required. A single right-turn lane is also provided.

Because the eastbound entrance ramp flyover is eliminated, the Without Ramp Alternative has different horizontal geometry east of Powerline Road. The tangent alignment west of the intersection continues eastward in a parallel fashion to the managed lanes. The offset

between the southern outside barrier wall of the managed lanes to the back of curb of the westbound local lanes is eight feet. This eight-foot envelope is carried to just west of SW 24th Avenue and is proposed to be landscaped with small trees. Figure 4.8.5 displays renderings of two alternatives just east of Powerline Road.

Figure 4.8.5: Renderings East of Powerline Road - With and Without Ramps

At Powerline Road – Looking East With Ramps to Powerline Road

At Powerline Road – Looking East Without Ramps to Powerline Road

Both the With and Without Ramp Alternatives require right-of-way from Quiet Waters Business Park in order to provide a two-lane service road with right-in/right-out access to SW 10th Street. This service road replaces the full median opening that is currently present. As mentioned earlier in this section, the elimination of left-turn access in and out of the business park is mitigated by the proposed signalized median opening that will be added on Powerline Road just south of West Drive.

Approaching the segment between SW 30th and SW 28th Avenue, the With and Without Ramp Alternatives present their most distinctive differences. The With Ramp Alternative includes a depressed westbound exit ramp that passes beneath an at-grade structure supporting the eastbound managed lanes. The depressed westbound exit ramp is comprised of normal-crown reverse curves of 2,314 and 3,967 feet. The 35 mph ramp both descends and ascends with consecutive grades of 3%. Upon clearing the overpassing eastbound managed lanes, the westbound exit ramp proceeds westward for approximately 1,280 feet, where it joins SW 10th Street to form the third lane on the outside.

The With Ramp Alternative requires between 13 and 18 feet of proposed right-of-way from Waterford Courtyards. This additional footprint is required because:

1. The eastbound managed lanes begin to transition southward via normal crown reverse curves of 12,000 and 15,000 feet in order to obtain the separation needed for the ramp crossing;
2. The exit ramp, which is a total of 27 feet wide, requires dual retaining wall systems (five-foot width) on each side of the ramp; and
3. An outside eastbound auxiliary lane is formed by the eastbound entrance ramp and continues to its counterpart – an eastbound exit ramp that spans the Military Trail intersection.

By contrast, the Without Ramp Alternative has 61 feet available between the back of curb and existing right-of-way in the vicinity of Waterford Courtyards. Figures 4.8.6, 4.8.7, and 4.8.8 highlight the difference in available space between the two Build Alternatives. A noteworthy point is that the Without Ramp Alternative avoids relocation of the existing transmission poles.

Figure 4.8.6: Renderings at SW 30th Avenue Looking East - With and Without Ramps

Figure 4.8.7: Renderings East of SW 30th Avenue - With and Without Ramps

East of SW 30th Ave – Looking East With Ramps to Powerline Road

East of SW 30th Ave – Looking East Without Ramps to Powerline Road

Figure 4.8.8: Renderings from Aerial View Looking West - With and Without Ramps

Figure 4.8.9 displays the view from the fourth floor of one of the Century Village buildings. Note the proposed pump station in the With Ramp Alternative rendering shown in the top portion of Figure 4.8.9.

Figure 4.8.9: Renderings from 4th Floor Century Village Balcony - With and Without Ramps

Another point of distinction between the With and Without Ramp Alternatives is the segment between SW 28th and SW 24th Avenues. The parcel on the south side of SW 10th Street in this vicinity is owned by the City of Deerfield Beach and contains the City's drinking water wells

as well as a pumping station. The With Ramp Alternative significantly impacts this parcel due to the need to place the shared use path within the existing landscaped berm area behind the pump station, closer to homes in the Waterford Homes neighborhood. The Without Ramp Alternative can avoid impacts to this parcel entirely but, the current conceptual plans and renderings have the shared use path placed in the same location as the existing gravel entrance road to the pump station. Locating the shared use path atop the existing gravel road allows for the existing transmission line to remain in place, and also provides a greater offset from the road to the shared use path, which will provide a more comfortable experience for pedestrians and bicyclists.

Approaching Military Trail from the west, both alternatives utilize slightly different alignment shifts in order to:

- Shift the westbound lanes to the north beneath the elevated eastbound managed lanes;
- Widen the median to accommodate dual left-turn lanes as well as piers;
- These alignment adjustments of the local lanes are accomplished through normal crown curves at 35 mph.

Both the eastbound and westbound managed lanes feature auxiliary lanes connecting the entrance and exit ramp pairs in each direction. The eastbound auxiliary lane forms the exiting ramp to Newport Center Drive. Conversely, the westbound entrance ramp created by the local westbound/SW 12th Avenue ramp access just west of the Newport Center Drive intersection forms the westbound auxiliary lane that terminates into the depressed exit ramp. Other noteworthy similarities and distinctions between the two alternatives include:

- Both alternatives utilize a 10-foot offset on the north side between the existing right-of-way and back of concrete barrier wall
- The With Ramp Alternative utilizes a local road median with that varies between 15.5 and 22 feet. The Without Ramp Alternative maintains the standard 22-foot median width;
- The With Ramp Alternative impacts more commercial acreage along the south side, east of SW 24th Avenue;

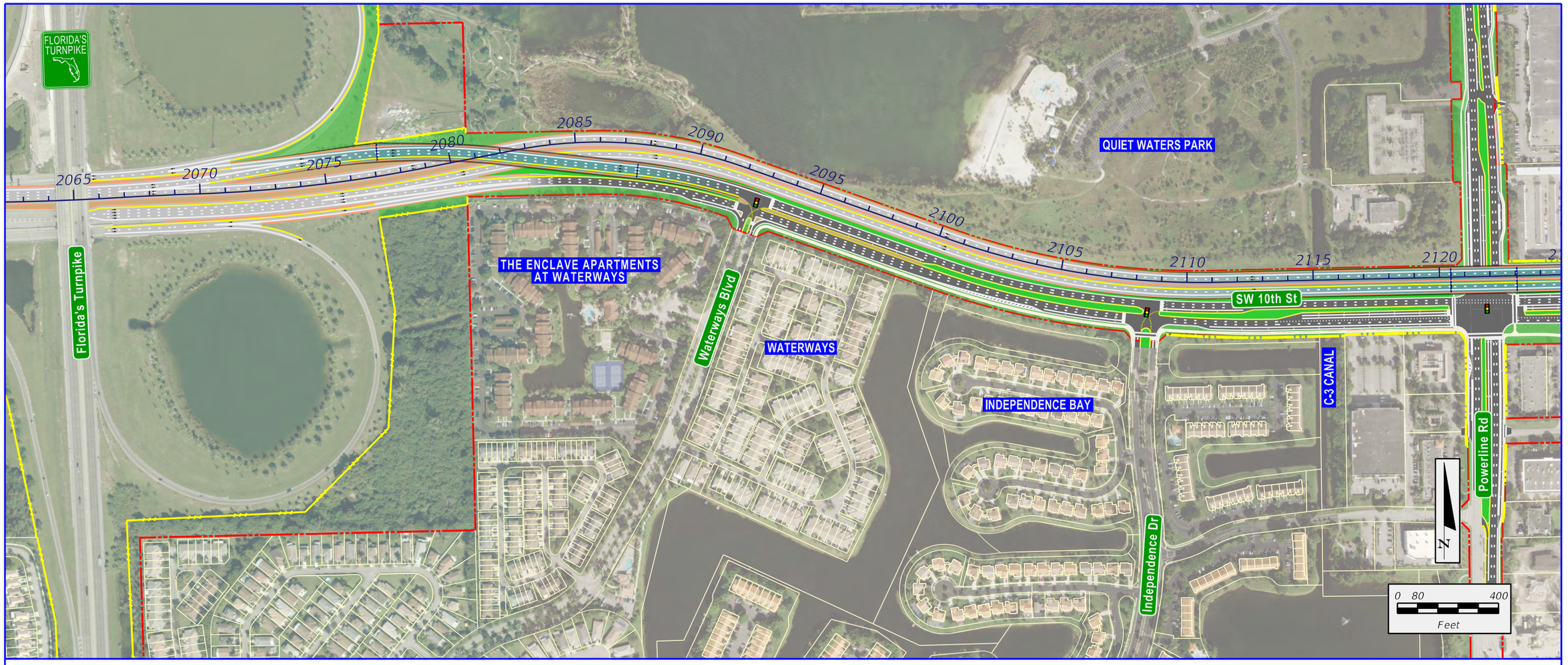
Figure 4.8.10 displays the difference between the With and Without Ramp Alternatives at SW 24th Avenue. Figure 4.8.11 illustrates the managed lanes over Military Trail as well as the eastbound exit ramp.

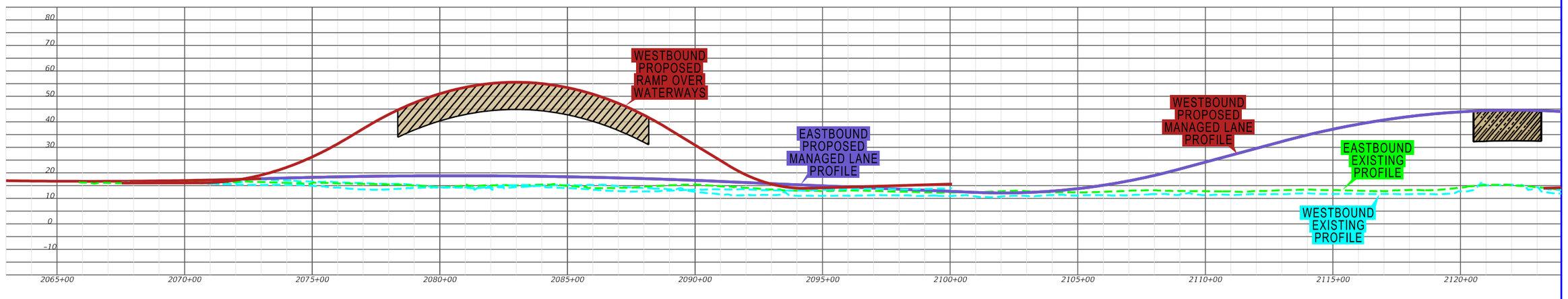
Figure 4.8.10: Renderings at SW 24th Avenue Looking West-With and Without Ramps

Figure 4.8.11: Rendering of Managed Lanes over Military Trail

Figures 4.8.12 and 4.8.13 display plan and profile views of the With and Without Ramp Alternatives, respectively. Note that each of these exhibits comprise three pages.

Both of these alternatives were presented at a Public Hearing held on October 12-15, 2020. Chapter 6 provides additional detail on these Build Alternatives.





SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.12
WITH POWERLINE ROAD RAMPS ALTERNATIVE
1 OF 3

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DEERFIELD STORAGE

Quiet Water Park Access Road

CENTURY VILLAGE

PUMP STATION

2125 2130 2135 2140 2145 2150 2155 2160 2165 2170 2175 2180 2185

SW 30th Ave

WATERFORD COURTYARDS

SW 28th Ave

WATERFORD HOMES

C-2 CANAL

SW 10th Dr

SW 24th Ave

N

0 80 400

Feet

80
70
60
50
40
30
20
10
0
-10

WESTBOUND PROPOSED RAMP OVER POWERLINE

EASTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING PROFILE

WESTBOUND PROPOSED DEPRESSED RAMP

EASTBOUND EXISTING PROFILE

2125+00 2130+00 2135+00 2140+00 2145+00 2150+00 2155+00 2160+00 2170+00 2175+00 2180+00 2185+00 2190+00

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.12
WITH POWERLINE ROAD RAMPS ALTERNATIVE
2 OF 3

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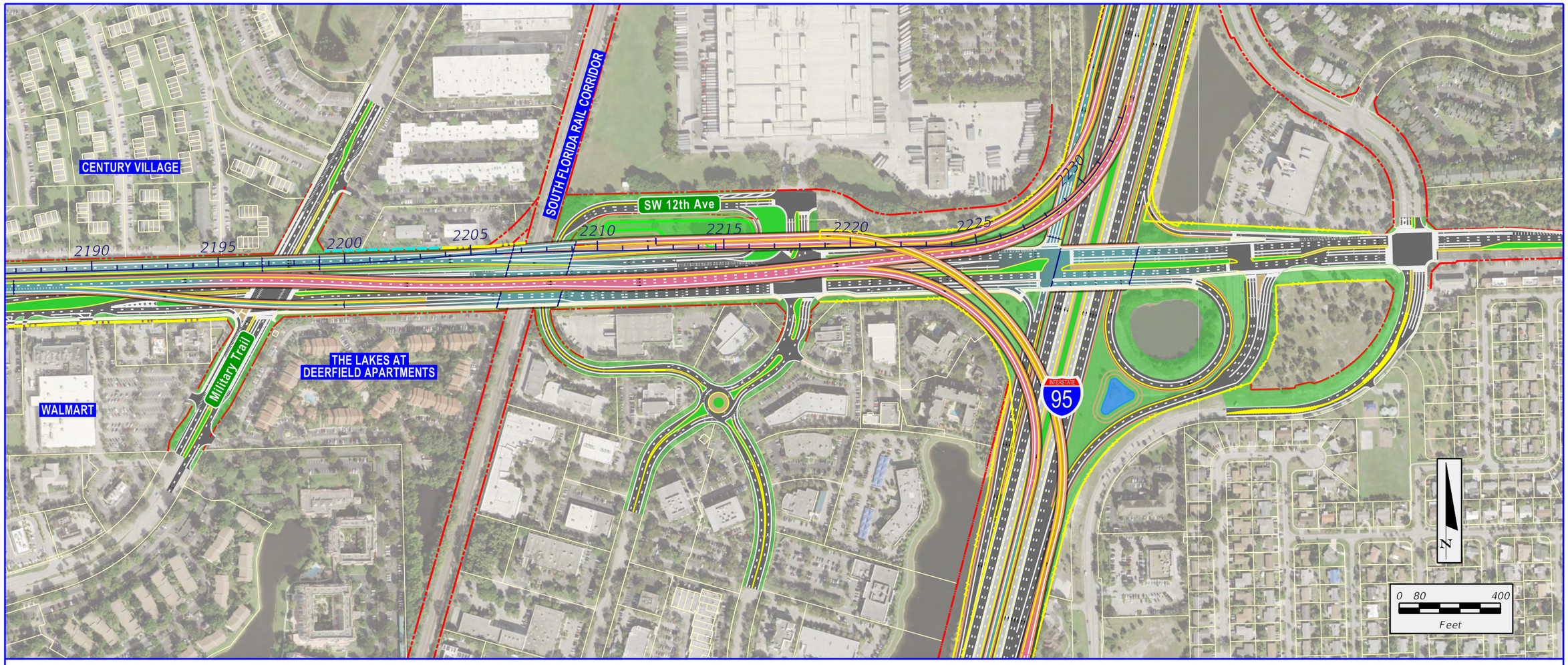

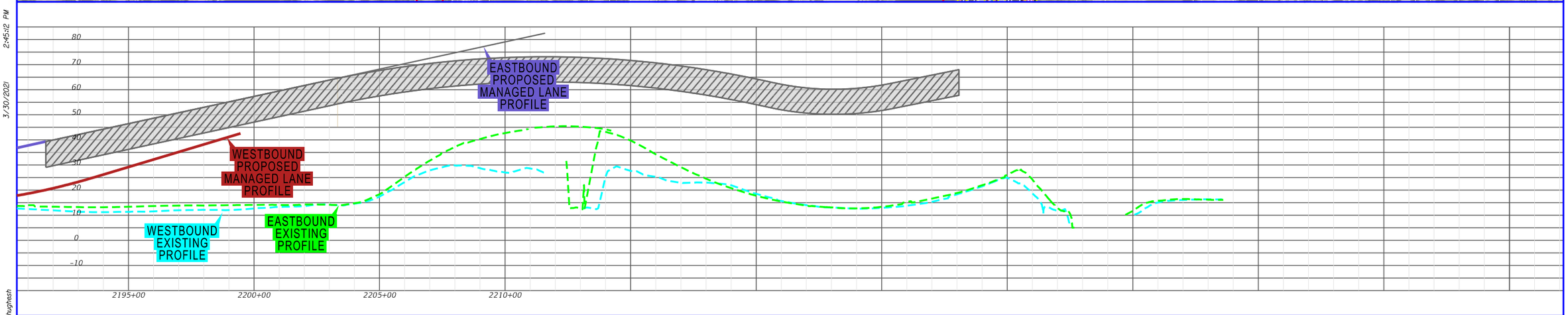

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Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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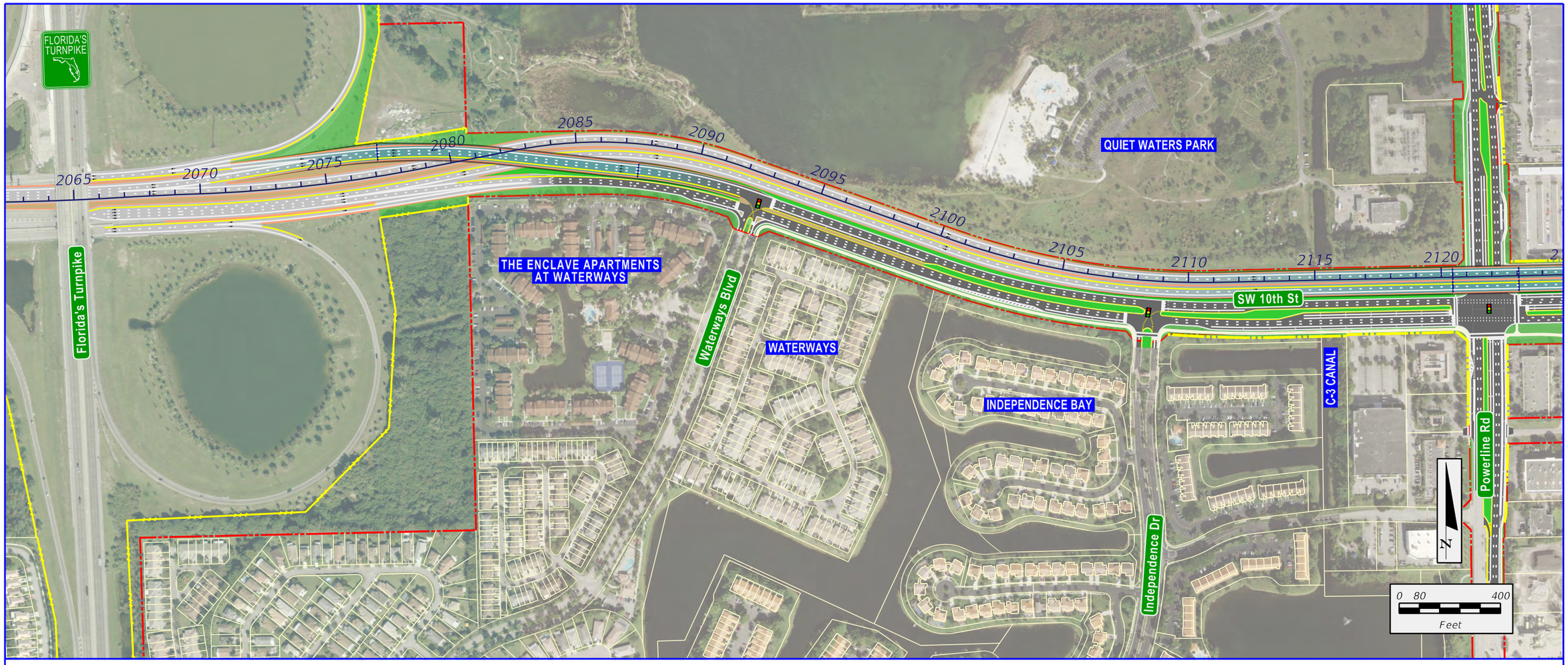
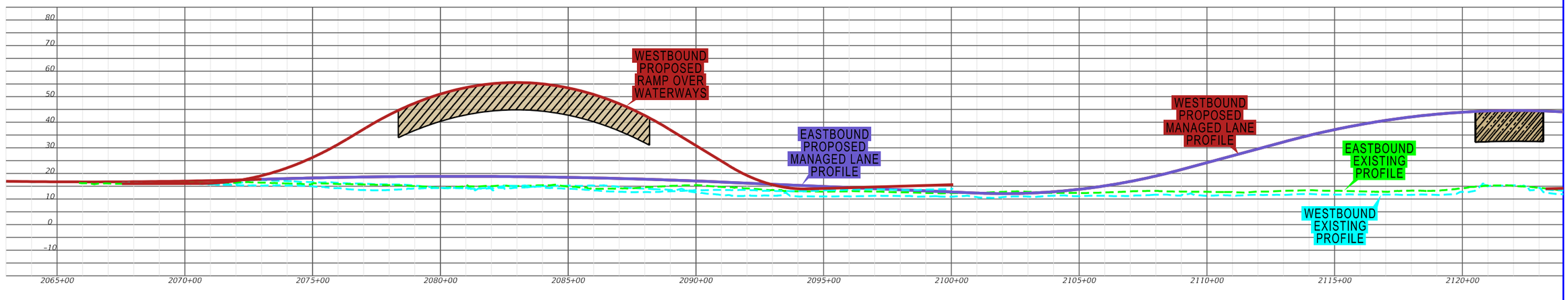
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.12
WITH POWERLINE ROAD RAMPS ALTERNATIVE
3 OF 3

SHEET NO.
4-158





SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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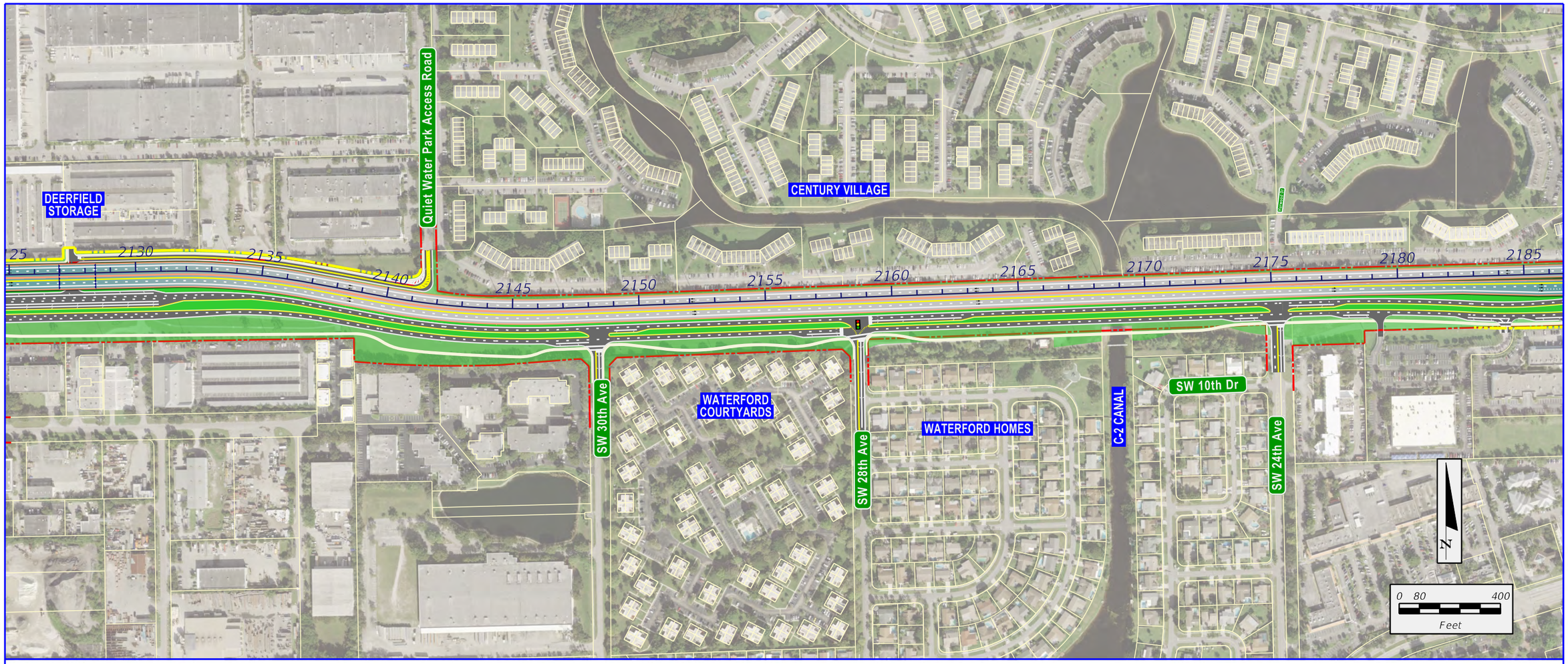
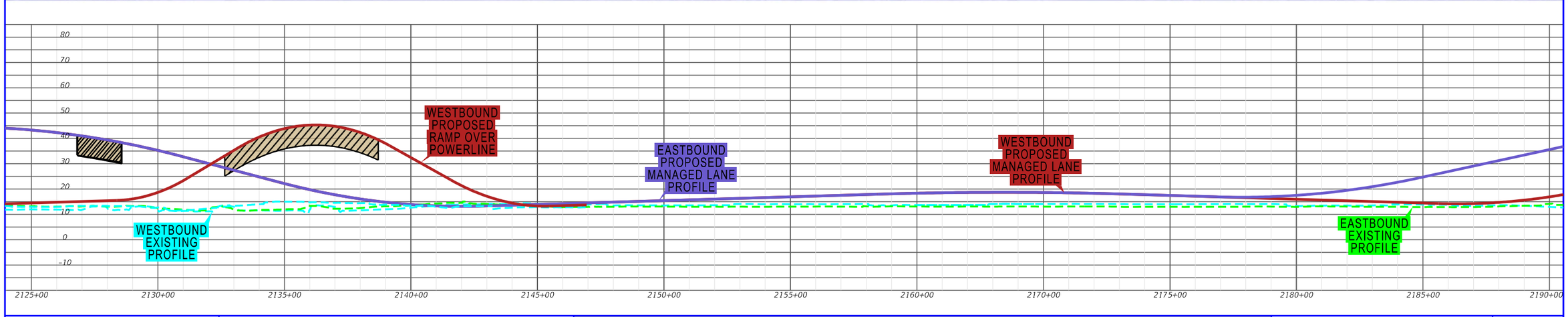
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.13
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE
1 OF 3

SHEET NO.
4-159





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Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.13
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE
2 OF 3

SHEET NO.
4-160

CENTURY VILLAGE

SOUTH FLORIDA RAIL CORRIDOR

SW 12th Ave

2190 2195 2200 2205 2210 2215 2220 2225 2230

Military Trail

THE LAKES AT DEERFIELD APARTMENTS

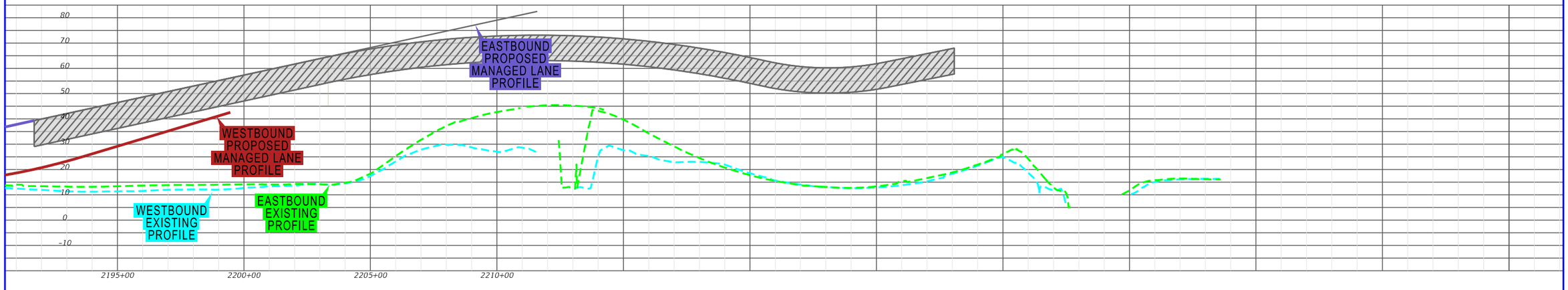
WALMART

INTERSTATE 95

N

0 80 400

Feet



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FIGURE 4.8.13
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE
3 OF 3

SHEET NO.
4-161

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4.9 Tier 3 – Comparative Alternatives Analysis

The subsequent sections compare the two Build Alternatives described in Section 4.8 in terms of engineering, environmental, and social impacts. A summary and relative comparison of the pertinent impacts of the two Build Alternatives are displayed in Table 4.9.1.

4.9.1 Aesthetic Impacts

Concepts shown at the Alternatives Public Workshop No. 2 included an overpass at Waterways Boulevard as shown in Figure 4.9.1. Concerns were expressed by the Waterways community regarding the location of the proposed overpass bridge at the Waterways entrance and their viewshed. Post-workshop, the overpass was shifted to the west (just east of Florida's Turnpike) to minimize impacts on the viewshed within the vicinity of the Waterways community as shown in Figure 4.9.2. The FDOT commits to minimizing the length of elevated roadways adjacent to residential areas. Specifically, the grade-separated roadways at Military Trail and Powerline Road will be as short as possible and will transition to an at-grade section on both the east and west approaches at Powerline Road and the western approach of the Military Trail intersection as quickly as possible while following FDOT design standards. The proposed overpass in the vicinity of Waterways Boulevard will not be located directly in front of Waterways Boulevard and will instead be located west of this intersection.

The With Powerline Road Ramps Alternative includes a depressed westbound exit ramp from the managed lanes to local SW 10th Street. The depressed section was included in the project to reduce visual and noise impacts for residents living in Century Village, Waterford Courtyards, and Waterford Homes. The Without Powerline Road Ramps eliminates the ramps just east of Powerline Road, thereby removing the need for any depressed elements. With this alternative, an additional 30 feet of green space is added in the middle of the corridor (SW 30th Avenue to SW 24th Avenue) for additional landscaping.

The proposed project will reduce the amount of green space available for landscaping in the corridor. However, some green space will remain, and landscaping will be maximized in the space available as shown in Figures 4.9.3 and 4.9.4.

Table 4.9.1: Comparative Evaluation Matrix

	No-Build[1]	With Ramp Alternative[2]	Without Ramp Alternative
Safety and Traffic Operations			
Crash Occurrence	Increases	Decreases	Decreases
Emergency Response Times	Increases	Decreases	Decreases
Anticipated 2040 Travel Time – Turnpike to I-95 (Eastbound - AM; Minutes/Vehicle)	12 to 13 (Local Lanes)	7 to 8 (Local lanes) 3 to 4 (Managed Lanes)	7 to 8 (Local lanes) 3 to 4 (Managed Lanes)
Anticipated 2040 Travel Time – Turnpike to I-95 (Westbound - PM; Minutes/Vehicle)	> 30 (Local Lanes)	7 to 8 (Local lanes) 3 to 4 (Managed Lanes)	7 to 8 (Local lanes) 3 to 4 (Managed Lanes)
Entrance & Exit Ramps to/from Managed Lanes	N/A	4	2
Promotes Regional Connectivity/System Linkage	None	High	High
Right-of-Way Impacts			
Right-of-way required for Roadway?	No	Yes	Yes
Parcels Impacted (Permanent/Temporary)	None	22 / 0	18 / 0
Acres Impacted (Permanent/Temporary)	None	2.7 / 0	2.2 / 0
Potential Companion Parcels Impacted (Permanent/Temporary) [4]	None	92 / 0	92 / 0
Potential Number of Commercial Relocations	None	8	8
Right-of-way required for Pump Stations?	No	No	No
Right-of-Way Costs ($ million)	None	34.2	27.5
Cultural			
Section 4(f) Resources Impacted (Quiet Waters Park)	None	None	None
Permanent Section 4(f) Use (acres)	0	0	0
Temporary Section 4(f) Use (acres)	0	0	0
Physical/Natural Environment			
Noise Receptors Warranted?	None	Yes	Yes
Wetlands/Species Impacted	None	Low	Low
Potential to Impact City Wellfield Parcel	None	TBD	None
Permanent Pumps for Drainage Required	No	Yes	No
Landscaping Potential	None	Low	High
Aesthetic Potential	None	Moderate	High

	No-Build[1]	With Ramp Alternative[2]	Without Ramp Alternative
Multimodal			
Potential for Express Bus Routes	None	Yes	Yes
Pedestrian Facilities	Same as existing	Improved	Improved
Bicycle Facilities	Same as existing	Improved	Improved
Utilities			
Requires Relocation of Transmission Poles	No	Yes	No
Utilities at FP&L Substation at Powerline Road impacted	No	No	No
Construction			
Road Construction Duration (Does not include time for utility relocation)	None	3 years	3 years
Dewatering Ponds Required During Construction	No	Yes	No
Construction Impacts (Noise, De-watering, Vibrations)	None	High	Low
Project Costs ($ millions)			
Construction ($ million)	0	265	184
Right-of-way ($ million)	0	34.2	27.5
Utility Relocation ($ million)	0	26.4	18.1
Maintenance ($ million/year)	0	0.2	0
Total Costs ($ million)	**0**	325.6	229.6

Figure 4.9.1: Waterways Viewshed (Alternatives Public Workshop No. 2)

Figure 4.9.2: Waterways Viewshed (Post Alternatives Public Workshop No. 2)

Figure 4.9.3: With Ramps Rendering (SW 30th Avenue looking East)

Figure 4.9.4: Without Ramps Rendering (SW 30th Avenue looking East)

A separate contract for landscaping will be implemented at the completion of the construction project. FDOT commits that landscaping and aesthetic treatments will be coordinated with the local communities and the City of Deerfield Beach during the final design phase. Aesthetic treatments and landscaping schemes will be in conformance with the City of Deerfield Beach guidelines (Pioneer Grove Design Standards and Landscape Manual).

4.9.2 Relocation Potential

The With Ramp Alternative impacts 22 parcels and the Without Ramp Alternative impacts 18 parcels. One of the key distinguishing characteristics of the Without Ramp Alternative is that it eliminates proposed right-of-way from the Waterford Courtyards condominium complex. At this time, it is believed that both alternatives will result in eight commercial relocations and no residential relocations. More information on the anticipated relocation is contained in Section 6.1.3.

4.9.3 Cultural Impacts

There are no archeological resources, resource groups, structures or historic cemeteries recommended for listing on the NRHP. Therefore, there will be no cultural resource impacts with either of the Build Alternatives.

4.9.3.1 Section 4(f) Impacts

Neither of the Build Alternatives will have Section 4(f) impacts.

4.9.4 Natural Environment Impacts

The Build Alternatives were developed to maximize the use of the existing right-of-way and to minimize affecting the natural environment of the area.

4.9.4.1 Protected Species and Habitat

In a letter dated October 30, 2018, the USFWS determined that the project was not likely to adversely affect any federally listed species or designated critical habitat. No adverse effects are anticipated to the state listed species.

4.9.4.2 Wetlands

There are no wetland impacts associated with either of the Build Alternatives.

4.9.4.3 Floodplains

The project will result in minimal encroachments to floodplains. Encroachments resulting from the construction of the preferred alternative will be fully compensated within the proposed stormwater management facilities to insure there will be no increase in flood elevations and/or limits.

The proposed drainage system will perform hydraulically in a manner equal to or greater than the existing system, and floodplain surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

4.9.5 Physical Environment Impacts

The physical environment impacts related to the Build Alternatives are discussed below.

4.9.5.1 Highway Traffic Noise

The NSR, available under separate cover, includes recommended noise barriers, which will be coordinated with affected stakeholders and incorporated into the Preferred Alternative. Section 6.2.7 contains more detailed information on the NSR and its recommendations.

4.9.5.2 Air Quality Impacts

The project is in an area which is designated in attainment for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project. Construction activities will cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to all applicable State and local regulations and to the FDOT Standard Specifications for Road and Bridge Construction.

The project is expected to improve traffic flow through the addition of managed lanes that will relieve congestion along the local SW 10th Street, leading to an enhancement in operational capacity and overall traffic operations, which should reduce operational greenhouse gas emissions.

4.9.5.3 Contamination Impacts

The Without Ramp Alternatives impacts six potentially contaminated sites and the With Ramp Alternative impacts seven potentially contaminated sites, as shown in Table 4.9.2. Both of these alternatives impact the following contamination sites:

- 1 – Shell First Coast Energy – Medium Ranking;
- 2 – City of Deerfield Beach Well – Low Ranking;
- 4 – Med Care Pharmacy – Low Ranking;
- 7 – Devcon – Low Ranking;
- 10 – Brothers Dry Cleaning Inc. – Medium Ranking; and
- 17 – Cen-Deer Management, Inc./Nanaks Landscaping/Trolley Tours – Medium Risk.

The With Powerline Road Ramps Alternative also impacts:

- 9 – United Wholesale – Low Ranking;

Table 4.9.2: Summary of Potential Contamination Sites Impacted

	With Ramp	Without Ramp
No	0	0
Low	4	3
Medium	3	3
High	0	0
Total	**7**	**6**

4.9.5.4 Utilities and Railroad

There are no anticipated railroad impacts associated with this project. The proposed managed lanes and local SW 10th Street will overpass the SFRC/CSX railroad. Coordination has been ongoing through the adjacent I-95 PD&E Study (FM Number 436964-1).

As discussed in Section 4.7.5.4, the total estimated utility relocation cost (as provided by the UAOs) is $35.6 million. It is anticipated that the With Ramp Alternative relocation cost will be approximately 80% of that cost for a total of approximately $26 million and the Without Ramp Alternative relocation cost will be approximately 50% of that cost for a total of approximately $18 million. For more information on utility impacts, reference the Utility Assessment Package, available under separate cover.

4.9.6 Cost Estimates

The FDOT LRE program was used to determine construction costs for the With and Without Ramp Alternatives. A summary of the costs for these Tier 3 Alternatives is included in Table 4.9.3. The detailed LREs are included in Appendix F.

Table 4.9.3: Tier 3 Alternatives Cost Estimates

	With Ramp Alternative	Without Ramp Alternative
Construction Cost ($ million)	265	184
Right-of-Way Cost ($ million)	34.2	27.5
Utility Relocation ($ million)	26.4	18.1
Maintenance Cost ($ million/year)	0.2	0
Total Costs ($ millions)	325.6	229.6

4.9.7 Tier 3 Summary

Each of the alternatives have distinct advantages and disadvantages. Below is a summary of the major differences between the two Build Alternatives and the No-Build Alternative.

No-Build Alternative

Primary Advantages

- No new expenditure for roadway design, utility relocations, right-of-way acquisition, or construction costs;
- No disruption or temporary impacts (air, noise, vibration, travel patterns) due to construction activities;
- No right-of-way acquisition or business relocations; and
- No impacts to the natural environment.

Primary Disadvantages

- Does not meet the project's purpose and need;
- Increased vehicular congestion and delay, which leads to increased travel costs;
- Increased safety concerns;
- Increased emergency response and evacuation time; and
- Decreased air quality.

With Powerline Road Ramps Alternative

Primary Advantages

- Includes a depressed section to comply with COAT recommendations; and
- Includes entrance and exit ramps to and from the local SW 10th Street and managed lanes.

Primary Disadvantages

- May require right-of-way from Waterford Courtyards and Century Village;
- Higher construction cost and utility relocation costs;
- Construction impacts will be more extensive; and
- Provides fewer landscaping opportunities.

Without Powerline Road Ramps Alternative

Primary Advantages

- Easiest and least expensive to construct;
- No impacts to the City of Deerfield Beach Wellfield and FP&L transmission lines;
- Has the least amount of right-of-way impacts; and
- Provides more landscaping and aesthetic opportunities.

Primary Disadvantages

- Does not include Powerline Road ramps for accessibility to/from the managed lanes;
- Does not provide as much traffic relief for local SW 10th Street as compared to the With Ramp Alternative; and
- Does not include a depressed section.

Appendix C displays the concept plan sheets pertaining to the Tier 3 Alternatives. Based on comments received at the Public Hearing held from October 12, 2020 to October 15, 2020 and

additional stakeholder engagement after the hearing, the FDOT selected the Without Powerline Road Ramps Alternative to be the Preferred Alternative in the Spring of 2021.

The Preferred Alternative best balances connectivity, congestion, impacts, constructability, and cost, and has fewer impacts to the City of Deerfield Beach parcel containing drinking water wells. In addition, the Preferred Alternative has fewer impacts to the south side FP&L transmission line, has the least amount of right-of-way impacts, and provides the most landscaping and aesthetic opportunities by having a larger buffer between SW 10th Street and residential properties on the south. This alternative meets the purpose and need for the project while minimizing impacts to the community. In comparison of the two Build Alternatives, the Without Powerline Road Ramps Alternative also received more public support at the Public Hearing than the With Powerline Road Ramps Alternative.

5.0 Project Coordination & Public Involvement

Public involvement activities were completed in accordance with Section 339.155, Florida Statutes; executive Orders 11990 and 11988; Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act; and Code of Federal Regulations 771.

A public involvement program was developed and implemented for the SW 10th Street PD&E Study, as documented in the Public Involvement Plan (PIP). The PIP was updated and amended throughout the project development process to incorporate the latest public involvement policies and techniques as they evolved during the life of the study. The purpose of the program is to outline the public involvement approach to be taken with the project, provide and share project information with people living and working in the area, listen to ideas and concerns, and solicit and incorporate input received during the study process. For this project, the PIP focused on elected and appointed officials, agency meetings, a series of public meetings and several community outreach techniques including a project website.

Public and Agency Kick-off Meetings, two Public Alternatives Meetings, one Project Update Webinar held on three days, a Public Hearing with multiple session options, and numerous other public involvement meetings have been held for this project. A summary of all public involvement activities is included separately in the Comments and Coordination Report, available under separate cover.

5.1 Public Kick-off Meeting

An Elected Officials and Agency Kick-off Meeting was held on November 15, 2017 from 2:30 p.m. to 4:30 p.m. followed by a Public Kick-off Meeting from 5:30 p.m. to 7:30 p.m. at the DoubleTree Hotel by Hilton in Deerfield Beach, Florida. The meetings were held to inform elected officials, agency representatives, and the public of the PD&E Study and give them the opportunity to express their views regarding the proposed project. A presentation was given at both meetings that provided information regarding the process of the study, an overview of the project alternatives, the purpose and need for the project, and the project schedule. Following the presentation, FDOT staff and consultants were available to answer questions. A court reporter was present to take notes of those attending who wished to speak

and provide comments. A total of 57 elected officials attended the Elected Officials and Agency Kick-off Meeting including 39 FDOT staff. Two hundred and ninety-one persons registered as having attended the Public Kick-off Meeting, including 48 FDOT staff and engineering consultant representatives. Comments and questions from the public were focused on: property value impacts, noise, traffic, and quality of life.

5.2 Alternatives Public Workshops

The first Alternatives Public Workshop was held on April 24, 2018 from 2:30 p.m. to 7:30 p.m. at the DoubleTree Hotel by Hilton in Deerfield Beach, Florida. This workshop began as an open house, followed by a formal presentation with two question and answer (Q&A) sessions. The presentation provided the need for the project, information on the progress of the study, an overview of the project alternatives and the project schedule. The Q&A sessions gave attendees an opportunity to ask questions or voice concerns. Throughout the workshop, FDOT staff and consultants were available to answer questions. A court reporter was present to take notes of those attending who wished to speak and to record the Q&A sessions. Two hundred and sixty people attended the first Alternatives Public Workshop, this included 40 FDOT staff and consultant representatives and 220 interested persons.

Two Build Alternatives presented at the first Alternatives Public Workshop were the North Alignment and the Center Alignment. These alternatives included a depressed section from just west of Powerline Road to the C-2 Canal. The North Alignment placed the managed lanes on the north side of the corridor and the local lanes on the south side of the corridor. The Center alignment placed the managed lanes in the center with local SW 10th Street on either side, as a one-way frontage road system. The majority of the comments received included concerns about the depressed section, noise, traffic, and decrease in property values. Based on feedback from this public workshop, and additional community and stakeholder meetings, the North Alignment was favored and carried forward for further study.

The second Alternatives Public Workshop was held on November 29, 2018 from 2:30 p.m. to 7:30 p.m. at the DoubleTree Hotel by Hilton in Deerfield Beach, Florida. This workshop was held as an open house format, and FDOT staff and consultants were available to answer questions and help throughout the workshop. There was also a presentation running

concurrently every half hour. The presentation provided the need for the project, information on the progress of the study, an overview of the project alternatives and the project schedule. A court reporter was present to take notes of those attending who wished to speak and provide comments. Two hundred and eighty-five people participated at the second Alternatives Public Workshop. This total included 53 FDOT and Florida's Turnpike Enterprise staff and consultants and 232 interested persons.

Due to the concerns raised about the impacts of the depressed section at the first public workshop, additional alternatives were developed that reduced the limits of the depressed section for the second Alternatives Public Workshop. Five Build Alternatives with a north alignment were presented: The Full Depressed Alternative, three Partial Depressed Alternatives, and a Non-Depressed/No Managed Lane Access Alternative. Many attendees were in favor of the Non-Depressed Alternative, others favored the No-Build or the Partially Depressed Alternatives. There were various questions about tolling and the desire for trucks to use the managed lanes. Businesses owners wanted to know detailed information regarding access to their property. Questions regarding the Sawgrass Expressway project timing and alternatives, and concerns about pollution, noise and property values were also raised.

5.3 MPO and COAT Meetings

In 2015, the Broward MPO created the COAT. The COAT was tasked with obtaining consensus on a vision for the SW 10th Street corridor. The team was comprised of members from the surrounding community (businesses and homeowner representatives) as well as elected and appointed officials. The composition of the team consisted of:

- Nine members from the City of Deerfield Beach:
  - Four residents from communities adjacent to SW 10th Street;
  - Two business representatives; and
  - Three citywide representatives.
- Eight members from the SW 10th Street surrounding area:
  - Two from the City of Coconut Creek;
  - Two from the City of Coral Springs;
  - Two from the City of Parkland; and
  - Two representing Broward County interests.

The COAT ultimately provided 18 recommendations and 15 sub-recommendations to the Broward MPO in 2016. The PD&E team has had numerous meetings with the COAT since the start of the PD&E Study, the meeting minutes for those meetings are included in the Comments and Coordination Report, available under separate cover.

Subsequent to the second Alternatives Public Workshop, the COAT was re-engaged for a series of three meetings (April to June 2019) along with numerous stakeholder meetings, including meetings with elected officials, neighborhood groups, and businesses in an effort to select a Preferred Alternative and move to a Public Hearing. The Broward MPO was also engaged for several meetings and provided input on modifications to the alternatives presented at the second Alternatives Public Workshop.

As a result of those meetings, the following modifications were made:

- Westward shift of overpass at Waterways Boulevard;
- Provide a new signalized median opening on north leg of Powerline Road for Quiet Waters Business Park;
- Allow trucks in the managed lanes/Connector Road (exception to FDOT policy);
- The Connector Road would not be tolled;
- Add a 10-foot shared use path along south side of SW 10th Street between Waterways Boulevard and Powerline Road; and
- Include an eight-foot sidewalk along south side of SW 10th Street between Powerline Road and Military Trail.

As a result of stakeholder coordination and COAT meetings, FDOT made a commitment that the Connector Road, which will be part of the FDOT Managed Lanes Network, will allow trucks to use the facility within the project's limits. FDOT also commits that the managed lanes will open without tolling, and a separate public hearing would be conducted to introduce tolling on the managed lanes. Also, if the facility is ever tolled, it would be done electronically, and vehicles would not be required to stop.

After considering the various social, cultural, environmental, and engineering issues associated with the Build Alternatives, and stakeholder input, the Westbound Depressed

Exit Ramp was selected as the FDOT Preferred Alternative and a Public Hearing was scheduled for October 2019.

At the October 2019 MPO meeting, the City of Deerfield Beach and Broward MPO Board raised concerns that the FDOT Preferred Alternative was not addressing the COAT recommendations to their expectations. As a result, FDOT decided to postpone the Public Hearing. Subsequently, City staff met with the FDOT and identified five concerns regarding the project:

1. Connector Lanes do not connect directly to I-95 General Purpose Lanes;
2. Needs more Complete Street elements on local SW 10th Street;
3. Not enough depressed section elements;
4. Not enough green space; and
5. Will not provide full access to/from Turnpike from Local SW 10th Street (related to the Sawgrass Expressway/Florida's Turnpike project (FM Number 437153-1).

As a result, the FDOT developed and evaluated solutions that could be incorporated into the Westbound Depressed Exit Ramp Alternative and has coordinated with the City to get feedback. As a result, the following improvements were added to the project:

- Direct connections from the Connector Road to the I-95 general purpose and express lanes (improvements included in the I-95 at SW 10th Street interchange project (FM Number 436964-1);
- Addition of a 12-foot-wide shared use path, instead of buffered bicycle lanes and sidewalk; and
- Creation of a new alternative (Without Powerline Road Ramps) that provides an additional 30 feet of green space in the corridor for landscaping.

Appendix H includes a table of the COAT recommendations along with a disposition of how each recommendation is implemented or considered for the Preferred Alternative and a reference for where additional information on that topic can be found. A list of the meetings held with the MPO and/or COAT (as of March 24, 2021) is shown below in Table 5.3.1.

Table 5.3.1: Broward MPO & COAT Meetings

Stakeholder	Meeting	Date(s)
Broward Metropolitan Planning Organization (MPO)	Broward MPO Logistics for COAT	10/9/17
	MPO Meeting with Director Gregory Stuart	11/14/17 & 3/22/18
	Broward MPO Follow-up Meeting	7/16/18
	Alt. Workshop Discussion	7/18/18
	Broward MPO Presentation Review Meeting	10/8/18
	MPO Planning and Logistics Meeting for COAT	10/9/17
	Meeting with MPO Staff to Discuss Alternative Workshop, Workshop Results and Public Involvement	6/29/18, 7/8/18, 8/24/18 & 10/11/18, 10/28/20
	Board Meeting	5/10/18, 10/11/18, 2/14/19, 7/11/19, 7/9/20, & 11/12/20
	Executive Committee	12/7/17, 5/3/18, 6/6/19, 7/7/20
	Citizens' Advisory Committee (CAC)	4/25/18,10/24/18, 6/26/19 & 5/27/20
	Technical Advisory Committee (TAC)	4/25/18, 10/24/18, 6/26/19 & 5/27/20
	Broward MPO Engagement Forum	1/10/19 & 1/9/20
Community Oversight Advisory Team (COAT)	Pre-Kick-Off meeting	10/11/17
	Pre-Alternatives Public Workshop No. 1	3/29/18
	Project Update	11/19/18
	COAT Workshop Meeting	2/28/19
	COAT Recommendation Review Meeting No. 1	4/25/19
	COAT Recommendation Review Meeting No. 2	5/16/19
	COAT Recommendation Review Meeting No. 3	6/6/19

5.4 Project Update Webinars

Due to the State of Emergency declared by Governor DeSantis in Executive Order 20-52 as a result of the COVID-19 pandemic, a series of webinars were held in place of a third in-person Alternatives Public Meeting. The webinars were held on June 18, 2020, June 29, 2020, and July 1, 2020 from 7:00 p.m. to 8:30 p.m. via the GoToWebinar platform. In advance of the webinars, the exhibit boards were posted to the project website in an "Exhibit Room" layout, so that stakeholder could easily navigate through the exhibit boards, similar to an in-person public meeting. The webinar was divided into two sections: slideshow presentation (7:00 p.m.

to approximately 7:35 p.m.) and the Q&A period (7:35 p.m. to 8:30 p.m.). The presentation covered the project updates since the last public meeting, Alternatives Public Workshop No. 2. The Q&A period covered questions asked in advance of the webinar, and also questions that were submitted during the webinar via the question/chat function. The presentation, the Q&A slides, and recordings of the webinars were posted onto the project website following the webinar. A matrix of the questions and answers for each question was also posted onto the project website.

Two Build Alternatives were presented during the webinars: the With Powerline Road Ramps Alternative and the Without Powerline Road Ramps Alternative. The With Powerline Road Ramps Alternative is a variation of the Partial Depressed – Westbound Exit Ramp Alternative presented at the second Alternative's Public Workshop. The Without Powerline Road Ramps Alternative is very similar to the With Ramp Alternative, except it removes the two ramps located just east of Powerline Road in order to provide additional green space and landscaping in the corridor, in response to the City's concerns described above. A total of 330 people attended Webinar No. 1 and the majority of comments received related to noise, accessibility, and the adjacent Florida's Turnpike Study. A total of 377 people attended Webinar No. 2 and the majority of comments received related to noise walls and accessibility. Attendance dropped for Webinar No. 3, down to 92 attendees, and only a handful of comments were received.

5.5 Stakeholder Meetings

Throughout the duration of the PD&E Study, meetings were held with stakeholders that had interest in the project. At all these meetings, stakeholders were updated on project developments and were asked to share information that could assist the project team in the development of alternatives. A list of the meetings (as of March 24, 2021) is shown below in Table 5.5.1 and Table 5.5.2.

Table 5.5.1: Elected & Appointed Official Meetings

Municipality/ Stakeholder	Meeting	Date(s)
Broward County	Mayor/Commissioner Beam Furr, District 6	11/6/17 & 5/9/19
	Vice Mayor/Commissioner Mark Bogen, District 2	10/2/17, 4/20/18, 5/7/18, 9/26/18 & 6/12/19
	Vice Mayor Dale V.C. Holness, District 9	4/15/19
	Commissioner Nan Rich, District 1	10/9/17
	Commissioner Michael Udine, District 3	10/2/17, 5/7/18, 9/24/18, & 4/3/19
	Commissioner Chip LaMarca, District 4	10/9/17
	Commissioner Lamar Fisher, District 4	12/14/18
	Commissioner Steve Geller, District 5	10/9/17
	Commissioner Tim Ryan, District 7	11/13/17
	Commissioner Barbara Sharief	5/6/19
	County Administrator Bertha Henry and Richard Tornese	10/3/18
	Broward County EPMG Drainage Meeting	2/21/18
	Broward County Water Main	3/21/18
	Broward County Resiliency	2/20/20
City of Deerfield Beach	Mayor/Commissioner Bill Ganz	9/26/17, 1/30/18, 8/24/18, 2/6/19, 6/12/19, 1/17/20, 5/21/20, 12/15/20, & 3/17/21
	Vice Mayor/Commissioner Gloria Battle, District 2	9/26/17, 4/9/18 & 10/1/18
	Chamber of Commerce	9/11/18 & 8/2/19
	City Commission Meeting	6/16/20 & 10/6/20
	City Manager Burgess Hanson	1/29/2018
	Commissioner Bernie Parness, District 3	9/26/17, 3/6/18, 10/16/18, 3/5/20
	Commissioner Todd Drosky, District 4	10/10/17, 1/31/18, 8/24/18, 9/13/18, 1/4/19, 2/11/19, 4/24/19, 7/30/19, 1/26/21, & 3/17/21
	City of Deerfield Beach District 4 Community Meeting at Constitution Park with Commissioner Todd Drosky	5/31/18
	Project Update, Future Maintenance and Landscape Preliminary Discussion with Thomas Good	1/22/18, 1/29/18, 12/16/19
	Drainage and Utility Meeting	2/9/18 & 6/21/18
	Coordination Meeting with City of Deerfield Beach Staff	8/1/18, 2/13/20, 3/6/20, 5/22/20, 6/12/20, 7/10/20, 7/29/20, 8/14/20, 9/4/20, 9/24/20,

Municipality/ Stakeholder	Meeting	Date(s)
		10/26/20, 11/29/20, & 3/11/21
	Florida's Turnpike Enterprise Meeting with the City	1/11/19 & 6/10/20
City of Coconut Creek	City Manager Mary Blasi	11/8/17
	Commissioner Mikkie Belvedere, District B	10/15/18
	Vice Mayor Sandra Welch, District C	12/12/18
	Commissioner Becky Tooley, District A	12/13/18
	Staff	9/16/20
City of Coral Springs	Commissioner Larry Vignola, Seat 3	5/7/18, 3/19/19 & 6/18/19
	City Staff	5/13/19 & 9/10/20
	Commissioners Workshop	9/25/19 & 9/30/20
City of Dania Beach	Commissioner Bill Harris	7/8/19
City of Hillsboro	Vice Mayor Irene Kirdahy/City Manager	6/25/19
City of Hollywood	Commissioner Richard Blattner, District 4	11/2/17 & 4/4/19
City of Parkland	Mayor Christine Hunschofsky	11/13/17, 10/22/18 & 7/8/19
	City Manager/City Staff Meeting	7/3/19
	City Engineer	9/1/20
City of Pompano	Vice Mayor Barry Moss, District 5	4/12/19
City of Sunrise	Commissioner Lawrence A. Sofield	3/25/19
	Sean Dinneen, Assistant City Manager and Christine Pfeffer, Communications Director	9/1/20
City of Tamarac	Vice Mayor/Commissioner Debra Placko	3/20/19
City of Oakland Park	Commissioner Michael Carn	7/1/19
City of Lauderhill	Vice Mayor Margaret Bates	6/25/19
City of Lauderdale By the Sea	Vice Mayor Elliot Sokolow	6/25/19
City of Lighthouse Point	Commissioner Sandy Johnson, Seat #5	5/21/19
City of Margate	Commissioner Joanne Simone, Seat #5	7/9/19
City of Plantation	Mayor Lynn Stone	7/10/19
City of Pembroke Pines	Mayor Frank C. Otis	6/4/19
Town of Davie	Councilman Bryan Caletka	4/5/19

Municipality/ Stakeholder	Meeting	Date(s)
City of Weston	Commissioner Byron Jaffe	6/3/19
City of Wilton Manors	Vice Mayor Tom Green	5/22/19

Table 5.5.2: Stakeholder Meetings

Stakeholder/Agencies	Date(s)
ASCE Conference	7/9/19
Banyan Trails Community	10/30/18
Broward Business Expo	6/20/19
Broward County Environmental and Consumer Protection Division (ECPD) Drainage/Contamination Meeting	9/10/18
Broward County Parks and Recreation Section 4(f) Meeting for Quiet Waters Park	8/9/18
Broward County Teleconference Watermain Installation on Powerline Road and SW 10th Street	3/21/18
Business Leaders Meeting	6/10/20
Century Village East	2/1/18, 11/8/18, & 7/27/20
Century Village East Master Management	10/12/18, 11/8/18, 1/10/19, 2/28/19 & 3/28/19
Century Village Consultant (architect)	11/3/20
Century Plaza Library	9/17/19
City of Deerfield Beach Parks and Recreation Section 4(f) Meeting for Crystal Heights Park	7/16/18
Cocobay Community	11/14/18
Coconut Creek Senior Expo	6/1/18
Coral Springs/Coconut Creek Chamber of Council Government Affairs Committee Meeting	2/13/19
Creek TV Interview	8/21/19
Crystal Key Pointe Community	5/16/18
Discovery Pointe	8/21/19
Dunn's Run Pop-up	10/6/19
Economic Development Committee Meeting	6/25/20
Enclave at Waterways	11/13/18
Express Lane Committee Meeting	6/17/19
FP&L/AT&T Preliminary Coordination Meeting	3/28/18
FP&L Transmission Discussion Meeting	3/28/18 & 1/18/19
FSITE Plangineering Conference	10/30/18
Fort Lauderdale 2019 South Florida Business Conference and Expo	6/20/19

Stakeholder/Agencies	Date(s)
FTAC	12/4/19
FTAC Presentation at Fort Lauderdale Allegiance	8/15/18
Greater Deerfield Beach Chamber of Commerce	9/11/18
Horizon Community	8/7/19
Independence Bay Community	3/19/18, 9/15/18, 9/23/19 & 9/20/20
South Florida Water Management and US Army Corps of Engineers Inter-Agency Meeting	2/15/18
Meadow Lakes Community	4/9/18 & 8/20/20
Meadows of Crystal Lakes	9/9/19
Meeting with Dan Glickman to discuss content for Century Village East Meeting on 2/1/19	1/16/18
Meeting with First Responders	8/24/18
Newport Business Center	1/31/18, 4/11/19, 11/5/20, & 3/22/21
Parkland Chamber of Commerce	11/14/18
Parkland Farmers' Market	11/4/18 & 2/17/19
Parkland Isles Community	2/18/19
Project Update Meeting with FTE Team	4/24/19, 5/8/19, 5/22/19, 5/31/19 & 6/5/19
Publix Pop-Up	9/28/19
Publix Distribution Center	10/17/17 & 2/23/18
Quiet Waters Business Park	3/25/19, 4/16/19, 5/31/19, & 9/19/19
Sawgrass Promenade	9/18/19 & 9/14/20
Secretary Thibault Visit	3/11/19
The Lakes at Deerfield Apartments Management	3/23/18
The Lakes at Deerfield Apartments Residents	8/21/18 & 9/19/19
Waterford Homes Community	7/18/18, 8/13/19, 8/5/20 & 10/7/2020
Waterford Courtyard	8/28/2019 & 10/1/20
Waterways Community	3/22/18, 10/9/18, 8/7/19 & 8/27/20
Western Businesses	3/6/18
Zonta Club of Greater Deerfield Beach	10/16/18

5.6 Public Hearing

The SW 10th Street Connector and the I-95 from south of SW 10th Street to north of Hillsboro Boulevard PD&E Studies held a series of virtual and in-person Public Hearings from October 12, 2020 to October 15, 2020. Three virtual sessions were held per day starting on Monday, October 12, 2020 and ending on Wednesday October 14, 2020. Each session consisted of an open house, formal presentation, and comment period as shown in Table 5.6.1. The open house portion was facilitated through a short presentation that was organized by topics that had been developed based on the most common questions the team had received during previous public engagement meetings. At the end of each topic, questions were taken from attendees verbally and chat questions were answered throughout the open house portion, and where appropriate, those questions were read to the audience. As time permitted, fly-through videos of each project were shown at the end of the open house.

Table 5.6.1: Virtual Public Hearing Session Schedule

Session	Open House Sessions		Formal Hearing Sessions		
	Session Begins	Session Ends	Presentation Begins	Comments Start	Comments End (approx.)
A	11:00 a.m.	12:00 noon	12:00 noon	12:45 p.m.	1:30 p.m.
B	2:30 p.m.	3:30 p.m.	3:30 p.m.	4:15 p.m.	5:00 p.m.
C	6:00 p.m.	7:30 p.m.	7:30 p.m.	8:15 p.m.	9:00 p.m.

In addition to the nine virtual sessions, four in-person Public Hearing sessions were held on Thursday, October 15, 2020 as shown in Table 5.6.2.

Table 5.6.2: In-Person Public Hearing Session Schedule

Open House Sessions		Formal Hearing Sessions		
Session Begins	Session Ends	Presentation Begins	Comments Start	Comments End (approx.)
9:00 a.m.	10:00 a.m.	10:00 a.m.	10:45 a.m.	11:30 a.m.
12:00 noon	1:00 p.m.	1:00 p.m.	1:45 p.m.	2:30 p.m.
3:00 p.m.	4:00 p.m.	4:00 p.m.	4:45 p.m.	5:30 p.m.
6:00 p.m.	7:00 p.m.	7:00 p.m.	7:45 p.m.	8:30 p.m.

5.6.1 Public Hearing Attendance

The virtual Public Hearings anticipated between 40 and 80 attendees per session (to ensure that all questions could be answered during the open house portion of the hearing), and in-person attendance was limited to approximately 40 attendees per session (to facilitate social distancing and capacity requirements at the time of the Public Hearing, less than 50 people were permitted in a room). Registration was requested for the virtual Public Hearing sessions and was encouraged for the in-person Public Hearing sessions. Registration was limited to one session per attendee unless there was a need to attend more than one session. Sessions were closed on the website when registration reached 70 and attendees were asked to call if they needed to register for that session. This same methodology was applied to the other morning sessions as well. Table 5.6.3 shows the attendance and registration for each of the virtual sessions (Monday was Day 1, Tuesday was Day 2, and Wednesday was Day 3).

Table 5.6.3: Virtual Public Hearing Attendance

Session	Number Registered	Number Attended	Percentage
1A	72	47	65%
1B	73	44	60%
1C	73	53	73%
2A	45	38	84%
2B	39	33	85%
2C	34	18	53%
3A	42	27	64%
3B	44	37	84%
3C	45	43*	96%
Total	**467**	**340**	**73%**

* Includes 11 attendees at the in-person Deerfield Beach viewing location.

A total of 27 attendees participated in the in-person Public Hearing sessions. The registration process worked very well and those needing to be allowed into more than one session or change sessions were accommodated.

5.6.2 Public Hearing Content

Similar to the Project Update Webinars described in Section 5.4, two Build Alternatives were presented during the Public Hearing: the With Powerline Road Ramps Alternative and the Without Powerline Road Ramps Alternative. The With Powerline Road Ramps Alternative is

a variation of the Partial Depressed – Westbound Exit Ramp Alternative presented at the second Alternative's Public Workshop. The Without Powerline Road Ramps Alternative is very similar to the With Ramp Alternative, except it removes the two ramps located just east of Powerline Road in order to provide additional green space and landscaping in the corridor, in response to the City's concerns described in Section 5.3. The public was informed that a decision on a Preferred Alternative would be reached after considering the various Public Hearing comments and that the decision would be shared via the email mailing list and the project website (everyone who attended the Public Hearing would be notified via email).

5.6.3 Formal Comment Period

The formal comment period was facilitated virtually by having those wishing to speak raise their virtual hand to make a comment or enter the comment into the chat. During the virtual sessions, a total of eight verbal comments and one chat comment were received during the formal comment period, as shown in Table 5.6.4. No comments were received during the formal comment period during the in-person sessions. There were also no written comments received at the in-person Public Hearing.

Table 5.6.4: Virtual Public Hearing Comments

	Virtual Public Hearing Session								
Type	**1A**	**1B**	**1C**	**2A**	**2B**	**2C**	**3A**	**3B**	**3C**
Verbal	1	1	1	0	1	0	0	1	3
Chat	0	0	1	0	0	0	0	0	0

The majority of the formal comments were related to the attendee's preference of the Preferred Alternative for the SW 10th Street Connector project. Two attendees expressed interest in the No-Build Alternative (secondary choice is Without Powerline Road Ramps Alternative), one attendee expressed interested in the With Powerline Road Ramps Alternative and two attendees preferred the Without Powerline Road Ramps Alternative. The other comments received related to business access and noise.

5.6.4 Comment Period Summary

The comment period began on October 12, 2020, the day of the first hearing and closed 20 days after the last hearing, November 4, 2020. A total of 94 unique comments were received (total of 96 comments but two comments were duplicates received through two methods).

Table 5.6.5 represents a summary of the comment methods that were used to submit comments. The most common comment methods were email and the GoToSurvey.

Table 5.6.5: Summary of Comment Method

Comment Method	Number of Comments
Chat	1
Comment Form	1
Email	44
GoToSurvey	27*
Verbal	8
Website	14*
Mail	1
Total	**96 (unique = 94)***

*Contains two duplicate comments submitted under different methods.

Of the 27 comments submitted as part of the GoToSurvey, 17 were solely complimentary of the presentation and virtual hearing process, five comments requested a clarification, two attendees indicated they had technical difficulties, and two other comments indicated their opinions of the project.

The Public Hearing comments generally fell into nine categories:

- Quality of Life (noise, construction disruption, and aesthetic features);
- Traffic Operations (access, traffic volumes, and median openings);
- Clarification/Additional Information Requested;
- Property Values;
- Costs;
- Economic Competitiveness (primarily better or additional access);
- COAT Recommendations;
- Safety; and
- Water Quality.

Of the 96 comments received, 54 did not state a preference for a Preferred Alternative. The following is a breakdown of the Public Hearing comments pertaining to the Preferred Alternative:

- No-Build Alternative = 28;

- Six stated a secondary preference for Without Powerline Road Ramps;

- Build Alternative (no preference) = 4;
- With Powerline Road Ramps Alternative = 4; and
- Without Powerline Road Ramps Alternative = 6.

5.7 Preferred Alternative Selection

The FDOT has considered all input to date and has selected the **Without Powerline Road Ramps Alternative** as the Preferred Alternative. This alternative best balances buffers to the local residents and greenspace while meeting all the traffic needs now and into the future. The Preferred Alternative does not include the additional entrance and exit ramps between Powerline Road and Military Trail, thereby avoiding significant impacts. As part of the adjacent I-95 project, the interchange ramps will be improved and expanded, with the connector lanes having direct access to both the I-95 express and general use lanes.

In April 2021, the FDOT sent a flyer to the stakeholder email mailing list with an announcement that the Without Powerline Road Ramps Alternative was selected as the Preferred Alternative. Similarly, an email with the flyer attachment was sent to elected and appointed officials. A brief presentation with a voice-over announcing and explaining the Preferred Alternative was posted to the home page of the project website, www.sw10street.com, for general public viewing.

6.0 Design Features and Analysis of Preferred Alternative

6.1 Engineering Details of the Preferred Alternative

As mentioned in Sections 4.9.7 and 5.7, the Without Powerline Road Ramps Alternative was selected as the Preferred Alternative. This chapter details the design features, impacts, and characteristics of the Preferred Alternative. Compared to the version that was shown at the Public Hearing in October 2020, the Preferred Alternative is identical with one exception, just west of Military Trail, a directional median opening was added to provide direct left-turn access into the Walmart shopping center. More information on this median opening is provided in Section 6.1.7. Also after the Public Hearing, additional pavement at SW 24th Avenue was added to accommodate U-turning vehicles from the westbound.

Appendix D contains concept plan and profile sheets for the Preferred Alternative.

6.1.1 Typical Sections

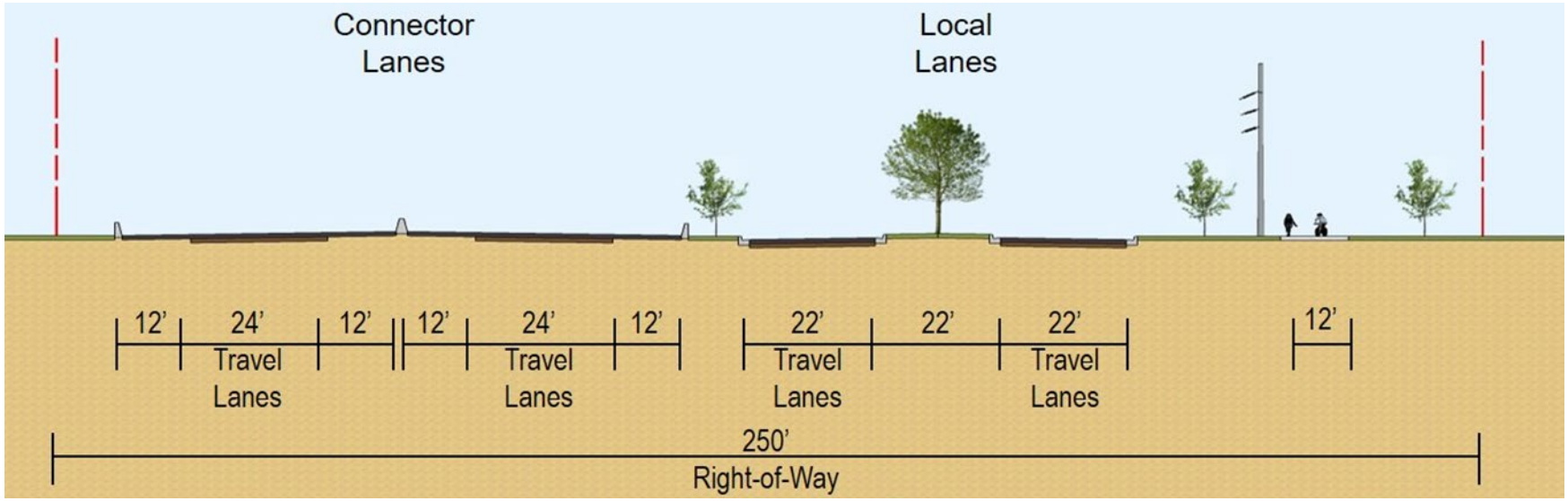
The SW 10th Street corridor is divided into two envelopes, one for local traffic and the other for a freeway-to-freeway connection (Sawgrass Expressway to I-95). Table 6.1.1 describes the features of the Preferred Alternative. Figure 6.1.1 displays the typical section for the Preferred Alternative in the vicinity between SW 30th Avenue to SW 28th Avenue.

Additional typical sections for the elevated overpass west of Waterways, Powerline Road, and other mainline locations are provided in the Typical Section Package (Appendix E).

Table 6.1.1: Preferred Alternative Typical Section Features

Feature	Width/Description
Local Lanes	
Local lane width	11 feet
Median width	22 feet
Shared use path width	12 feet
Available green space south of SW 10th Street	Varies from 27 feet to 133 feet
Managed Lanes (Connector Road)	
Lane width	12 feet
Shoulder width	12 feet
Concrete barrier walls	Inside and outside

Figure 6.1.1: Preferred Alternative Typical Section



6.1.2 Bridges and Structures

The Preferred Alternative contains three structures from Florida's Turnpike to just west of Military Trail:

1. Westbound SW 10th Street over eastbound managed lanes west of Waterways Boulevard;
2. Managed lanes over Powerline Road; and
3. Managed lanes over Quiet Waters Business Park Access Road Entrance.

Additional bridges are required at Military Trail, including the managed lanes over Military Trail and the eastbound exit ramp that braids over local SW 10th Street and terminates at Newport Center Drive. Because these structures are long and continue into the I-95 interchange area, they are addressed in the adjacent I-95 PD&E Study (FM No. 436964-1).

Below is a synopsis of the structures between Florida's Turnpike and just west of Military Trail.

Westbound SW 10th Street over Managed Lanes west of Waterways Boulevard

The western most bridge is located between Florida's Turnpike and Waterways Boulevard where the westbound local lanes of SW 10th Street pass over the eastbound and westbound managed lanes. The structure is designed to accommodate future widening for a northbound ramp to Florida's Turnpike (as seen in Figures 6.1.2 and 6.1.3).

Figure 6.1.2: Westbound SW 10th Street Over the Managed Lanes

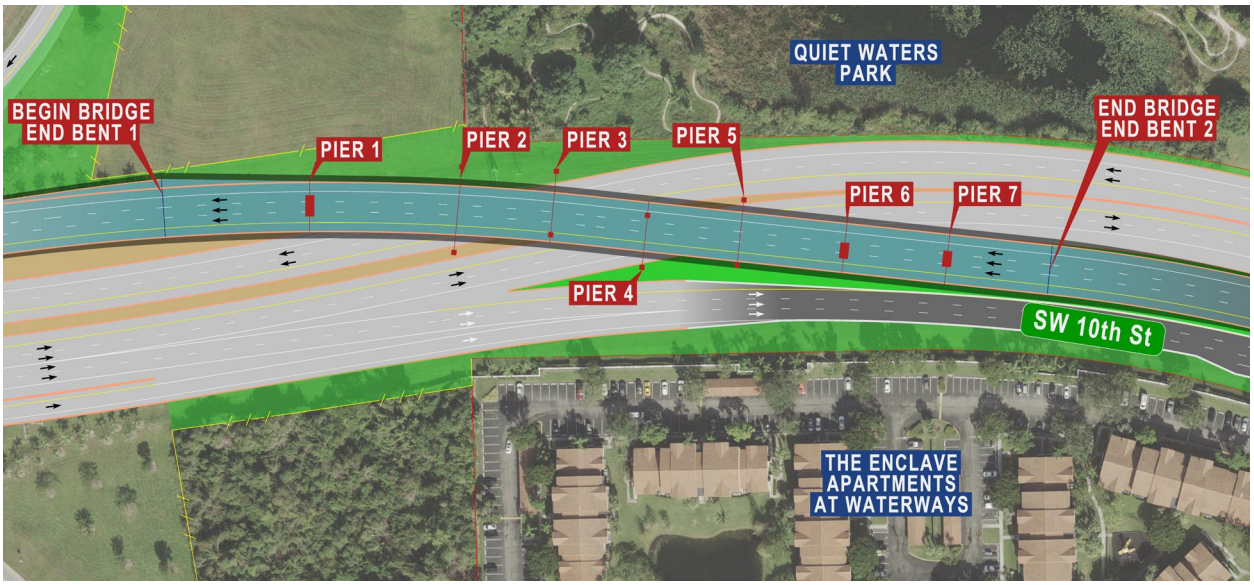


Figure 6.1.3: Street View at Waterways Looking West

The new proposed ramp structure over the eastbound and westbound managed lanes has a total length of 1,032 feet and is framed with eight spans. The approximate span lengths are 171 feet for Spans 1 and 2, 110 feet for Spans 3 through 5, and 120 feet for Spans 6 through

8. Each span utilizes Prestressed Florida I-Beam girders. The begin and end bridge limits are supported by concrete end bents. All end bents will consist of concrete caps with square prestressed concrete piles. The remaining substructure units consist of four inverted-tee straddle piers (Piers 2 through 5) and four single-column piers with inverted-tee caps (Piers 1, 6, and 7). Figures 6.1.4 through 6.1.8 show typical sections for Piers 1 through 7. A superstructure depth of 10 feet-8 inches is used to provide a minimum vertical clearance of 16.5 feet to the roadway below. All piers will utilize foundations with square prestressed concrete piles, with a concrete pile cap. Pier protection barrier is placed to protect the columns of the substructure units. Piers 3 and 4 require a pier cap overhang due to geometric constraints which influence column placement. The northern column for Pier 4 requires a maximum size of 5 feet-5 inches square due to limited space between median barrier walls. Pier 6 requires an eccentric column to provide a preferable span layout of the steel superstructure unit. Per FDM Section 121.3.2, this structure is classified as a Category 2 structure due to the presence of straddle piers and possible post-tension components.

Figure 6.1.4: Westbound SW 10th Street Over Managed Lanes Pier 1

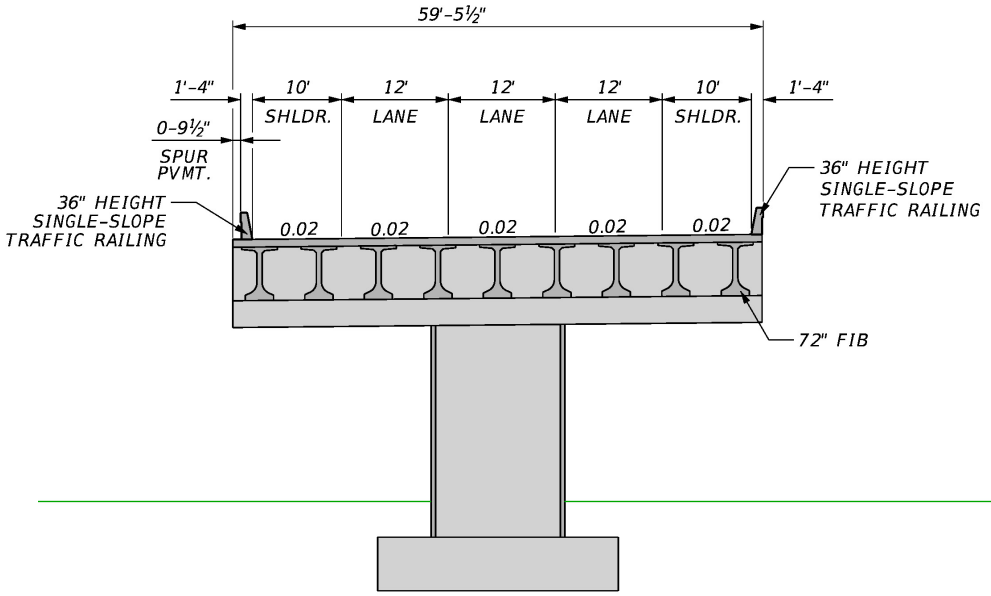


Figure 6.1.5: Westbound SW 10th Street Over Managed Lanes Pier 2

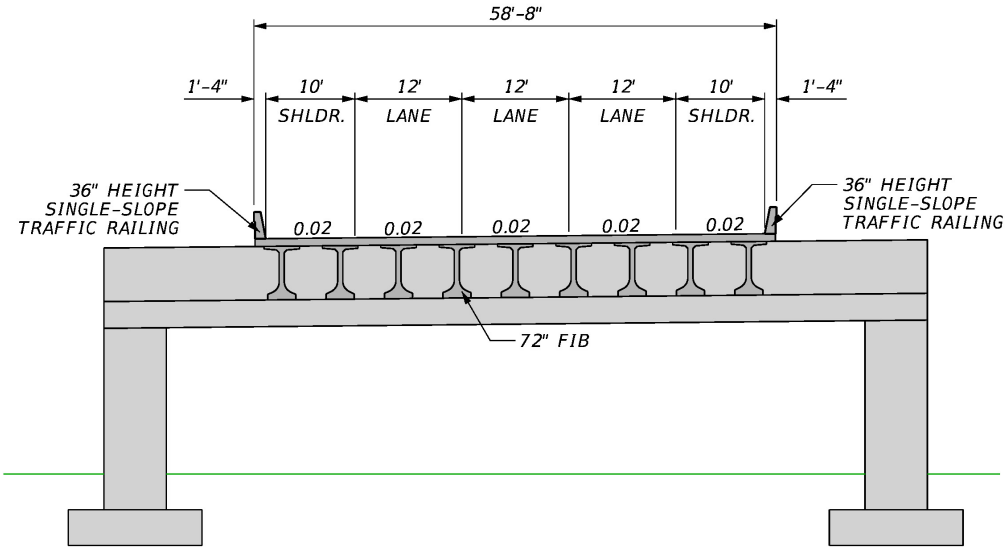


Figure 6.1.6: Westbound SW 10th Street Over Managed Lanes Piers 3 and 4

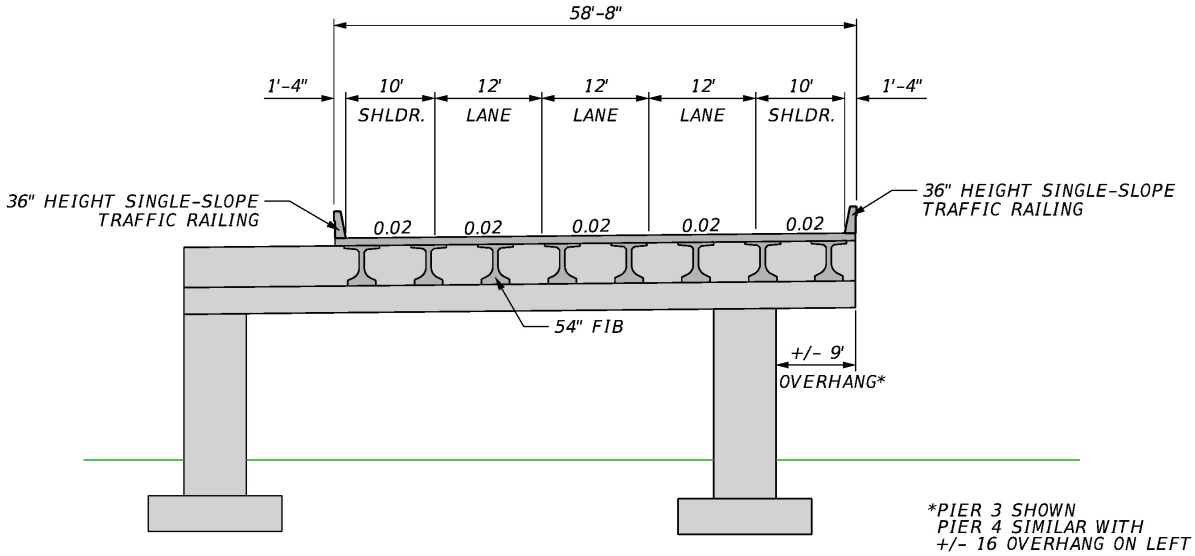


Figure 6.1.7: Westbound SW 10th Street Over Managed Lanes Pier 5

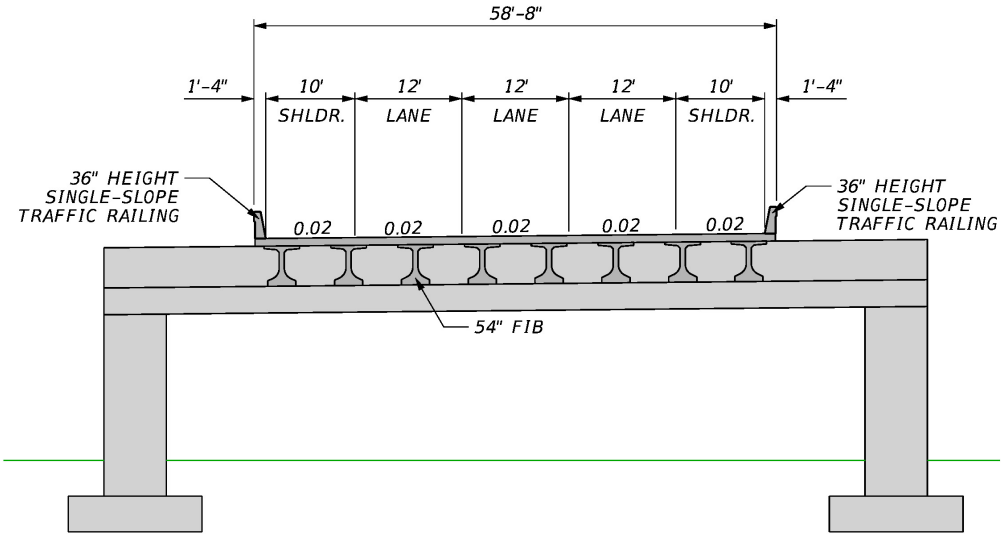
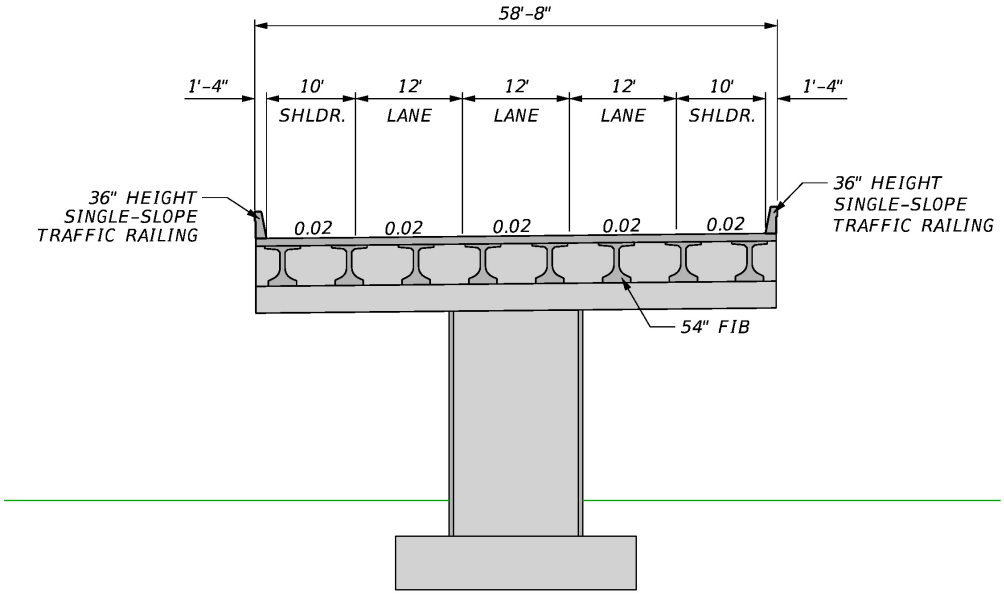


Figure 6.1.8: Westbound SW 10th Street Over Managed Lanes Piers 6 and 7



Managed lanes over Powerline Road and Quiet Waters Business Park Access Road Entrance

The managed lanes span Powerline Road via a structure consisting of a 260-foot single span unit that utilizes built-up 9.5-foot steel I girders. A superstructure depth of 12 feet is used to provide a minimum vertical clearance of 16.5 feet to the roadway below. Both end bents will consist of concrete caps with square prestress concrete piles.

The structure carrying the managed lanes over the entrance to Quiet Waters Business Park consists of a single span, 142-foot-long bridge using prestressed concrete girders consisting of FIB 72. The girders rest on end bents that are wrapped around by MSE walls. These walls are connected to the abutment wall at the Powerline Road overpass, creating a continuous fill section between the structures.

Figures 6.1.9 and 6.1.10 display a plan view and renderings of the Powerline Road and access road overpasses, respectively.

Figure 6.1.9: Managed Lanes Over Powerline Road and Access Road

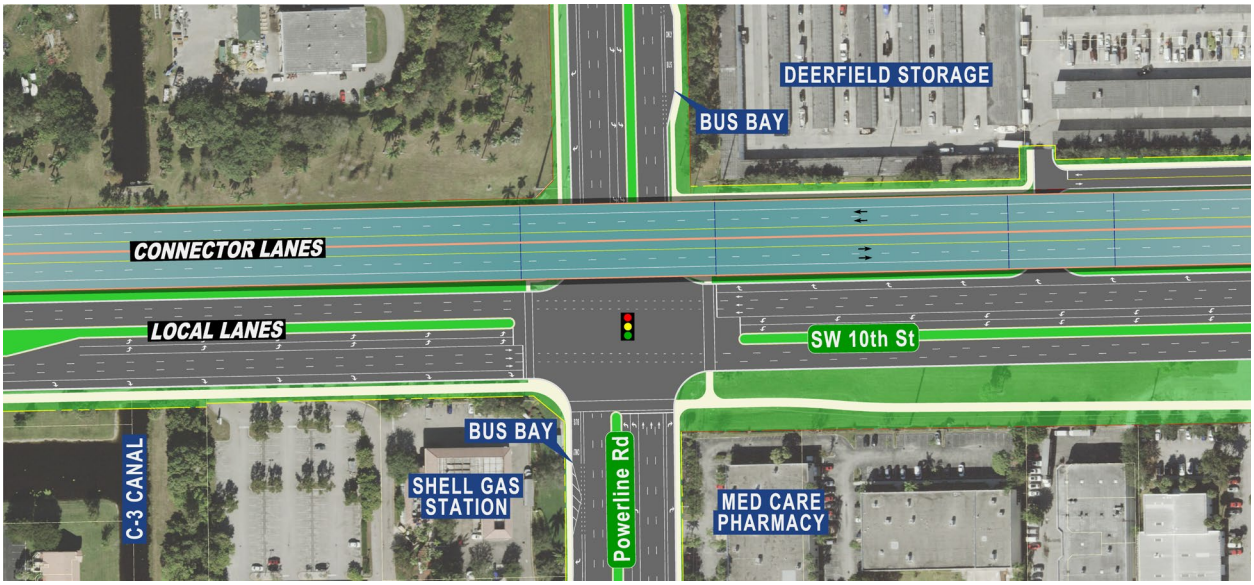


Figure 6.1.10: Renderings of Powerline Road and Access Road Overpasses

At Powerline Road – Looking West

East of Independence – Looking East With Ramps to Powerline Road

At Powerline Road – Looking North

Figures 6.1.11 and 6.1.12 display the conceptual typical section for the super and substructures of the bridge over Powerline Road and Quiet Waters Business Park access road.

Figure 6.1.11: Conceptual Bridge over Powerline Road

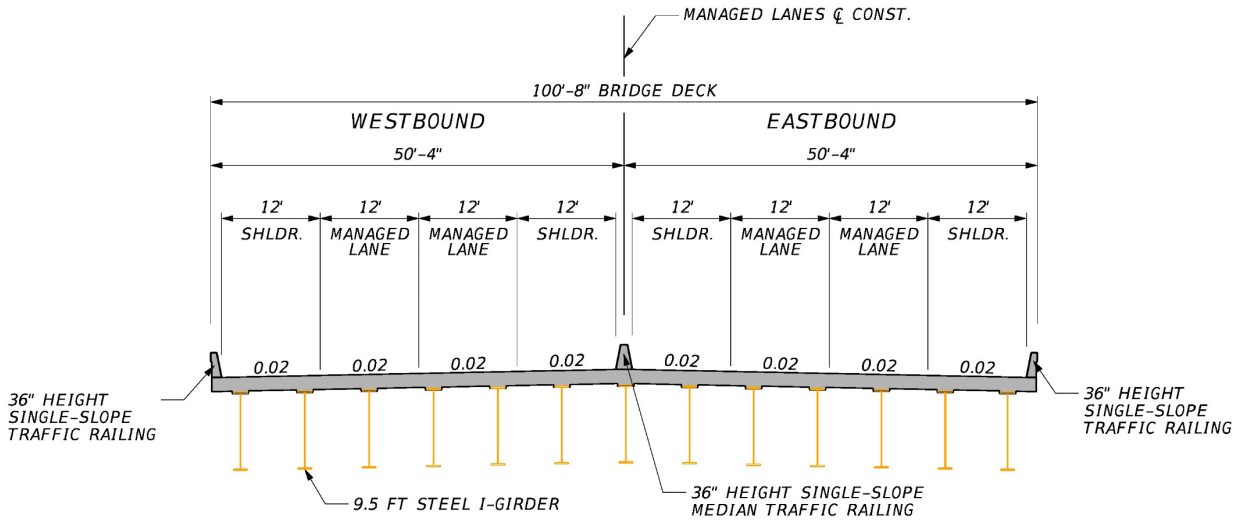
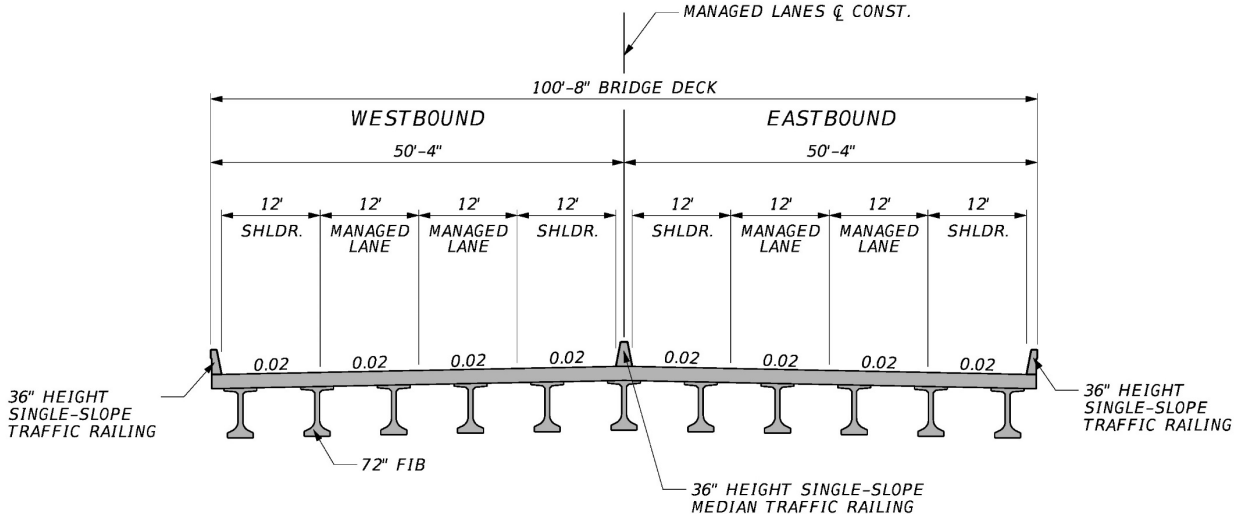


Figure 6.1.12: Conceptual Bridge over Quiet Waters Business Park Access Road



6.1.3 Right-of-Way and Relocations

The right-of-way for the Preferred Alternative impacts 17 parcels as shown in Table 6.1.2.

Table 6.1.2: Right-of-way Summary

Right-of-way Categories	Preferred Alternative
Total Parcels Impacted	17
Total Relocations Required	7
Right-of-way Cost ($ million)	27.5

A Conceptual Stage Relocation Plan (CSRP) was prepared for this project. The project may require seven business relocations and no residential relocations (the CSRP originally identified eight relocations but one parcel, Med-Care Pharmacy, has since been avoided). Table 6.1.3 lists the businesses that may require relocation and the number of employees potentially affected.

Table 6.1.3: Potential Businesses to be Displaced

Folio Number	Business	Number of Employees	Comments
484203090030	Deerfield Storage	10 to 20	A portion of the frontage and one building may be affected.
484211100020 (Palm Trails Plaza, LLC)	UPS Store	10 to 20	Five businesses operate at this location, and one storefront is currently vacant. All six businesses may need to be relocated if the City of Deerfield Beach does not approve a set-back variance.
	Metro PCS	10 to 20	
	Jimmy John's	10 to 20	
	Sal's Restaurant & Pizzeria	30 to 40	
	Family Wellness Physicians	5 to 10	
	Vacant	N/A	
Note: The CSRP also included a relocation at Med-Care, but since the report was completed, the Preferred Alternative avoids right-of-way from this parcel.			

Adequate onsite space appears to be available on the remainder property for continued operation of Deerfield Storage. Consequently, this relocation is highly unlikely. The proposed right-of-way acquisition at the Palm Trails Plaza parcel is minor and does not impact any structure or parking areas; however, if current City of Deerfield Beach set-back requirements

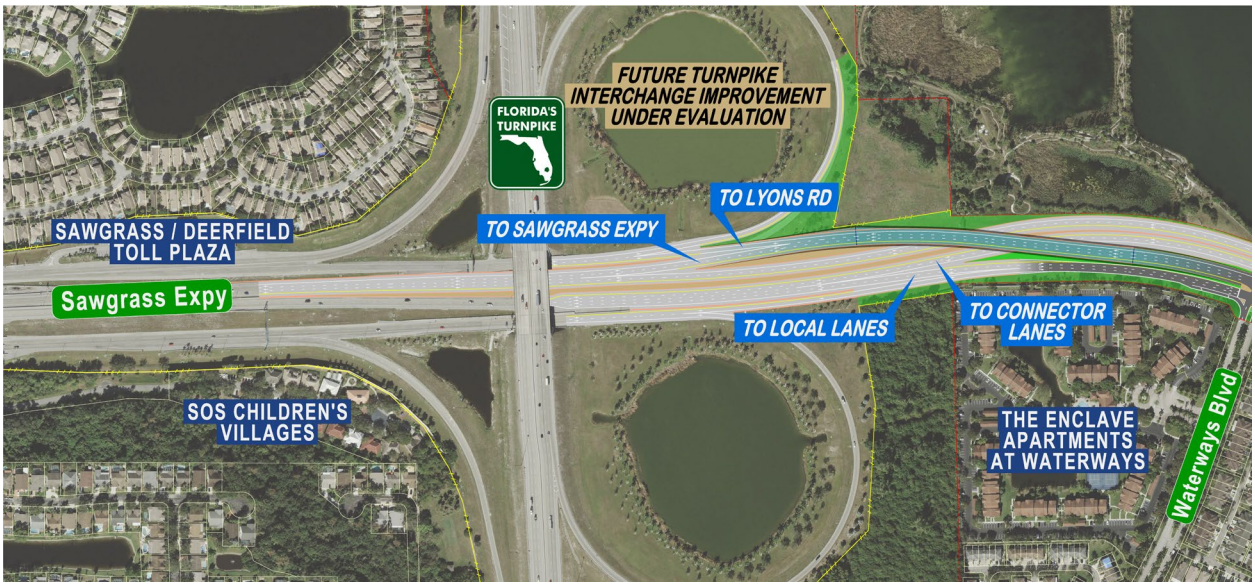
are enforced, then six businesses would need to be relocated. A sufficient number of commercial replacement properties are available in case any business needs to be relocated.

6.1.4 Horizontal and Vertical Geometry

The Preferred Alternative begins just west of the interchange with Florida's Turnpike. The westbound direction combines two lanes from the local lanes and two lanes from the managed lanes to form four lanes just west of the Turnpike overpass. These four lanes then transition to two lanes just west of the overpass, where an existing westbound slip ramp will also be removed. In the eastbound direction at the Turnpike overpass, two lanes widen to four lanes by adding one lane to both the existing inside and outside lanes. These four eastbound lanes then split into two lanes that form the managed lanes and two lanes that form the local lanes.

The proposed geometry does not require changes to the existing structure carrying Florida's Turnpike over the Sawgrass Expressway. However, this western terminus is configured to accommodate a planned future interchange expansion by FTE. Figure 6.1.13 displays the western terminus.

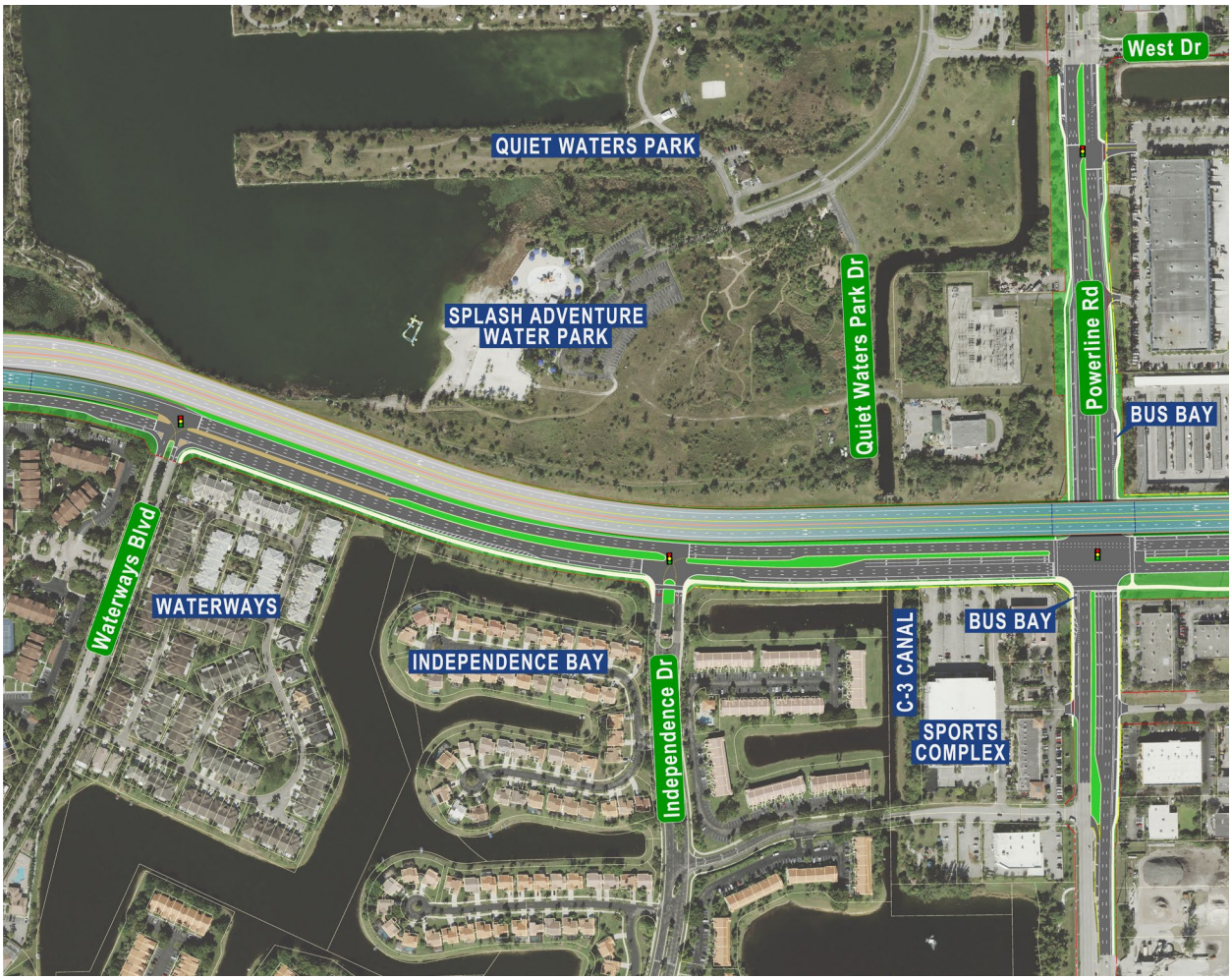
Figure 6.1.13: Western Terminus



Proceeding eastwardly, the junction between local SW 10th Street and the Sawgrass Expressway is developed. The four eastbound lanes diverge such that the two inside lanes pass beneath an elevated pair of westbound lanes while the outer two lanes join a third lane from the Turnpike ramps to form the local SW 10th Street eastbound lanes. The 1,000-foot-long overpass formed from the three westbound lanes from local SW 10th Street carries traffic over two newly formed eastbound managed lanes as well as two westbound managed lanes that ultimately become the inside lanes on the Sawgrass Expressway (see Figure 6.1.13). The three-lane overpass is designed as a 35-mph ramp with approach and departing grades of approximately 6%.

Approaching the intersection with Waterways Boulevard, the fundamental components of the SW 10th Street typical section along the corridor provide two distinct envelopes featuring managed lanes along the north side of the right-of-way and local SW 10th Street along the south side. West of Powerline Road, local SW 10th Street is comprised of three lanes in both the eastbound and westbound directions, while the managed lanes are configured as two lanes in each direction. One exception is that a fourth eastbound lane currently used as an acceleration lane between Waterways Boulevard and Independence Drive will be retained. A dual-faced concrete barrier wall and landscaped median separates the eastbound managed lanes from the westbound local lanes. Approaching Powerline Road from the west, the center concrete barrier wall transitions into an MSE wall. For the purposes of this concept, a single-faced concrete barrier wall is assumed to be placed behind the curb at the base of the MSE wall. The available green space in this center envelope varies between 20 feet near Waterways Boulevard to approximately seven feet at its narrowest point across from Independence Drive. Figure 6.1.14 displays the segment between Waterways Boulevard and Powerline Road.

Figure 6.1.14: Waterways Boulevard to Powerline Road



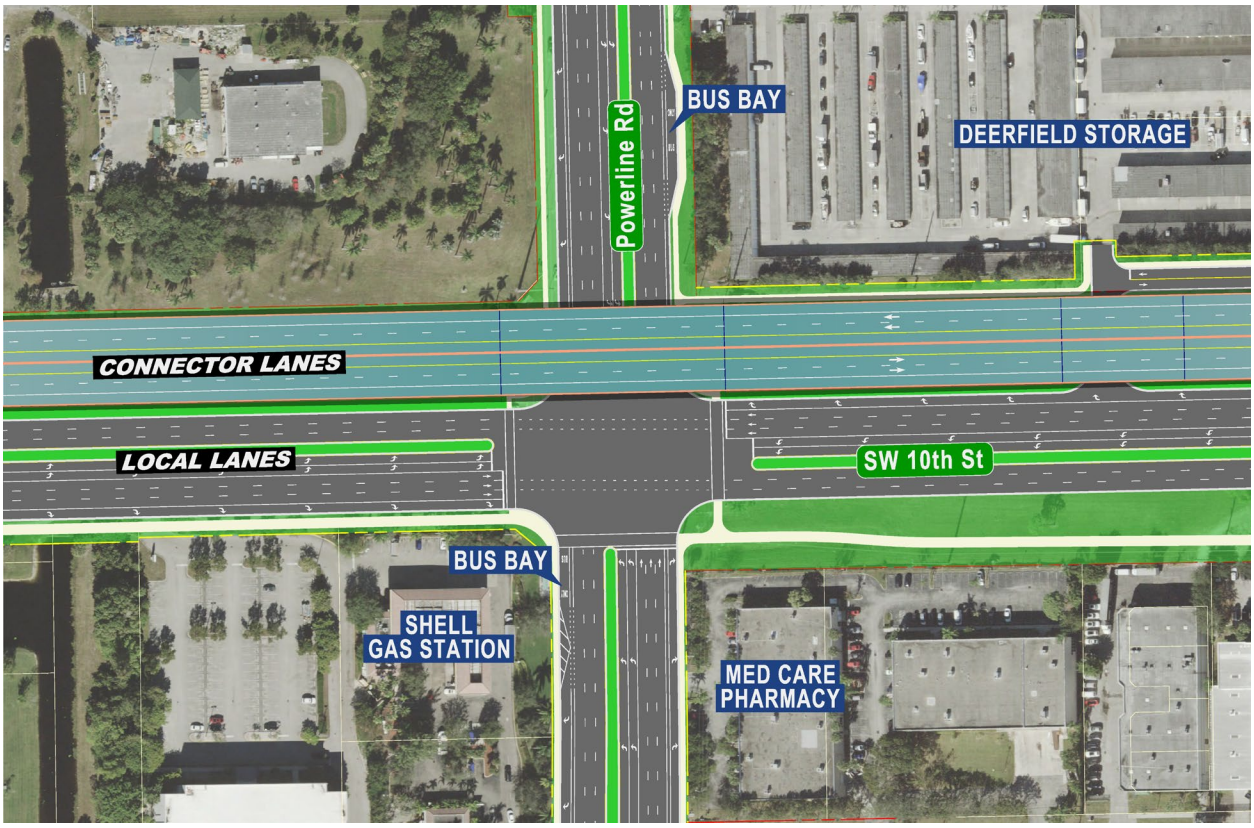
Between Florida's Turnpike and the intersection with Independence Drive, the alternative does not require additional right-of-way. The outside of the barrier wall along the northbound managed lanes is located as close as five feet from the existing right-of-way and widens to approximately nine feet approaching Powerline Road. However, no direct impacts to Quiet Waters Park are anticipated. Between Independence Drive and Powerline Road, an additional strip of proposed right-of-way of up to 19 feet wide is required. This right-of-way acquisition impacts existing green space adjacent to an existing retention pond, the Sports Complex, and the Shell gas station. The proposed right-of-way line is adjacent to the parking lot for the Sports Complex and the Shell gas station but does not directly impact any of the parking spaces. The managed lanes are elevated to pass over Powerline Road via grades of

2.65% and 2.60%. The improvements along Powerline Road and the intersection with SW 10th Street are described in detail in Section 6.1.8.

Proceeding eastward from Powerline Road, the managed lanes continue on a tangent for 392 feet past the eastern abutment of the bridge overpassing Powerline Road to the western abutment of the bridge overpassing the service road to Quiet Waters Business Park, creating a MSE wall section between the two bridges. The alignment then continues for 287 feet after the western abutment of the bridge overpassing the service road, before curving to the right via a centerline radius of 2,714 feet. This curve is followed by a tangent length of 308 feet and a compound curve to the left with successive radii of 2,823, 2,931, and 4,237 feet. The ratio of the largest to smallest curve is 1.5 to 1, which meets compound curve criteria. However, a design variation will be required for the minimum length of curve of the 2,714-foot radius, which has a length of 555 feet. The required length of curve for a high-speed limited access facility is 900 feet. To eliminate right-of-way impacts to Century Village, this design variation is recommended.

Figure 6.1.15 displays the Preferred Alternative at Powerline Road.

Figure 6.1.15: Preferred Alternative – At Powerline Road



The following sections provide a block-by-block description of the Preferred Alternative between Powerline Road and Military Trail.

Powerline Road to SW 30th Avenue

For the local lanes of SW 10th Street just east of Powerline Road, the three eastbound lanes continue for approximately 760 feet east of the crosswalk at Powerline Road before dropping the outside lane and merging to form a two-lane typical section. A third westbound local lane is formed on the inside beginning approximately 1,150 feet from the eastern stop bar at Powerline Road. A noteworthy point is that the traffic separator between the left-turn lanes and the eastbound lanes is 15.5 feet wide to accommodate a future third left-turn lane, if needed.

The Preferred Alternative alignment of the local lanes is essentially parallel to the managed lanes alignment with the exception of slight adjustments to provide sufficient space to form a westbound right-turn and dual left-turn lanes at Powerline Road as previously described.

Access to Quiet Waters Business Park is provided by a "right-in, right-out" entrance from SW 10th Street. The entrance is designed to accommodate a WB-62FL design vehicle (tractor-trailer) and features two 12-foot lanes and a six-foot curb-line sidewalk along the north side of the access road. The alternative also features a 12-foot shared use path along the south side of the existing right-of-way.

Figure 6.1.16 displays the Preferred Alternative in this segment.

Figure 6.1.16: Preferred Alternative - Powerline Road to SW 30th Avenue

SW 30th Avenue to SW 28th Avenue

The local and managed lanes of the Preferred Alternative remain parallel through Military Trail and are separated by an eight-foot landscaped area confined by the back of concrete barrier wall of the managed lanes and back of curb on the north side of the local lanes. On the south side of local SW 10th Street within this segment, a constant width of 60 feet is maintained between the back of curb and existing right-of-way line. This distance is sufficient to eliminate any right-of-way acquisition.

Figure 6.1.17 displays the Preferred Alternative and Figure 6.1.18 exhibits a rendering looking west from just west of SW 28th Avenue.

SW 28th Avenue to SW 24th Avenue

The 1,650 feet between SW 28th and SW 24th Streets is adjacent to the City of Deerfield Beach owned parcel along the south side of the local lanes.

The Preferred Alternative offers 25 feet between the back of curb and existing right-of-way on the south side of local SW 10th Street. The proposed shared use path could be constructed without any impacts to the City parcel. However, for the purposes of this PD&E study, the path is located in the City parcel, along the existing gravel access road to the pump station, behind the transmission poles. Locating the shared use path atop the existing gravel road allows for the existing transmission line to remain in place, and also provides a greater offset from the road to the shared use path, which will provide a more comfortable experience for pedestrians and bicyclists. Under this scenario, the path would also act as a concrete maintenance entrance to the pump station. For this reason, the path is recommended to be constructed to the thickness and reinforcing standards of a concrete entrance.

Additional coordination with the City will be required regarding this parcel for the Preferred Alternative. Figure 6.1.19 displays the Preferred Alternatives in the vicinity of Waterford Homes.

Figure 6.1.17: Preferred Alternative - SW 30th to SW 28th Avenues

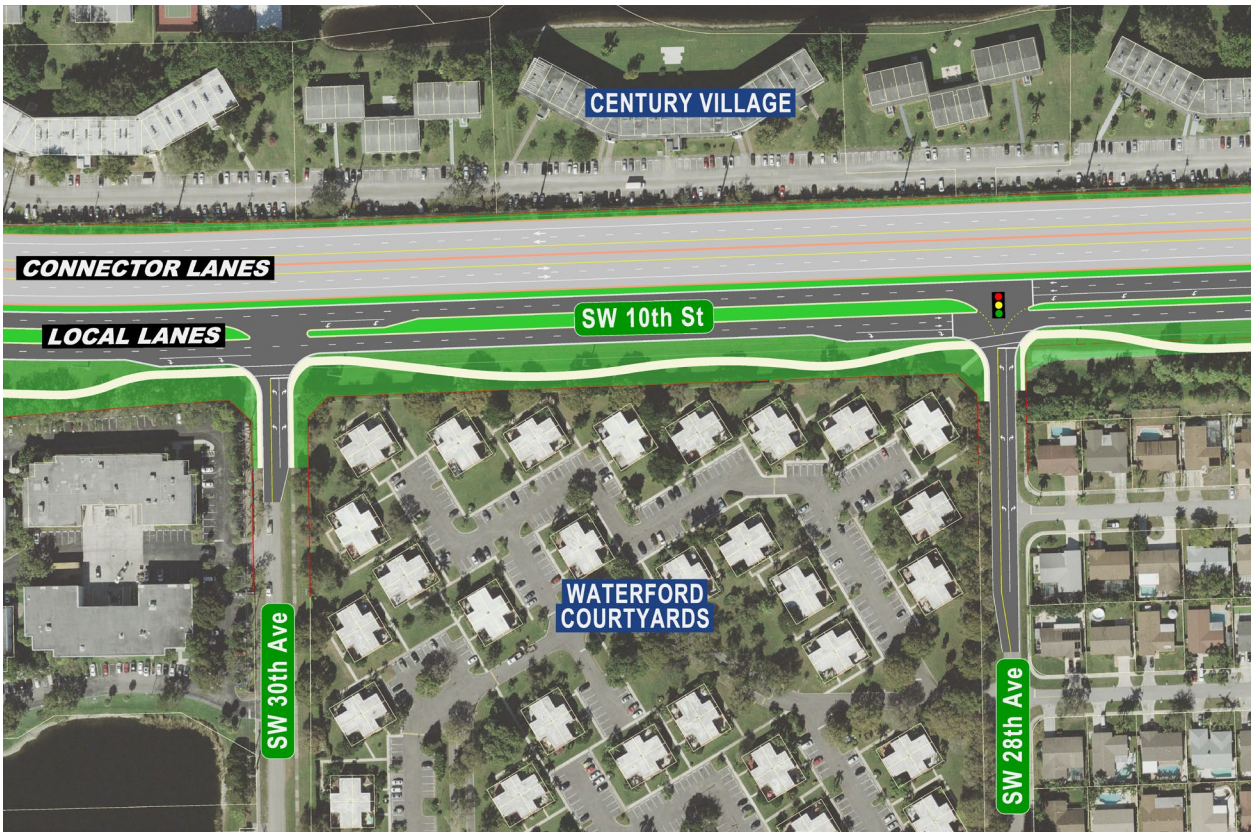


Figure 6.1.18: Preferred Alternative Rendering – West of SW 28th Ave Looking West

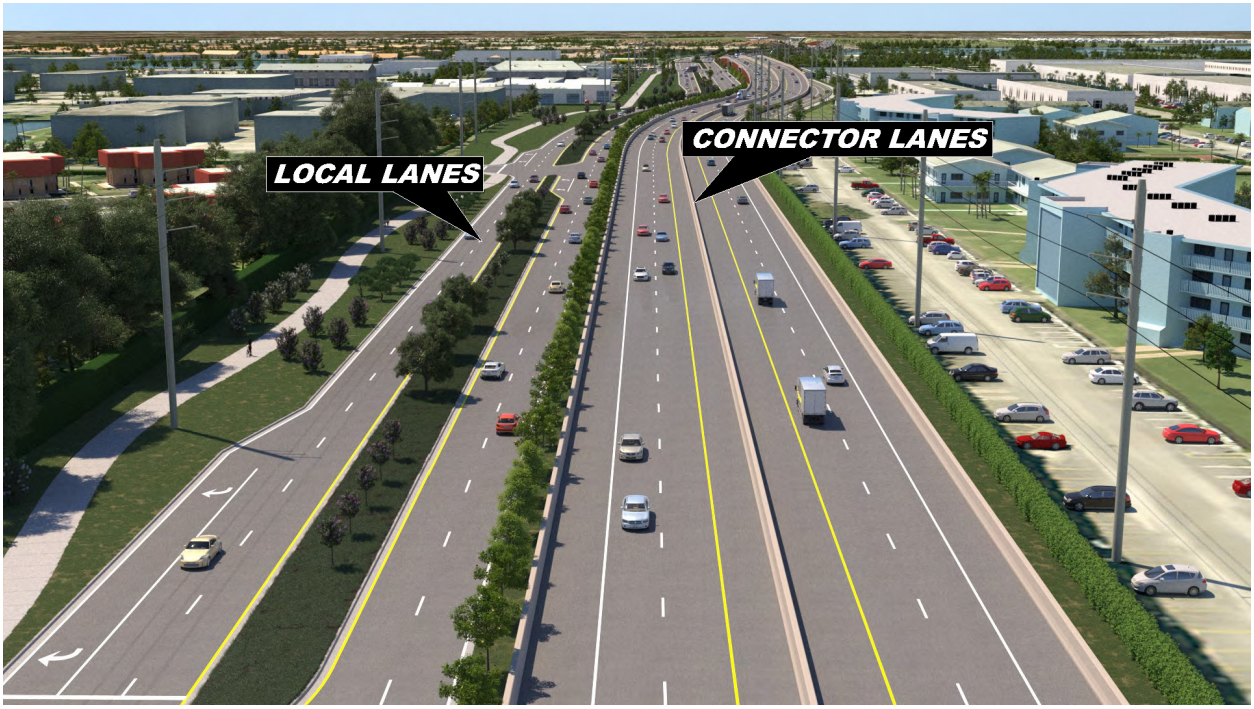


Figure 6.1.19: Preferred Alternative – Waterford Homes

SW 24th Avenue to Military Trail

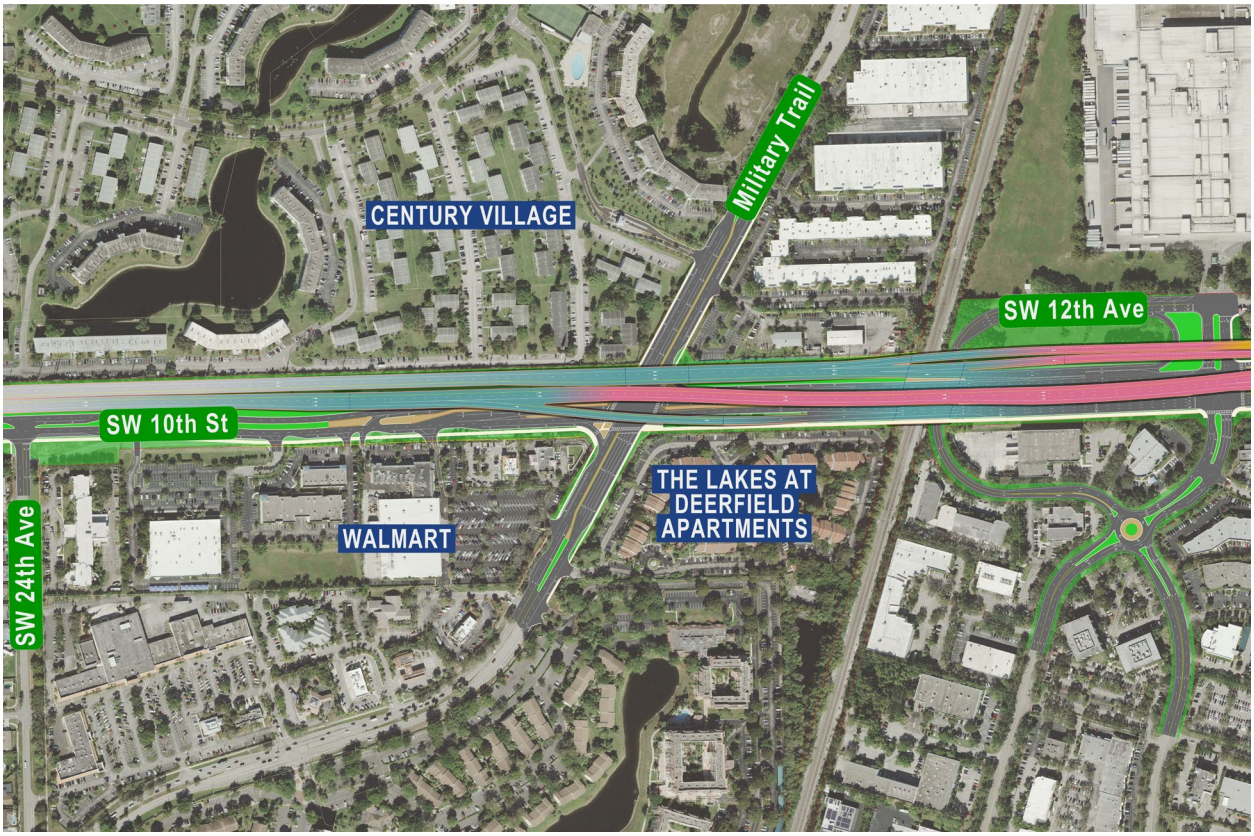
The Preferred Alternative continues to remain parallel to the managed lanes until just east of SW 24th Avenue, when the local lane alignment utilizes a reverse curve sequence with radii of 6,673, 2,258, and 4,103 feet. All three of these curves are normal crown at up to 45 mph. This transition of the local lanes provides accommodations for the west-side abutment for the structure carrying the eastbound managed lanes over Military Trail as well as provides space in the center median for piers. The eastbound exit ramp terminal is formed from a parallel-type entrance ramp terminal with a 300-foot taper followed by a 428-foot-long exit ramp terminal. Similarly, the westbound entrance ramp terminal is formed with a parallel-type configuration featuring an acceleration lane of 832 feet and a 300-foot taper.

A standard 22-foot median width is utilized for the entire length of the Preferred Alternative. Since the Public Hearing, a median opening to the Walmart shopping center has been added as well as additional pavement at SW 24th Avenue to accommodate U-turning vehicles from

the westbound lanes. The median opening is discussed in more detail in Section 6.1.7 Access Management.

The Preferred Alternative has right-of-way impacts to the south side businesses. Figure 6.1.20 shows the Preferred Alternative from SW 24th Avenue to Newport Center Drive.

Figure 6.1.20: Preferred Alternative - SW 24th Avenue to Newport Center Drive



6.1.5 Bicycle and Pedestrian Accommodations

The Preferred Alternative includes the following bicycle-pedestrian improvements:

- Twelve-foot shared use path along the south side of local SW 10th Street between Waterways Boulevard and east of the I-95 interchange separated from the back of curb by a minimum of four feet;
- High-visibility crosswalks at all signalized intersections; and
- Other improvements to be finalized in the design phase include improved lighting, modernized pedestrian-actuated signalization, and other context sensitive amenities such as benches. These items and others will be discussed and negotiated with the City of Deerfield Beach in the next phase of this project.

6.1.6 Transit Accommodations

Currently, SW 10th Street is a transit route for Express Bus I Route, which is a community bus service described in Section 2.10. The Preferred Alternative will not affect the operations of this bus route. Powerline Road features two existing bus turnouts – one just south of and one just north of the SW 10th Street intersection. These turnouts will be replaced in the Preferred Alternative.

A major benefit of the managed lanes and the express lane system proposed on I-95 is that buses may use these lanes for express bus service in the future.

6.1.7 Access Management

The proposed access management for the managed lane section will be a continuation of the access management class on the Sawgrass Expressway, Access Management Class 1, Area Type 2. This access management class allows for interchanges every two miles.

The proposed access management for local SW 10th Street is Access Management Class 3 which is the same as the existing access management classification from Powerline Road to Military Trail. Access Management Class 3 allows for directional median openings every 1,320 feet and full median openings/signals every 2,640 feet. The access management classification along Powerline Road will remain the same, Class 5. Class 5 allows for directional median openings every 660 feet and full median openings/signals every 1,320 feet.

Although three of the existing median openings along SW 10th Street are proposed to be closed with the Preferred Alternative, the majority of the median openings still do not meet Class 3 access management criteria. One of the median openings that is proposed to be closed is the full median opening providing access to Quiet Waters Business Park. To facilitate better access to Quiet Waters Business Park, a new signalized median opening will be added on Powerline Road just south of West Drive. The spacing between this proposed signal and the signal at West Drive is only 300 feet, but these signals will be operated from the same controller so that green time for the intersections is synchronized. In addition, the spacing between the new signal and the existing direction median opening to the south is also less than 660 feet and does not meet standards.

The other two median openings that are proposed to be closed along SW 10th Street provide access to an existing frontage road connecting to a business park and the Walmart shopping center. A determination was made after the Public Hearing to retain the directional median opening for the Walmart shopping center. Delivery trucks, due their size, cannot gain proper access to the loading docks at the back of the store from the Military Trail entrance. This median opening will be relocated 70 feet to the west to better align with the existing Walmart entrance on local SW 10th Street but will remain a directional opening. The existing median opening is located 880 feet from the Military Trail intersection. By comparison, the proposed median opening will be 950 feet from Military Trail. Even with a gain of 70 feet between openings, the directional opening to Walmart is similar to the existing condition in that it does not meet Class 3 criteria for median spacing. Figure 6.1.21 show the median opening at the Walmart shopping center.

Figure 6.1.21: Proposed Directional Median Opening at Walmart

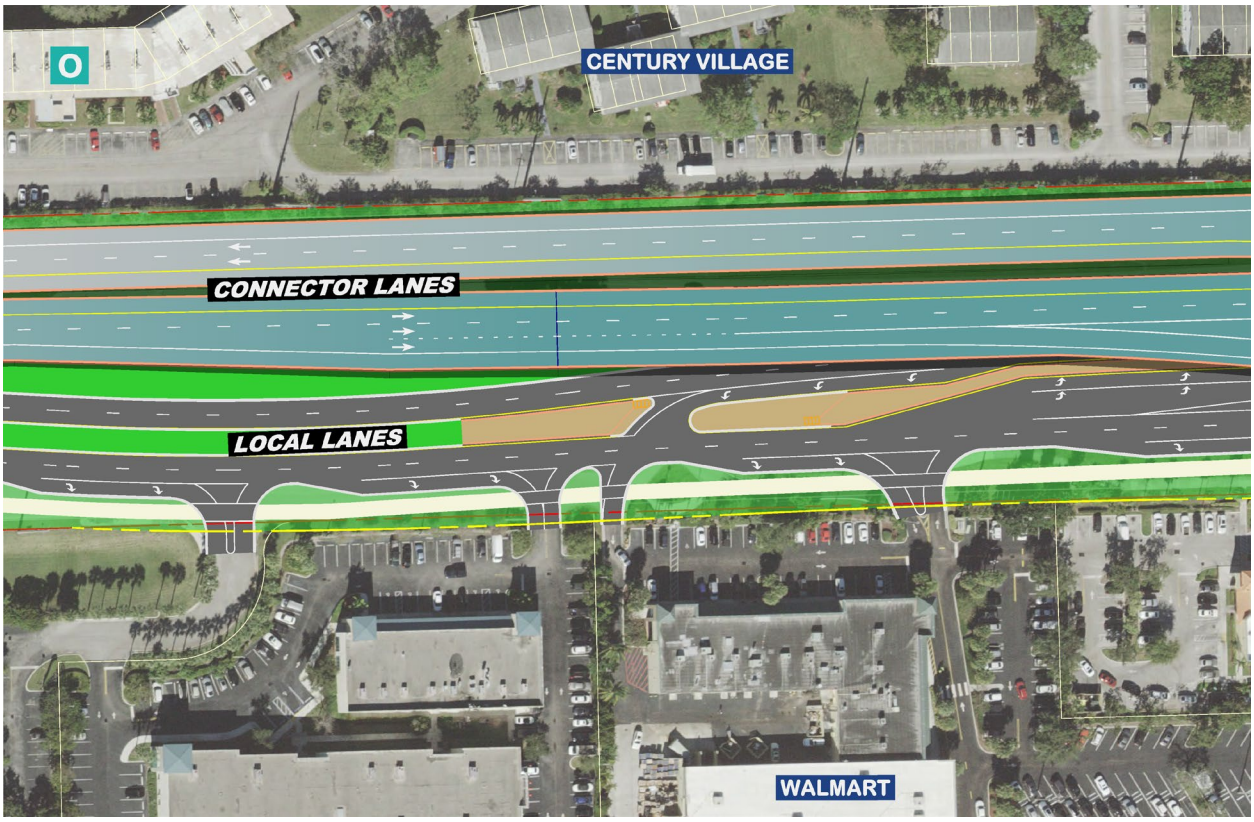


Table 6.1.4 shows the proposed median opening configuration for the Preferred Alternative on SW 10th Street and Table 6.1.5 shows the proposed median opening configuration along Powerline Road. Highlighted cells indicate a substandard median opening spacing.

Table 6.1.4: Summary of Proposed Median Openings – SW 10th Street

Existing Opening	Mile Post	Middle Station	Existing Median Type	Existing Spacing	Proposed Median Type	Proposed Spacing
SW 10th Street						
Waterways Boulevard	21.242	069+00	Full / Signal		Full / Signal	
				1,600		1,600
Independence Drive	21.549	085+00	Full / Signal		Full / Signal	
				1,300		1,300
Powerline Road	21.835/ 0.000	098+00	Full / Signal		Full / Signal	
				2,000		2,670
Quiet Waters Business Park Entrance Road	0.381	118+00	Full		Closed	
				670		
SW 30th Avenue	0.502	124+70	Full		Full	
				1,030		1,030
SW 28th Avenue	0.699	135+00	Full / Signal		Full / Signal	
				1,660		1,660
SW 24th Avenue	1.014	151+60	Full		Full	
				800		1,240
Frontage Road (Business Park)	1.156	159+60	Directional		Closed	
				510		
Frontage Road (Walmart)	1.253	164+70	Directional		Relocated	
				880		950
Military Trail	1.427	173+50	Full / Signal		Full / Signal	
				2,080		2,080
East Newport Center Drive	1.823	194+30	Full / Signal		Full / Signal	
				740		-
I-95 SB Entrance Ramp	1.919	201+70	Directional / Signal		Closed	

Table 6.1.5: Summary of Proposed Median Openings – Powerline Road

Existing Opening	Mile Post	Middle Station	Existing Median Type	Existing Spacing	Proposed Median Type	Proposed Spacing
Powerline Road						
American Way	11.504	-	Directional		Directional	829
				845		
SW 10th Street	11.664	-	Full / Signal		Full / Signal	
				785		800
Quiet Waters (south access)	11.813	-	Directional		Directional	
				320		460
Quiet Waters (north access)	11.874	-	None		Signal	
				440		300
West Drive	11.957	-	Full / Signal		Signal	

6.1.8 Intersection Concepts

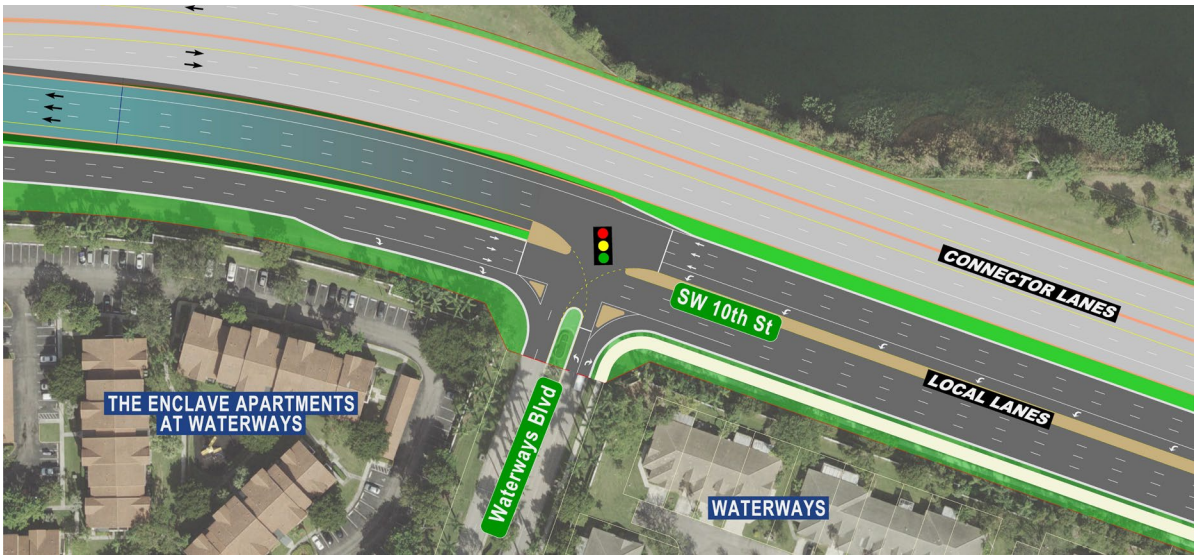
The Preferred Alternative includes four signalized intersections along SW 10th Street and one signalized intersection on the north leg of Powerline Road. A description of each signalized intersection follows.

SW 10th Street at Waterways Boulevard

This three-leg intersection features three eastbound and three westbound through lanes as well as single right and left turn lanes into Waterways Boulevard, which features two receiving lanes in the southbound direction. The two northbound lanes on Waterways Boulevard transition to single right and left turn lanes. Turn lanes are configured so that they meet the minimum deceleration distance and queue distance, as required. The northbound left-turning vehicles will have direct access to the Sawgrass Expressway and Turnpike via the westbound overpass ramp.

Another noteworthy point is the bicycle and pedestrian accommodations. The north side of the intersection lacks bicycle and pedestrian facilities, the south side of SW 10th Street has a 12-foot shared use path. Consequently, no crosswalks are necessary. Figure 6.1.22 displays the Waterways Boulevard intersection.

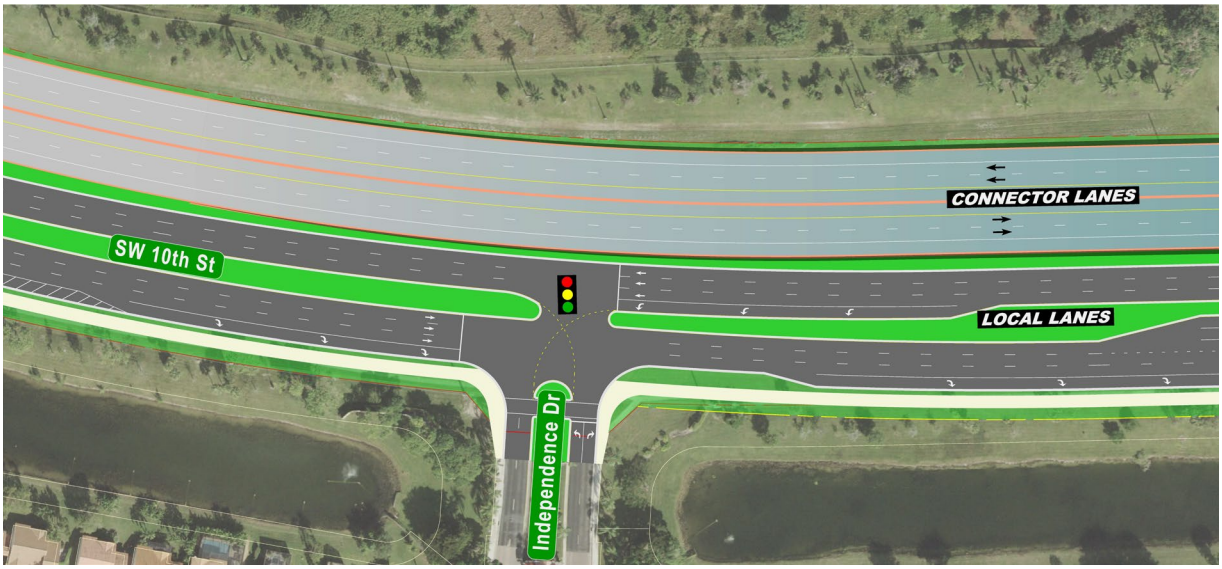
Figure 6.1.22: SW 10th Street at Waterways Boulevard Intersection



SW 10th Street at Independence Drive

The Independence Drive intersection is similar to the Waterways Boulevard intersection in that it features three legs, three through-lanes in the east and west directions, single left and right turn lanes, and bicycle and pedestrian accommodations on the south side only. Independence Drive also has two southbound lanes receiving and two northbound lanes that transition into left and right turn lanes. Figure 6.1.23 provides an overview of this intersection.

Figure 6.1.23: SW 10th Street at Independence Drive Intersection



SW 10th Street at Powerline Road

The Powerline Road intersection is a major junction that accommodates the incoming traffic from the Sawgrass Expressway with a major arterial. The intersection features three through lanes on each of the four legs along with dual left and single right turn lanes. East of this intersection, the inside eastbound lane becomes the entrance ramp to the managed lanes. While triple left turn lanes could be warranted at this intersection, dual left turn lanes are proposed. However, the traffic separators on each leg of the intersection are 15.5 feet wide, thereby containing space for a future 11-foot inside left-turn lane and 4.5-foot traffic separator. An overpass of approximately 265 feet long carries the managed lanes over the intersection.

In a similar fashion to SW 10th Street, Powerline Road features three through lanes in the northbound and southbound directions. Single right turn lanes are proposed on each leg. However, the north leg of Powerline Road is reconfigured such that a second right-turn lane would not require right-of-way from Quiet Waters Park. The Powerline Road geometry is shifted eastward by approximately one lane's width to provide space for this potential future expansion.

Cross walks are provided on each of the four approaches. Figure 6.1.24 illustrates the Powerline Road intersection for the Preferred Alternative.

SW 10th Street at SW 28th Avenue

The SW 28th Avenue intersection is another three-leg junction but with two through lanes in each direction and single left and right-turn lanes. The southbound leg has one receiving lane and two northbound through lanes that transition to a left and right turn lane. Similar to the previous intersections, the north side of the intersection lacks bicycle and pedestrian facilities, the south side of SW 10th Street has a 12-foot shared use path. Consequently, no crosswalks are necessary. Figure 6.1.25 illustrates the SW 28th Avenue intersection.

Figure 6.1.24: SW 10th Street at Powerline Road Intersection

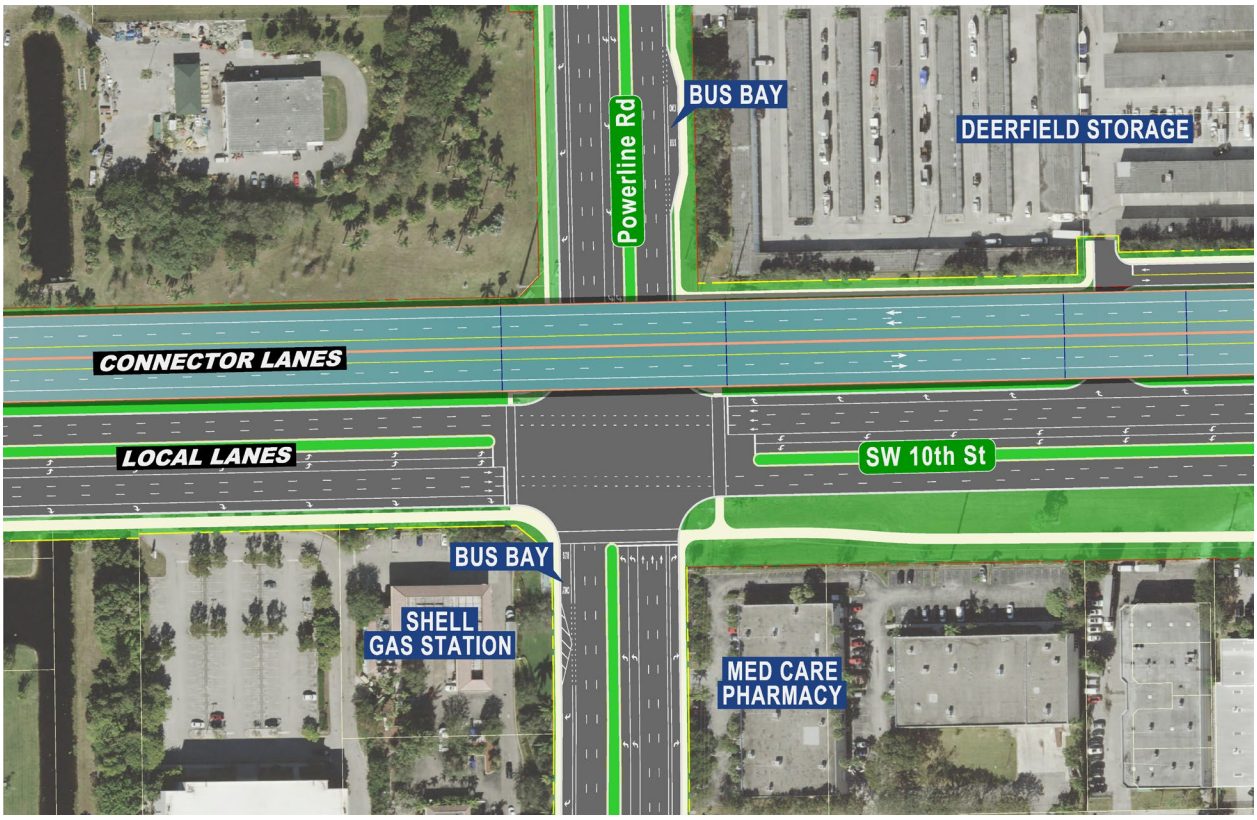
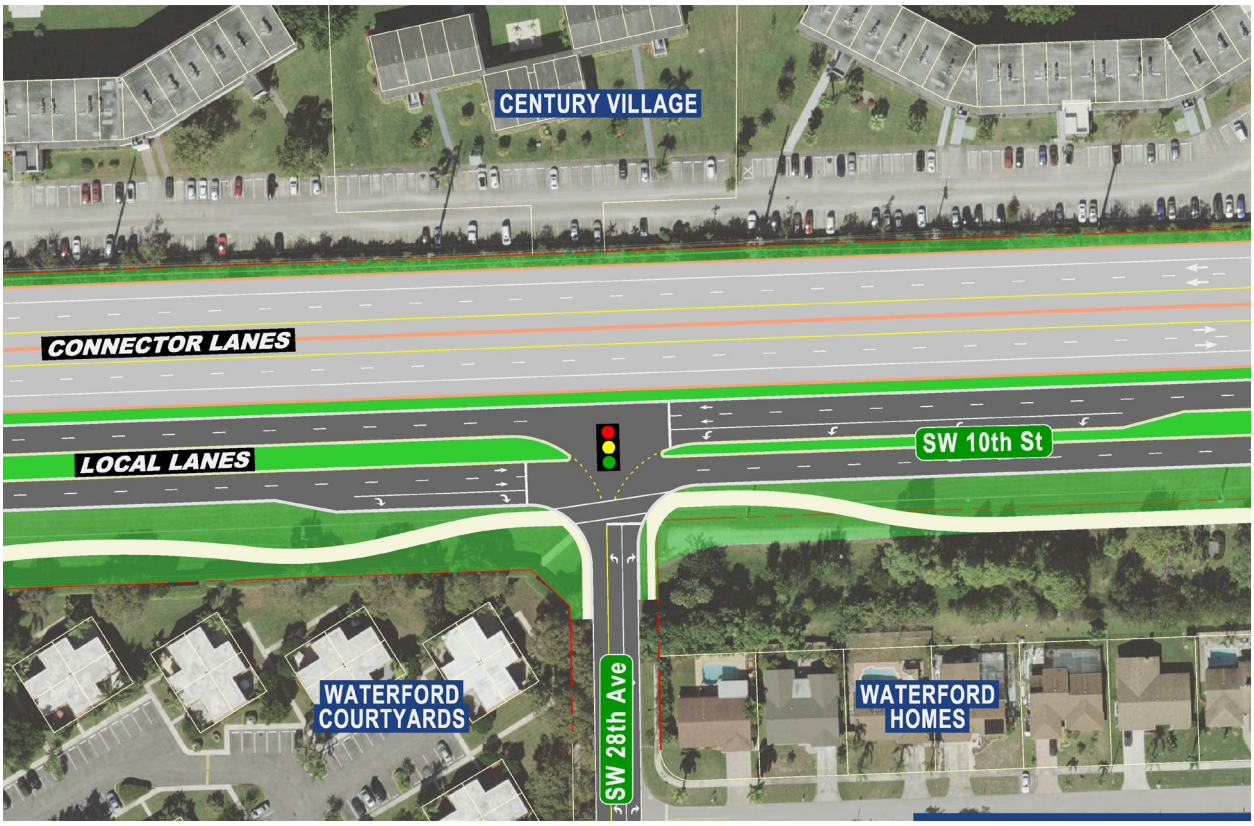


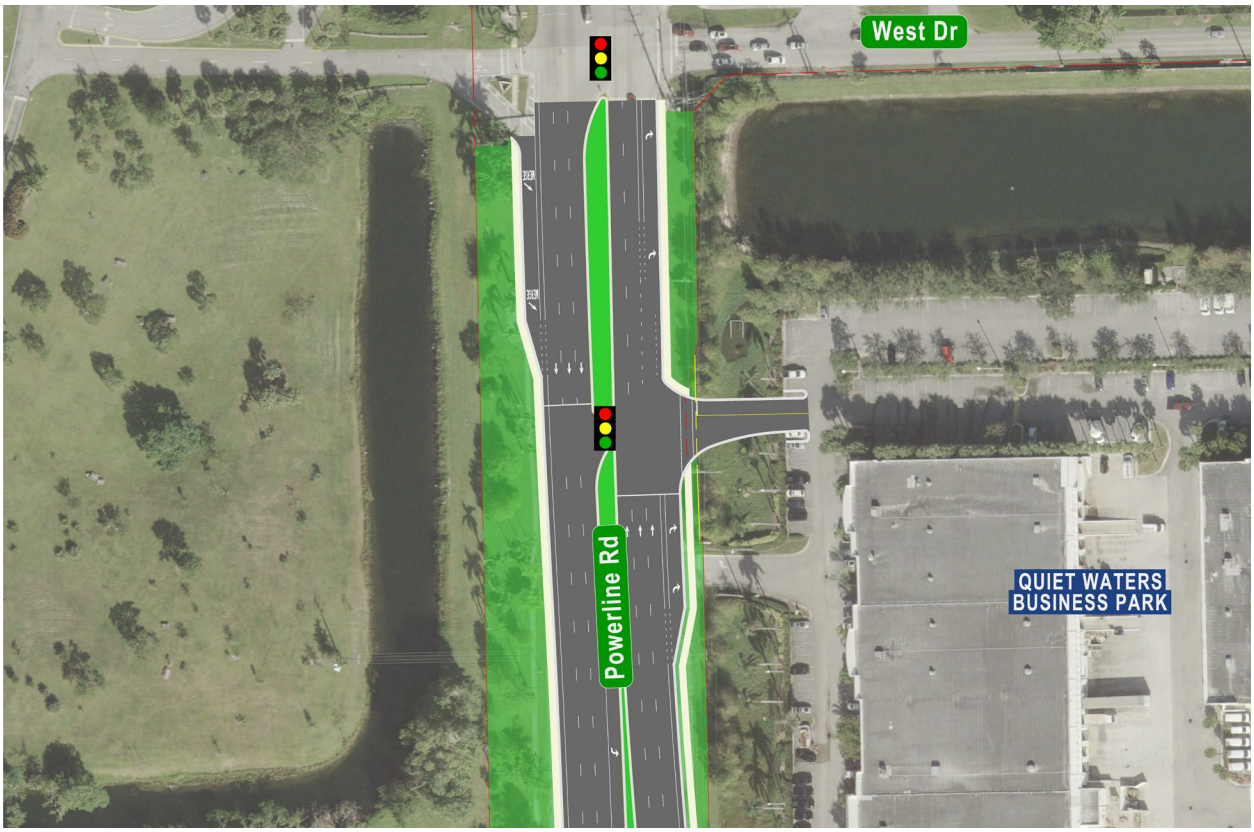
Figure 6.1.25: SW 10th Street at SW 28th Avenue Intersection



Powerline Road at Quiet Waters Business Park

This full, signalized intersection was added after dialogue with Quiet Waters Business Park in order to offset the business impacts of removing the full median opening from SW 10th Street. The proposed intersection is located approximately 300 feet from the existing signalized intersection of West Drive. The full median opening will allow left turns from the Quiet Waters Business Park parking lot but not from southbound Powerline Road. The traffic signals from both West Drive and this intersection will be operated from the same controller so that green time for the intersections is synchronized. Figure 6.1.26 illustrates this additional median opening on Powerline Road.

Figure 6.1.26: Powerline Road at Quiet Waters Business Park Intersection



6.1.9 Intelligent Transportation System and TSM&O Strategies

Improvements to the SW 10th Street corridor will incorporate ITS enhancements. The SW 10th Street corridor is a roadway identified within the FDOT TSM&O Strategic Network that was defined by the District 4 TSM&O Master Plan. The enhancements will require the following systems and infrastructure at a minimum, in order to provide a comprehensive TSM&O network:

- Fiber Optic Communications (FOC);
- 100% CCTV camera coverage along the corridor;
- Microwave Vehicle Detection Systems (MVDS);
- Bluetooth Travel Time System; and
- Dynamic Message Signs (DMS).

Existing ITS infrastructure will be documented and preserved during construction to maintain normal operation. A Systems Engineering Management Plan (SEMP) report will be completed during the design stage of the project.

6.1.10 Utilities

As discussed in Section 4.7.5.5, the total estimated utility relocation cost (as provided by the UAOs) is $35.6 million, assuming a Full Depressed Alternative. It is anticipated that the Preferred Alterative relocation cost will be approximately 50% of that cost for a total of approximately $18.1 million. More information on utility impacts is included in the Utility Assessment Package, available under separate cover.

6.1.11 Drainage and Stormwater Management Facilities

Several types of stormwater management facility alternatives are commonly used on roadway projects. The more commonly used alternatives in South Florida, particularly for roadway projects, include wet/dry detention ponds, wet/dry retention ponds, and French drains (exfiltration trenches). For this project, stormwater management facility alternatives have only been evaluated for the C-2 Canal Basin since the required treatment and attenuation for the C-3 Canal Basin can be fully accommodated via modification and expansion of the existing stormwater treatment facilities within the SW 10th Street/ Sawgrass Expressway and Florida's Turnpike Interchange.

However, based on the proposed improvements, available right-of-way, and impacts to existing stormwater management facilities, new offsite stormwater management facilities are required to accommodate for additional water quality treatment, discharge attenuation, and floodplain compensation within the C-2 Basin.

The use of exfiltration trenches can be ruled out for this project given the short operation life for exfiltration systems (5-10 years), the well-known maintenance issues, and discouraged use by FDOT when other options are available. Furthermore, the use of dry retention/detention ponds can be ruled out for this project due to the high groundwater table elevation and relatively poor permeability of the existing soils. In light of these constraints, the only acceptable option for the project is the use of wet detention ponds. Conventional stormwater management wet detention ponds and the alternative method of expansion of the existing stormwater management facilities within the Broward County Water Control District (BCWCD) #2 water quality basin to provide for treatment and attenuation were both considered.

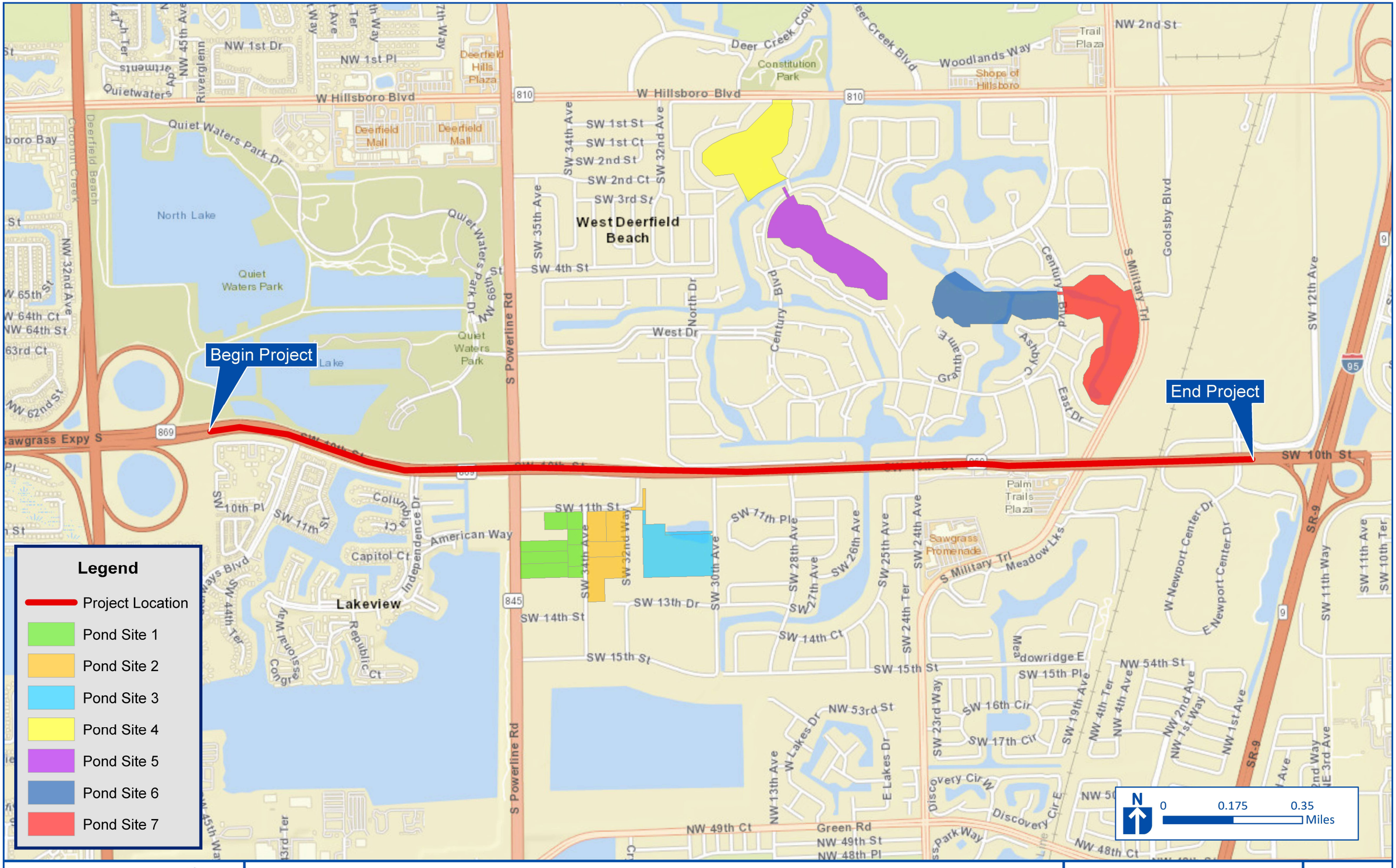
The proposed improvements increase the impervious area in the C-3 Canal Basin from 9.95 to 20.02 acres, resulting in a net increase of 10.07 acres of impervious area. The proposed improvements increase the impervious area in the C-2 Canal Basin from 24.90 to 49.57 acres, resulting in a net increase of 24.67 acres of impervious area. A pre-development vs. post-development analysis was completed to determine the storage volume required to maintain the allowable discharge while also providing the required water quality storage volume. Table 6.1.6 shows the proposed pond sizes for each basin based on these controlling variables.

Table 6.1.6: Pond Size Requirements

Basin	Wet Detention Pond Size Required
C-3 Canal	5.14 acres
C-2 Canal	11.18 acres

The preliminary pond siting selection process included seven pond site alternatives meeting the 11.18-acre minimum pond area requirement for the C-2 Canal basin. Figure 6.1.27 identifies the location of the seven potential pond site alternatives.

The first factor when selecting pond site alternatives is any undeveloped property. No undeveloped or even partially developed areas exist within the C-2 Basin and within the SW 10th Street project limits. However, a few undeveloped and partially developed areas exist north of the SW 10th Street project limits and within the C-2 Basin, including parcels as part of an abandoned golf course within the Century Village Community, owned by Fairway Investors, LLC. Such parcels are all adjacent and/or hydraulically connected to the C-2 Canal, and could feasibly be expanded to provide treatment, attenuation, and floodplain compensation for the project since the C-2 Canal is a water quality basin.



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Figure 6.1.27
Potential Pond Sites

The first three pond site alternatives, conventional pond site Alternatives 1 through 3, are each located south of the SW 10th Street project limits, east of Powerline Road, within industrial zoned sites with functioning businesses. While an initial pond siting screening would typically avoid developed properties, these three pond site alternatives avoid impacts to residential communities and displacement/relocation of residents, sparing the residential and commercial parcels south of SW 10th Street. Use of any of these three pond site alternatives allows the FDOT to conventionally collect and convey roadway runoff to the pond sites to be treated and attenuated before discharging through a control structure and outfall pipe to the C-2 Canal.

Alternative 1 consists of a combination of eight different parcels for the pond construction totaling 12.82 acres, along with three additional parcels requiring easements for outflow. Alternative 2 consists of a combination of four different parcels totaling 12.07 acres, along with three additional parcels requiring easements for outflow. Alternative 3 consists of a combination of two different parcels totaling 13.54 acres, along with two additional parcels requiring easements for inflow.

The next four pond site alternatives, Alternatives 4 through 7, are each located north of the SW 10th Street project limits, within the vacated golf course (owned by Fairway Investors, LLC) inside of the Century Village community. Even though considered non-conventional, these four pond site alternatives avoid impacts to residential communities and displacement/relocation of residents, sparing the residential and commercial parcels north of SW 10th Street. Use of any of these four pond site alternatives allows the Department to make use of the opportunity to meet all drainage and permit criteria through expansion of the waterbodies within the C-2 Basin. Alternative 4 consists of the most westerly (19.26 acre) parcel contiguous with the C-2 Canal and Hillsboro Boulevard. Alternative 5, located just east of the C-2 Canal and Alternative 4, and west of the Century Village Clubhouse, consists of a 19.18-acre parcel. Alternative 6, located just east of the Century Village Golf Course, consists of a 17.11-acre parcel. Alternative 7, located just east of Alternative 6 and west of Military Trail, consists of a 22.78-acre parcel. Since the initial identification of these four alternatives, the Alternative 7 parcel has been developed into a residential community and will utilize a portion of the Alternative 6 parcel for its drainage. The remaining parcels that make up Alternatives 4, 5, and a portion of Alternative 6 will continue to be evaluated as the

project moves forward but as a potential shared use pond alternative in close coordination with Century Village, who now owns these remaining parcels and wishes to incorporate a park system within these parcels that can work with a pond management system.

Although the Department continues to coordinate with Century Village on potential shared use of the non-conventional pond site Alternatives 4, 5, and 6, the conventional pond site Alternatives 1, 2, and 3 have been evaluated with a multi-disciplinary team consisting of representatives from right-of-way, roadway design, drainage design, environmental management, construction, and maintenance, based on several factors, including:

- Right-of-Way – cost, land use, zoning, easement considerations;
- Drainage – hydrology, hydraulics;
- Flood Zone (FEMA);
- Contamination and Hazardous Materials Risk;
- Utilities Involvement;
- Threatened and Endangered Species Involvement;
- Wetlands and Protected Uplands Involvement;
- Cultural Resources Involvement;
- Section 4(f) Involvement;
- Public Wellfield Impacts;
- Constructability – cost, access, methodology;
- Maintenance – cost, access; and
- Community Impact – public opinion, aesthetics.

Each of these factors was assigned a weight based on how important that factor is to the overall pond siting evaluation process for this particular project. That weight was then multiplied by the score given to each pond site alternative for each factor to compute the total score. The higher the weight and the higher the score, the more preferential the pond site. Table 6.1.7 shows the pond evaluation matrix.

Table 6.1.7: Pond Site Alternatives Evaluation Matrix

Factor	Weight of Factor	Conventional Pond Site Alternatives						Unconventional Pond Site Assessment		
		Alt 1		Alt 2		Alt 3		Alt 4	Alt 5	Alt 6
Number of Parcels for Pond	-	8		4		2		1	1	1
Parcels Size (acres)	-	12.82		12.07		13.54		19.26	19.18	17.11
Number of Parcels for Easement(s)	-	3		3		2		-	2	-
Parcel Size for Easement(s) (acres)	-	0.42		0.42		0.45		0	0.14	0
Total Parcel Cost ($ million)	-	$14.5		$28.8		$35.7		$14.0*	$14.1*	TBD
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Century Village Potential 'SHARED USE' Pond Alternatives Assessment Summary		
Zoning (Right-of-Way)	7	1	7	2	14	3	21	Pond Construction falls within zoning for parcels		
Land Use	7	1	7	2	14	3	21	If mutual agreement is reached with CV will fall within their land use plans		
Right-of-Way	10	1	10	2	20	3	30	Right of Way is currently vacant		
Drainage Considerations	8	4	32	4	32	6	48	Parcels are adjacent to C-2 and adjacent canal system making connectivity of system straight forward		
Flood Zone FEMA	6	3	18	9	54	7	42	Majority of the pond areas are outside the 100-year floodplain so pond excavation will provide floodplain compensation benefits		
Contamination and Hazardous Materials	10	4	40	1	10	4	40	Excavation for ponds will be tested and treated as required by permitting agencies, arsenic levels are expected		
Utilities	4	2	8	2	8	3	12	No major utility impacts are anticipated with these parcels		
Threatened and Endangered Species	2	2	4	2	4	2	4	No threatened or endangered species concerns		
Noise	2	0	0	0	0	0	0	No permanent noise impacts, there will be disruption during construction that can be mitigated and restricted to certain		
Wetland and protected Uploads	1	1	1	1	1	1	1	No wetland or protected uplands with these parcels		
Cultural Resources Involvement	1	6	6	6	6	10	10	No cultural resource involvement		
Section 4(f)	1	0	0	0	0	0	0	No Section 4(f) involvement		
Public Wellfield	6	10	60	10	60	10	60	Outside of protected influence area of any public wellfields		
Construction	5	6	30	3	15	5	25	Construction disruption can be restricted to specific hours and haul routes can be mitigated to minimize impacts to		
Maintenance	5	5	25	7	35	3	15	Maintenance should be minimal		
Aesthetics	3	5	15	5	15	3	9	Pond system can fit within park scheme and provide aesthetic enhancement to the area		
Public Opinion	7	5	35	5	35	5	35	This most likely could vary among residents as opinion of the road project can influence attitudes to a 'shared use'		
Other	0	8	0	8	0	8	0	These 'unconventional' pond alternatives have potential to provide mutual benefits to the Department's overall storm water		
Score		298		323		373		A "Shared Use' agreement must be mutual for the 'unconventional' pond alternatives to move forward		
Ranking		**7**		**6**		**5**				

* Parcel Size for Pond area is anticipated to be approximately 12 Acres that can vary between one or all three Century Village Parcels with an estimated Cost of approximately $14M.

Based on the comprehensive pond siting evaluation performed for this project, portions of Alternatives 4, 5, 6 are recommended for accommodation of drainage within the C-2 Basin, if a shared use agreement can be executed in the future with Century Village to spread and meander the required drainage pond(s) throughout the western three pond site alternatives. Refer to the Conceptual Drainage and Pond Siting Report, available under separate cover, for more information.

6.1.11.1 Wells

An analysis of the plans and Deerfield Beach well field data (discussed in Section 2.16.2) was performed, and no adverse impacts are anticipated to the existing public water supply wells as a result of the Preferred Alternative.

6.1.12 Floodplain Analysis

The project will result in minimal encroachments to floodplains. Encroachments resulting from the construction of the Preferred Alternative will be fully compensated within the proposed stormwater management facilities to insure there will be no increase in flood elevations and/or limits. Based on the proposed improvements, in the C-3 Canal Basin, a minimum pond volume of 5,727 cubic yards (CY) is required to offset 100-year floodplain encroachment volume. The C-3 Canal Basin proposed pond will provide at least 44,835 CY of compensation volume, with a surplus compensation volume of 39,107 CY. In the C-2 Canal Basin, a minimum pond volume of 27,540 CY is required to offset the 100-year floodplain encroachment volume. The C-2 Canal Basin proposed pond will provide at least 100,769 CY of compensation volume, with a surplus compensation volume of 73,229 CY.

The proposed drainage system will perform hydraulically in a manner equal to or greater than the existing system, and floodplain surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

6.1.13 Transportation Management Plan

One of the benefits of the Preferred Alternative is the relatively straightforward transportation management plan consisting of four general phases of construction as detailed below.

Phase 1: Construct permanent local lanes

- Relocate utilities;
- Construct noise walls along the south side of the existing right-of-way. Per the FDOT commitment, noise walls should be constructed at the earliest possible construction phase.
- Construct the four proposed permanent lanes located on the south side of the existing SW 10th Street right-of-way;
- This construction includes the ultimate pavement, curb and gutter, storm sewer system, sideroad connections, intersections, signalization, pavement markings, and shared use path;
- Temporary accommodations for ingress/egress to the eventual work zone on the north side will be necessary. For this reason, the final surface course and pavement markings on the local lanes may not be desirable at this time. The proposed signalized intersections at Waterways Boulevard, Independence Bay Drive, and SW 28th Avenue may be optimal points of entry for contractor access since they are under signal control. A temporary signal head for north side access could be added at each intersection.

Phase 2: Shift traffic to Local SW 10th Street

- Shift all traffic from the existing pavement to the newly constructed local SW 10th Street lanes;
- Remove the existing SW 10th Street pavement located on the north side of the right-of-way; and
- Construct proposed noise walls along the north side of the existing right-of-way.

Phase 3: Construct permanent managed lanes

- Erect temporary concrete barrier wall between the newly installed local lanes on the south side of the corridor and the work zone on the north side of the corridor; and

- Construct the permanent westbound and eastbound managed lanes.

Phase 4: Project is complete

- Open managed lanes to traffic;
- Retain local traffic on local lanes; and
- Add landscaping to the median and green spaces.

6.1.14 Special Features

A noteworthy point is that the Preferred Alternative allows trucks in the managed lanes. While trucks are not permitted within the I-95 express lanes, trucks may utilize the SW 10th Street managed lanes.

6.1.15 Design Variations and Design Exceptions

No design exceptions are anticipated for the Preferred Alternative. Table 6.1.8 summarizes the known design variations for the Preferred Alternative. Minor design variations for superelevation may be encountered in the final design phase for reverse-curve entrance and exit ramps due to short tangent runout distances. However, these details will be resolved in the final design phase where other minor design variations may be encountered.

Table 6.1.8: Design Variations for the Preferred Alternative

Design Variation	Location	Required (ft)	Actual (ft)
Horizontal Curve Length	Managed Lanes between Powerline Road and SW 30th Avenue	900	555 / 717
Bicycle Lane Width	Powerline Road	7	4
Border Width	Managed Lanes	94	18.3
Median Width	Powerline Road	22	17

Two of the design variations relate to conditions on Powerline Road: bicycle lane width and median width. The four-foot bicycle lane and 17-foot median are proposed to minimize right-of-way impacts to the adjacent businesses and Quiet Waters Park. The four-foot bicycle lanes on Powerline Road also match the existing conditions. The two remaining design variations relate to the managed lanes: horizontal curve length and border width. The substandard border width for the managed lanes varies from 18.3 feet to 78.7 feet, which does not meet

the required 94 feet, due to the constrained right-of-way. Two horizontal curves on the managed lanes between Powerline Road and SW 30th Avenue do not meet the required 900-foot horizontal curve length criteria. The two horizontal curves have lengths of 555 feet and 717 feet.

6.1.16 Cost Estimates

The FDOT LRE program was used to estimate construction costs. Table 6.1.9 shows the cost of the Preferred Alternative within the limits of this PD&E study. Appendix F contains the LRE for the Preferred Alternative.

Table 6.1.9: Cost Estimate Summary

	Preferred Alternative
Construction Cost ($ million)	183.7
Right-of-Way Cost ($ million)	27.5
Utility Relocation ($ million)	17.0
Maintenance Cost ($ million/year)	0
Total Costs ($ millions)	**228.2**

6.2 Summary of Environmental Impacts of the Preferred Alternative

This section provides a summary of environmental issues and features that affect development of detail design of the Preferred Alternative.

6.2.1 Future Land Use

Broward County is mostly built-out in the study area with little undeveloped land in the project corridor. Therefore, significant changes in land use are not anticipated. The Broward County Future Land Use Maps are consistent with the existing land use in the study corridor. The corridor will be mostly residential (multi-family and single family) and commerce. In addition, the Broward County Future Land Use map shows Quiet Waters Park will remain Recreation/Open Space. Figure 4.4.1 shows the Broward County Future Land Use.

6.2.2 Section 4(f)

Two *Section 4(f) Determination of Applicability (DOA)* Reports were prepared for this PD&E study and are summarized herein. Potentially protected Section 4(f) resources in the project area include Crystal Heights Park – North and Quiet Waters Park, both of which are shown in Figure 6.2.1.

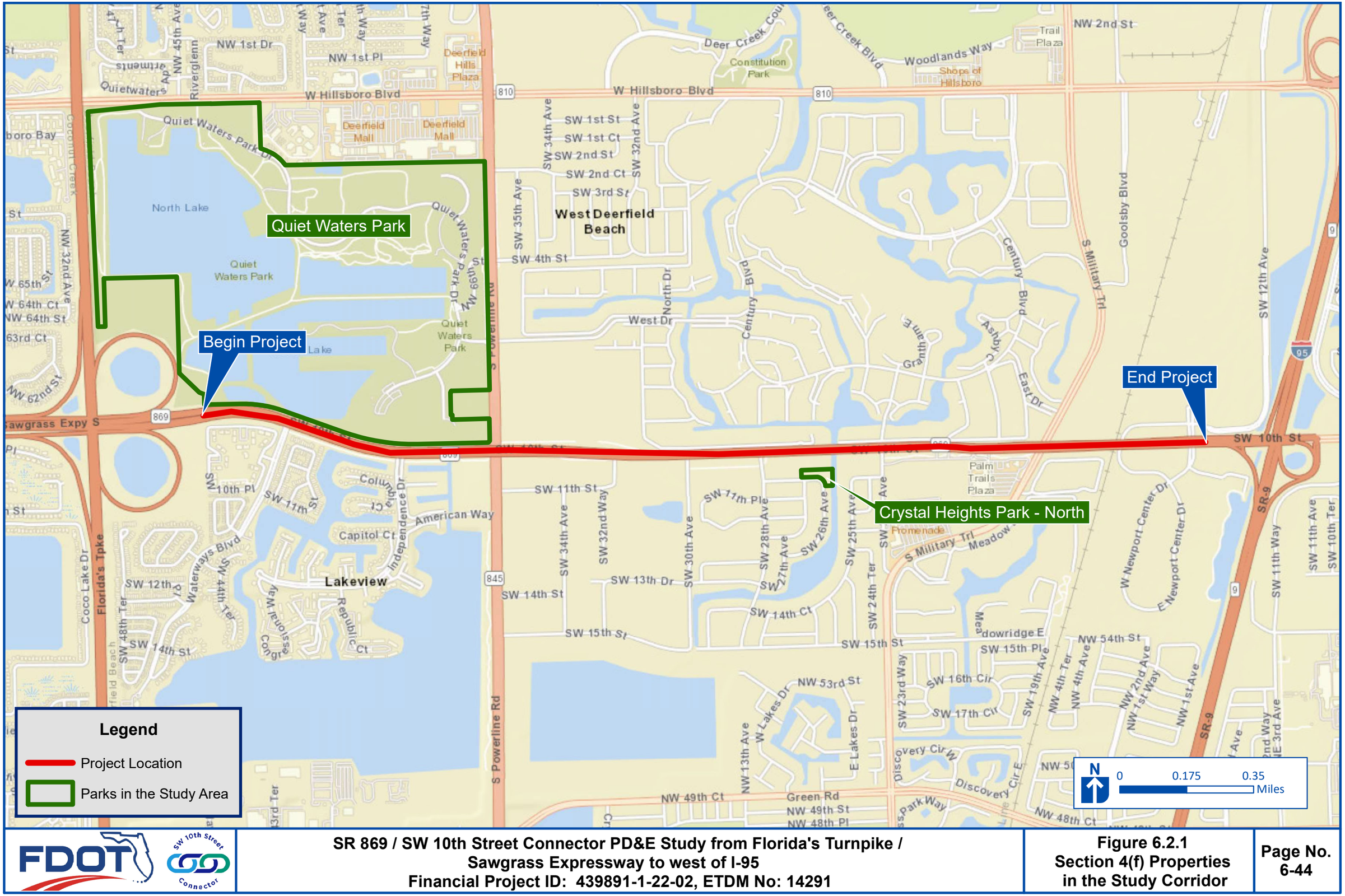
Crystal Heights Park – North is a 1.37-acre community park associated with the Crystal Heights subdivision within the City of Deerfield Beach, Florida. This park is one of seven small community parks scattered throughout this large subdivision. The Crystal Heights Park - North is the only one adjacent to SW 10th Street. The park includes open grassed areas, a children's playground, covered picnic table with grill and an open-air picnic table, and approximately 100 feet of grassed parking area. This park is owned and maintained by the City of Deerfield Beach. Although the park is located within the Crystal Heights neighborhood, the neighborhood is not gated, therefore the general public could access this park.

The project requires no temporary or permanent right-of-way acquisition from Crystal Heights Park – North and there are no proximity impacts that rise to the level of substantial impairment. Access to Crystal Heights Park – North will not be impacted by construction; there is no direct access from SW 10th Street, the access is from SW 10th Drive within the Crystal Heights Subdivision (Waterford Homes). As part of the Determination of Applicability (DOA) documentation, a determination of Section 4(f) No Use was approved by the Office of Environmental Management (OEM) on December 17, 2018.

Quiet Waters Park is a 431.4-acre regional park owned and managed by Broward County Parks and Recreation. Amenities include a marina, mountain bike trails, cable skiing, fishing, campgrounds, nature trails, restrooms and showers, volleyball and basketball courts, food concessions, picnic shelters and open picnic areas, a park and campground office, a maintenance facility and a butterfly and bird sanctuary building. SkiRixen USA operates a cable water ski business and Bike America has a facility on-site that includes bike rentals, special bicycle events, bicycle repair and safety checks, and a retail store. Of these amenities, a series of mountain bike trails, a lake used for skiing and the maintenance building are adjacent to the SW 10th Street corridor. In addition to the existing amenities, Broward County

has several planned amenities near SW 10th Street and Powerline Road including an expansion of the water park, another playground, another office space, and community gardens.

The project requires no temporary or permanent right-of-way acquisition from Quiet Waters Park and the park is not sensitive to proximity impacts such as noise. Access to Quiet Waters Park will not be impacted during construction; the entrance to the park is located on Powerline Road, just north of SW 10th Street. The DOA for Quiet Waters Park was prepared in 2018 when the Full Depressed Alternative was still under evaluation. The Full Depressed Alternative would have required construction easements and temporary impacts to the park, as documented in the DOA. However, since then, the project has eliminated the Full Depressed Alternative and the project will no longer have any direct or indirect impacts, so there will be no use of this resource within the meaning of Section 4(f). A Section 4(f) No Use Form was prepared to document this change and approved by OEM on September 2, 2020.



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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Figure 6.2.1
Section 4(f) Properties in the Study Corridor

6.2.3 Cultural Resources

A Cultural Resources Assessment Survey (CRAS) was completed for this project. The objective of this CRAS was to identify cultural resources and assess their eligibility for listing in the National Register of Historic Places (National Register) according to the criteria set forth in 36 CFR Section 60.4.

According to 36 CFR 800.16(d), the Area of Potential Effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking as well as its geographical setting. The APE must include measures to identify and evaluate both archaeological and historical resources. Normally, archaeological and other below-ground resources will be affected by ground disturbing activities and changes in ownership status. Structural resources and other above ground sites, however, are often impacted by those activities as well as alterations to setting, access and appearance. As a consequence, the survey methodologies for these two broad categories of sites differ.

The archaeological APE focuses upon identifying and evaluating resources within the geographic limits of the proposed improvements and its associated ground disturbing activities within the proposed right-of-way. The archaeological APE, therefore, is confined to the footprint of the proposed project improvements and proposed right-of-way. The APE for historic resources took into consideration the scope of the proposed work and the developed urban nature of the project area. Therefore, the historic resources APE consists of the footprint of the proposed improvements and adjacent parcels up to a distance of 150 feet from the footprint. There are no improvements associated with the project between Military Trail and I-95 so this area is outside the APE for this CRAS. This area will be covered in the CRAS PD&E Study for SR 9/I-95 from south of SW 10th Street to north of Hillsboro Boulevard (FM No. 436964-1), currently in progress.

A search of the Florida Master Site File (FMSF) as well as county and local inventories identified no previously recorded archaeological sites or archaeologically sensitive zones within one mile of the archaeological APE. No newly recorded archaeological sites were identified within the archaeological APE. Seven shovel tests were excavated within the

archaeological APE. No cultural material was recovered. No subsurface testing could be conducted in most of the project area due to the presence of existing pavement, drainage ditches, and buried utilities.

A search of the FMSF identified no previously recorded cemeteries, historic districts, or historic structures, within or adjacent to the historic resources APE. The historic resources survey resulted in the identification of one newly identified historic structure. This structure, located at 3165-3175 SW 10th Street, Deerfield Beach, Florida (8BD6685) is of Masonry Vernacular style construction. The structure lacks historical associations and physical integrity and is considered National Register–ineligible. No historic bridges, cemeteries, or other potentially unrecorded historic resources were identified within the historic resources APE during the background research.

While the segment of Military Trail within the current project APE is not historic, portions of Military Trail located outside of the current APE, to the north, have been determined ineligible for listing in the National Register by State Historic Preservation Officer (SHPO) in 2016 and in 2017. Military Trail was originally established as a native footpath by the Seminole Indians and was expanded in 1838 by the U.S. Army during the Second Seminole War. The trail has since been paved and converted into a major thoroughfare that follows the historic trail and is named Military Trail (SR 809) after this historic trail. The trail is recorded in the FMSF as 8PB13795. An analysis of historic aerials revealed no evidence of the original trail within the APE and no physical evidence was identified during the survey. Any remnants of the trail within the APE were likely destroyed during the construction of the modern highway and adjacent development.

The SHPO concurred with the findings in the CRAS in a letter dated October 2, 2018.

6.2.4 Wetlands

A NRE has been performed for this PD&E study and is available under separate cover. The subsections below summarize the pertinent information in the NRE.

In accordance with Executive Order 11990, Protection of Wetlands, and FHWA Technical Advisory T6640 8A, the extent and types of wetlands in the study area were documented.

There are several surface waters (canals, swales, ponds, and ditches) in the study area. Baseline information characterizing the surface waters located within the study area including contiguity, vegetative structural diversity, edge relationships, wildlife habitat value, hydrologic functions, and integrity is found in Table 6.2.1. The surface water polygons were individually characterized based on their Florida Land Use, Cover and Forms Classification System (FLUCFCS) type and are depicted in Figure 6.2.2. There are no wetlands within the 200-foot project study area.

6.2.5 Protected Species and Habitat

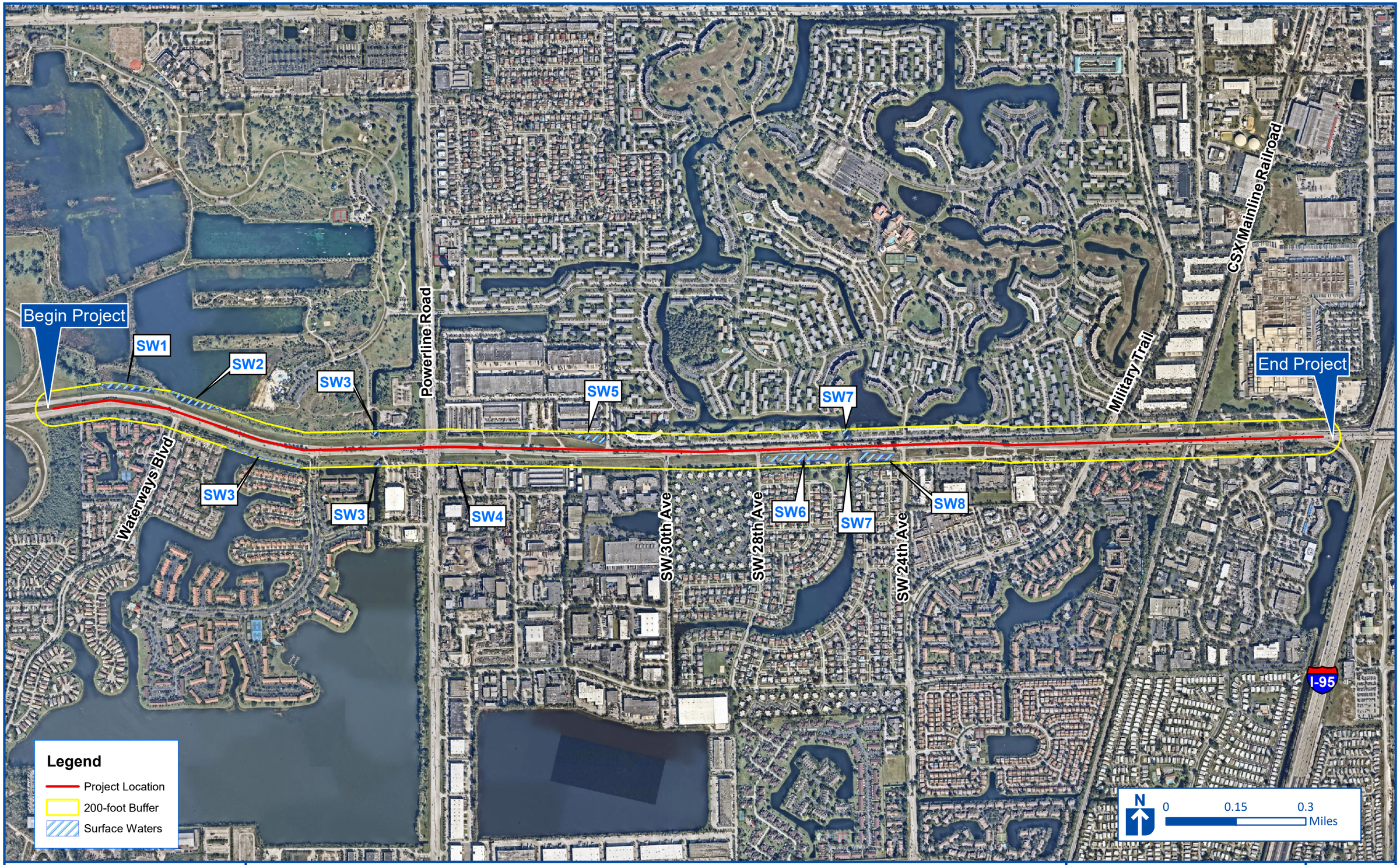
In accordance with the FDOT PD&E Manual, Part 2, Chapter 16 (June 14, 2017), a Protected Species and Habitat Assessment was conducted for this study and the results are summarized in the NRE. Information on the potential occurrence of federal and state listed species within the project corridor was assessed based on a review of available literature, database review, and based on field reconnaissance that was conducted along the corridor. Field reconnaissance was conducted in September 2017, which included pedestrian transects throughout the study area surveying for listed flora and fauna and identification of any potential habitat. Because there is the potential for gopher tortoises or Florida burrowing owl to occur even in disturbed roadside areas, the study area was surveyed for Florida burrowing owl and a 15% gopher tortoise survey was completed.

Pursuant to Section 7(c) of the Endangered Species Act of 1973, the project corridor was evaluated for the potential occurrence of federal and/or state listed threatened and endangered species, species classified by federal agencies as candidates for listing, and state species classified as species of special concern. The likelihood of species occurrences considered for the study area were determined based on several factors including whether the species were positively identified by project biologists during field surveys, suitable habitat was observed or is known to occur, species life history, and local knowledge. This assessment also included review of data obtained from the Florida Department of Agriculture and Consumer Services (FDACS) publication Notes on Florida's Endangered and Threatened Plant, information from Florida Natural Areas Inventory (FNAI), and the Atlas of Florida Vascular Plants pertaining to listed plant species that may be present in the study area. Based on the data and literature review and subsequent field surveys, state and federally listed species that may occur in the project area are identified in Table 6.2.2.

Table 6.2.1: Surface Water Summary within the Study Area

Wetland ID	FLUCFCS Code	USFWS Code	Contiguity	Vegetative Structural Diversity	Edge Relationships	Wildlife Habitat Value	Hydrologic Function	Integrity	Size (Acres)
SW1	524	Lacustrine Limnetic Unconsolidated Bottom – Permanently Flooded (L1UBH)	Isolated	Low structural diversity along banks of surface water (some *Typha spp.* is present)	Situated adjacent to grassed shoulders of road right-of-way and recreational trails within Quiet Waters Park	Provides opportunistic foraging habitat for wading birds	Provides some stormwater retention	Surface water appears to be naturally occurring, however Park maintenance could have impacted this surface water	0.75
SW2	523	Lacustrine Limnetic Unconsolidated Bottom – Permanently Flooded (L1UBH)	Isolated	Low structural diversity along banks of surface water (some *Typha spp.* is present)	Situated adjacent to grassed shoulders of road right-of-way and located within Quiet Waters Park	Provides some habitat for wildlife especially fish, herpetofauna, and foraging birds	Provides some stormwater retention	Surface water has been historically manipulated for mining purposes	0.73*
SW3	522	Lacustrine Limnetic Unconsolidated Bottom – Permanently Flooded (L1UBH)	Connected via culvert to other roadside swales	No wetland vegetation present along lake shore	This surface water occurs within the study area in three separate places. Generally, surface water is adjacent to grass shoulders of road right-of-way, adjacent to residential buildings, and maintenance building of Quiet Waters Park	Minimal habitat value. Potential opportunistic foraging.	Provides some stormwater retention	It appears that this surface water has been artificially manipulated during construction of adjacent residential neighborhood. Surrounding development and regular mowing also affects the habitat composition and structure.	0.45*
SW4	510	Riverine Lower Perennial Unconsolidated Bottom – Temporarily Flooded (R2UBA)	Connected via culvert to other roadside swales	Low structural diversity, periodically mowed. Species include white-topped sedge, dollarweed, torpedo grass, and spikerush.	Situated between roads and paved parking lot.	Provides minimal habitat value due to isolation, intermittent hydrology, and adjacent land uses.	Primarily provides stormwater detention, treatment, and sedimentation abatement functions.	Surface water was designed to convey/treat stormwater runoff. Surrounding development and regular mowing also affects the habitat composition and structure.	0.06
SW5	534	Lacustrine Limnetic Unconsolidated Bottom – Temporarily Flooded (L1UBA)	Isolated	Low structural diversity, periodically mowed. Species include torpedo grass dollarweed, and flatsedge.	Situated between roads and paved parking lot.	Provides minimal habitat value due to isolation, intermittent hydrology, and adjacent land uses.	Primarily provides stormwater detention, treatment, and sedimentation abatement functions.	Surface water was designed to convey/treat stormwater runoff. Surrounding development and regular mowing also affects the habitat composition and structure.	0.48
SW6	534	Lacustrine Limnetic Unconsolidated Bottom – Temporarily Flooded (L1UBA)	Isolated	Low structural diversity, periodically mowed. Species include torpedo grass dollarweed, and flatsedge.	Situated between roads and residential neighborhood.	Provides minimal habitat value due to isolation, intermittent hydrology, and adjacent land uses.	Primarily provides stormwater detention, treatment, and sedimentation abatement functions.	Surface water was designed to convey/treat stormwater runoff. Surrounding development and regular mowing also affects the habitat composition and structure.	1.38

Wetland ID	FLUCFCS Code	USFWS Code	Contiguity	Vegetative Structural Diversity	Edge Relationships	Wildlife Habitat Value	Hydrologic Function	Integrity	Size (Acres)
SW7	510 (Canal 1)	Riverine Lower Perennial Unconsolidated Bottom – Permanently flooded (R2UBH)	Connected to various surface waters and canals throughout the area.	No wetland vegetation present along canal banks.	Situated between roads and residential neighborhoods.	Provides some habitat for wildlife especially fish and foraging birds	May provide some stormwater detention for the surrounding area.	Area receives runoff from adjacent roads and neighborhoods.	0.32*
SW8	534	Lacustrine Limnetic Unconsolidated Bottom – Temporarily Flooded (L1UBA)	Isolated	Low structural diversity, periodically mowed. Species include torpedo grass dollarweed, and flatsedge.	Situated between roads and residential neighborhood.	Provides minimal habitat value due to isolation, intermittent hydrology, and adjacent land uses.	Primarily provides stormwater detention, treatment, and sedimentation abatement functions.	Surface water was designed to convey/treat stormwater runoff. Surrounding development and regular mowing also affects the habitat composition and structure.	0.05



FDOT / SW 10th Street Connector	**State Road 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95** **Financial Project ID: 439891-1-22-02, ETDM No: 14291**	**Figure 6.2.2** **Surface Waters Map**	**Page No.** **6-50**

Table 6.2.2: Potential Federal and State Listed Fauna and Flora Species

Common Name	Scientific Name	Federal Status	State Status	Likelihood of Occurrence
Mammals				
Florida bonneted bat	*Eumops floridanus*	E	FE	Low
West Indian manatee	*Trichechus manatus*	T	FT	Low
Birds				
Everglade snail kite	*Rostrhamus sociabilis plumbeaus*	E	FE	Low
Wood stork	*Mycteria americana*	T	FT	Medium
Florida burrowing owl	*Athene cunicularia floridana*	NL	ST	Low
Tricolored heron	*Egretta tricolor*	NL	ST	Medium
Roseate spoonbill	*Platalea ajaja*	NL	ST	Medium
Little blue heron	*Egretta caerulea*	NL	ST	Medium
Bald eagle*	*Haliaeetus leucephalus*	NL	NL	High
Reptiles				
Eastern indigo snake	*Drymarchon corais couperi*	T	FT	Low
Gopher tortoise	*Gopherus polyphemus*	C	ST	Low
Amphibians				
None				
Fish				
None				
Plants				
Florida royal palm	*Roystonea elata*	NL	SE	Low
Large-flowered rosemary	*Conradina grandiflora*	NL	ST	Low

Based on *Florida's Endangered and Threatened Species* updated January 2017 available on http://myfwc.com/wildlifehabitats/imperiled/
Federal Status: E = Endangered; T = Threatened; SSC = Species of Special Concern; C = Candidate Species; NL = Not Listed
State Status: FE- Federally Endangered; FT – Federally Threatened; ST- State Threatened. Note: Coordination is not required with FWC for Federally listed species.
* The Bald eagle is still protected under the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act and FWC Management Plan regulations.

Each species and their habitat requirements are briefly discussed in the following paragraphs.

Federally Listed Species

Florida Bonneted Bat

The bonneted bat is a large bat approximately 5 to 6.5 inches. Adult fur color varies from dark gray to brown on the dorsal side of the bat, with lighter, grayish fur underneath. The bases of the ears are joined at the midline of the head and are large and broad and slant forward over the eyes. Little is known about habitat associations and natural roost site preferences of the bonneted bats, but this species has been documented in urban, rural, and native landscapes with roost sites found in tree cavities, buildings, rock outcroppings, and bat houses. Florida bonneted bats have only been found in four counties in Florida: Lee, Collier, Charlotte, and Miami-Dade. Habitat for the bonneted bat may occur within adjacent habitats; however, habitat does not occur within the SW 10th Street right-of-way. The study area does not fall within the Consultation Area for the bonneted bat. Bats or evidence of bats was not noted during field reconnaissance, and no habitat exists within the study area.

West Indian Manatee

The manatee is a large, gray, nearly hairless, aquatic mammal that has a round, paddle-shaped tail. Adult manatees typically average nine feet in length, weigh around 900-1,000 pounds, and inhabit coastal waters, bays, rivers, and occasionally lakes. Manatees range from the southeastern United States to Central America and require warm-water refugia such as springs or cooling effluent during cold weather. Manatees are herbivorous and commonly feed on seagrass species.

The project is not within the USFWS Consultation Area for this species. A review of the USACE Manatee Key Broward County map (2013), shows no Important Manatee Areas (IMA) or Warm Water Aggregation Areas (WWAA) near the study area. Although manatees could occur within the Hillsboro Canal (which is connected to Canal 1 within the study area), there is a water control structure within Hillsboro Canal prohibiting movement of manatees to Canal 1.

Everglade Snail Kite

The everglade snail kite is a medium-sized raptor that is dark slate gray to black with a white tail and a long, hooked bill. Snail kites inhabit large, open, freshwater marshes and lakes from the St. Johns River headwaters south. They prefer relatively shallow water (less than

four feet) and a low density of emergent vegetation. Their primary food source is the apple snail which they catch at the water's surface. Snail kites usually nest over the water in a low tree or shrub. Dense, thick vegetation or sparse emergent vegetation is not optimal for foraging because either the apple snails cannot be readily seen in dense vegetation or do not survive or reproduce in sparse vegetation.

The study area falls within the USFWS Consultation Area for the snail kite but does not fall within the critical habitat for this species. Large, open water lakes exist adjacent to the study area; however, these lakes lack the emergent vegetation required by the snail kite for nesting. Although apple snail shells were observed along the canal edges within Century Village, no snail kites were observed within the study area.

Wood Stork

Wood storks are typically found in marshes, cypress swamps, and mangrove swamps, but their presence in artificial ponds, seasonally flooded roadside or agricultural ditches, and managed impoundments has become common. Wood stork breeding areas extend from South Florida through Georgia and along the coastal areas of South Carolina. Large, colonial nesting areas are typically established in swamps or islands surrounded by broad, open water areas. The same colony site may be used over many years, provided the site remains undisturbed and sufficient foraging habitat is available. Wood storks are known to nest with other wading bird species, including white ibis, tricolored herons, snowy egrets, and great blue herons. Foraging habitat consists of nearly any calm, shallow water area (between 10 and 25 centimeters) wetland depression that concentrates fish and is not overgrown with dense, aquatic vegetation. Some examples of foraging sites include freshwater marshes, stocked ponds, shallow ditches, narrow tidal creeks, shallow tidal pools, and depressional areas of cypress heads and swamp sloughs provide foraging habitat.

The shallow surface waters within the study area are man-made swales, ponds and stormwater detention areas that may provide some minimal opportunistic foraging habitat, but no nesting habitat was present, and no wood storks were observed.

Eastern Indigo Snake

The eastern indigo snake occurs in a range of habitats, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. Eastern indigo snakes are often found in strong association with gopher tortoises, though this is more prevalent where temperatures drop to below 50 degrees regularly in the winter but are also known to use the burrows of armadillos, cotton rats, and land crabs (in coastal areas). These snakes require large tracts of land for survival and are typically restricted to xeric habitats on pine-oak sandhills. Indigo snakes forage in hydric habitats, often along wetland ecotones. Habitat for the eastern indigo snake does not exist within the study area and no indigo snakes were observed during field reconnaissance.

State Listed Species

Florida Burrowing Owl

This small, ground-dwelling owl is boldly spotted and barred with brown and white. They average nine inches in height and have a wingspan of approximately 21 inches. They often dig their own burrow and line the entrance with decorative materials prior to laying eggs at the bottom of the burrow. They also have been documented to use gopher tortoise burrows or armadillo burrows. They inhabit, high, sparsely vegetated, sandy ground with low groundcover vegetation, and more recently can be found in ruderal areas such as pastures, airports, ball fields, golf courses, and road right-of-way. FNAI listed that a pair of owls was observed within the study area in 1991.

Tricolored Heron

The tricolored heron is a medium-sized heron with a slender neck. The body color appears two-toned with dark slate coloration on the head, neck, and body that contrasts with a white rump, belly, and undertail. A reddish-brown and white streak extends along the front of the neck. During breeding season, adults have white head plumes and rufous to whitish shoulders. Young birds have more reddish-brown on head, neck, and mantle but otherwise similar to adults. This species' nesting season is from late February to August and nesting typically occurs in mangrove or willow trees in mixed or single species rookeries. The tricolored heron feeds on small fish, frogs, tadpoles, crustaceans, snails, worms, and aquatic insects. There is no suitable nesting habitat within the study area. The surface waters within

the study area contain suitable foraging habitat for this species. Tricolored herons were not observed during field reconnaissance and drainage features will still exist following construction.

Roseate Spoonbill

These wading birds are characterized by their bright pink bodies, white necks, and spoon-like bills. Immature birds are whitish, acquiring the pink coloration as they mature. Roseate spoonbills are the only spoonbill native to the Western Hemisphere and the only pink bird that breeds in Florida. Their primary nesting sites include coastal mangrove islands or in Brazilian pepper on man-made dredge spoil islands near suitable foraging habitat. Roseate spoonbills typically forage in shallow water of variable salinity, including marine tidal flats and ponds, coastal marshes, mangrove-dominated inlets and pools, and freshwater sloughs and marshes.

Most of the known breeding sites occur within federally owned national parks and wildlife refuges and National Audubon Society sanctuaries. Nests are found in Florida from Tampa Bay on the Gulf coast and Brevard County on the Atlantic coast, south to northern Florida Bay. There is no suitable nesting habitat within the study area. The surface waters within the study area contain suitable foraging habitat for this species. Roseate spoonbills were not observed during field reconnaissance and drainage features will still exist following construction.

Little Blue Heron

The little blue heron is a medium-sized heron, with a purplish to maroon-brown head and neck. There is a small white patch on the throat and the upper neck. The body is slate-blue. The bill is black towards the tip, especially during breeding season, with the other exposed areas on the head appearing dark gray to cobalt blue. The legs are grayish to green, becoming black in breeding season. Immature birds are mostly white with pale slate- gray tips on primary wing feathers. Legs of young birds are yellowish green. There is no suitable nesting habitat within the study area. The surface waters within the study area contain suitable foraging habitat for this species. Little blue herons were not observed during field reconnaissance and drainage features will still exist following construction.

Gopher Tortoise

The gopher tortoise ranges throughout the southeastern U.S. and suitable habitat occurs in all Florida counties. The gopher tortoise excavates extensive underground burrows and spends much of its life in these burrows. Gopher tortoise habitat generally has the following characteristics: well drained, sandy soils; abundant groundcover; relatively open canopy and sparse shrub cover.

These habitat characteristics occur in a variety of Florida's native upland communities, including scrub communities, coastal strand, and pine flatwoods. Development pressures on many of the upland communities in Florida have been increasing. Thus, more disturbed habitats, such as fence rows, old fields, range lands, and canal banks have become important to gopher tortoises. Gopher tortoise burrows are important shelter for a variety of species including the Eastern indigo snake, gopher frog and Florida mouse. Suitable habitat for this species can be found within the road right-of-way in the study area. However, no gopher tortoises were observed within the study area during field reconnaissance.

Florida Royal Palm

Florida royal palm is a native, large palm that can grow to heights of 50-70 feet, with a spread of 20-25 feet. The trunk is smooth and light grey and can be up to two feet in diameter. Royal palms are considered self-cleaning and will shed their dying leaves. Inflorescences consisting of hundreds of tiny cream-colored flowers appear in late summer, which are followed by dark red to black fruits. The Florida royal palm can be found in a variety of habitats although does not have a high salt tolerance. This species was not observed during field surveys.

Large-Flowered Rosemary

The large-flowered rosemary is a long-lived perennial shrub that reaches a height of three to four feet and a width of one to two feet, with purple to lavender flowers. Native habitat for large-flowered rosemary includes scrub and coastal strand; it has also been known to inhabit disturbed areas. Large-flowered rosemary flowers year-round (blue) and can therefore be surveyed at any time. Habitat for large-flowered rosemary is limited within the study area (disturbed areas); however, no individuals were observed during field surveys.

Other Protected Species

Bald Eagle

As of 2008, the bald eagle is no longer listed by the USFWS or FWC as endangered or threatened. Bald eagles are still protected under the Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and FWC's bald eagle rule (F.A.C. 68A-16.002). Potential habitat for bald eagles (e.g., tall pine trees) occurs throughout the project study area, and commonly includes areas in proximity to bays, rivers, lakes, or other bodies of water that provide concentrated prey availability. Eagles usually nest in tall trees (mostly live pines) that provide clear views of the surrounding area.

There is one eagle nest documented in the FWC Eagle Nest Locator database just north of SW 10th Street adjacent to Quiet Waters Park and the northbound off-ramp of the Turnpike. Per FWC's online eagle nest locator database, the eagle nest (nest ID BO003) was last active in 2014. The Florida's Turnpike Enterprise (FTE) is conducting a separate PD&E Study along the Sawgrass Expressway which is at the western end of the project study area. As part of the Sawgrass study, FTE conducted bald eagle monitoring from October 2017 through May 2018 to determine status of the existing eagle nest (Nest ID BO003). The following is a summary of the data provided by FTE consultants. At the beginning of the nest monitoring, nest BO003 appeared partially degraded and by the end of the nest monitoring (May 2018), the nest was no longer present. An alternate nest (Alternate Nest 1) was identified during the monitoring events, which is located approximately 458 feet north of the Sawgrass Expressway/SW 10th Street interchange and 275 feet east of the Turnpike northbound off-ramp. Alternate Nest 1 was active during the 2017/2018 breeding season and produced one eagle that fledged. Figure 4.7.3 shows the location of the bald eagle nest.

Based on the survey results, most of the perch locations were within the adjacent pines close to the nest. Many of the flights to and from the nest were near the nest, though the eagles routinely flew south/southwest over the Turnpike northbound off-ramp. There were no documented flights over SW 10th Street during the survey.

6.2.6 Essential Fish Habitat

The Preferred Alternative is not located in federal marine waters and no Essential Fish Habitat (EFH) exists within the study area. Therefore, EFH Assessment was not required.

6.2.7 Highway Traffic Noise

A traffic noise study, dated March 2021, was performed in accordance with 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010), the FDOT's PD&E Manual, Part 2, Chapter 18, Highway Traffic Noise (January 14, 2019), and FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook (January 1, 2016). Design year traffic (2040) noise levels for the Build Alternative will approach or exceed the Noise Abatement Criteria (NAC) at 152 residences and six non-residential receptor sites within the project limits. Consequently, the feasibility and reasonableness of noise barriers were considered for those noise sensitive sites predicted to be impacted.

Five separate common noise environments (CNEs) were used to assess noise barriers for the noise sensitive sites that approach or exceed the NAC:

- E1S - Represents the 18 impacted residences in the Enclave Apartments at Waterways;
- E2S - Represents the 49 impacted residences in the Waterways, Independence Bay, and Freedom Square residential developments;
- E3N - Represents a ~300-foot segment of a recreation trail within Quiet Waters Park;
- E4S - Represents the 22 impacted residences within the Waterford Courtyards and Crystal Heights Communities and a non-residential site (i.e., Crystal Heights Park); and
- E5N - Represents the 63 impacted residences and two non-residential sites (i.e., park benches) within Century Village.

Table 4-1 in the NSR summarizes the results of the noise barrier analyses and recommendations for each of the locations where noise barriers were evaluated. Noise barriers at four of the CNEs (E1S, E2S, E4S, and E5N) were determined to be feasible and cost reasonable and are recommended for further consideration during the design phase and for public input. The locations of the recommended noise barriers are depicted on Figure 6.2.3. The cost per benefited site of the recommended conceptual noise barrier designs are

within FDOT's noise barrier cost criteria of equal to or less than $42,000 per benefited site and they will meet FDOT's noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites. The recommended noise barriers are expected to reduce traffic noise by at least 5 dB(A) at 243 residences including 139 of the 152 impacted residences. The estimated cost of the recommended barriers is $7,499,400. Additional noise barrier analysis will be performed during the Final Design phase to confirm the dimensions of the recommended noise barriers at these locations. Final decisions on barrier dimensions are made during the Final Design phase of the project and after determining the support for noise barriers from the benefited noise sensitive sites.

Noise barriers were not found to be cost reasonable at the Quiet Waters Park recreational trails (CNE-E3N). The usage of this trail was less than required to be cost reasonable; therefore, a noise barrier is not recommended for further consideration or construction at this location. Based on the noise analyses performed to date, there are no feasible solutions available to mitigate the noise impacts at this recreational area. Therefore, the traffic noise impacts associated with the Preferred Alternative at this recreational area would be an unavoidable consequence of the project.

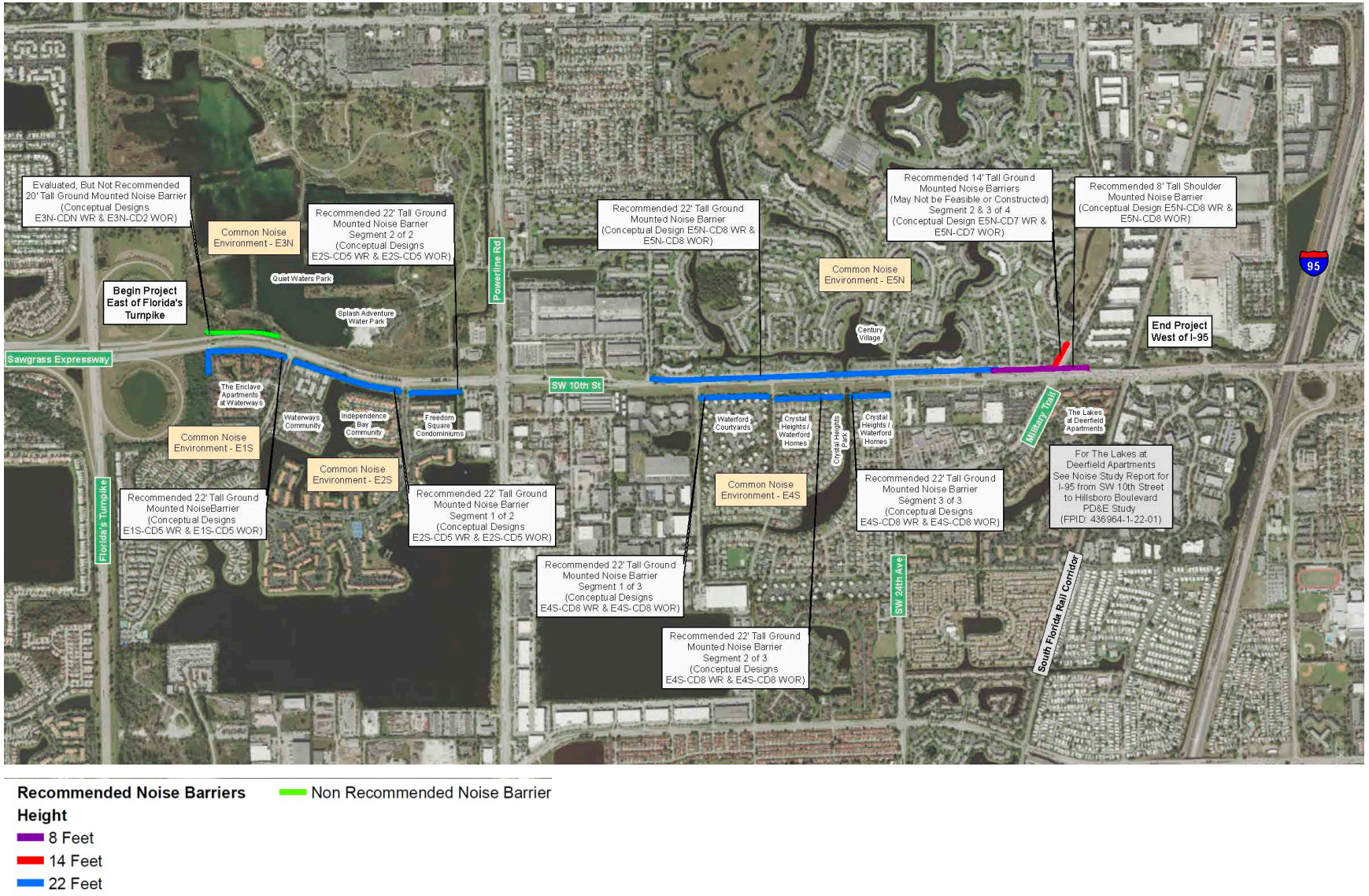
FDOT is committed to the construction of feasible noise abatement measures at the noise impacted locations identified in Table 4-1 of the NSR and Figure 6.2.3 upon the following conditions:

- Final recommendations on the construction of abatement measures is determined during the project's Final Design and through the public involvement process;
- Detailed noise analyses during the Final Design process support the need, feasibility, and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office; and
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

The noise abatement measures for the identified locations will likely be constructed if found feasible based on the contingencies listed above. If, during the Final Design phase, any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project reevaluation and at a time before the construction advertisement is approved.

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations because heavy equipment is typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residential, commercial, and institutional land uses. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's Standard Specifications for Road and Bridge Construction. A reassessment of the project corridor for additional sites particularly sensitive to construction noise and/or vibration will be performed during design to ensure that impacts to such sites are minimized.

Figure 6.2.3: Noise Barrier Recommendation Map



6.2.8 Contamination

A preliminary contamination screening evaluation of SW 10th Street between Florida's Turnpike and Military Trail was conducted to determine potential contamination from properties or operations located within the vicinity of the project. The preliminary evaluation included reviewing environmental databases and aerial imagery, performing visual reconnaissance of the project corridor and surrounding areas, obtaining pertinent environmental records from state and local agencies, and assigning potential contamination ratings for each source within, and adjacent to, the project corridor.

The contamination rating system is divided into four degrees of risk: No, Low, Medium, and High. A total of 23 potentially contaminated and/or known to be contaminated sites were identified along the project corridor with risk evaluation ratings ranging from No Risk to High Risk.

Figure 6.2.4 shows the locations of the potential contamination sites.

A summary of the risk assessment for the proposed project is as follows:

- No – 1 sites;
- Low – 11 sites;
- Medium – 10 sites; and
- High – 1 site.

Begin Project

End Project

Powerline Road

Military Trail

SW 10th St

SW 30th Ave

SW 28th Ave

SW 24th Ave

I-95

Pond Site 4

Pond Site 5

Pond Site 6

Pond Site 1

Pond Site 2

Pond Site 3

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Legend

- Project Location
- 500-foot buffer
- Pond Alternatives
- Contaminated Parcels

Possible Contamination Sites

Risk

- No
- Low
- Medium
- High

N 0 0.15 0.3 Miles

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Figure 6.2.4
Contaminated Sites Map

Table 6.2.3 provides a list of all medium and high rated sites in the project corridor.

Table 6.2.3: Medium and High Potential Contamination Sites

Site Number	Facility Name	Risk Evaluation Rating
1	Shell – First Coast Energy #1836	Medium
10	Brothers Dry Cleaning Inc./ One Price Dry Cleaner	Medium
12	City of Deerfield Beach – Turner Envirologic Area	Medium
13	East Coast Asphalt Corporation	Medium
16	Man-Con Inc./ Stan Freitag Equipment Rental, Inc.	Medium
17	Cen-Deer Management Inc./ Nanaks Landscaping/Trolley Tours	Medium
18	Cache Cleaners	Medium
19	Deerfield Beach City – Well #17	Medium
20	Rexall Sundown, Inc.	Medium
22	Hardrives Asphalt Company	Medium
23	Century Village Golf Course	High

The Preferred Alternative was designed to avoid or minimize impacts to known or potential contamination sites, where possible. However, some sites could not be avoided, and minor right-of-way acquisition is required. The project impacts three medium risk sites and one high risk site:

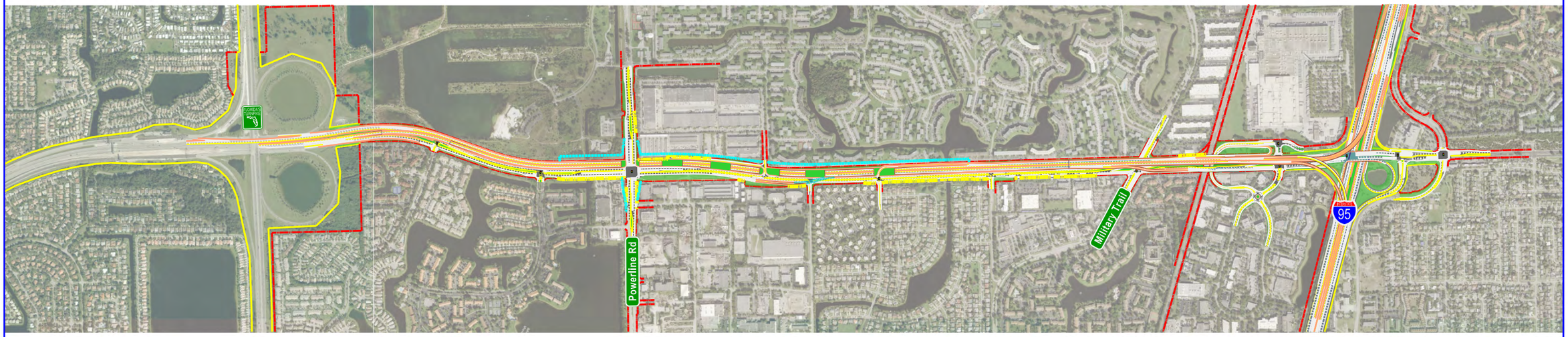
- Site 1 - Shell First Coast Energy - Medium Risk;
- Site 10 - Brothers Dry Cleaning Inc. - Medium Risk;
- Site 17 - Cen-Deer Management, Inc./Nanaks Landscaping/Trolley Tours – Medium Risk; and
- Site 23 - Century Village Golf Course pond site alternatives – High Risk.

Based on these risk ratings, construction activities may encounter soil or groundwater contamination, which can potentially impact worker health, the environment, and construction schedule and costs if these sites are not addressed during subsequent phases of the project. Because contaminated soil and groundwater has the potential to exist at or in close proximity to the project corridor, further site-specific Level II Assessments (including groundwater and soil sampling) at all medium and high risk rated sites will be conducted, if needed, and addressed during future phases.

Appendix A

Tier 1 Alternatives

APPENDIX A - TIER 1 ALTERNATIVES



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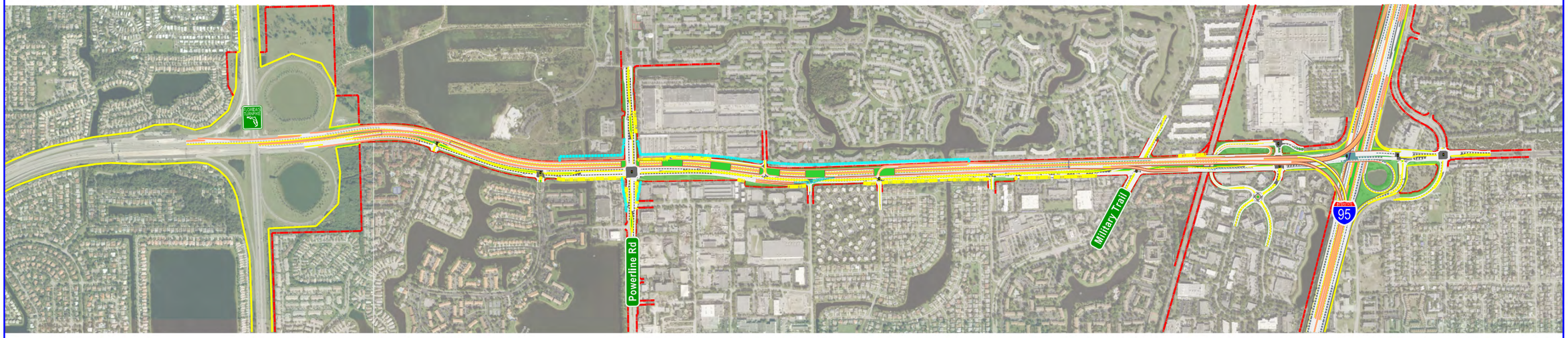
Financial Project ID: 439891-1-22-02
ETDM No: 14291

APPENDIX A - TIER 1 ALTERNATIVES



INDEX OF DRAWINGS

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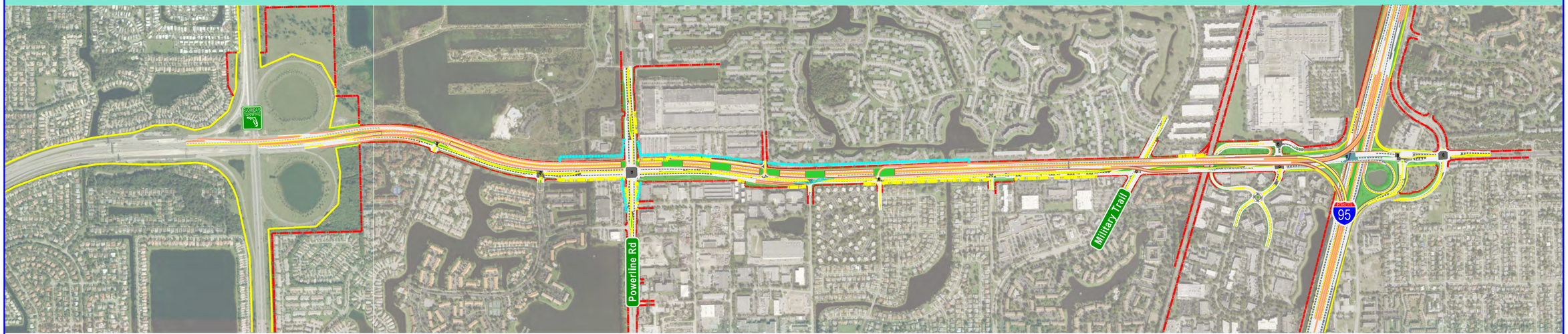
15 - 28	CENTER ALIGNMENT ALTERNATIVE

NORTH ALIGNMENT ALTERNATIVE



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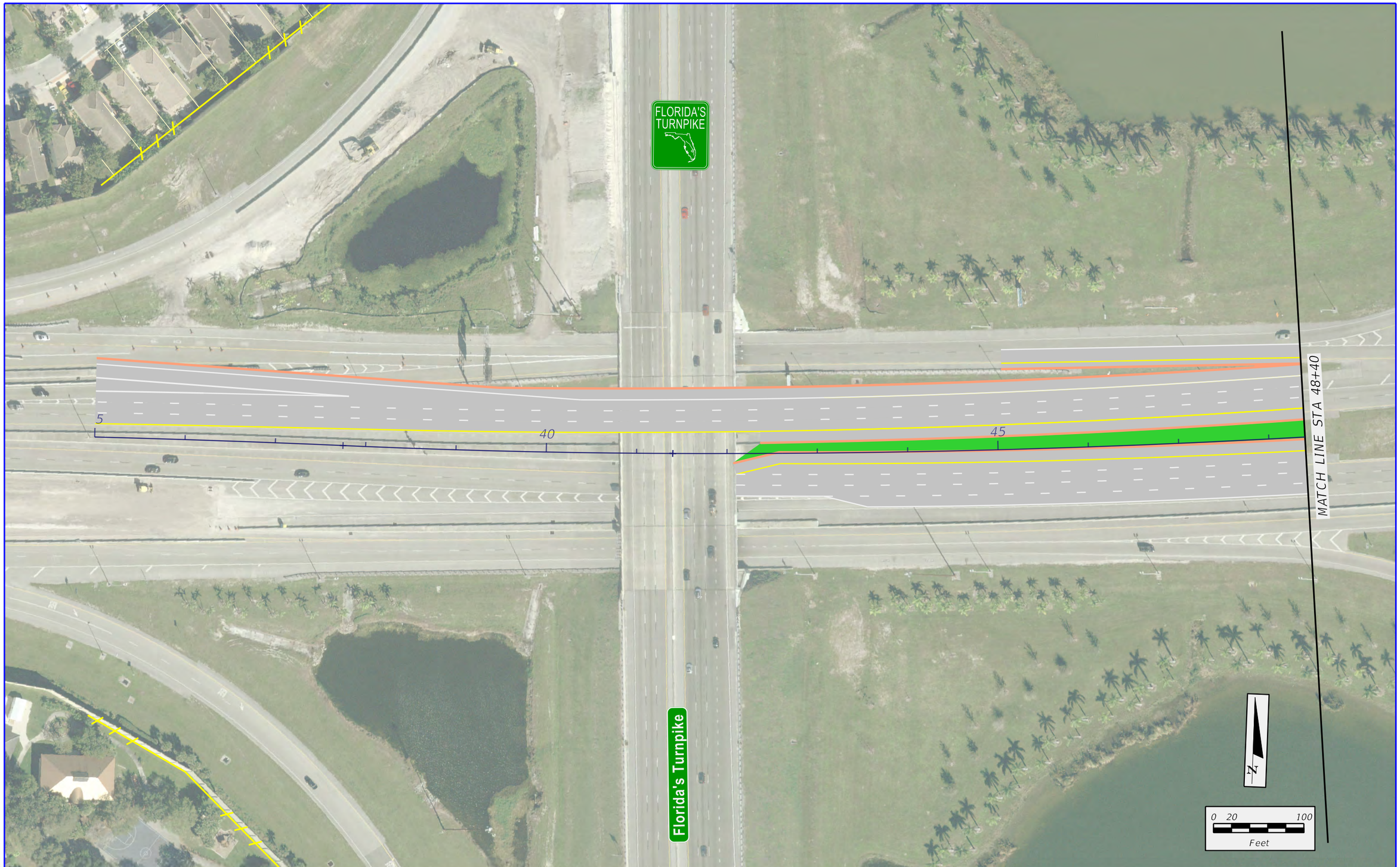
SHEET NO.
iii



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FDOT SW 10th Street Connector

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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-1

QUIET WATERS PARK

THE ENCLAVE APARTMENTS AT WATERWAYS

MATCH LINE STA 48+40

MATCH LINE STA 61+80

50

55

60

N

0 20 100
Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-2

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

N

0 20 100

Feet

FDOT

SW 10th Street Connector

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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.

A-3

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100

Feet

LEGEND

EXISTING RIGHT-OF-WAY
EXISTING PARCEL LINES
LIMITED ACCESS RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED DEPRESSED MANAGED LANES
PROPOSED LOCAL SW 10TH ST
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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-4

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QUIET WATERS PARK

DEERFIELD STORAGE

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100

Feet

FDOT

SW 10th Street Connector

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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.

A-5

DEERFIELD STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

PUBLIC STORAGE

N

0 20 100

Feet

FDOT

SW 10th Street Connector

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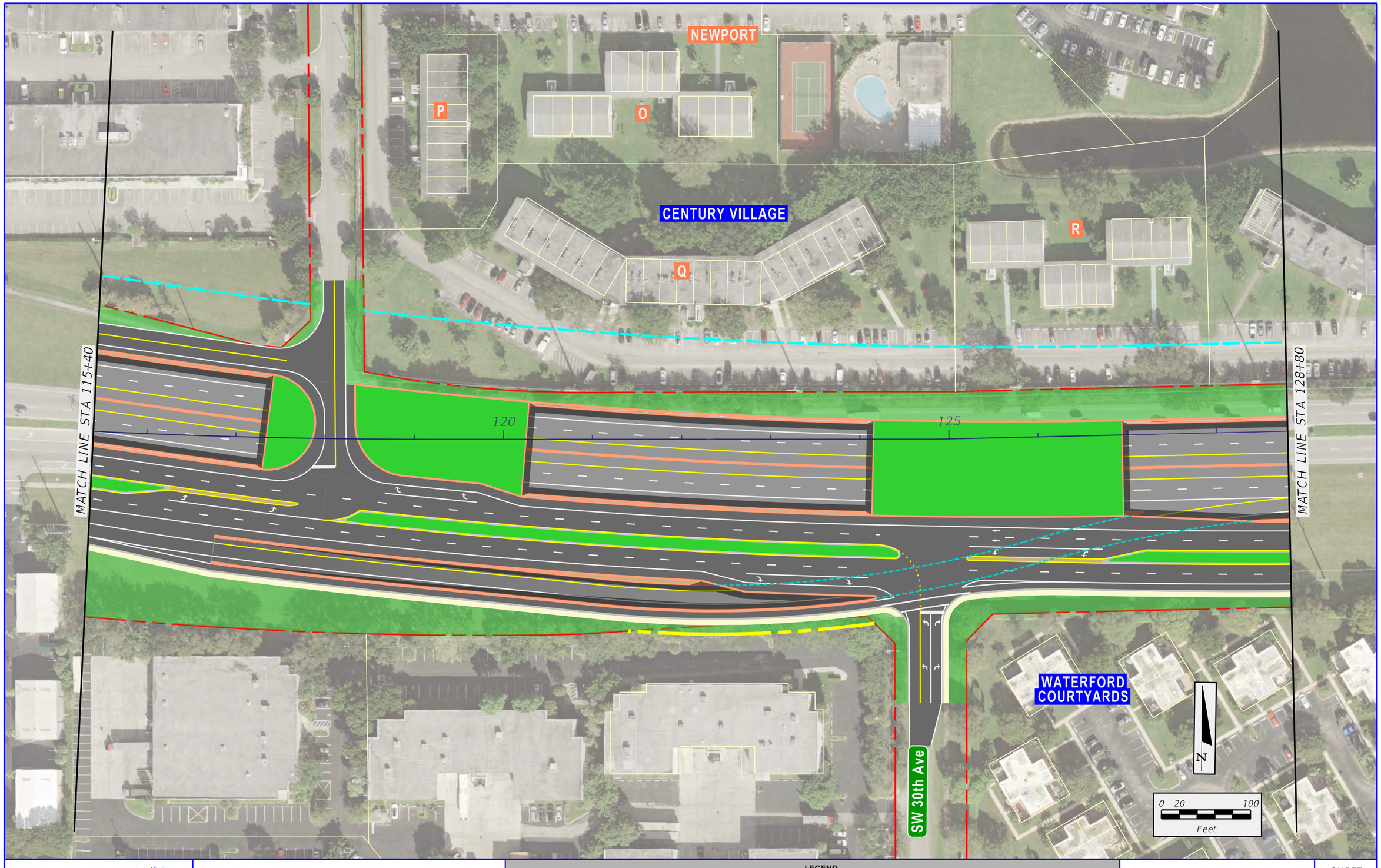
APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.

A-6



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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

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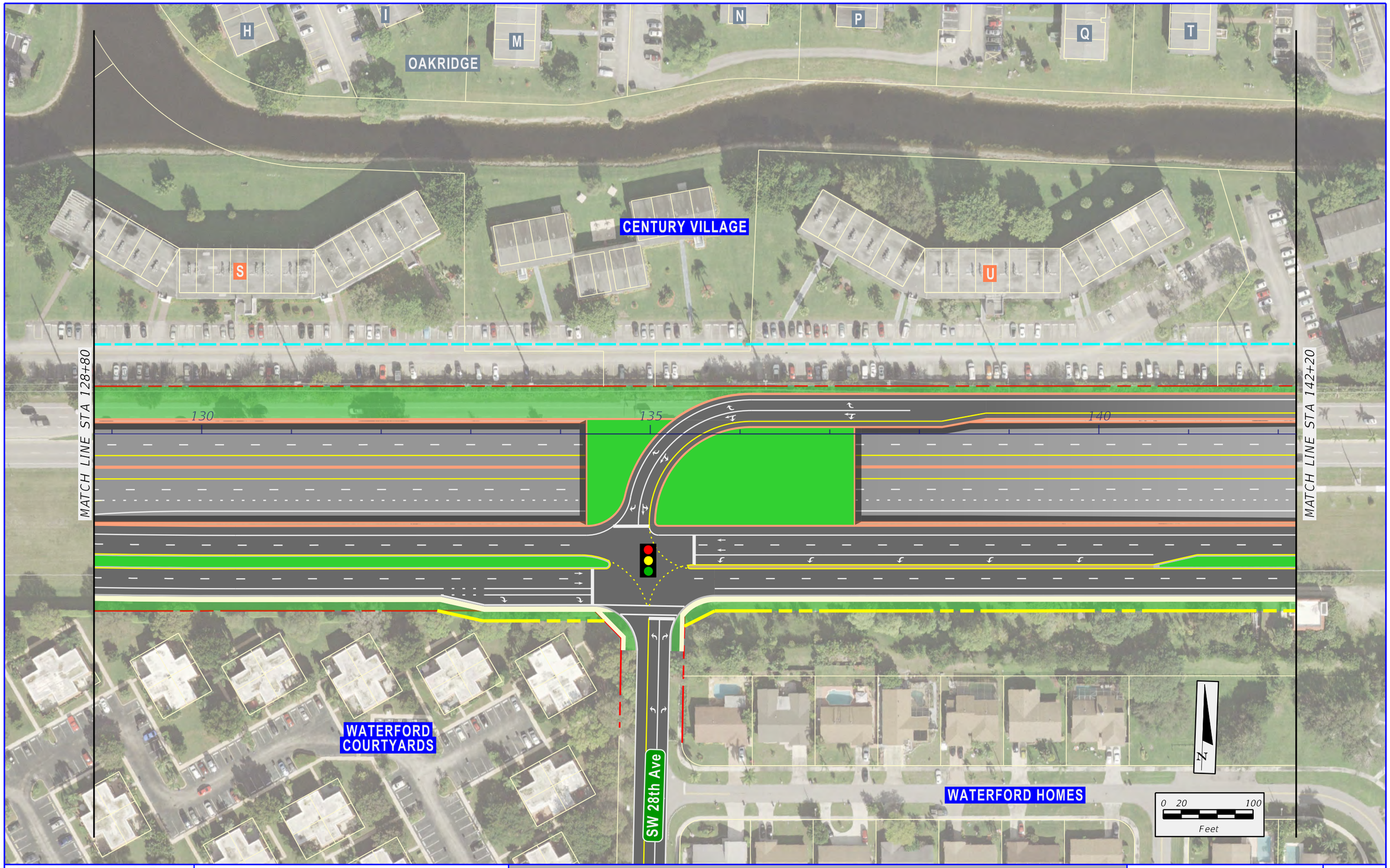
A-7



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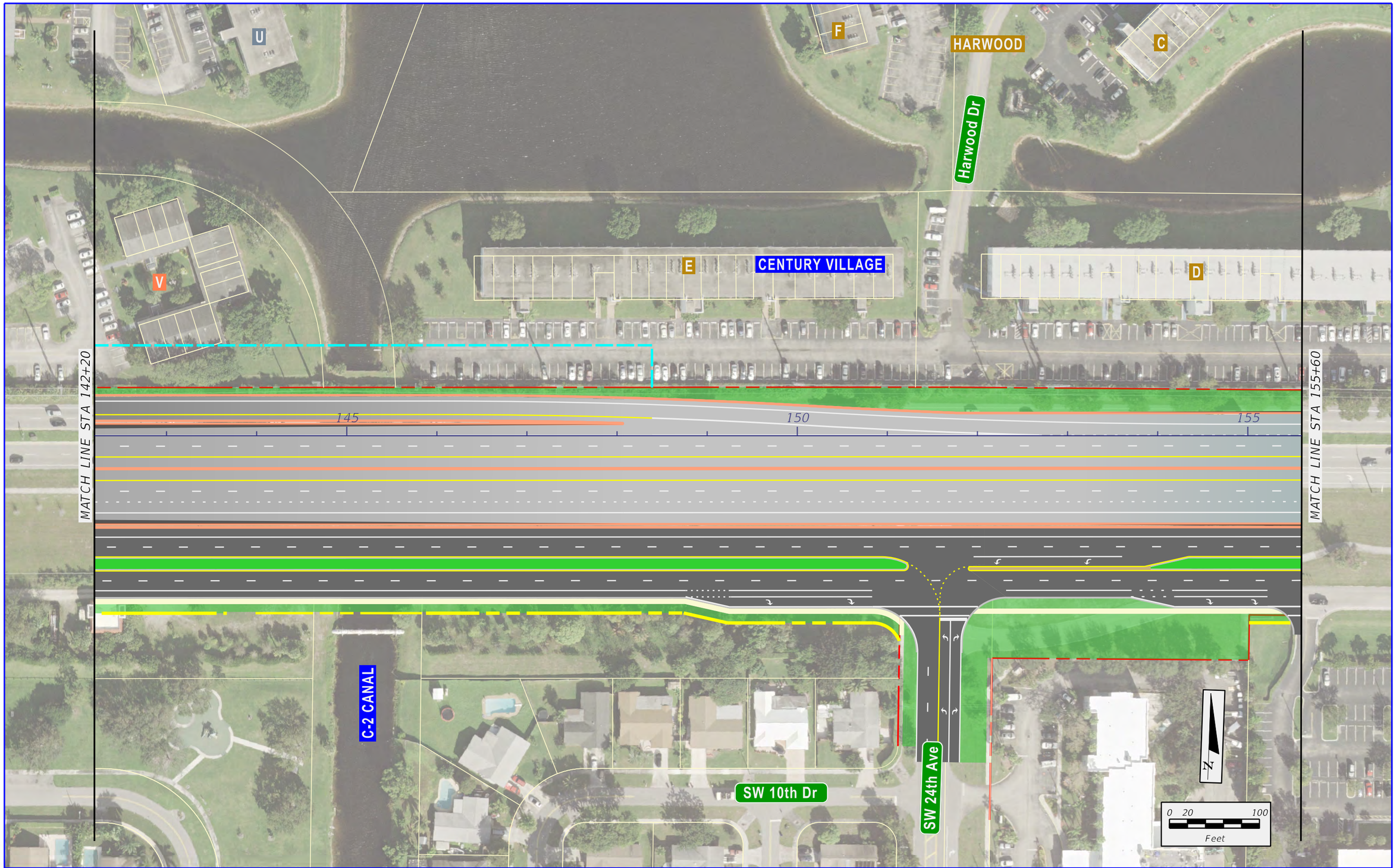
APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-8



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- PROPOSED TRAFFIC SIGNAL

APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-9

N

L

I

FARNHAM

CENTURY VILLAGE

O

MATCH LINE STA 155+60

160

165

MATCH LINE STA 169+00

SAWGRASS PROMENADE

WALMART

N

0 20 100

Feet

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX A NORTH ALIGNMENT ALTERNATIVE

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

SHEET NO. A-10

F

C

P

CENTURY VILLAGE

MATCH LINE STA 169+00

170

175

180

MATCH LINE STA 182+40

Military Trail

THE LAKES AT
DEERFIELD APARTMENTS

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
NORTH ALIGNMENT
ALTERNATIVE

SHEET NO.

A-11

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

N

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-12

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MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

EXISTING RIGHT-OF-WAY	PROPOSED DEPRESSED MANAGED LANES	PROPOSED 4TH LEVEL BRIDGE
EXISTING PARCEL LINES	PROPOSED LOCAL SW 10TH ST	TEMPORARY EASEMENT
LIMITED ACCESS RIGHT-OF-WAY	PROPOSED 2ND LEVEL BRIDGE	PROPOSED TRAFFIC SIGNAL
PROPOSED RIGHT-OF-WAY	PROPOSED 3RD LEVEL BRIDGE	

LEGEND

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-13

BRANDSMART USA

MATCH LINE STA 209+20

210

215

220

N

0 20 100
Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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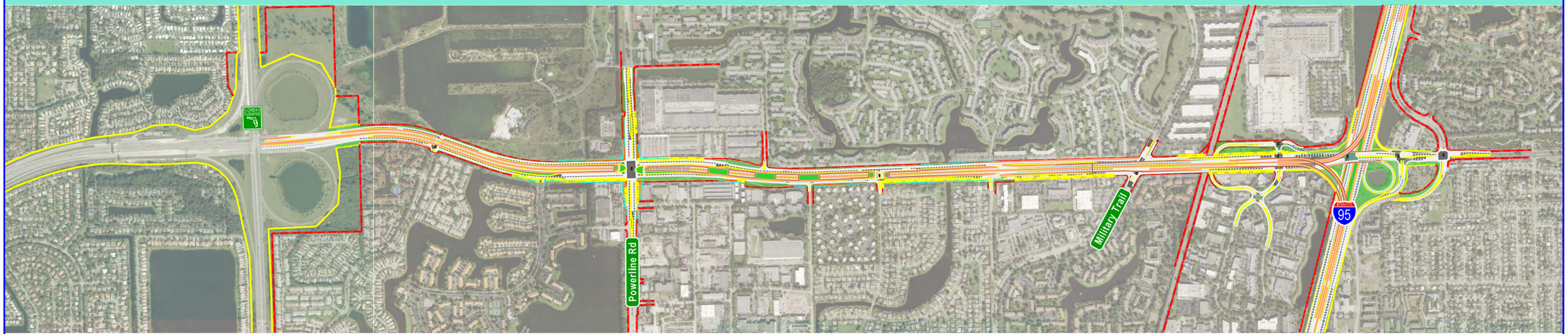
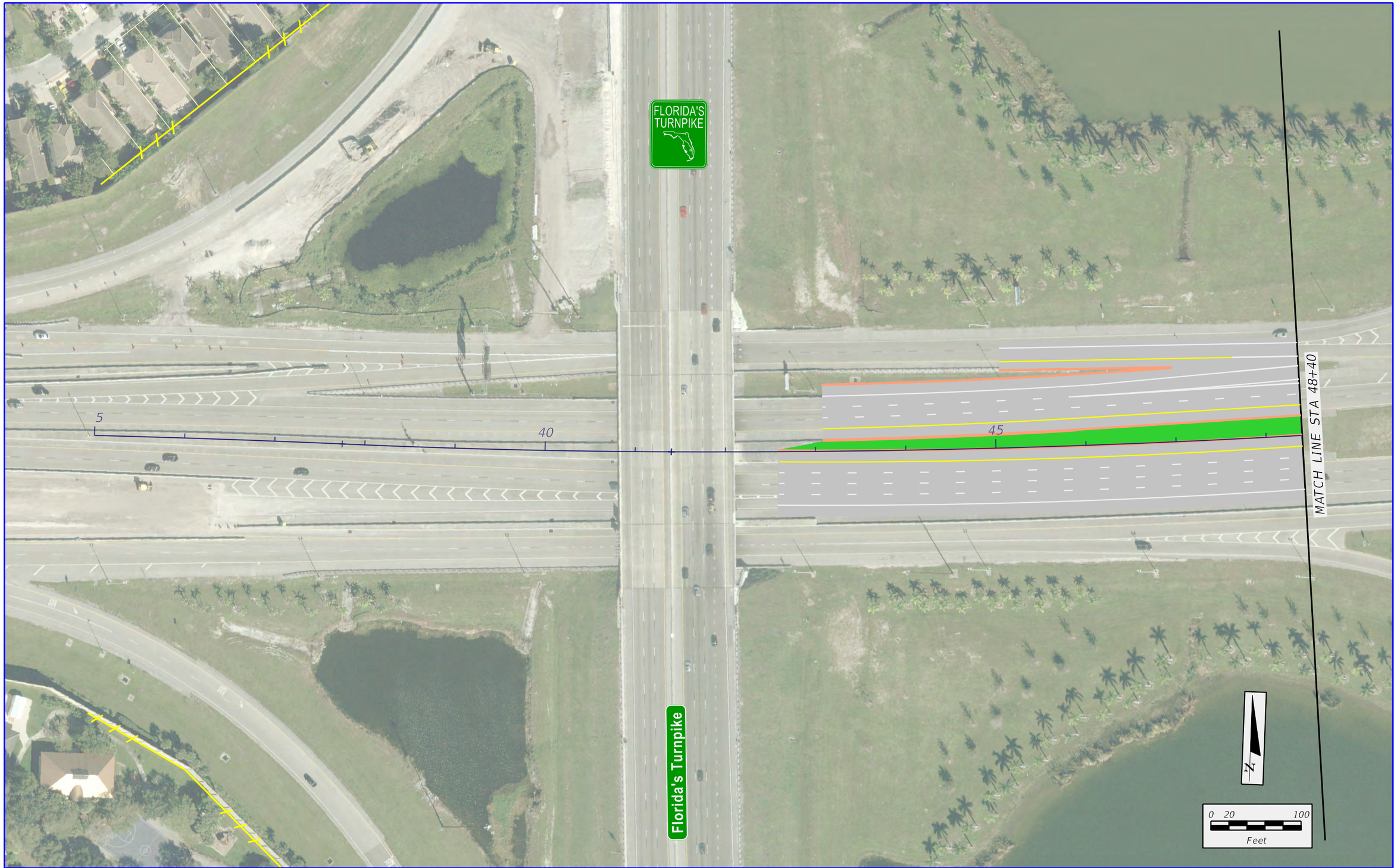
APPENDIX A
NORTH ALIGNMENT ALTERNATIVE

SHEET NO.
A-14

CENTER ALIGNMENT ALTERNATIVE





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FDOT | SW 10th Street Connector

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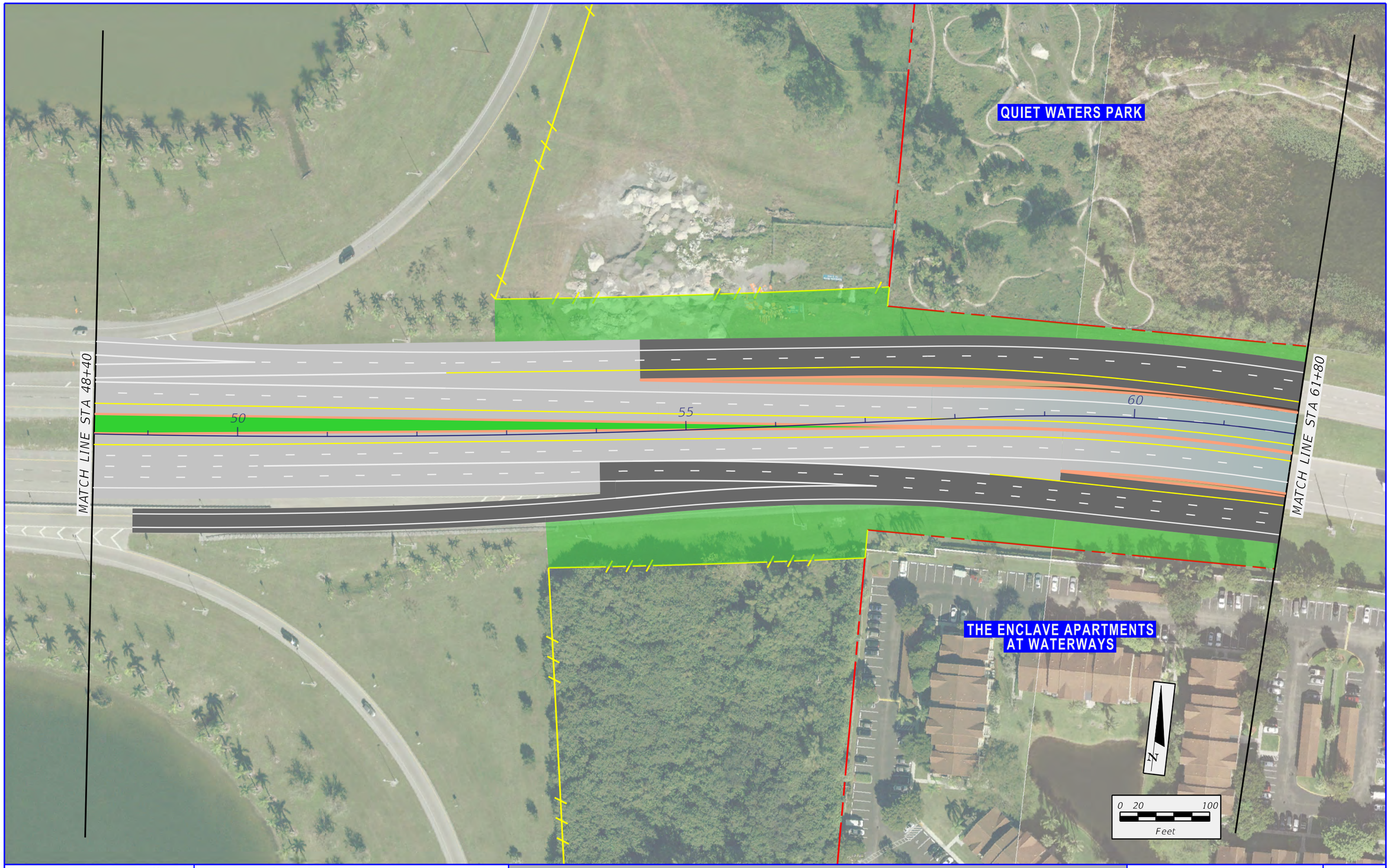
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-15



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FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-16

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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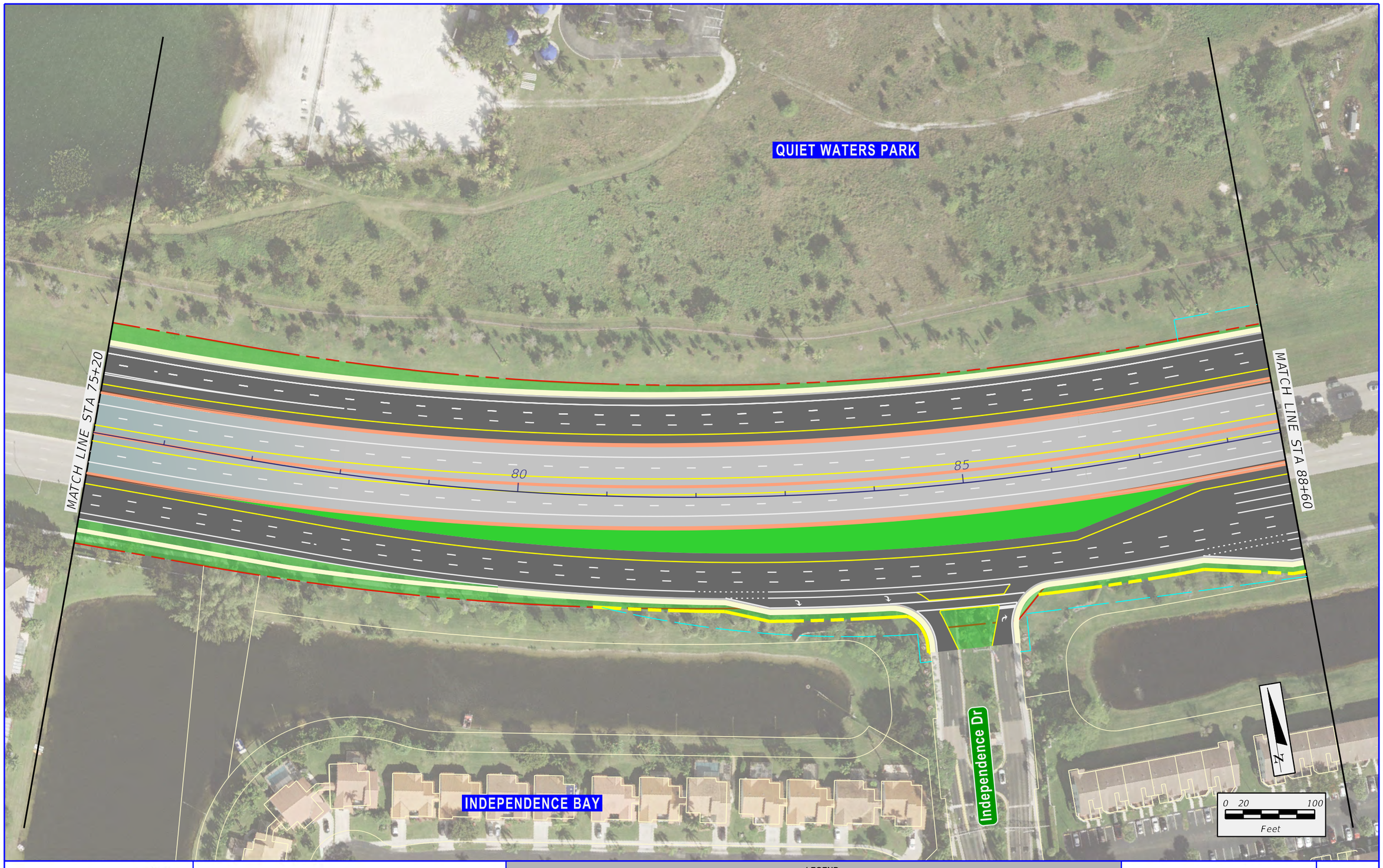
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.

A-17



FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-18

QUIET WATERS PARK

DEERFIELD STORAGE

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.

A-19

DEERFIELD STORAGE

PUBLIC STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

N

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-20

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FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
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- TEMPORARY EASEMENT
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APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-21

OAKRIDGE

CENTURY VILLAGE

WATERFORD COURTYARDS

WATERFORD HOMES

SW 28th Ave

MATCH LINE STA 128+80

MATCH LINE STA 142+20

130 135 140

N

0 20 100
Feet

SR 869 / SW 10th Street PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-22

U

F

HARWOOD

C

Harwood Dr

V

E

CENTURY VILLAGE

D

MATCH LINE STA 142+20

115

150

155

MATCH LINE STA 155+60

C-2 CANAL

SW 10th Dr

SW 24th Ave

N

0 20 100

Feet

SW 10th Street Connector

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- TEMPORARY EASEMENT
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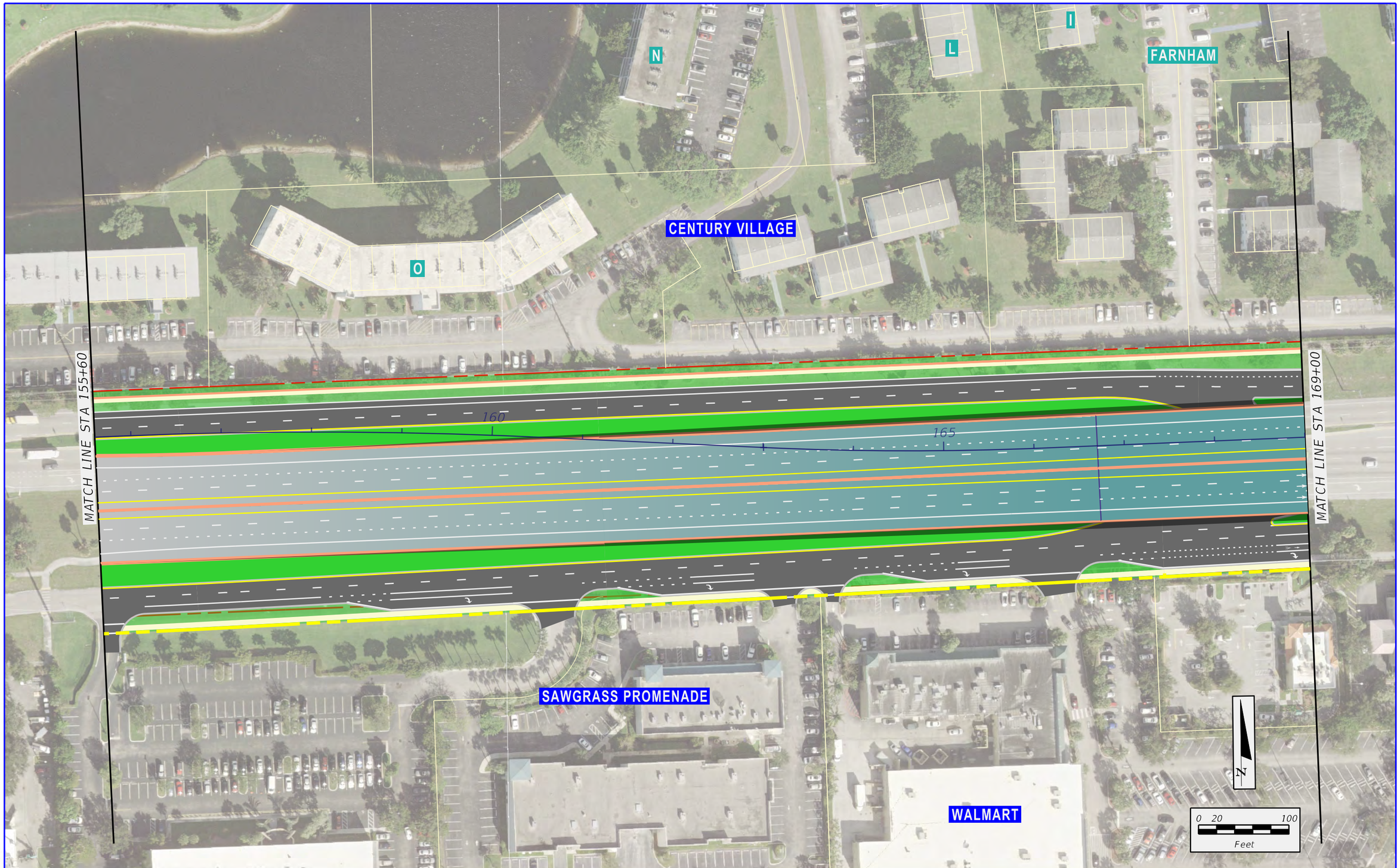
APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.

A-23



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LEGEND

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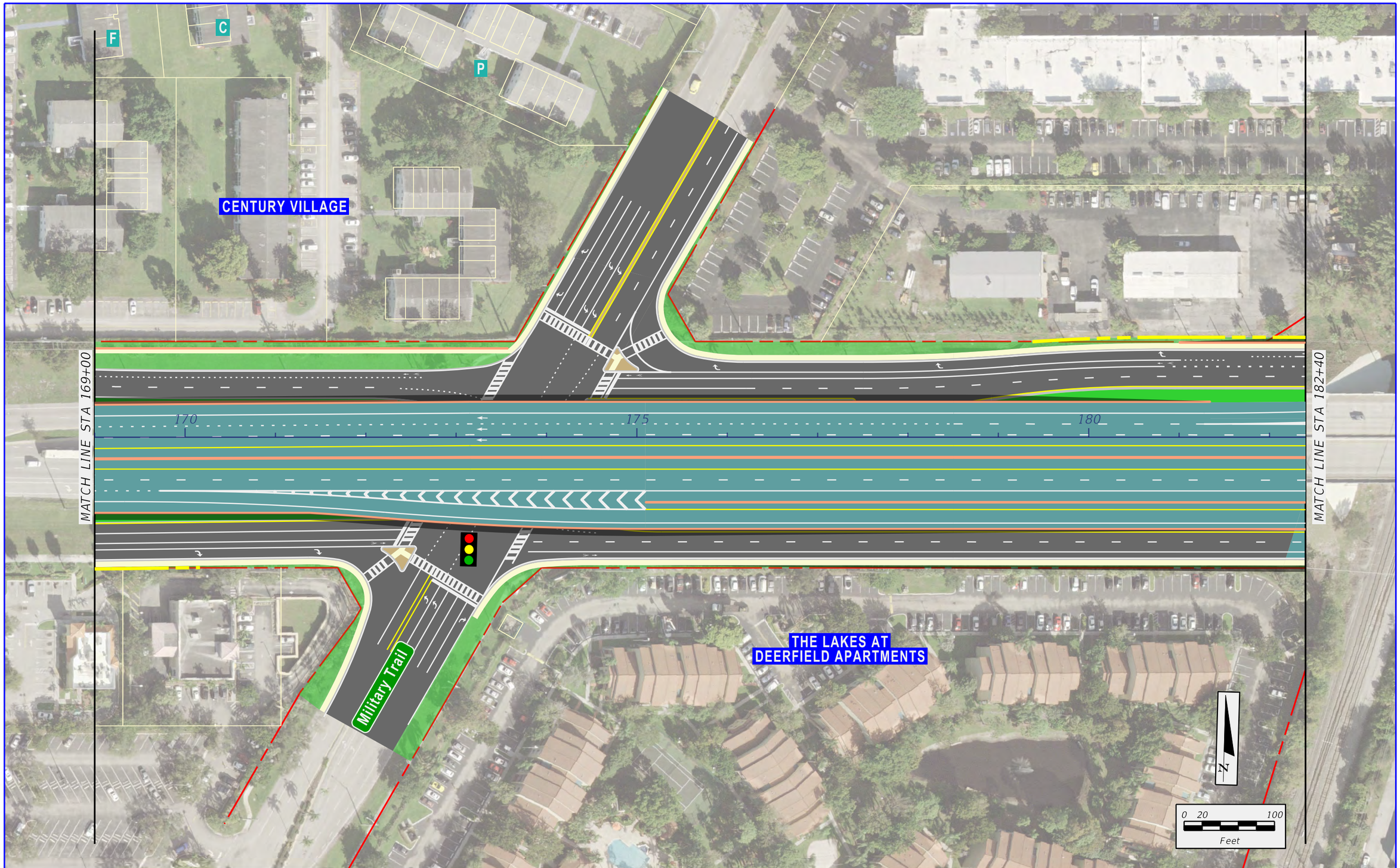
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-24



SR 869 / SW 10th Street Connector PD&E Study from
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
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- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-25

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

0 20 100

Feet

N

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	LEGEND EXISTING RIGHT-OF-WAY EXISTING PARCEL LINES LIMITED ACCESS RIGHT-OF-WAY PROPOSED RIGHT-OF-WAY PROPOSED DEPRESSED MANAGED LANES PROPOSED LOCAL SW 10TH ST PROPOSED 2ND LEVEL BRIDGE PROPOSED 3RD LEVEL BRIDGE PROPOSED 4TH LEVEL BRIDGE TEMPORARY EASEMENT PROPOSED TRAFFIC SIGNAL	APPENDIX A CENTER ALIGNMENT ALTERNATIVE	SHEET NO. A-26

MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
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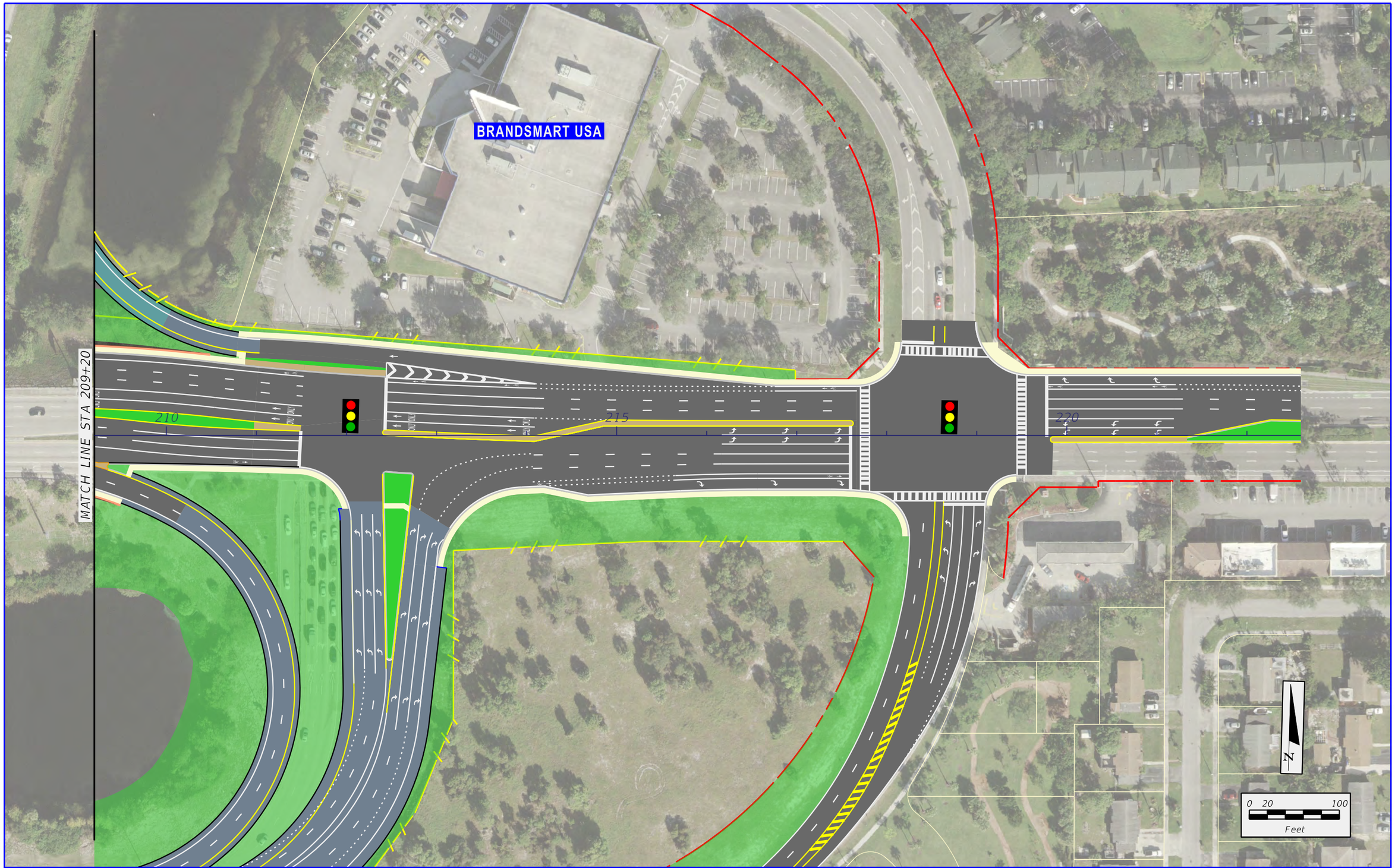
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.

A-27



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SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED DEPRESSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED TRAFFIC SIGNAL

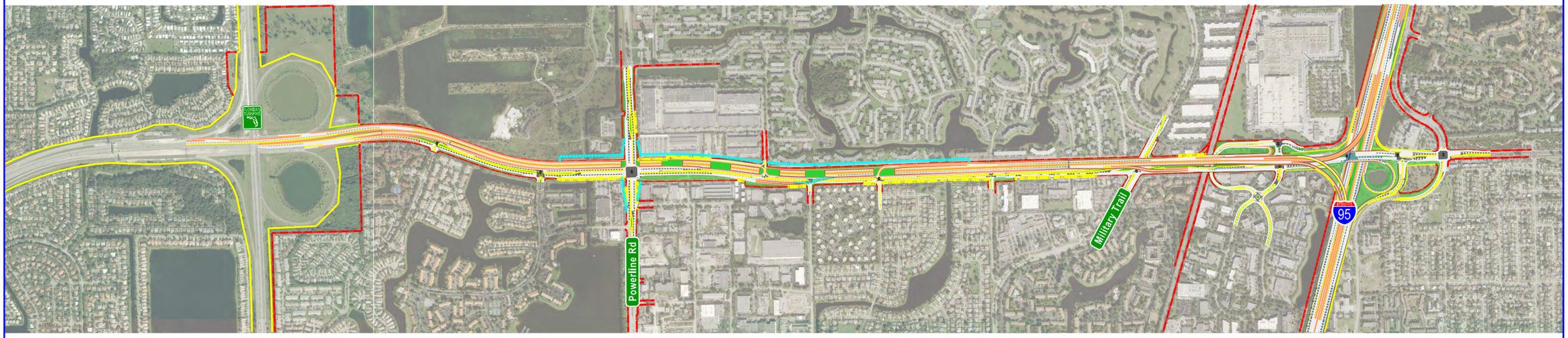
APPENDIX A
CENTER ALIGNMENT ALTERNATIVE

SHEET NO.
A-28

Appendix B

Tier 2 Alternatives

APPENDIX B - TIER 2 ALTERNATIVES



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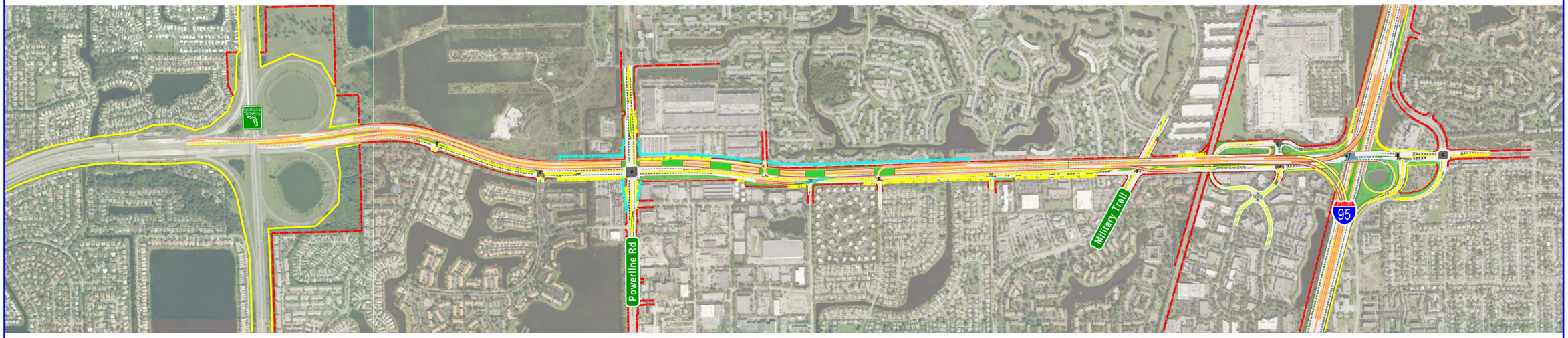
Financial Project ID: 439891-1-22-02
ETDM No: 14291

APPENDIX B - TIER 2 ALTERNATIVES



INDEX OF DRAWINGS

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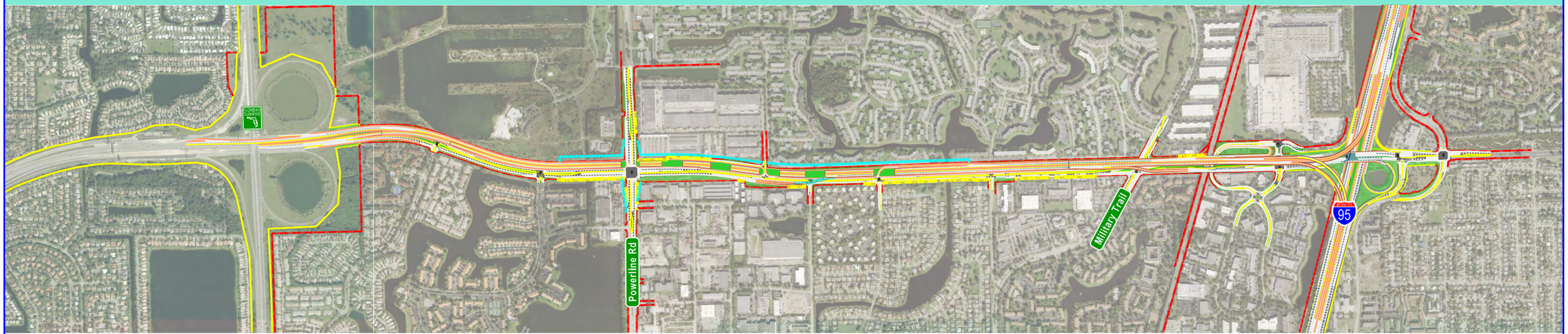
15 - 28	DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE
29 - 42	DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE
43 - 56	DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE
57 - 70	NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE
71 - 79	FULL DEPRESSED PROFILE
80 - 88	DEPRESSED WESTBOUND EXIT RAMP PROFILE
89 - 97	DEPRESSED EASTBOUND MANAGED LANES PROFILE
98 - 106	DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE
107 - 115	NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

FULL DEPRESSED ALTERNATIVE



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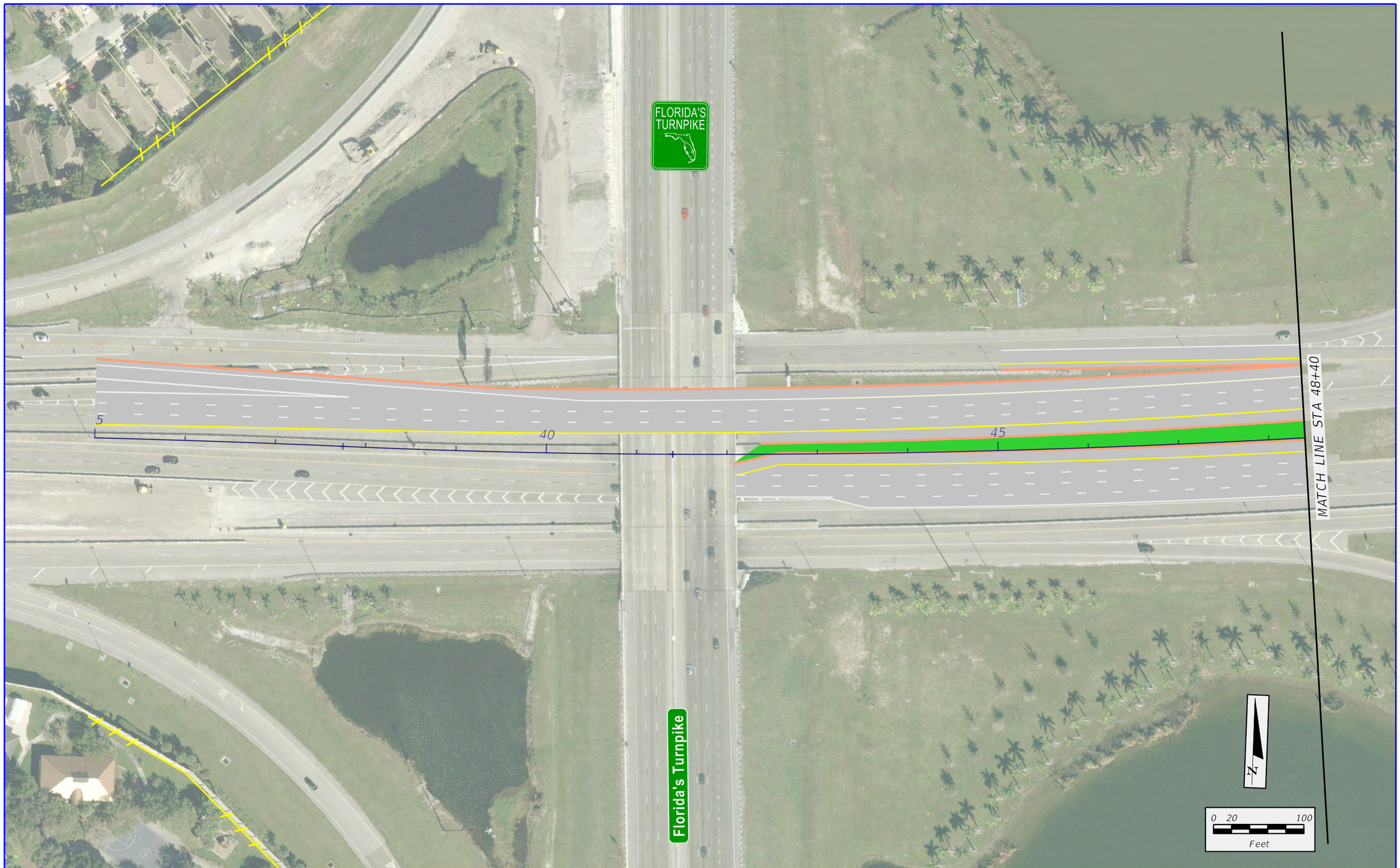
SHEET NO.
iii



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LEGEND

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- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-1

QUIET WATERS PARK

THE ENCLAVE APARTMENTS AT WATERWAYS

MATCH LINE STA 48+40

MATCH LINE STA 61+80

50

55

60

N

0 20 100
Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-2

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

N

0 20 100

Feet

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-3

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QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100
Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

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APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-4

QUIET WATERS PARK

DEERFIELD STORAGE

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-5

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donohuem

DEERFIELD STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

PUMP STATION

PUBLIC STORAGE

N

0 20 100
Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

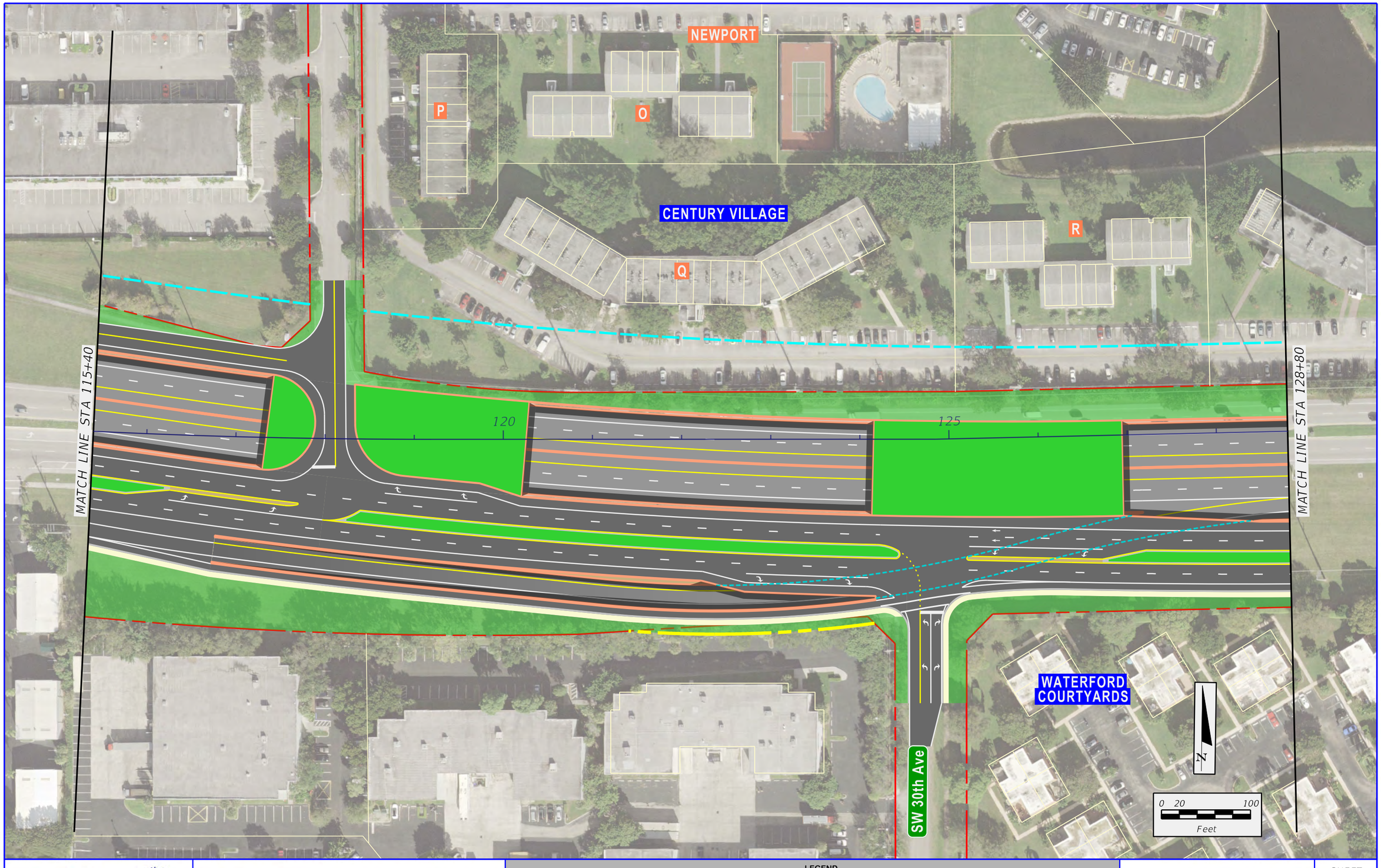
FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-6



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-7

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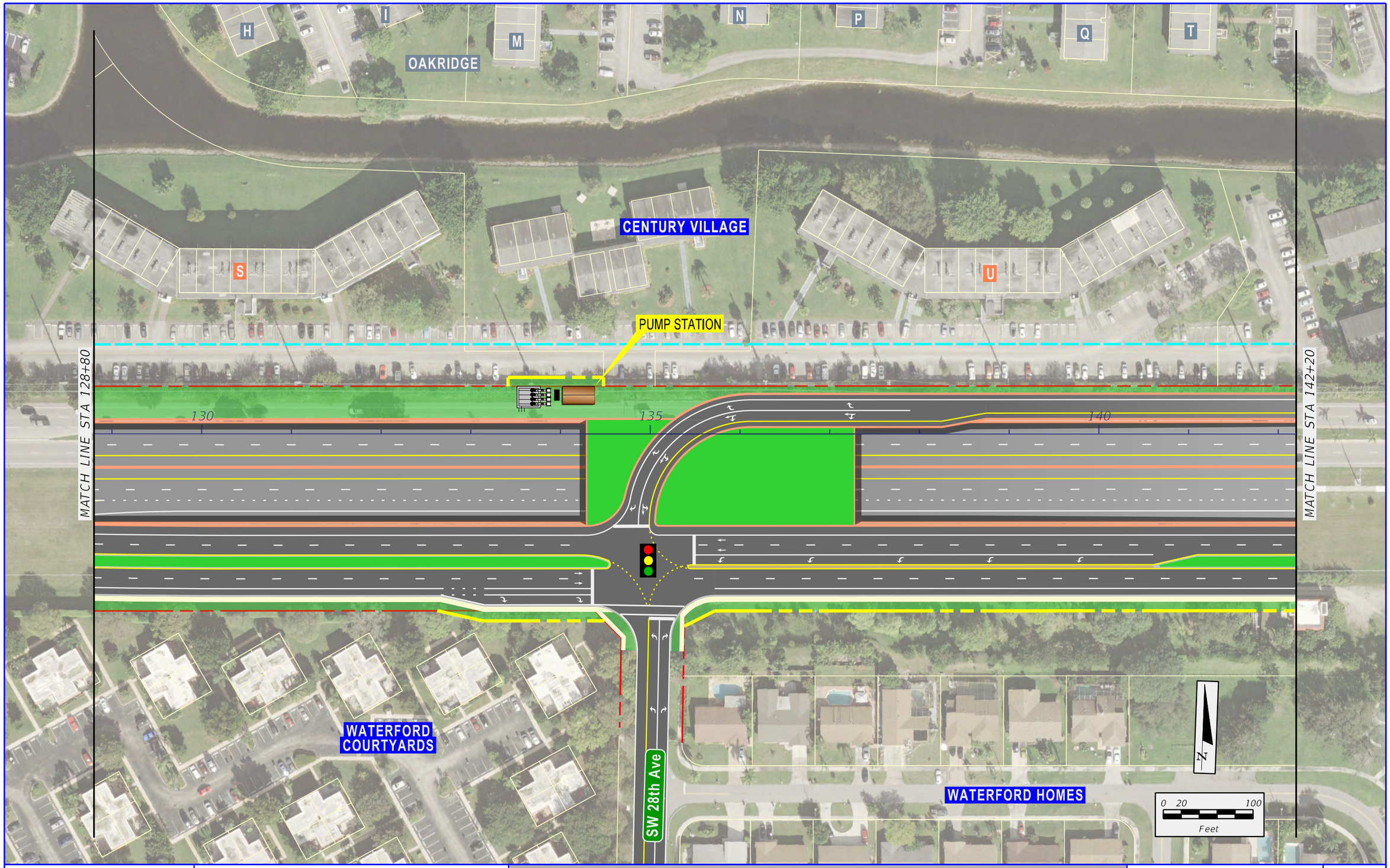


FDOT | SW 10th Street Connector

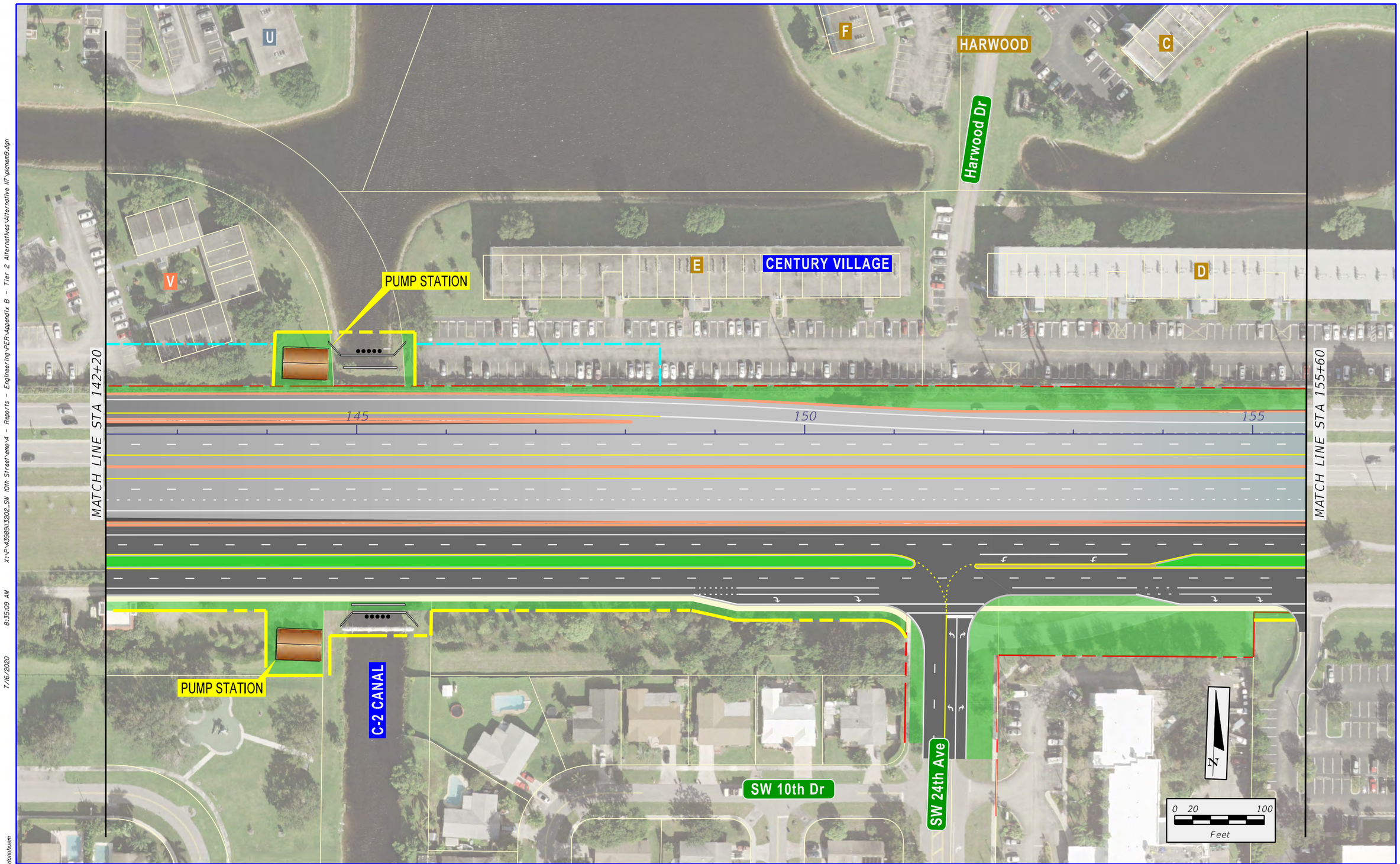
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-8



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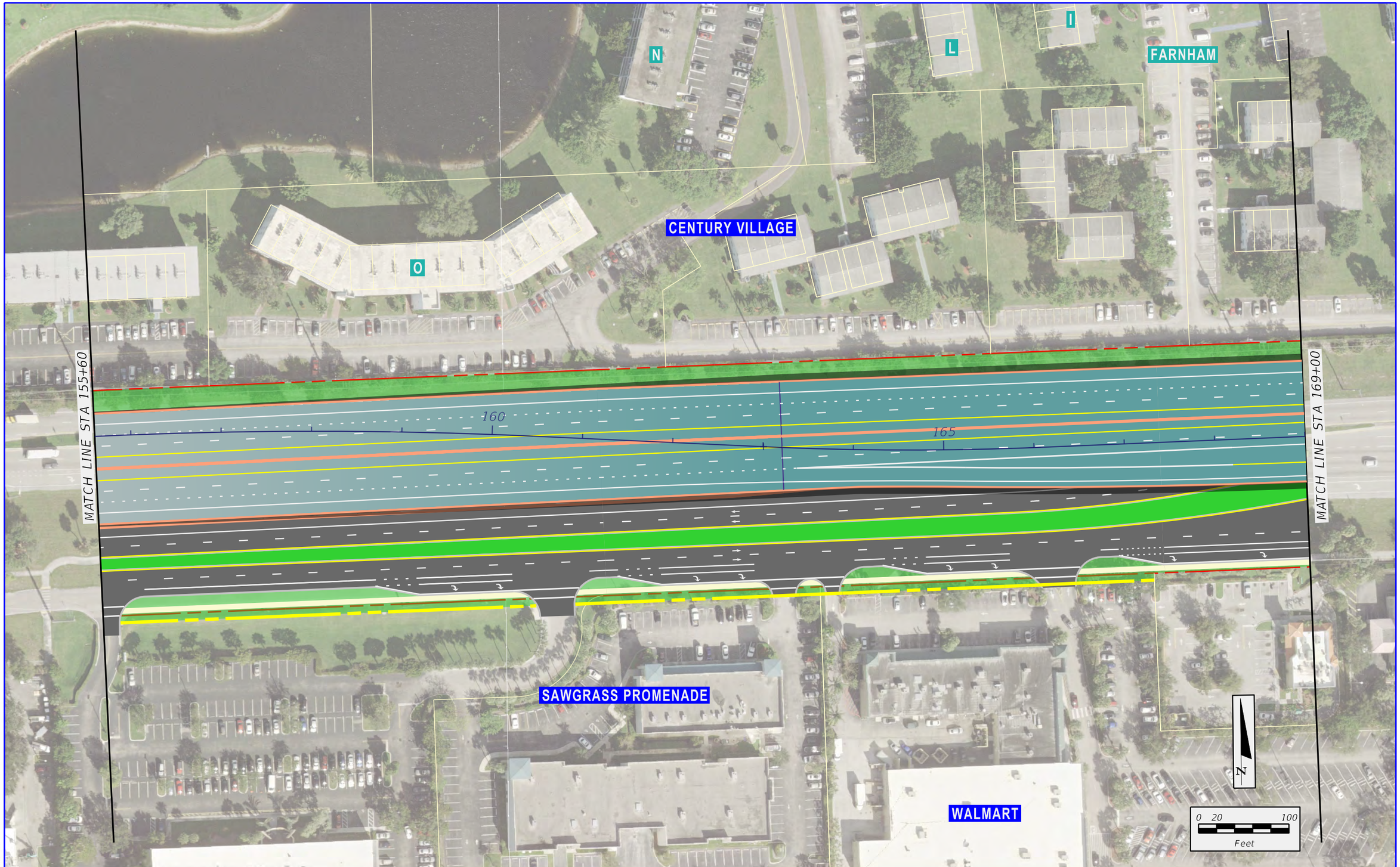
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

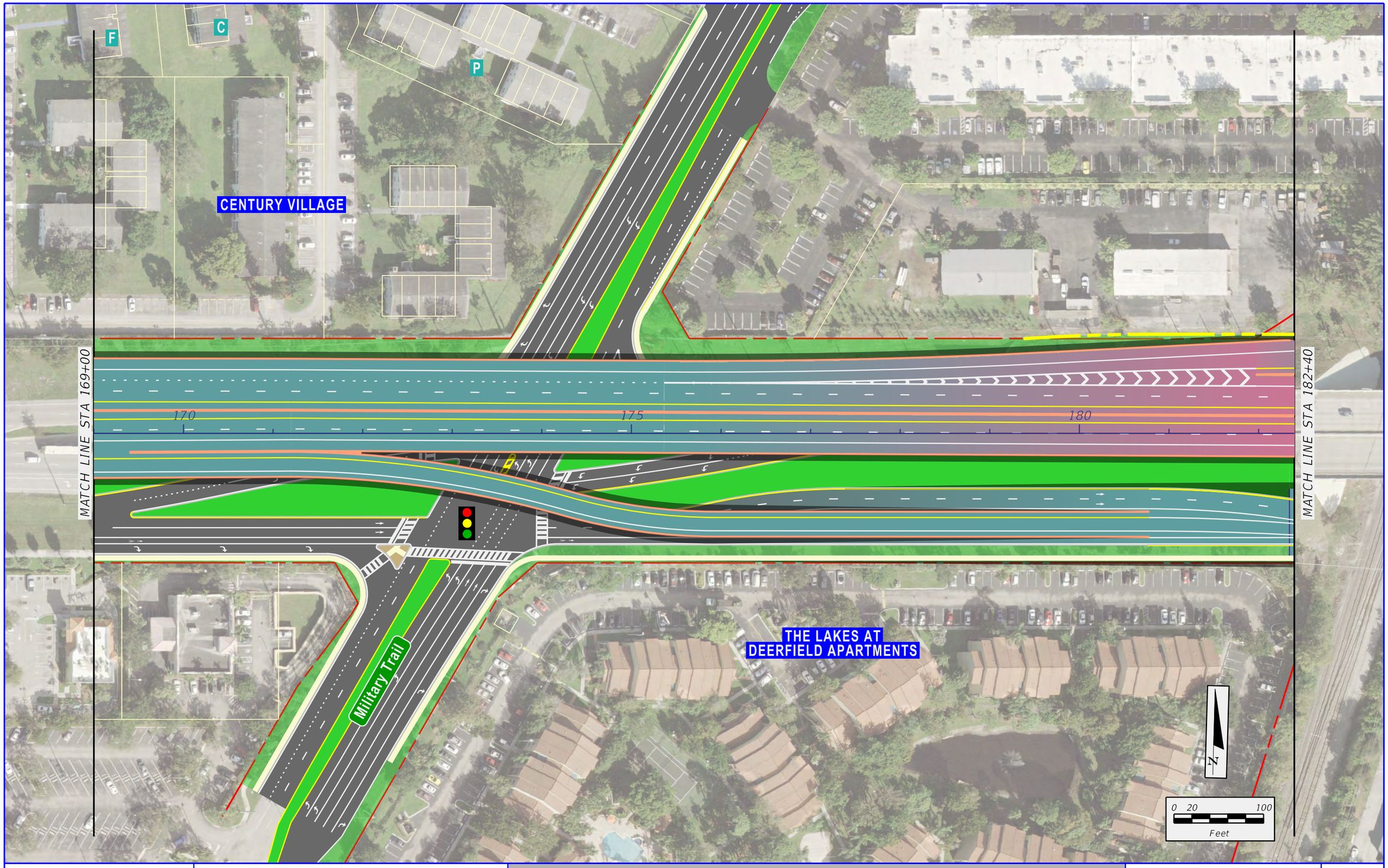
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-9



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	LEGEND EXISTING RIGHT-OF-WAY EXISTING PARCEL LINES LIMITED ACCESS RIGHT-OF-WAY PROPOSED RIGHT-OF-WAY PROPOSED MANAGED LANES PROPOSED LOCAL SW 10TH ST PROPOSED 2ND LEVEL BRIDGE PROPOSED 3RD LEVEL BRIDGE PROPOSED 4TH LEVEL BRIDGE TEMPORARY EASEMENT PROPOSED SIDEWALK PROPOSED TRAFFIC SIGNAL	APPENDIX B FULL DEPRESSED ALTERNATIVE



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.
B-11

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

N

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	LEGEND EXISTING RIGHT-OF-WAY EXISTING PARCEL LINES LIMITED ACCESS RIGHT-OF-WAY PROPOSED RIGHT-OF-WAY PROPOSED MANAGED LANES PROPOSED LOCAL SW 10TH ST PROPOSED 2ND LEVEL BRIDGE PROPOSED 3RD LEVEL BRIDGE PROPOSED 4TH LEVEL BRIDGE TEMPORARY EASEMENT PROPOSED SIDEWALK PROPOSED TRAFFIC SIGNAL	APPENDIX B FULL DEPRESSED ALTERNATIVE SHEET NO. B-12

MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.

B-13

BRANDSMART USA

MATCH LINE STA 209+20

210

215

220

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

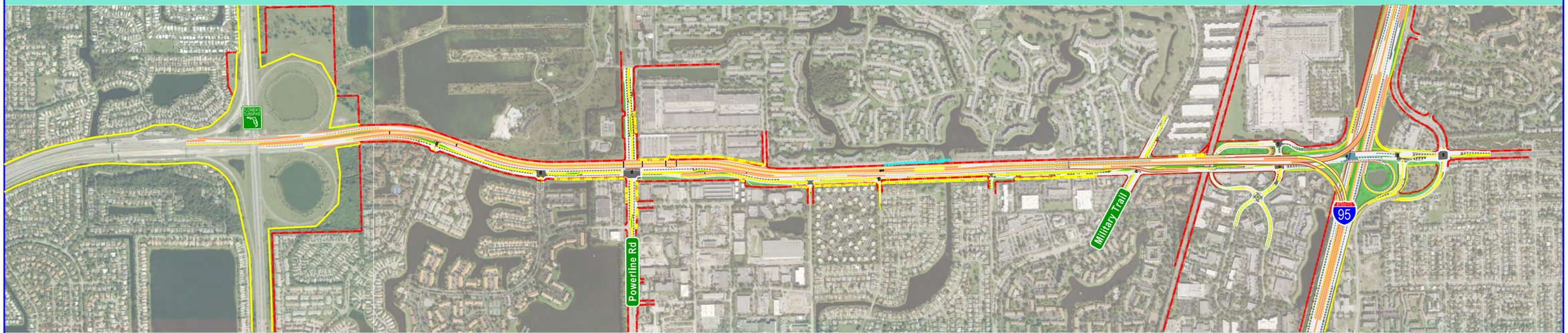
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

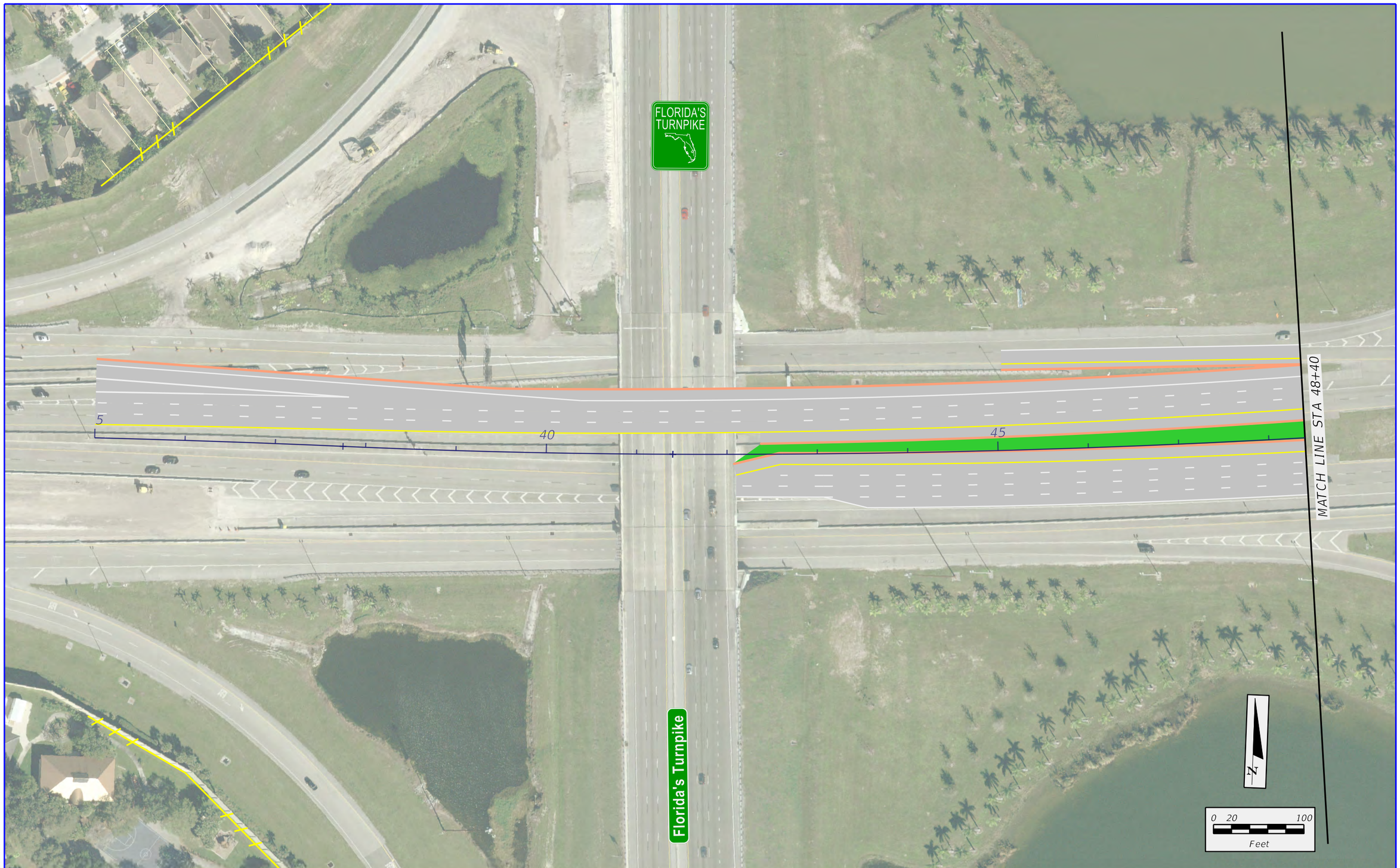
APPENDIX B
FULL DEPRESSED ALTERNATIVE

SHEET NO.

B-14

DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE





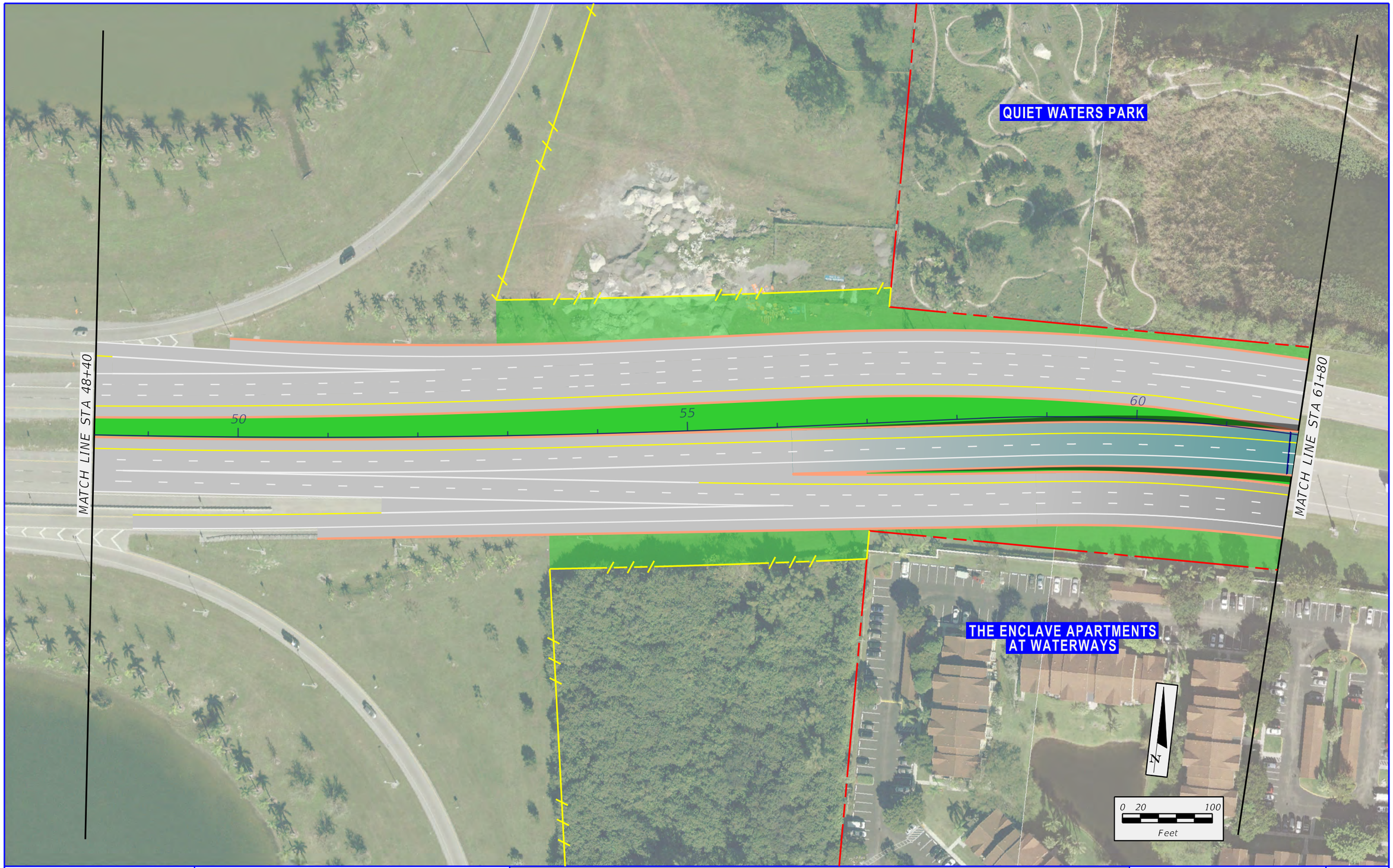
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-15



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-16

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-17

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QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
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APPENDIX B
DEPRESSED WESTBOUND
EXIT RAMP ALTERNATIVE

SHEET NO.
B-18

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QUIET WATERS PARK

DEERFIELD STORAGE

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100

Feet

LEGEND

EXISTING RIGHT-OF-WAY
EXISTING PARCEL LINES
LIMITED ACCESS RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED MANAGED LANES
PROPOSED LOCAL SW 10TH ST
PROPOSED 2ND LEVEL BRIDGE
PROPOSED 3RD LEVEL BRIDGE
PROPOSED 4TH LEVEL BRIDGE
TEMPORARY EASEMENT
PROPOSED SIDEWALK
PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-19

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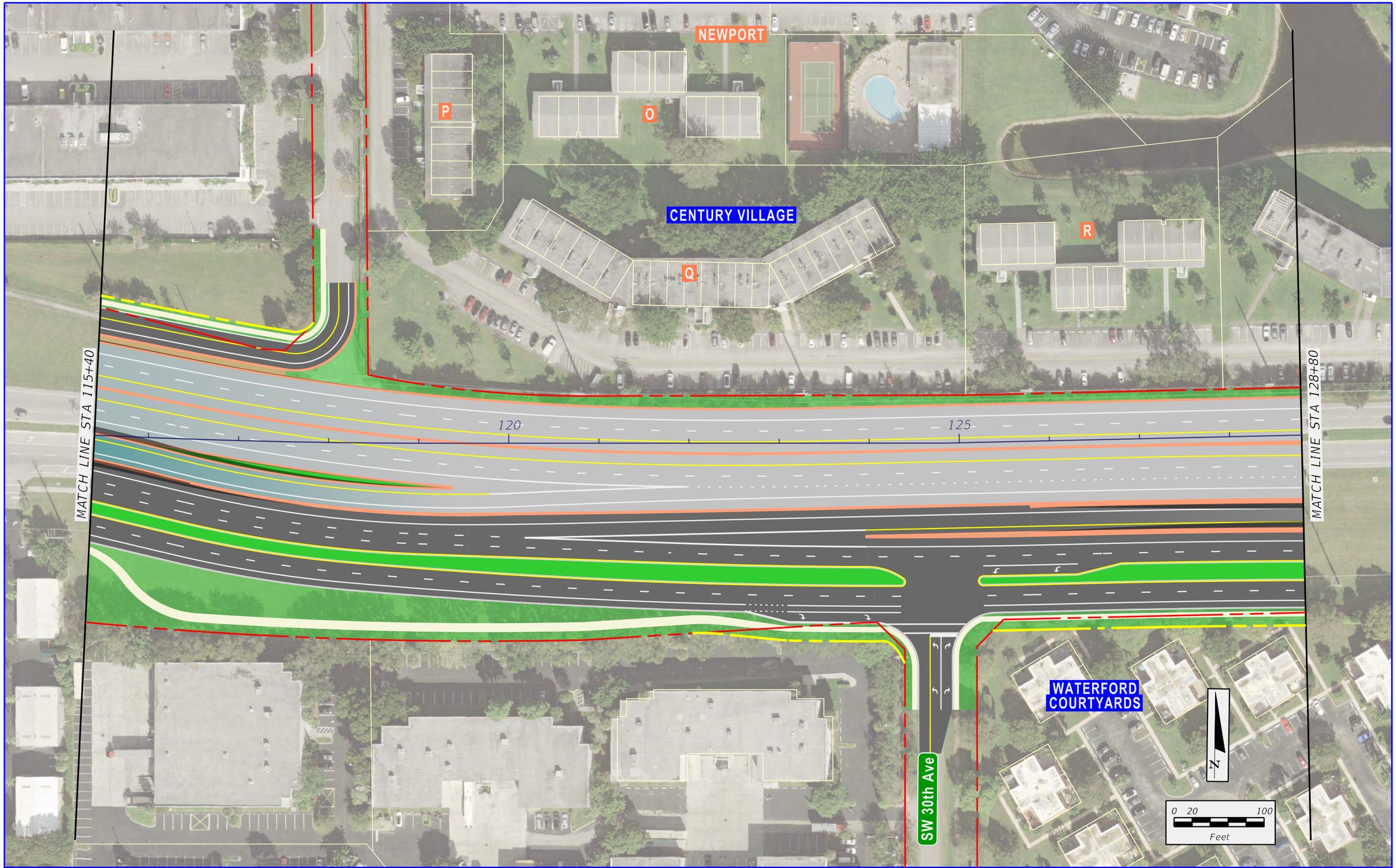
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-20



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-21

OAKRIDGE

CENTURY VILLAGE

WATERFORD COURTYARDS

WATERFORD HOMES

SW 28th Ave

PUMP STATION

MATCH LINE STA 128+80

MATCH LINE STA 142+20

130 135 140

0 20 100
Feet

N

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-22

U

F

HARWOOD

C

Harwood Dr

V

E

CENTURY VILLAGE

D

MATCH LINE STA 142+20

145

150

155

MATCH LINE STA 155+60

C-2 CANAL

SW 10th Dr

SW 24th Ave

N

0 20 100

Feet

LEGEND

EXISTING RIGHT-OF-WAY	PROPOSED MANAGED LANES	PROPOSED 4TH LEVEL BRIDGE
EXISTING PARCEL LINES	PROPOSED LOCAL SW 10TH ST	TEMPORARY EASEMENT
LIMITED ACCESS RIGHT-OF-WAY	PROPOSED 2ND LEVEL BRIDGE	PROPOSED SIDEWALK
PROPOSED RIGHT-OF-WAY	PROPOSED 3RD LEVEL BRIDGE	PROPOSED TRAFFIC SIGNAL

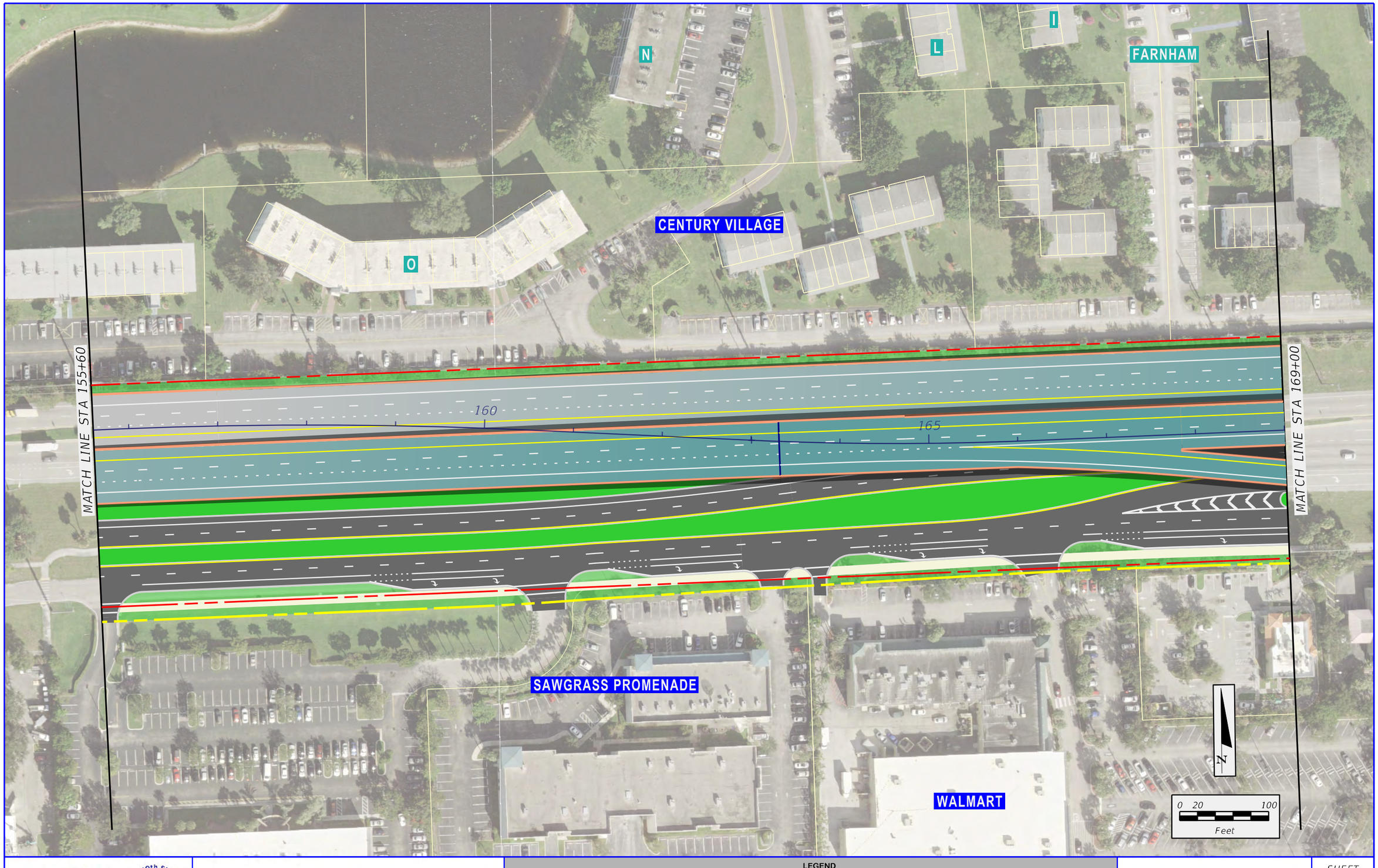
FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-23



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-24

F

C

P

CENTURY VILLAGE

MATCH LINE STA 169+00

170

175

180

MATCH LINE STA 182+40

Military Trail

THE LAKES AT
DEERFIELD APARTMENTS

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND
EXIT RAMP ALTERNATIVE

SHEET NO.

B-25

FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO. B-26

MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

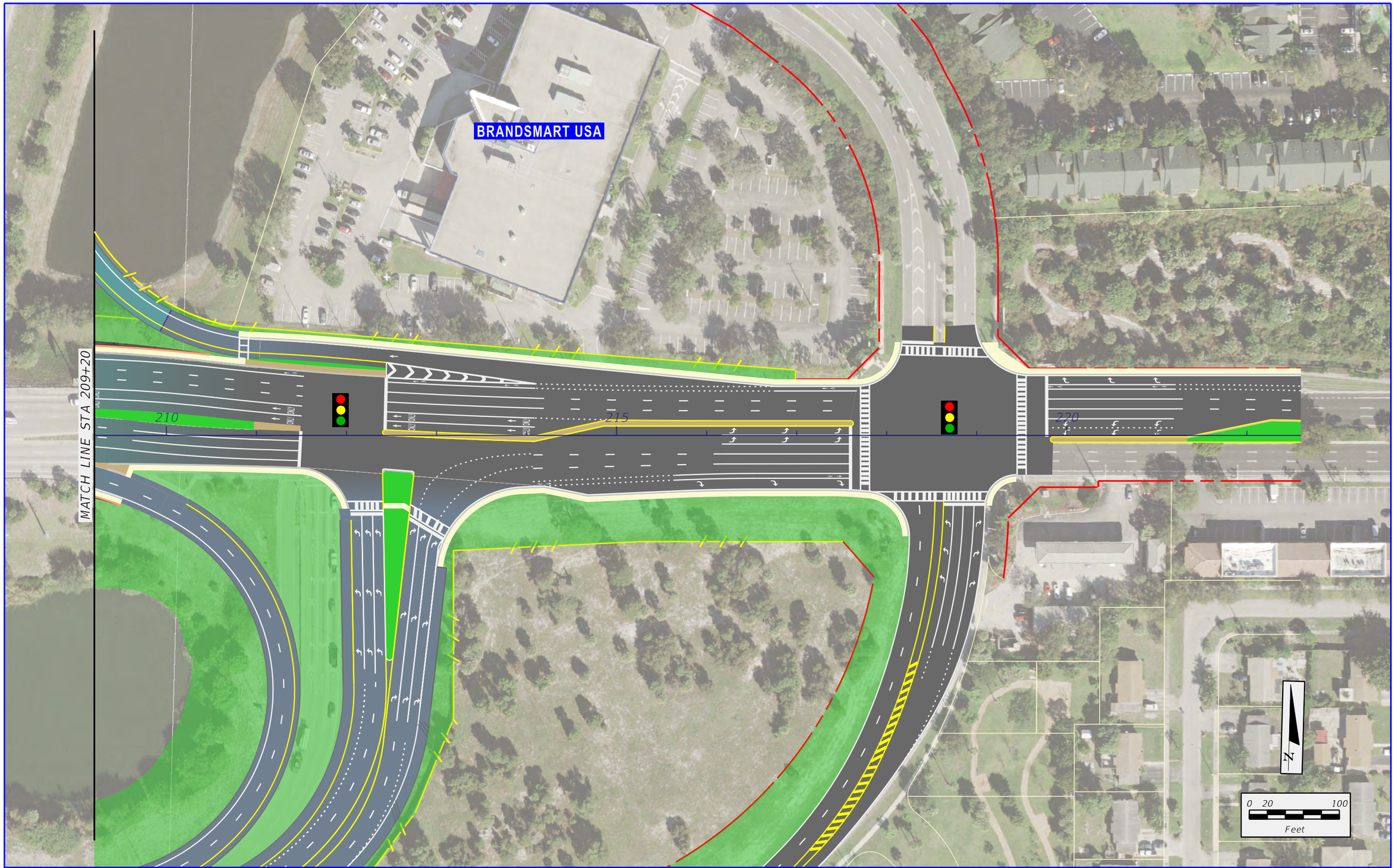
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.

B-27



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FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

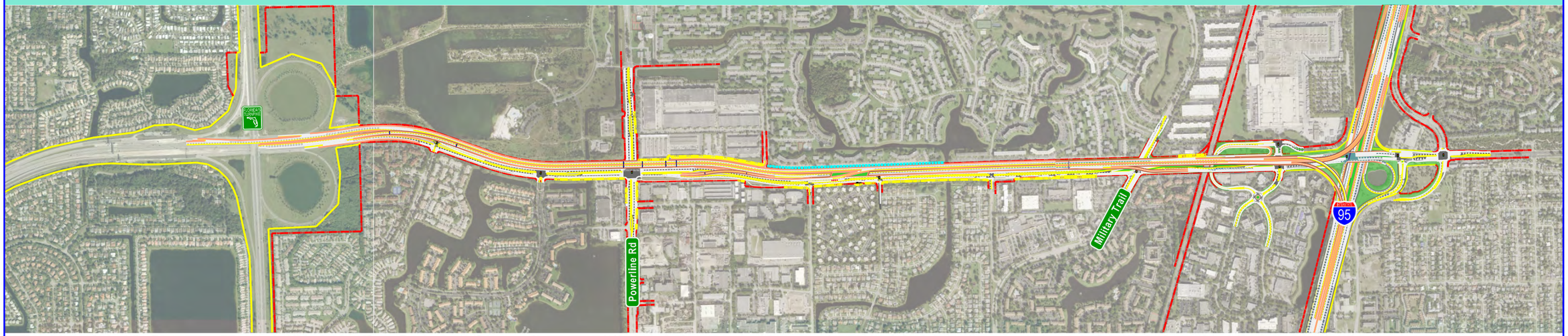
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP ALTERNATIVE

SHEET NO.
B-28

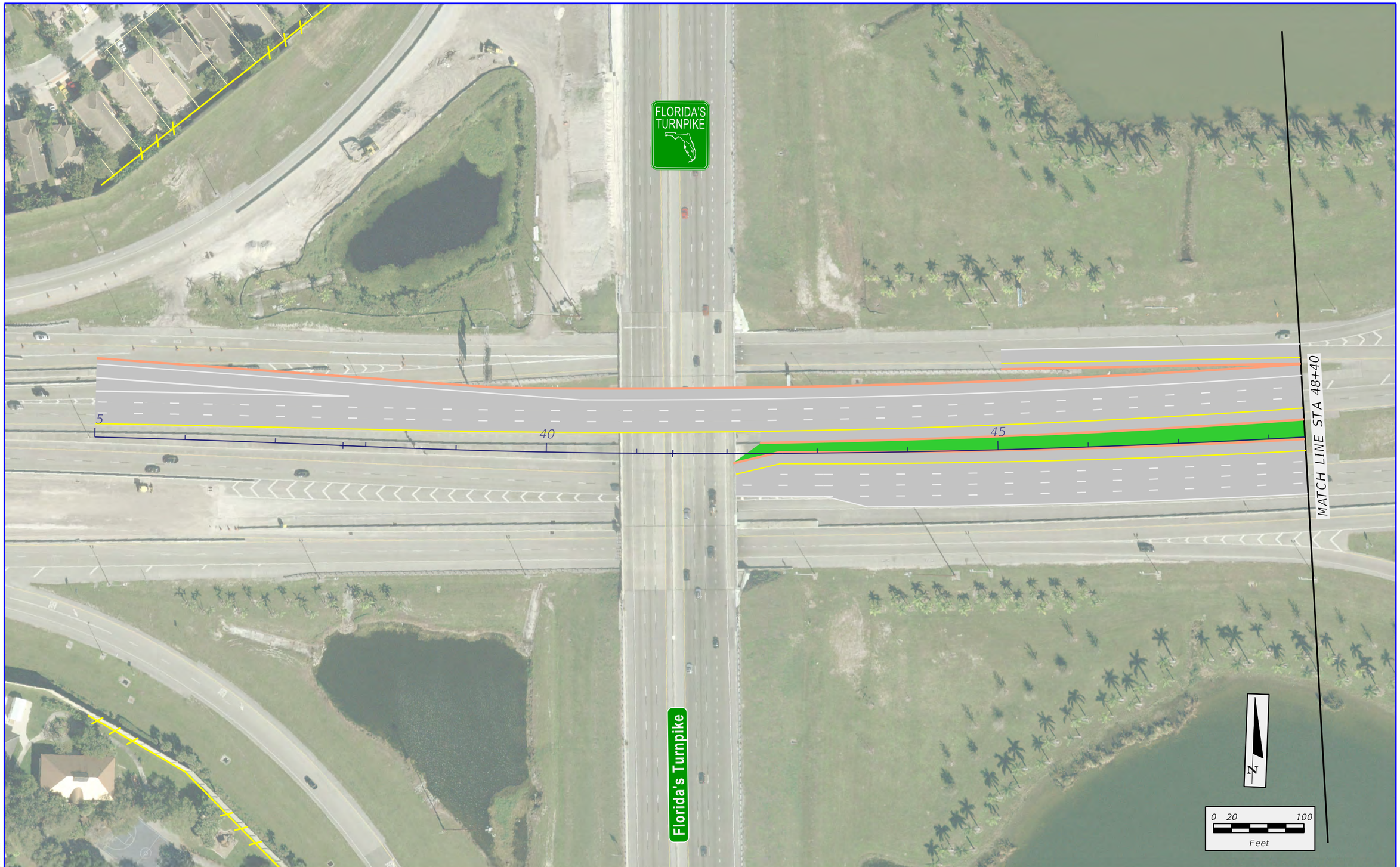
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE



SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

SHEET NO.
v



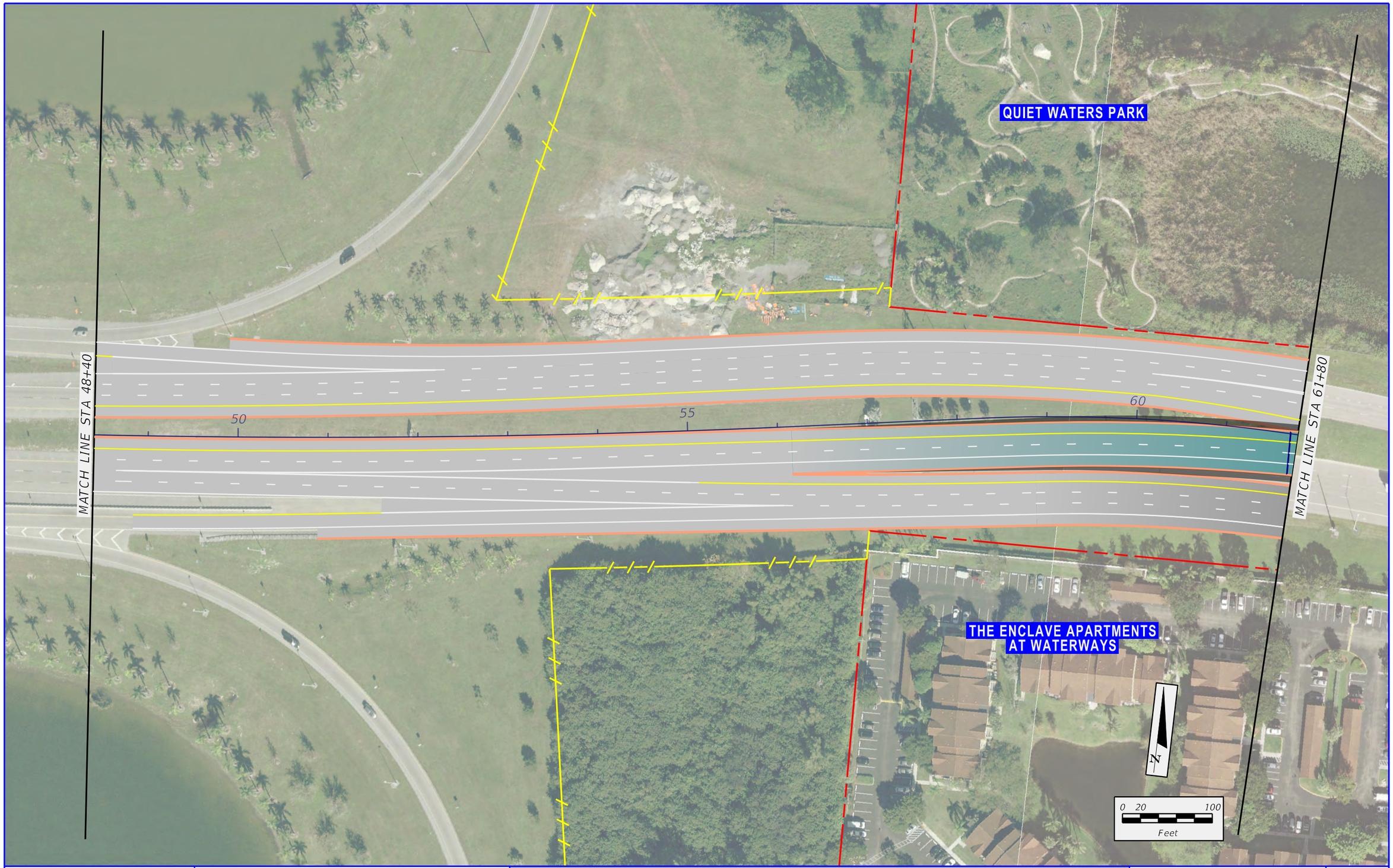
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND
MANAGED LANES ALTERNATIVE

SHEET NO.
B-29



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SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-30

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.

B-31

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100

Feet

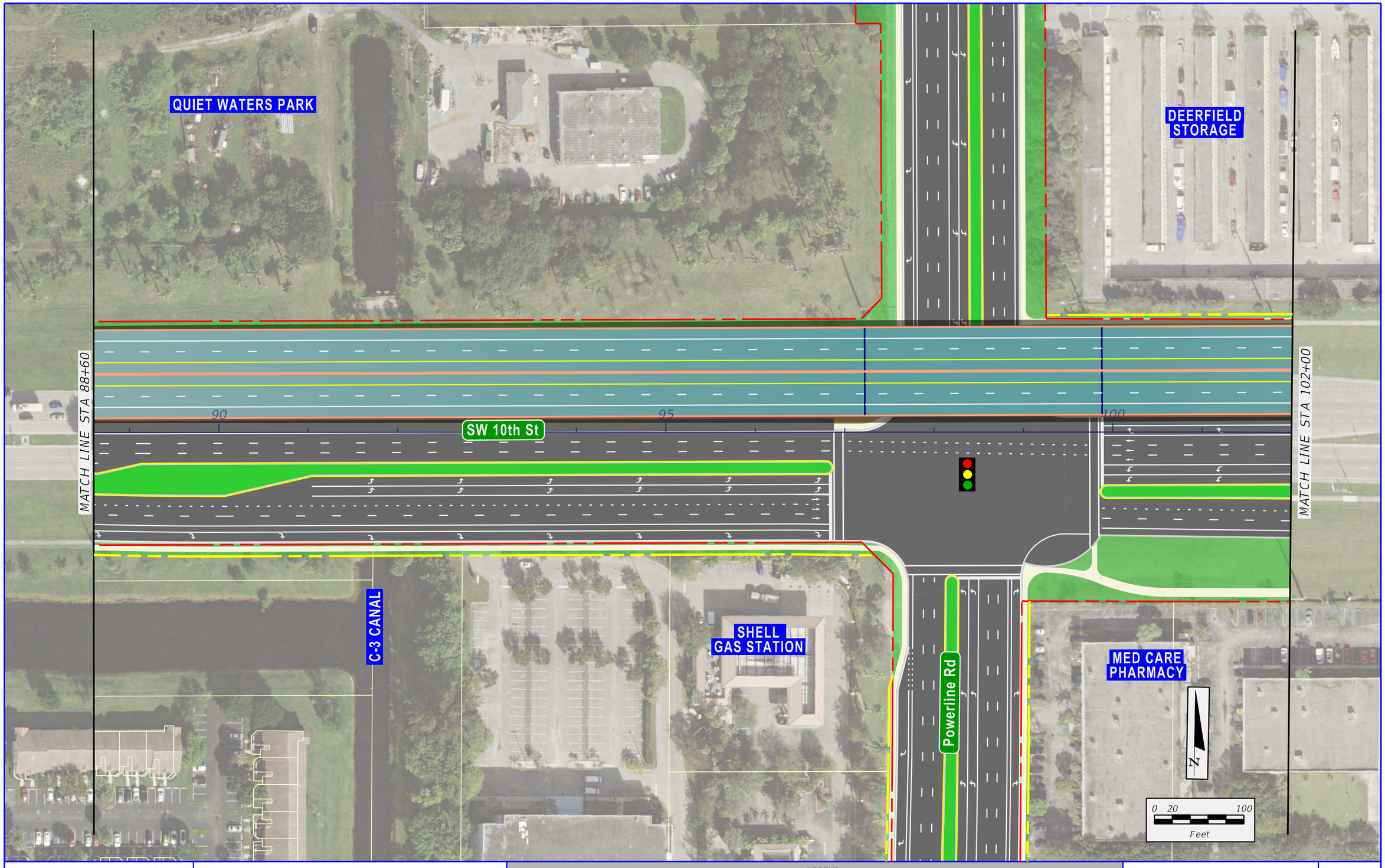
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-32



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-33

DEERFIELD STORAGE

PUBLIC STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

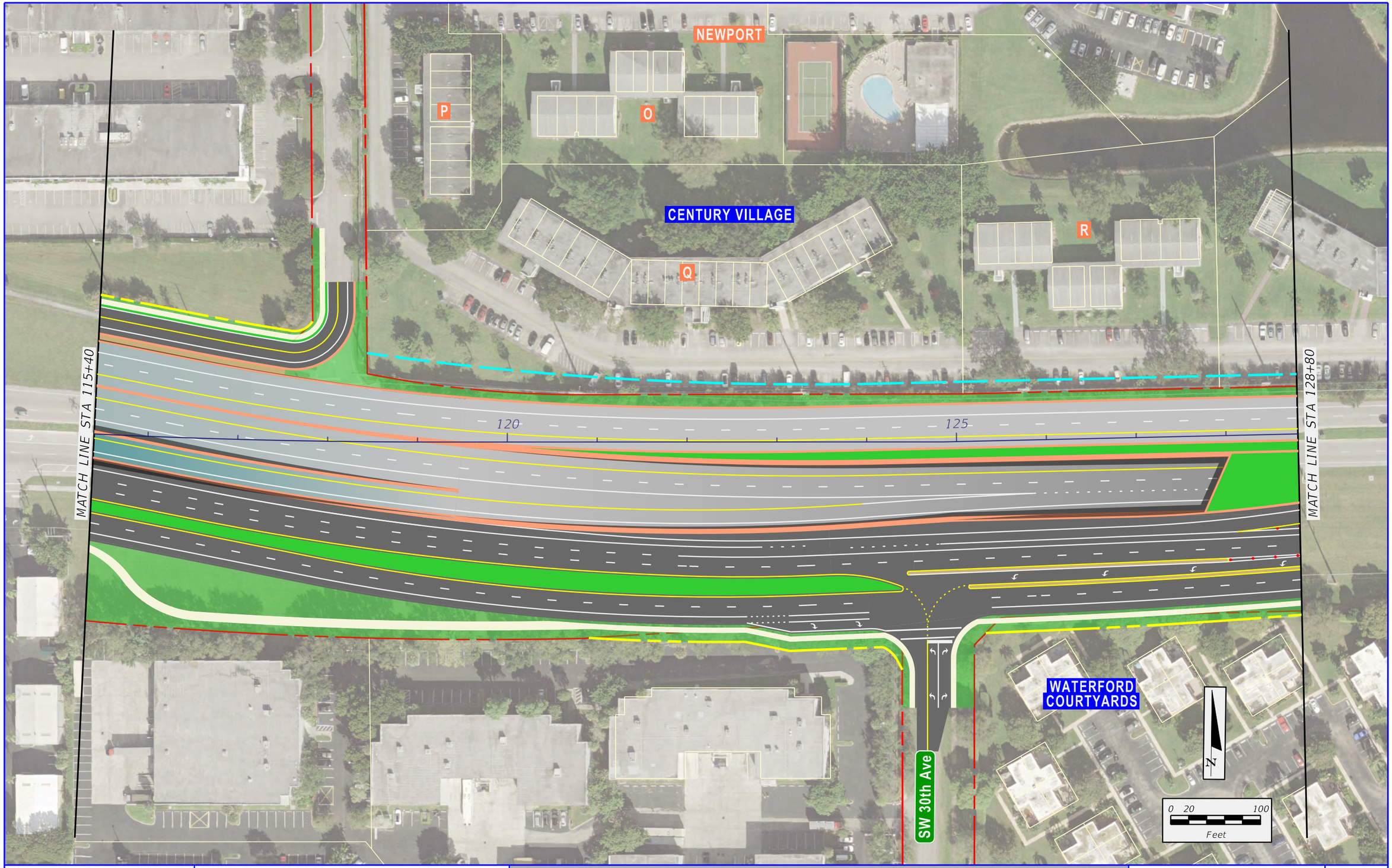
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND
MANAGED LANES ALTERNATIVE

SHEET NO.

B-34



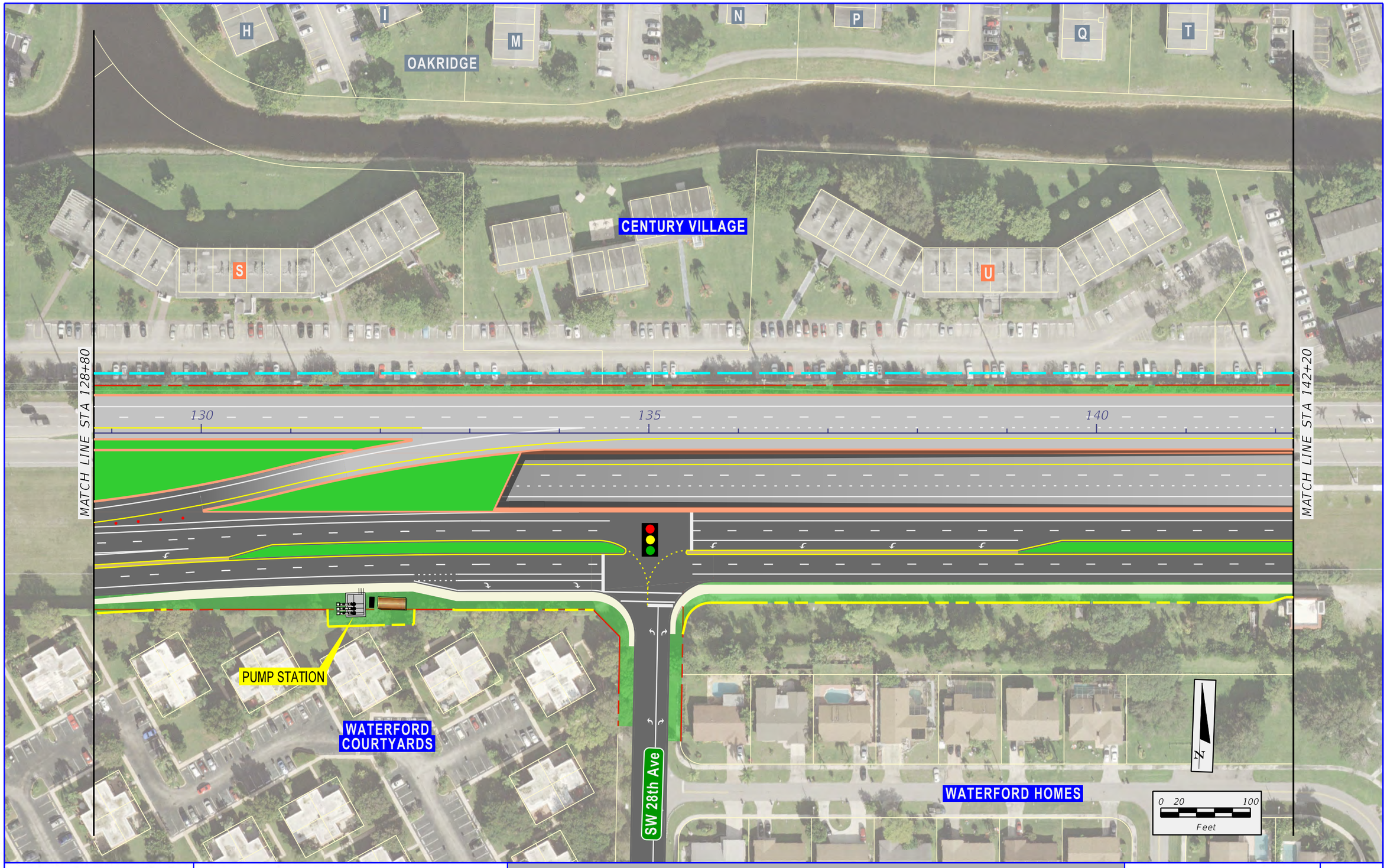
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-35



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
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- LIMITED ACCESS RIGHT-OF-WAY
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- PROPOSED MANAGED LANES
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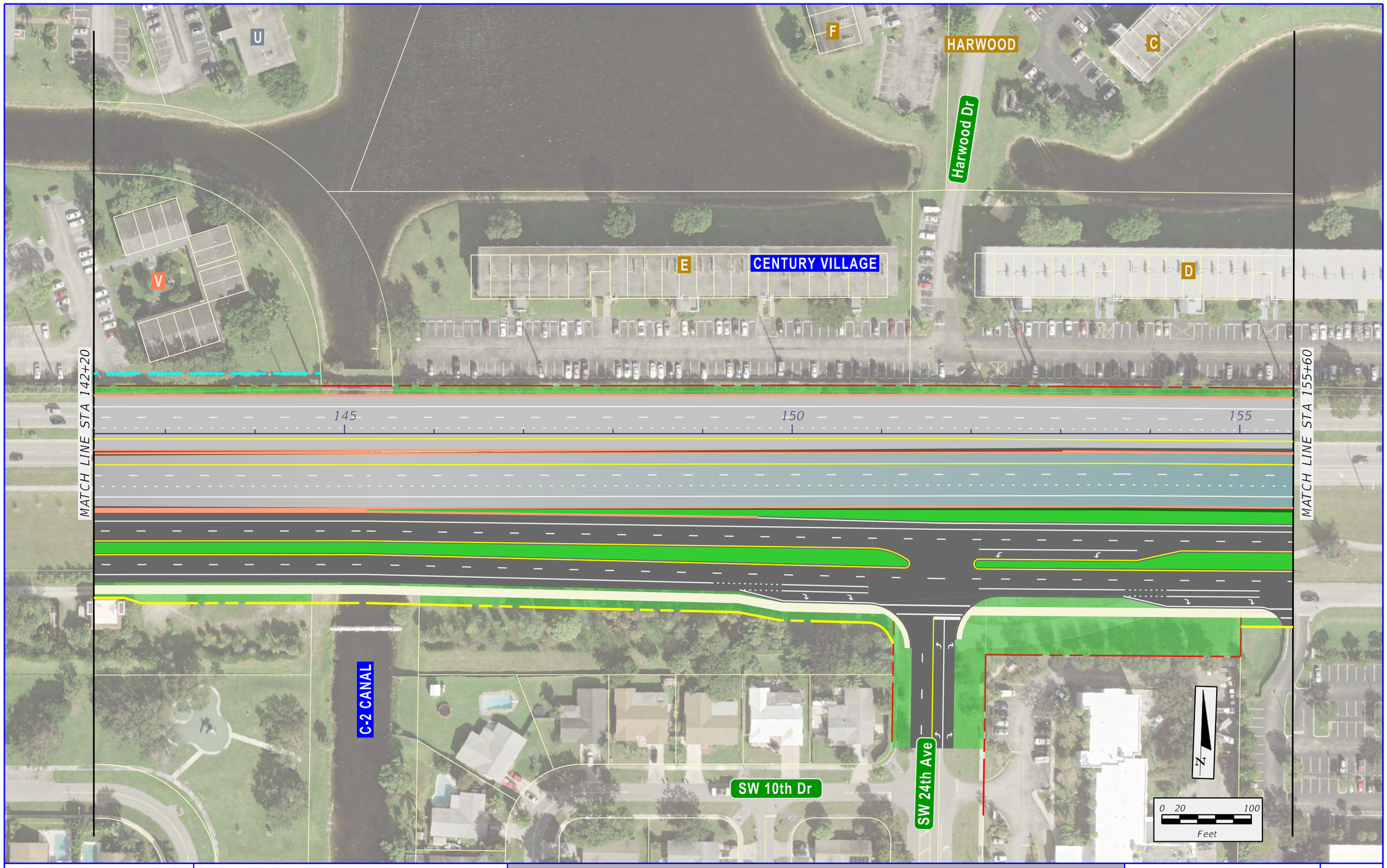
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-36



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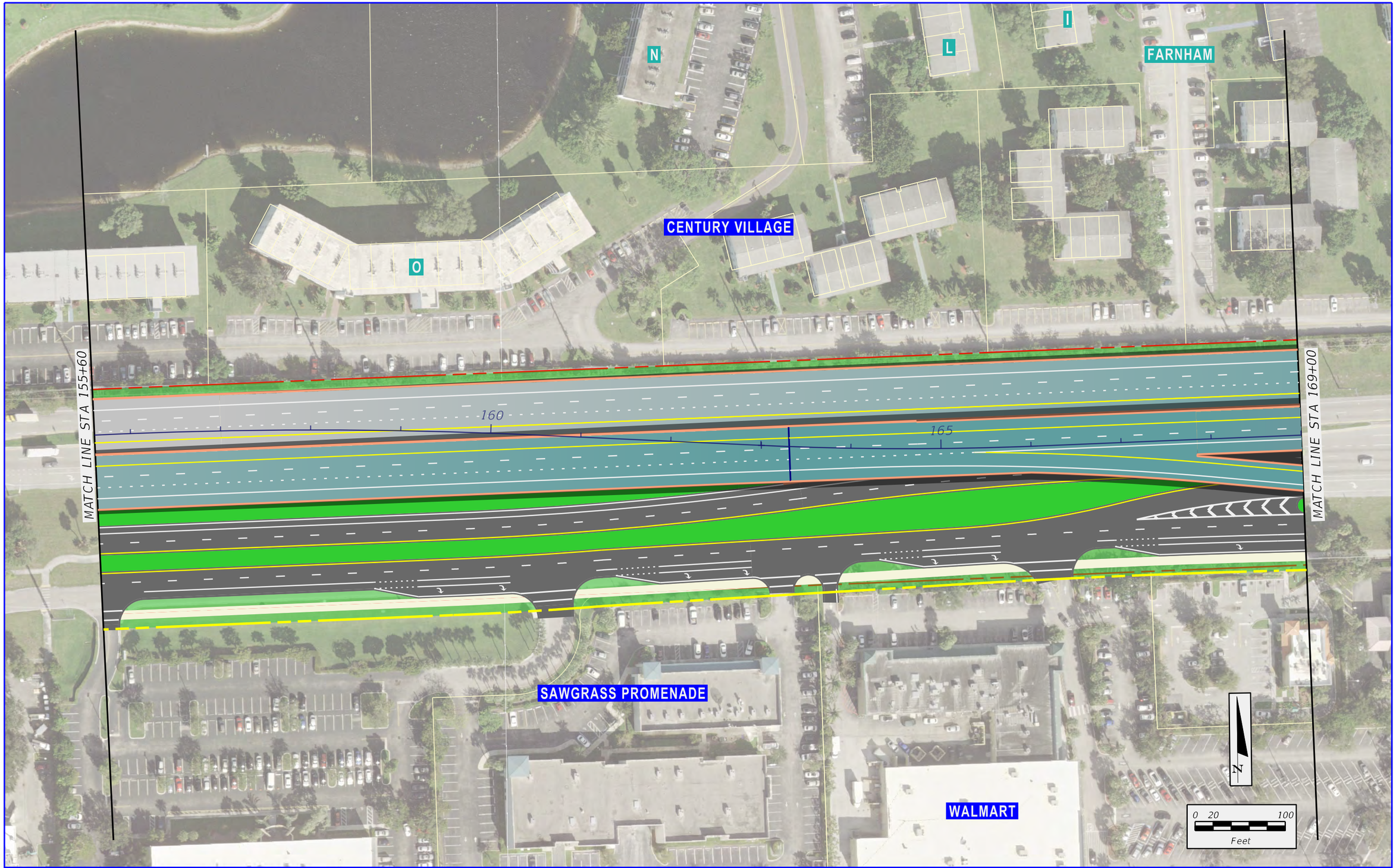
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-37



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
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- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-38

F

C

P

CENTURY VILLAGE

MATCH LINE STA 169+00

170

175

180

MATCH LINE STA 182+40

Military Trail

THE LAKES AT
DEERFIELD APARTMENTS

N

0 20 100
Feet

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND
MANAGED LANES ALTERNATIVE

SHEET NO.
B-39

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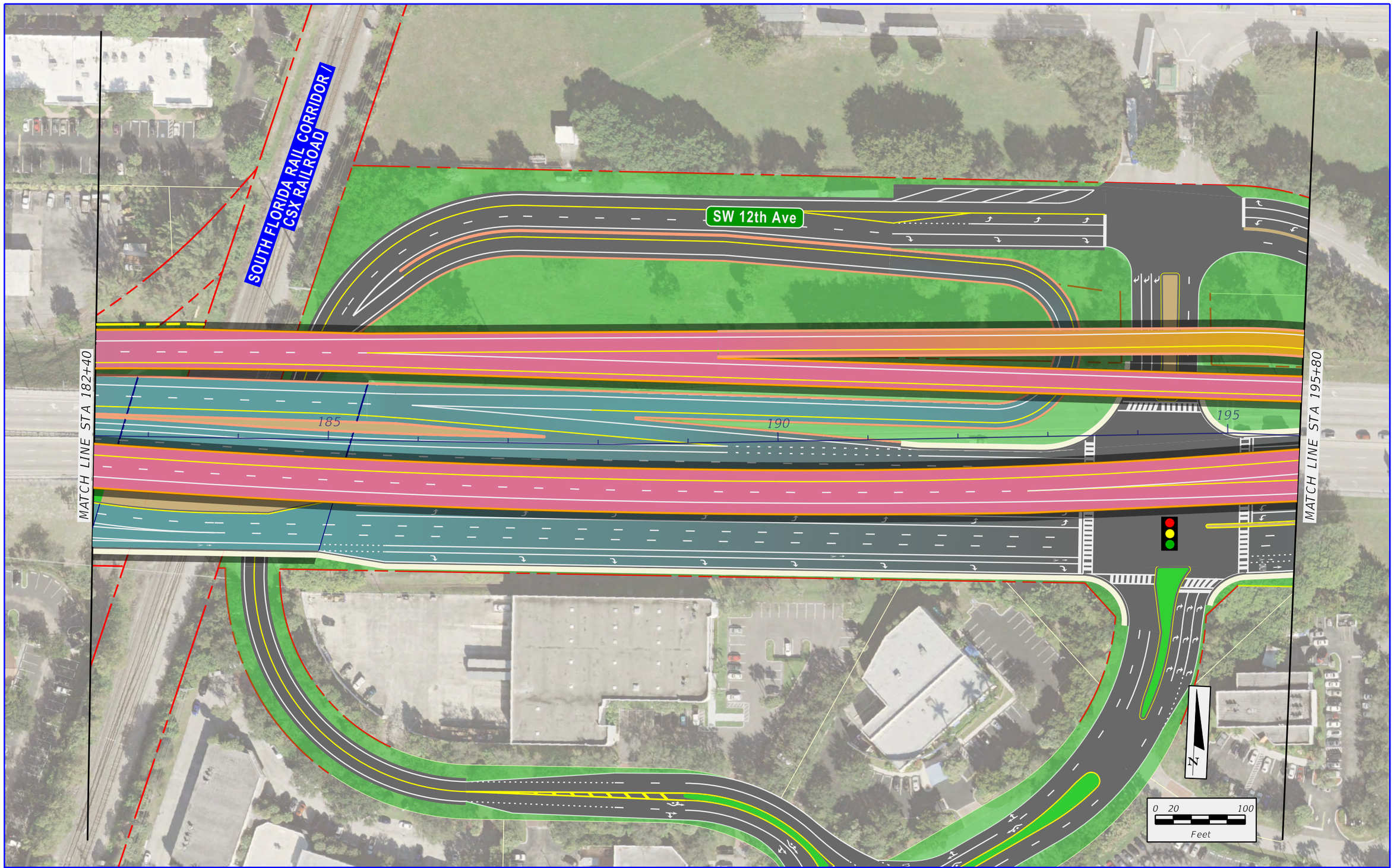

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FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-40

MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

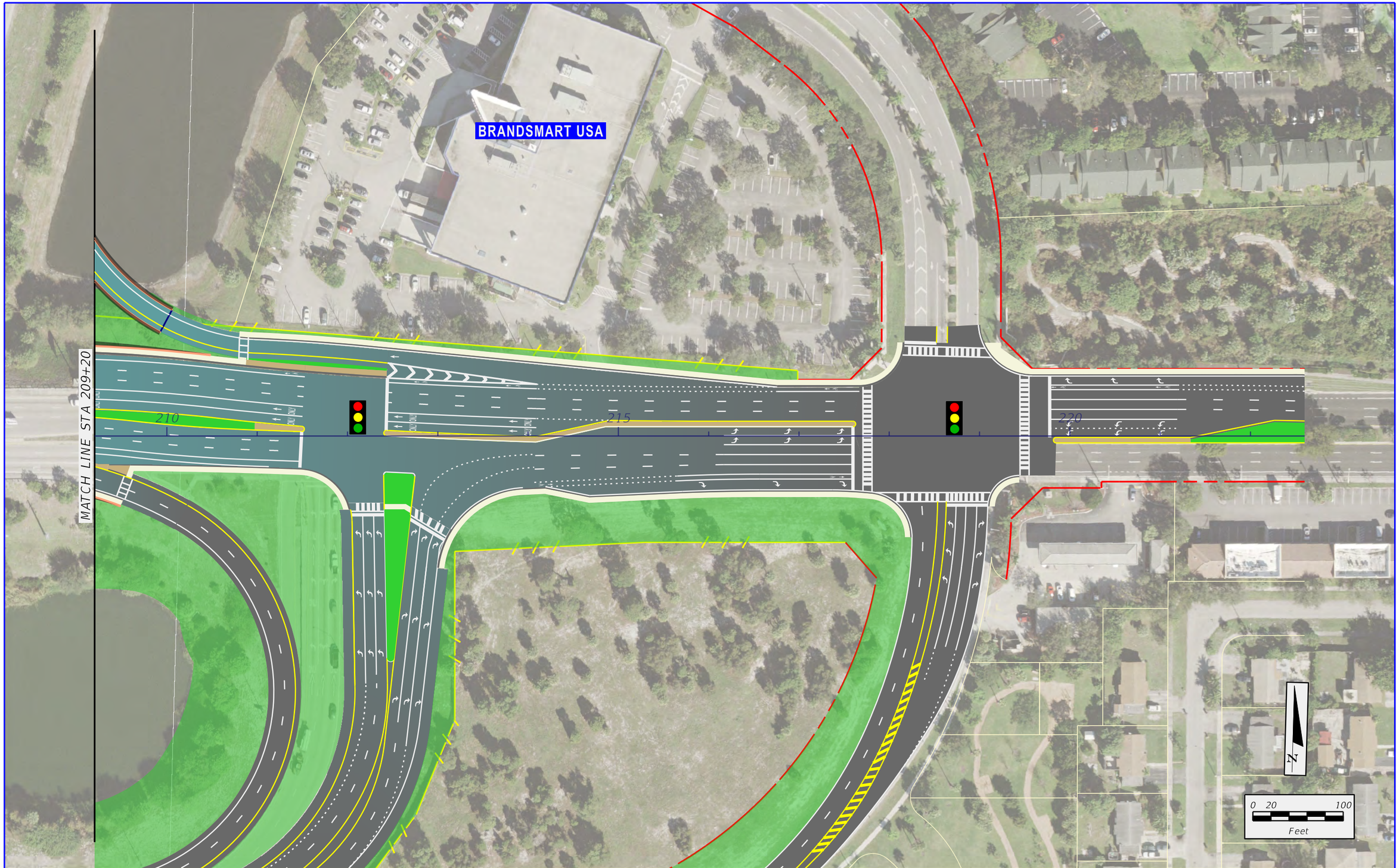
FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED EASTBOUND
MANAGED LANES ALTERNATIVE

SHEET NO.
B-41



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

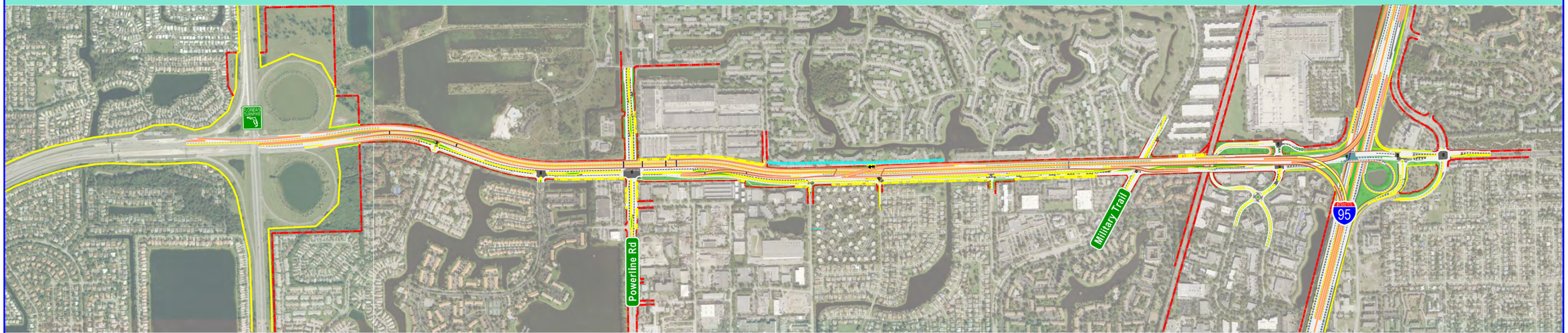
LEGEND

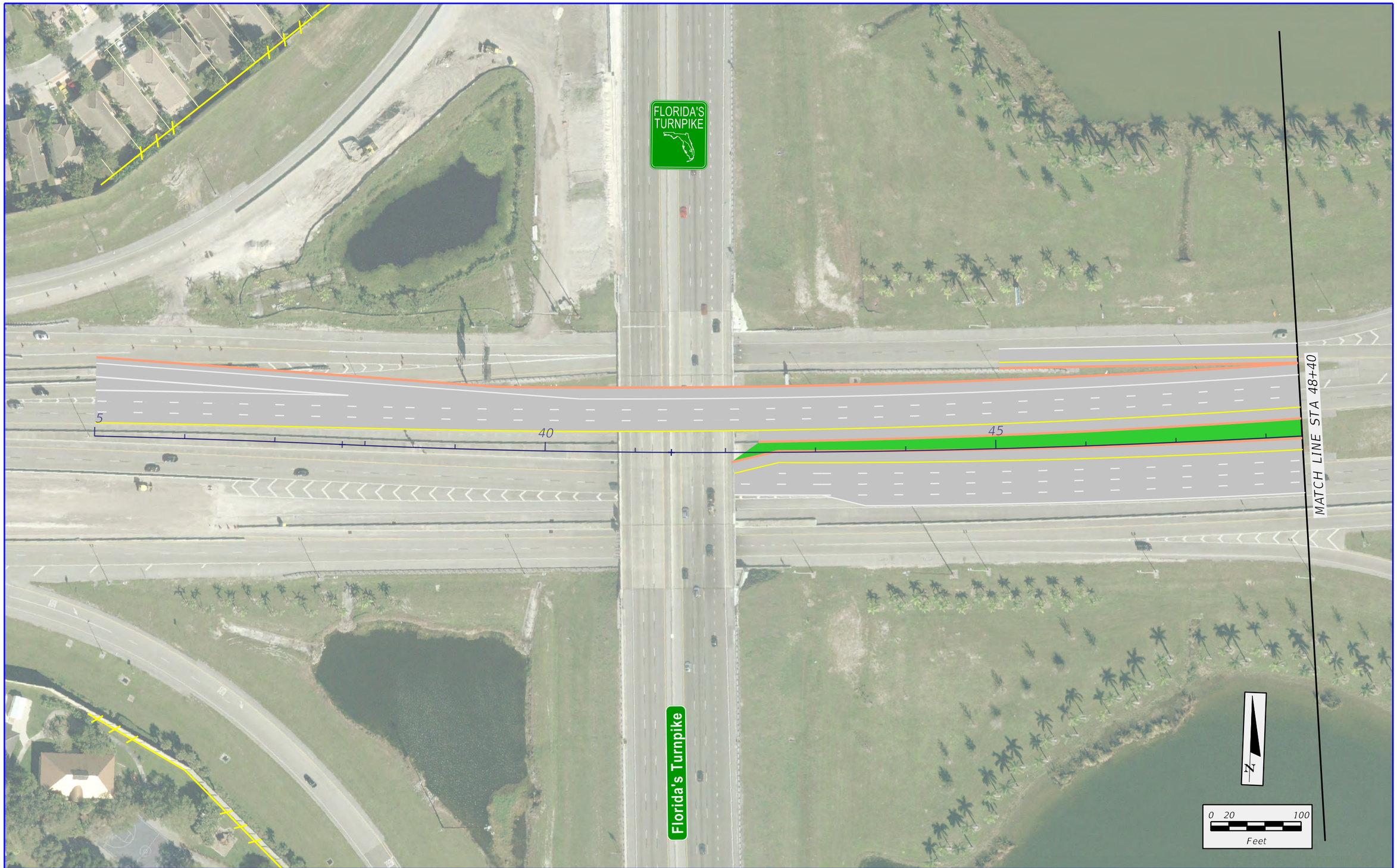
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-42

DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE





FDOT | SW 10th Street Connector

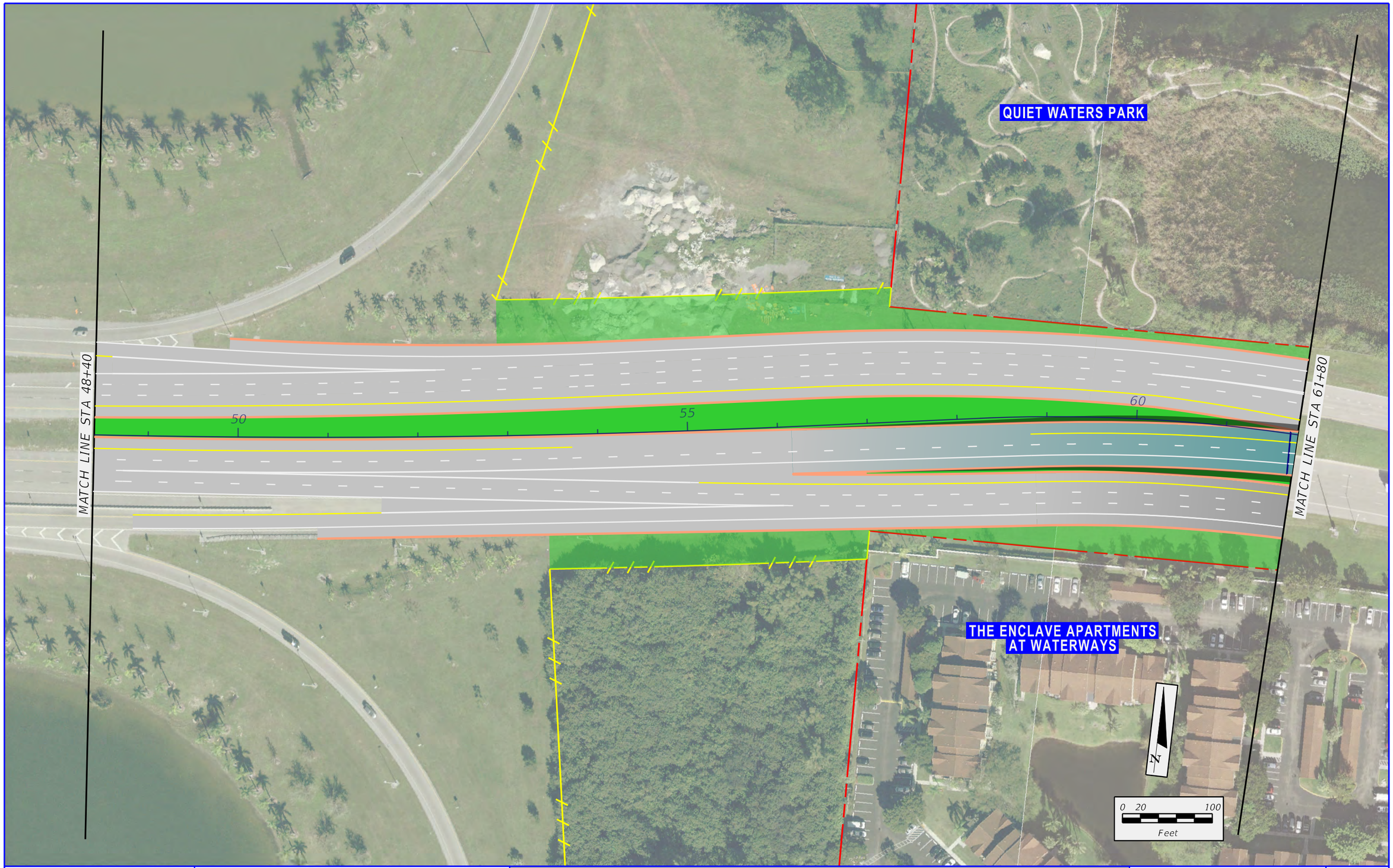
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-43



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-44

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QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-45

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QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.

B-46

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QUIET WATERS PARK

DEERFIELD STORAGE

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100

Feet

LEGEND

EXISTING RIGHT-OF-WAY
EXISTING PARCEL LINES
LIMITED ACCESS RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED MANAGED LANES
PROPOSED LOCAL SW 10TH ST
PROPOSED 2ND LEVEL BRIDGE
PROPOSED 3RD LEVEL BRIDGE
PROPOSED 4TH LEVEL BRIDGE
TEMPORARY EASEMENT
PROPOSED SIDEWALK
PROPOSED TRAFFIC SIGNAL

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-47

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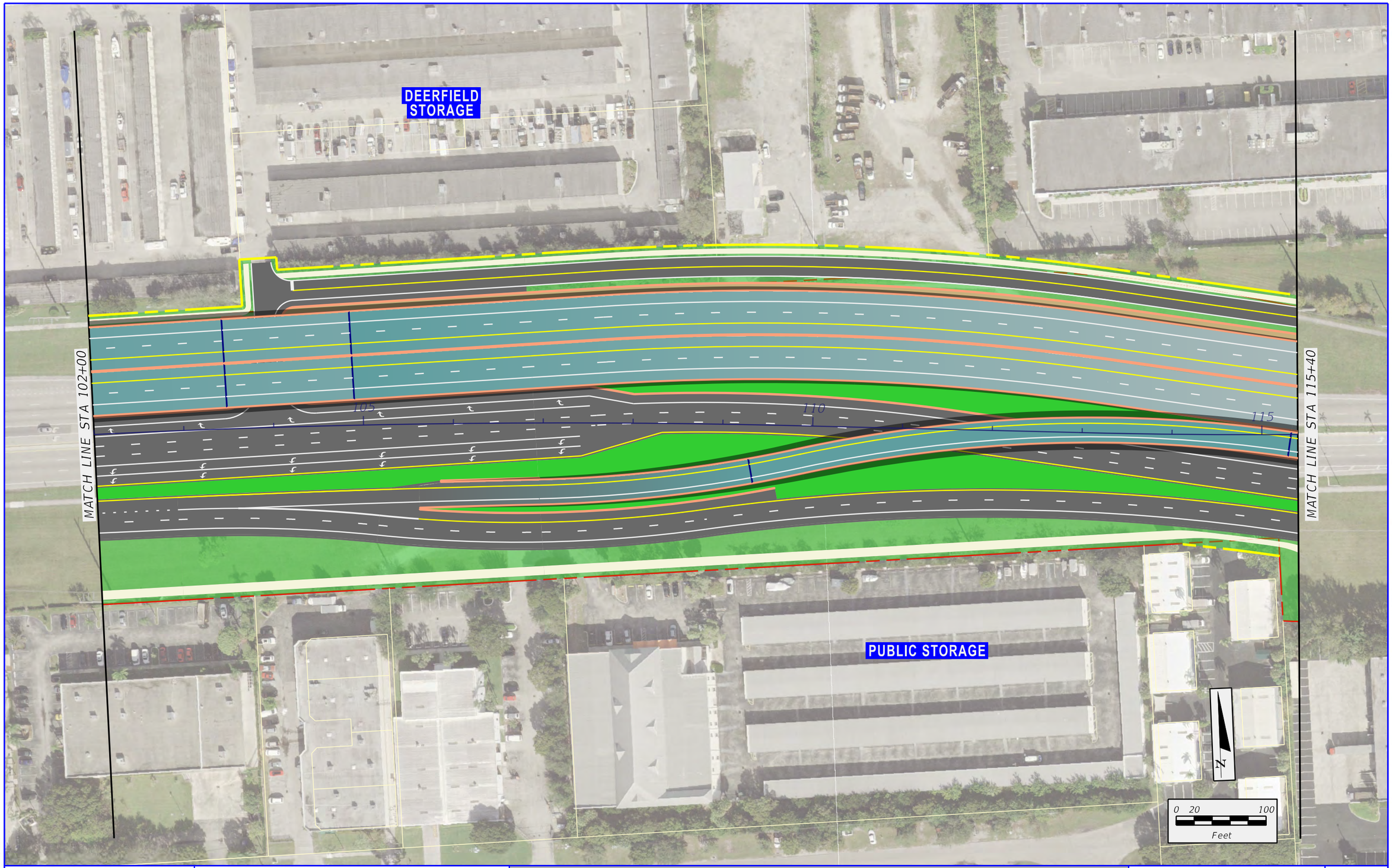

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Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-48

NEWPORT

CENTURY VILLAGE

P

O

Q

R

MATCH LINE STA 115+40

MATCH LINE STA 128+80

120

125

SW 30th Ave

WATERFORD COURTYARDS

N

0 20 100

Feet

X:\P\439891\3202_SW 10th Street\env\4 - Reports - Engineering\PER\Appendix B - Tier 2 Alternatives\Alternative 245\planem7.dgn

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SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.

B-49

OAKRIDGE

CENTURY VILLAGE

PUMP STATION

MATCH LINE STA 128+80

MATCH LINE STA 142+20

130 135 140

WATERFORD COURTYARDS

SW 28th Ave

WATERFORD HOMES

N

0 20 100
Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-50

U

V

F

HARWOOD

C

Harwood Dr

E

CENTURY VILLAGE

D

MATCH LINE STA 142+20

MATCH LINE STA 155+60

145

150

155

C-2 CANAL

SW 10th Dr

SW 24th Ave

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.

B-51

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-52

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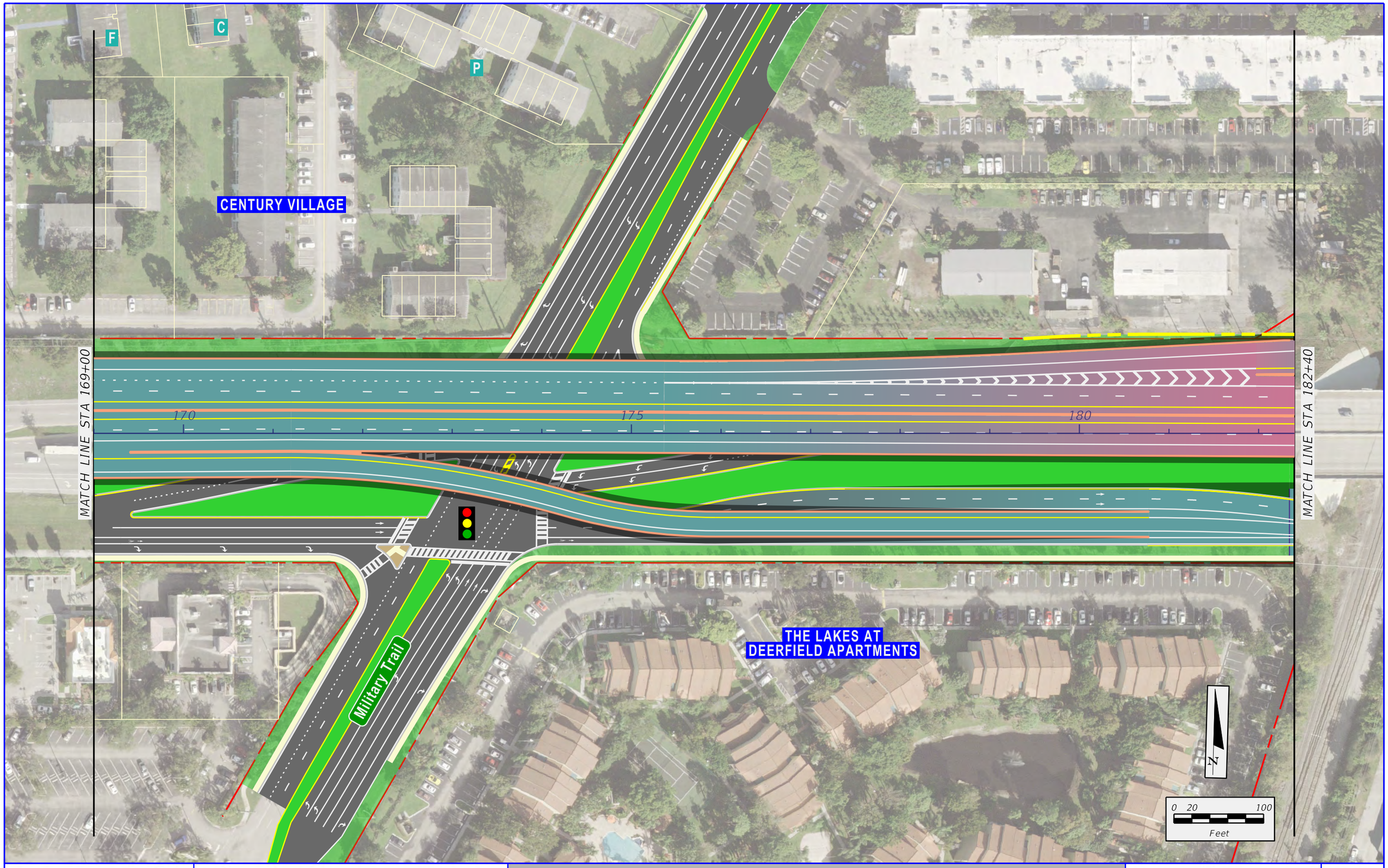


FDOT | SW 10th Street Connector

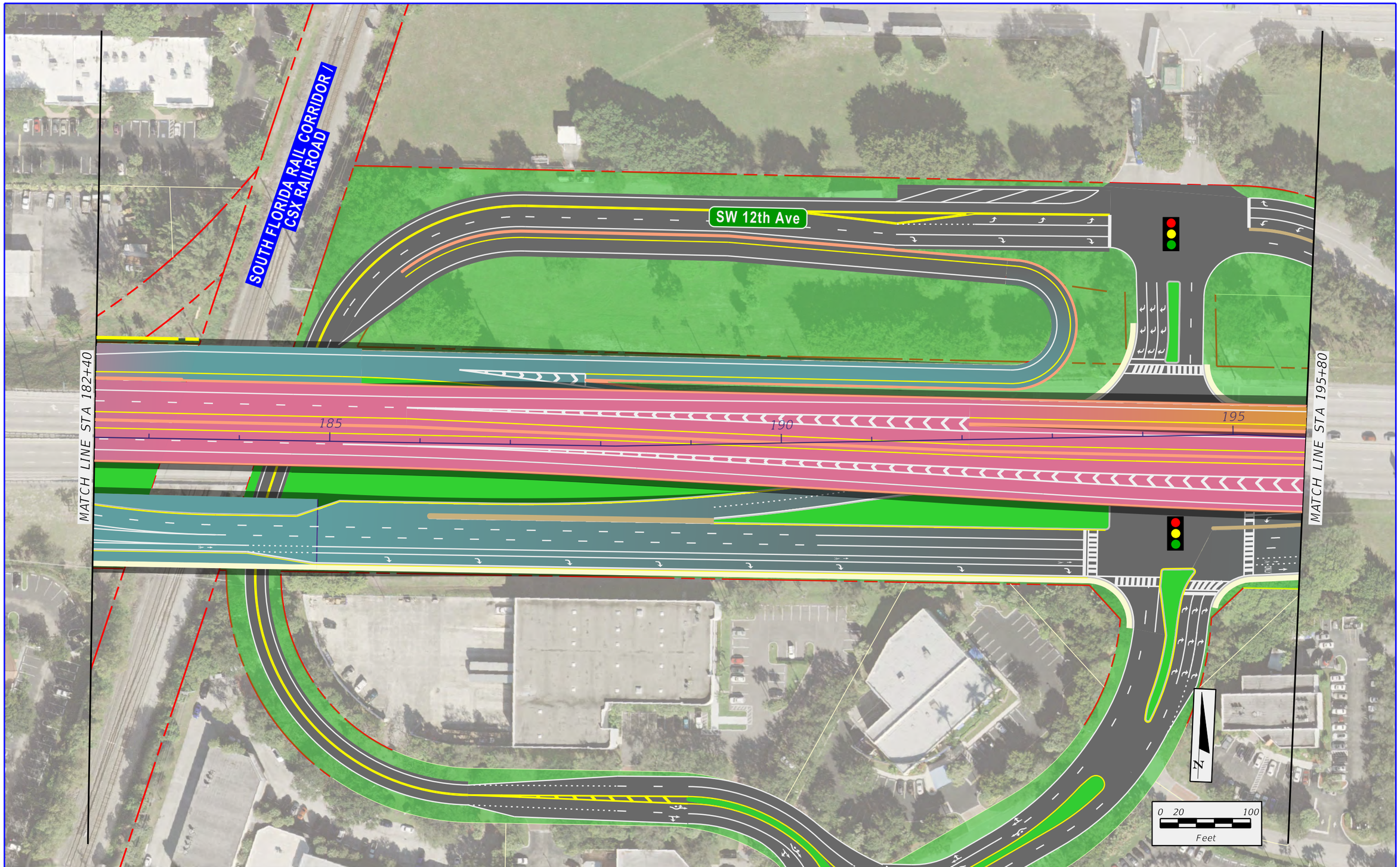
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-53



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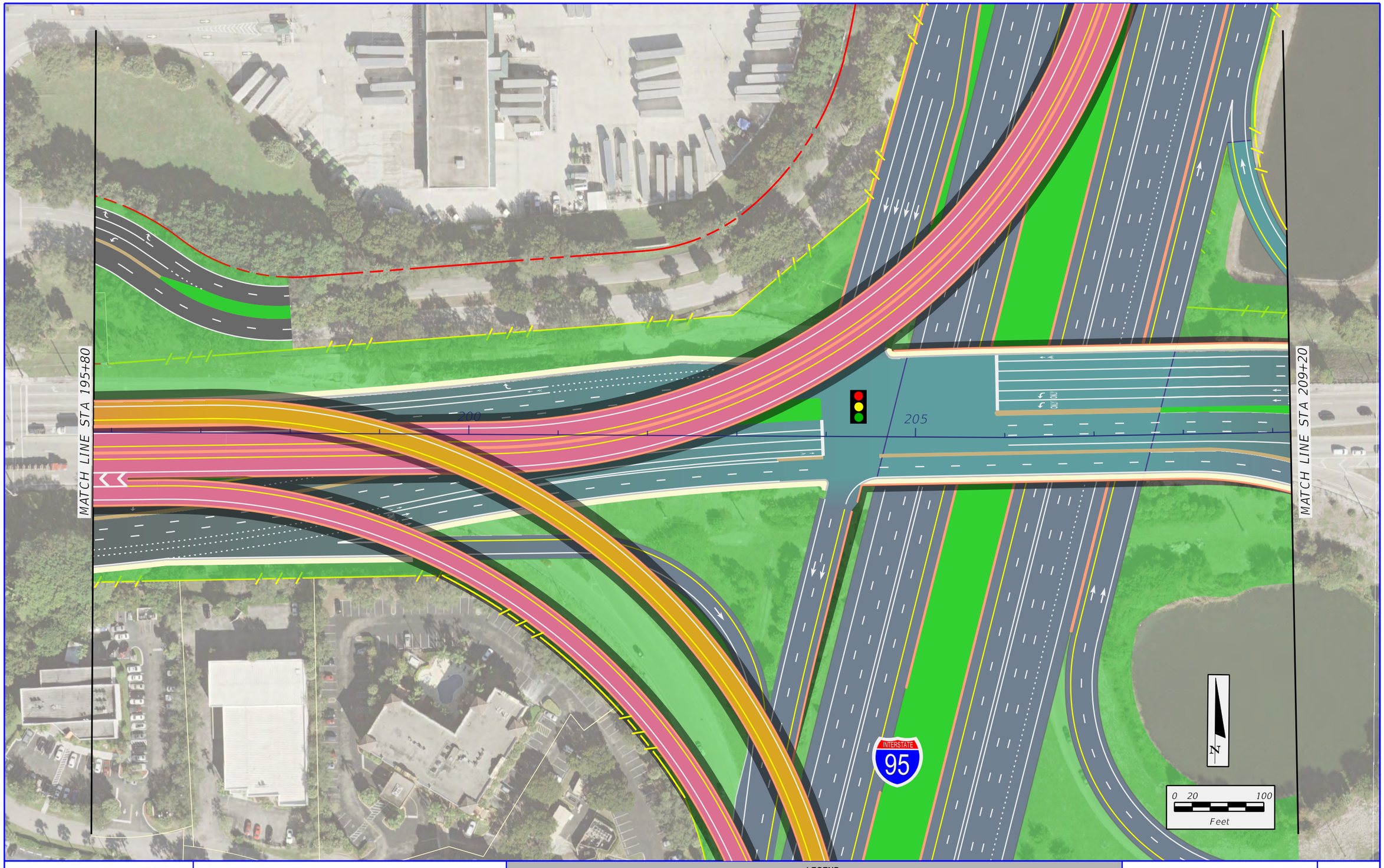
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-54



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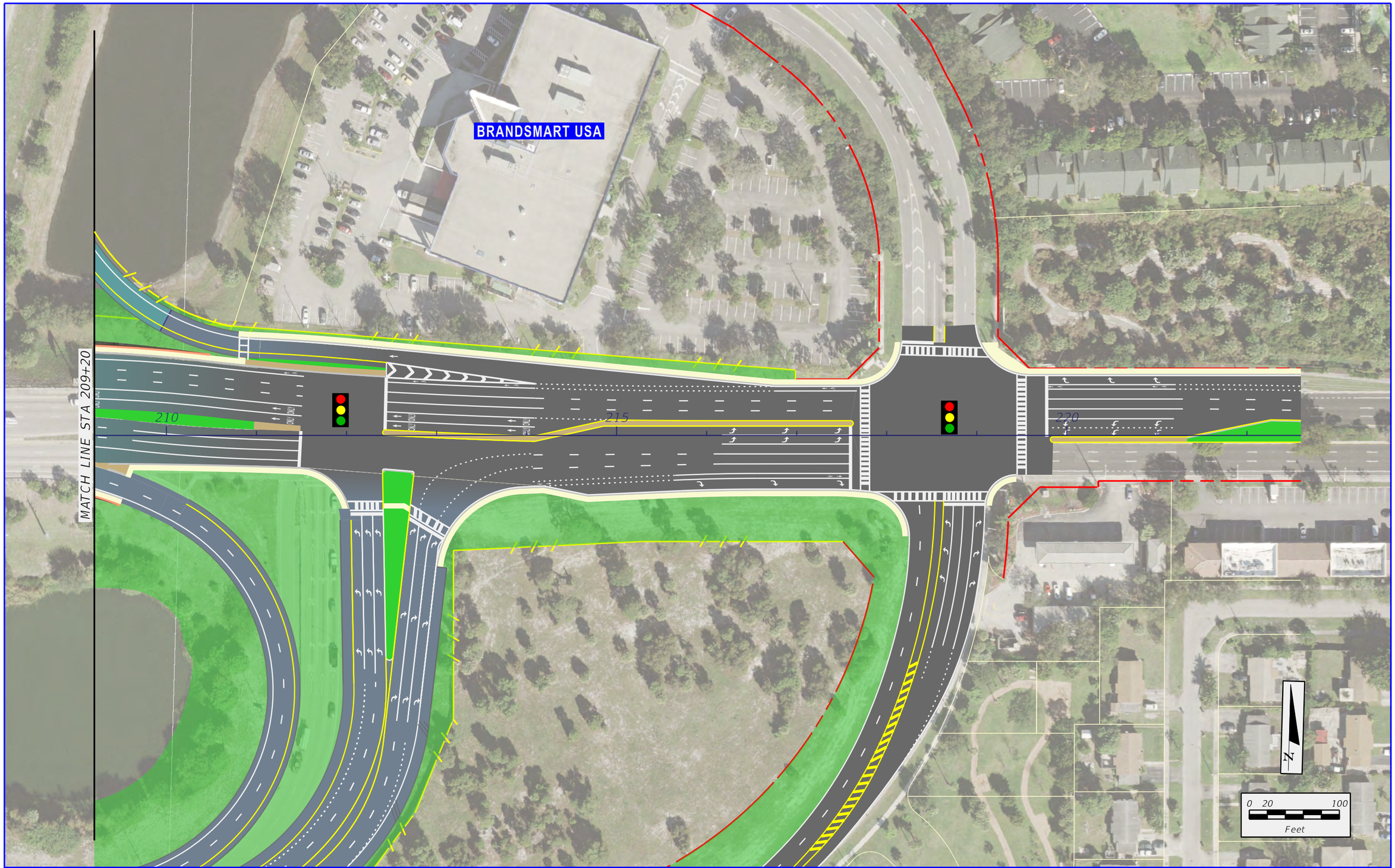
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-55



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

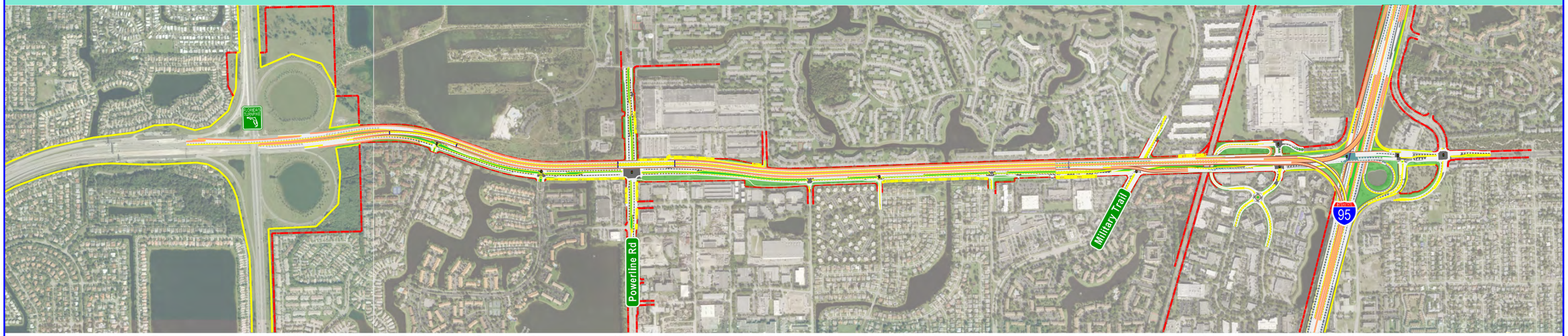
LEGEND

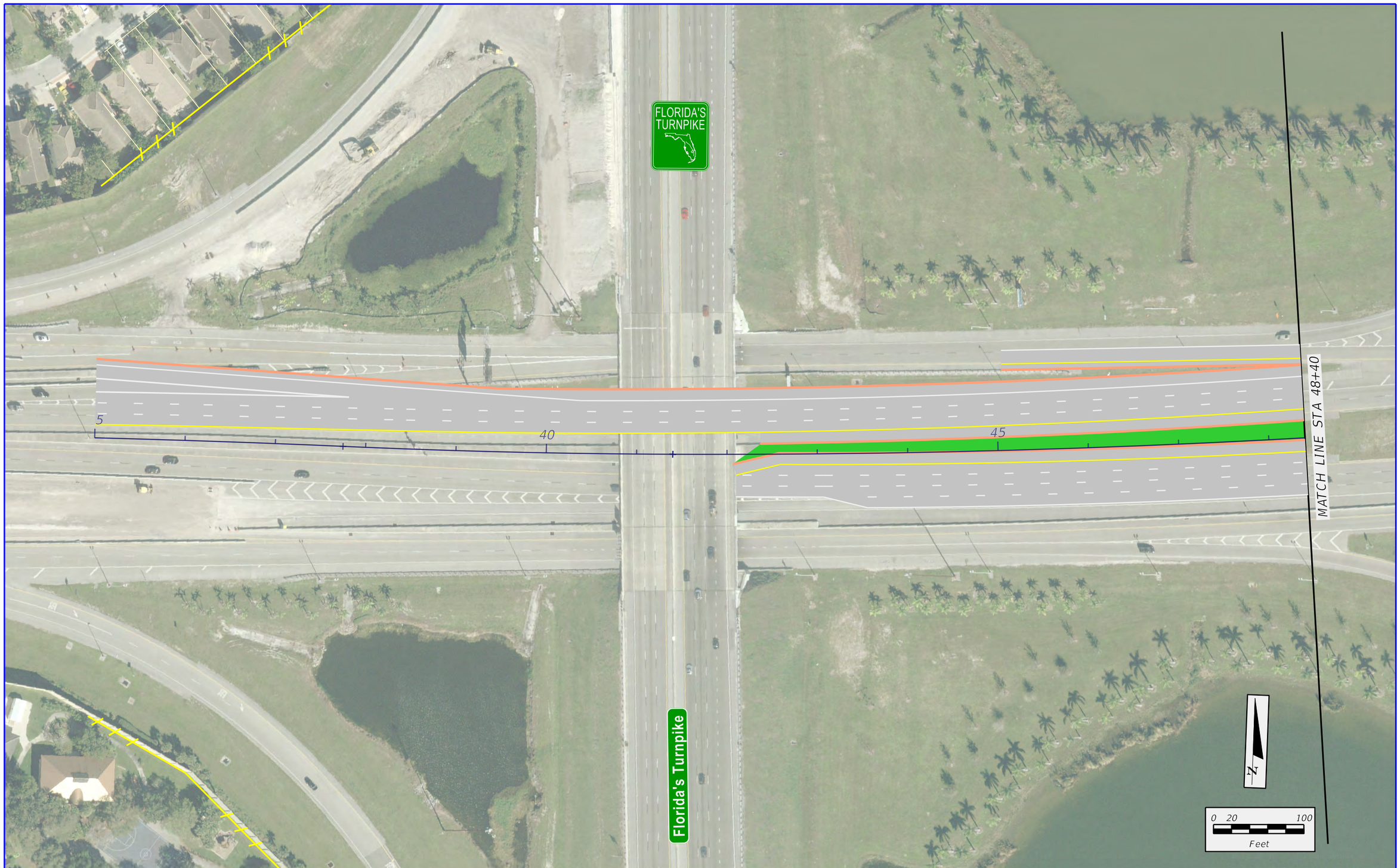
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES ALTERNATIVE

SHEET NO.
B-56

NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE





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SW 10th Street Connector

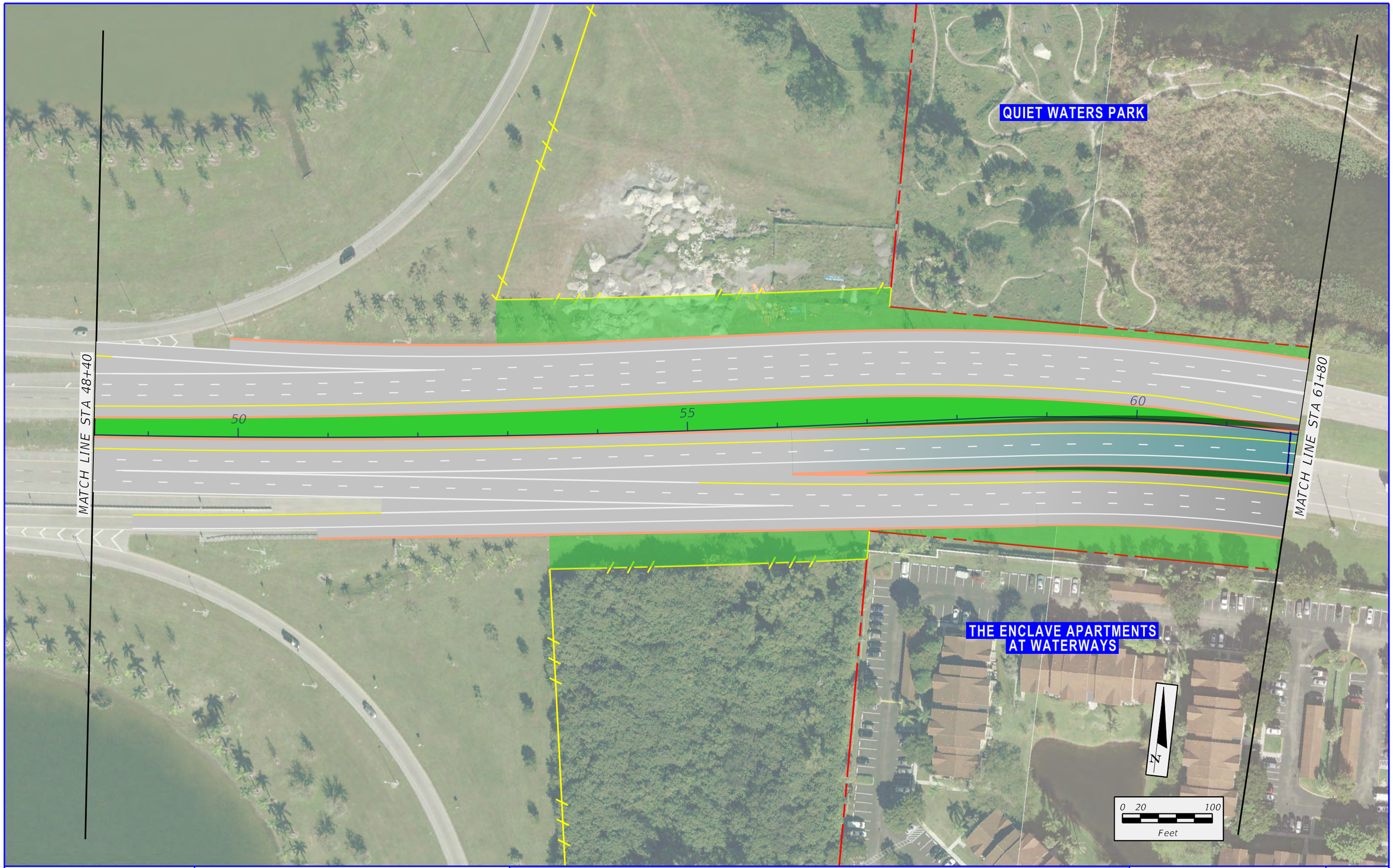
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-57



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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-58

QUIET WATERS PARK

MATCH LINE STA 61+80

MATCH LINE STA 75+20

65

70

75

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-59

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-60

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FDOT SW 10th Street Connector

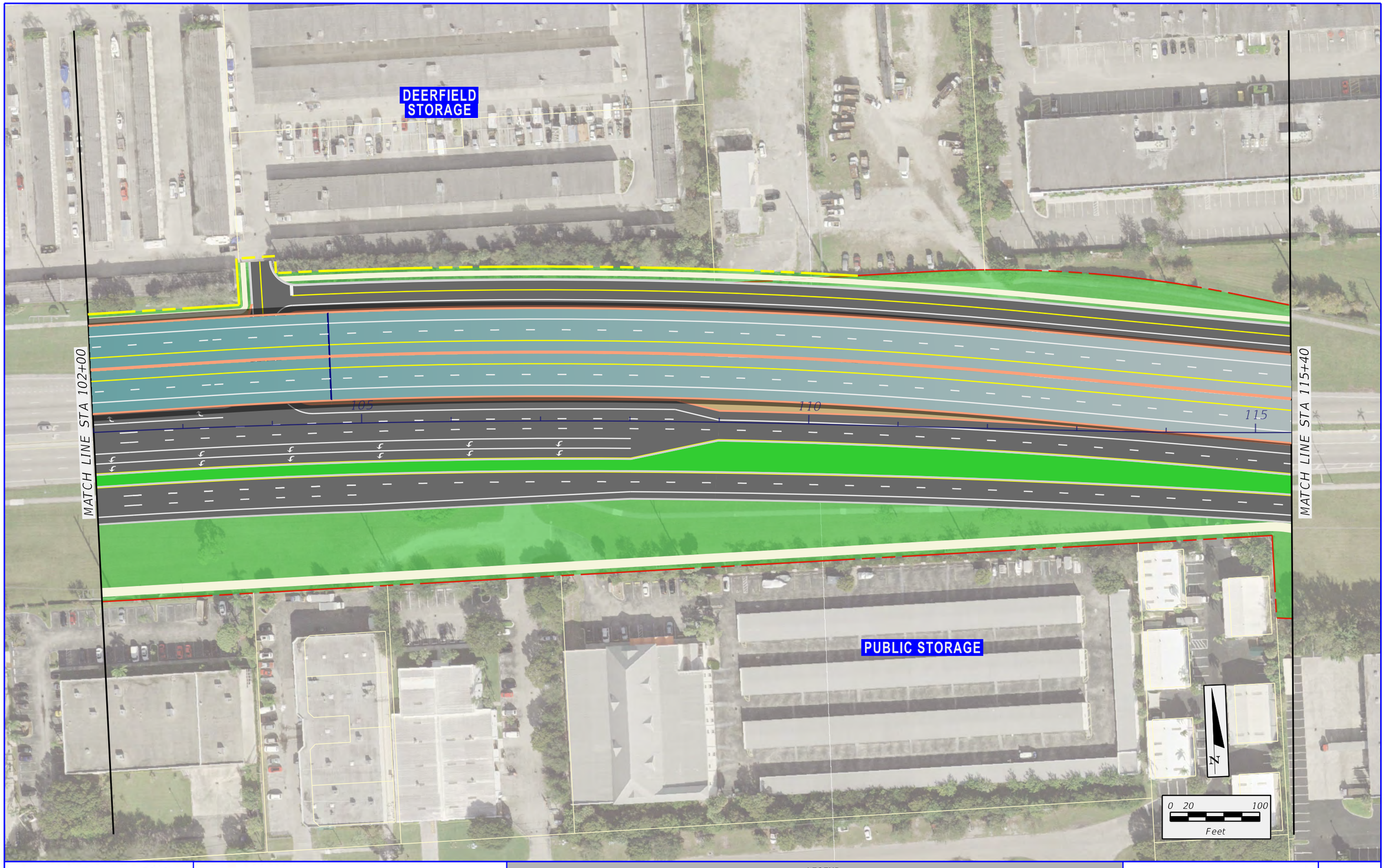
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-61



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-62

NEWPORT

CENTURY VILLAGE

WATERFORD COURTYARDS

P

O

Q

R

MATCH LINE STA 115+40

MATCH LINE STA 128+80

120

125

SW 30th Ave

N

0 20 100

Feet

SW 10th Street Connector

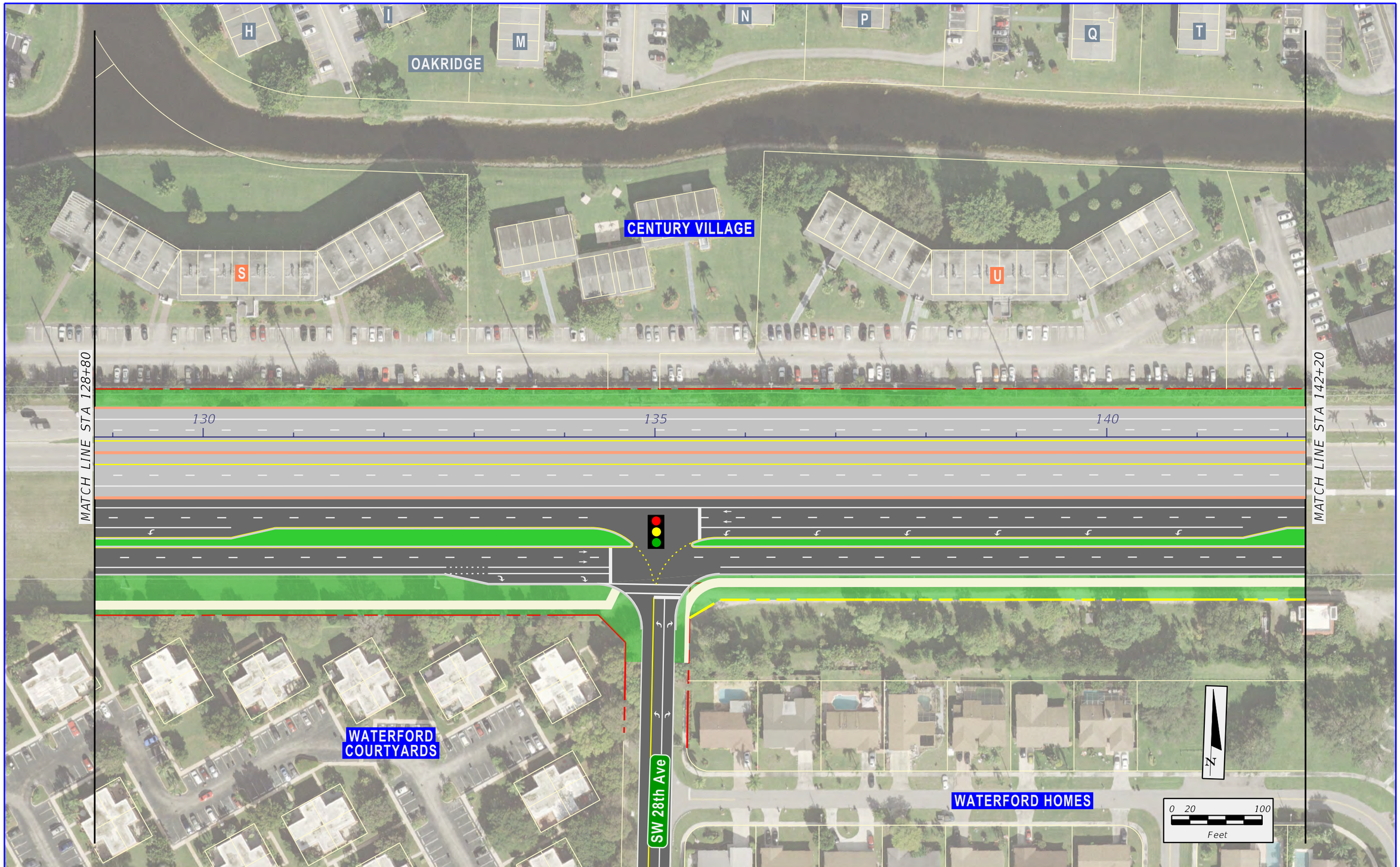
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-63



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-64

U

F

HARWOOD

C

Harwood Dr

V

E

CENTURY VILLAGE

D

MATCH LINE STA 142+20

145

150

155

MATCH LINE STA 155+60

C-2 CANAL

SW 10th Dr

SW 24th Ave

N

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

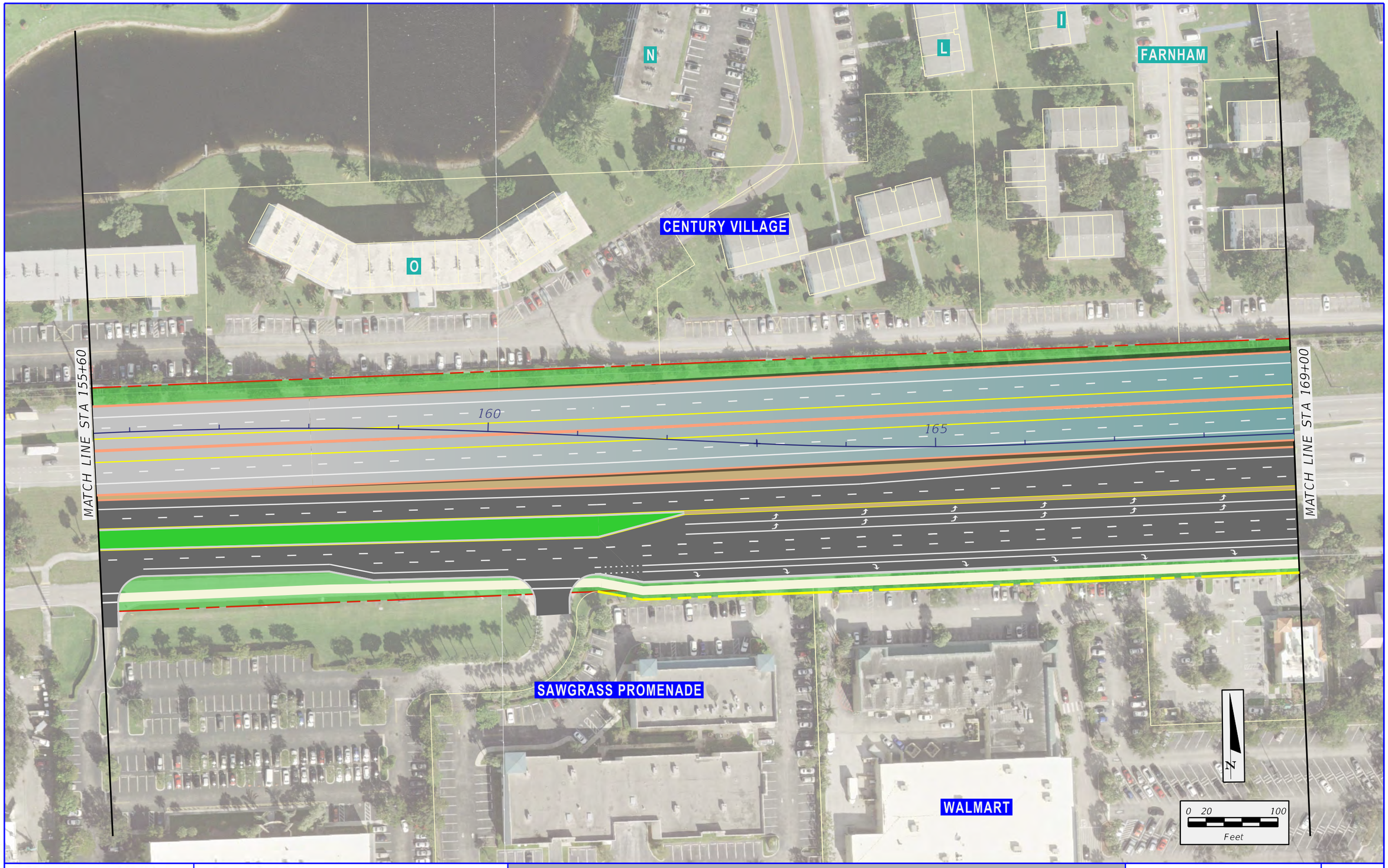
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.

B-65



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-66

F

C

P

CENTURY VILLAGE

MATCH LINE STA 169+00

170

175

180

MATCH LINE STA 182+40

Military Trail

THE LAKES AT
DEERFIELD APARTMENTS

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-67

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

0 20 100

Feet

N

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-68

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MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

SHEET NO.
B-69

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BRANDSMART USA

MATCH LINE STA 209+20

210

215

220

N

0 20 100

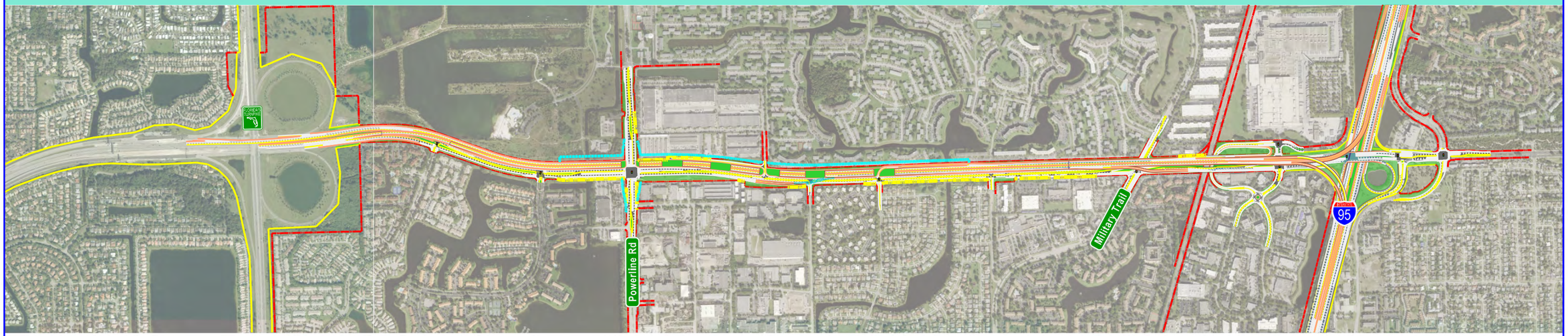
Feet

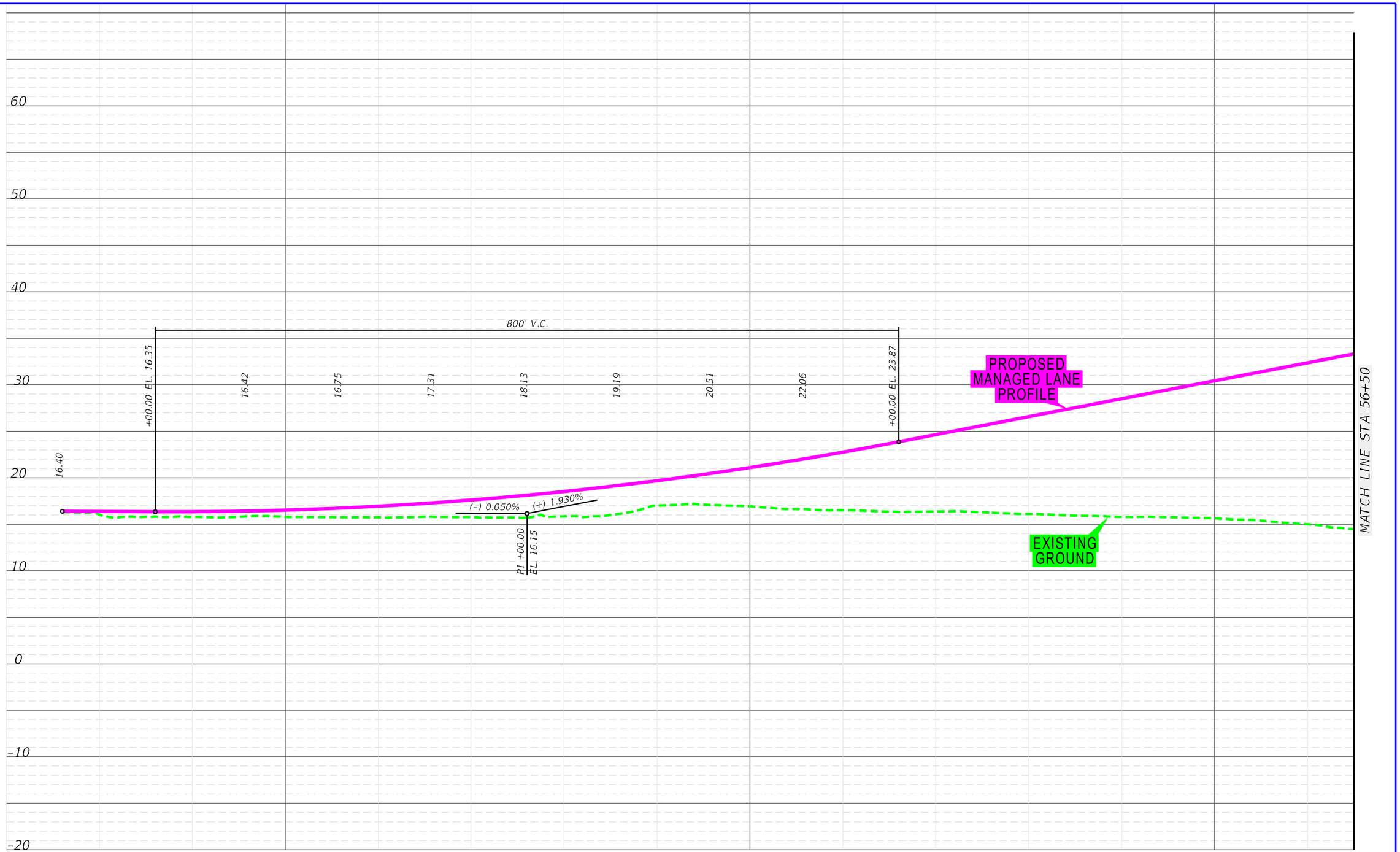
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS ALTERNATIVE

LEGEND

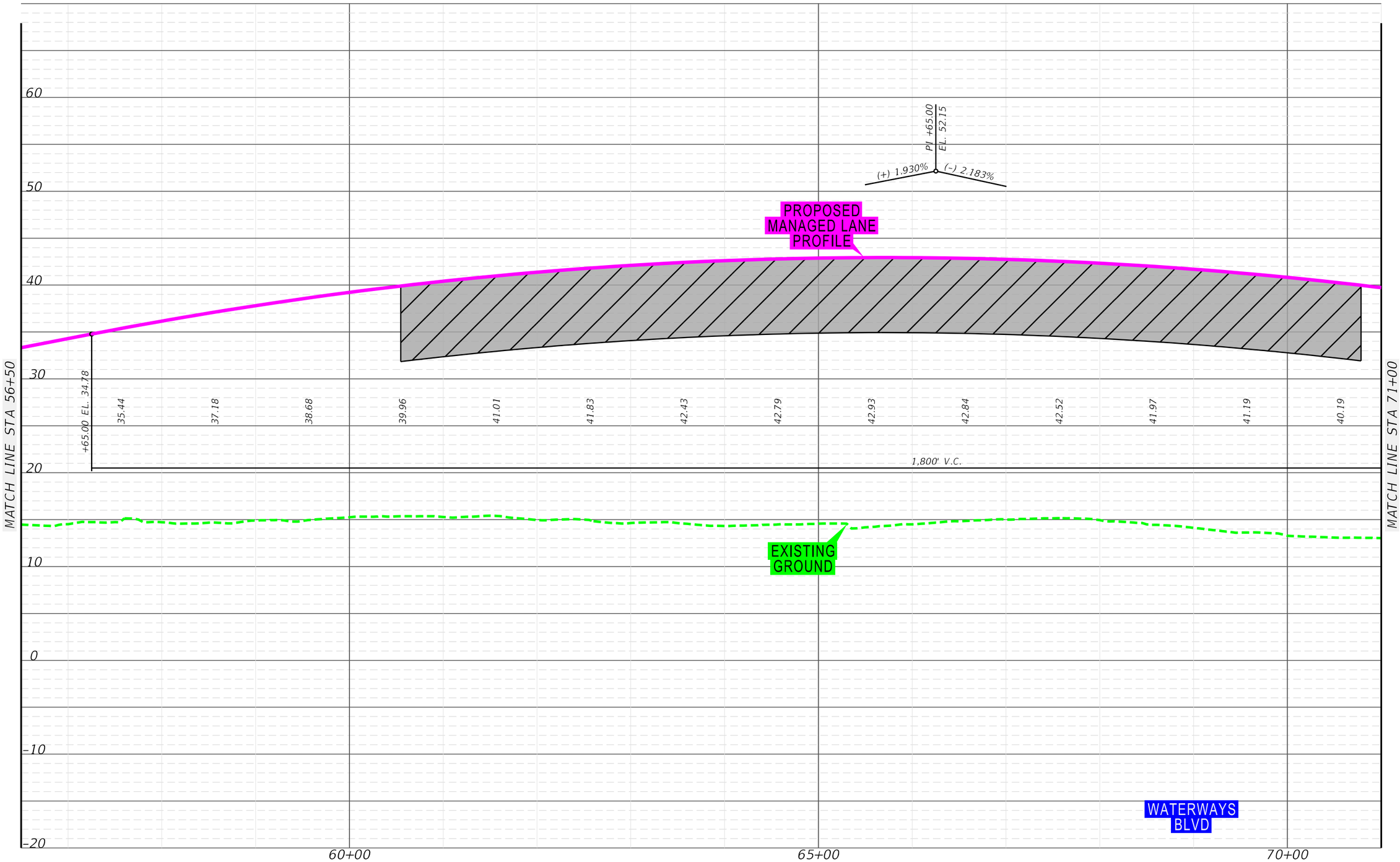
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FULL DEPRESSED PROFILE SHEETS





FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX B FULL DEPRESSED PROFILE	SHEET NO. B-71



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE

SHEET NO.
B-72

60
50
40
30
20
10
0
-10
-20

MATCH LINE STA 71+00

MATCH LINE STA 85+50

38.95
37.49
35.80
33.88
+65.00 EL. 32.51

PROPOSED MANAGED LANE PROFILE

EXISTING GROUND

INDEPENDENCE DRIVE

75+00
80+00
85+00

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE	SHEET NO. B-73

MATCH LINE STA 85+50

60
50
40
30
20
10
0
-10
-20

90+00
95+00

MATCH LINE STA 100+00

EXISTING GROUND

PROPOSED MANAGED LANE PROFILE

800' V.C.

+50.00 EL. -4.27

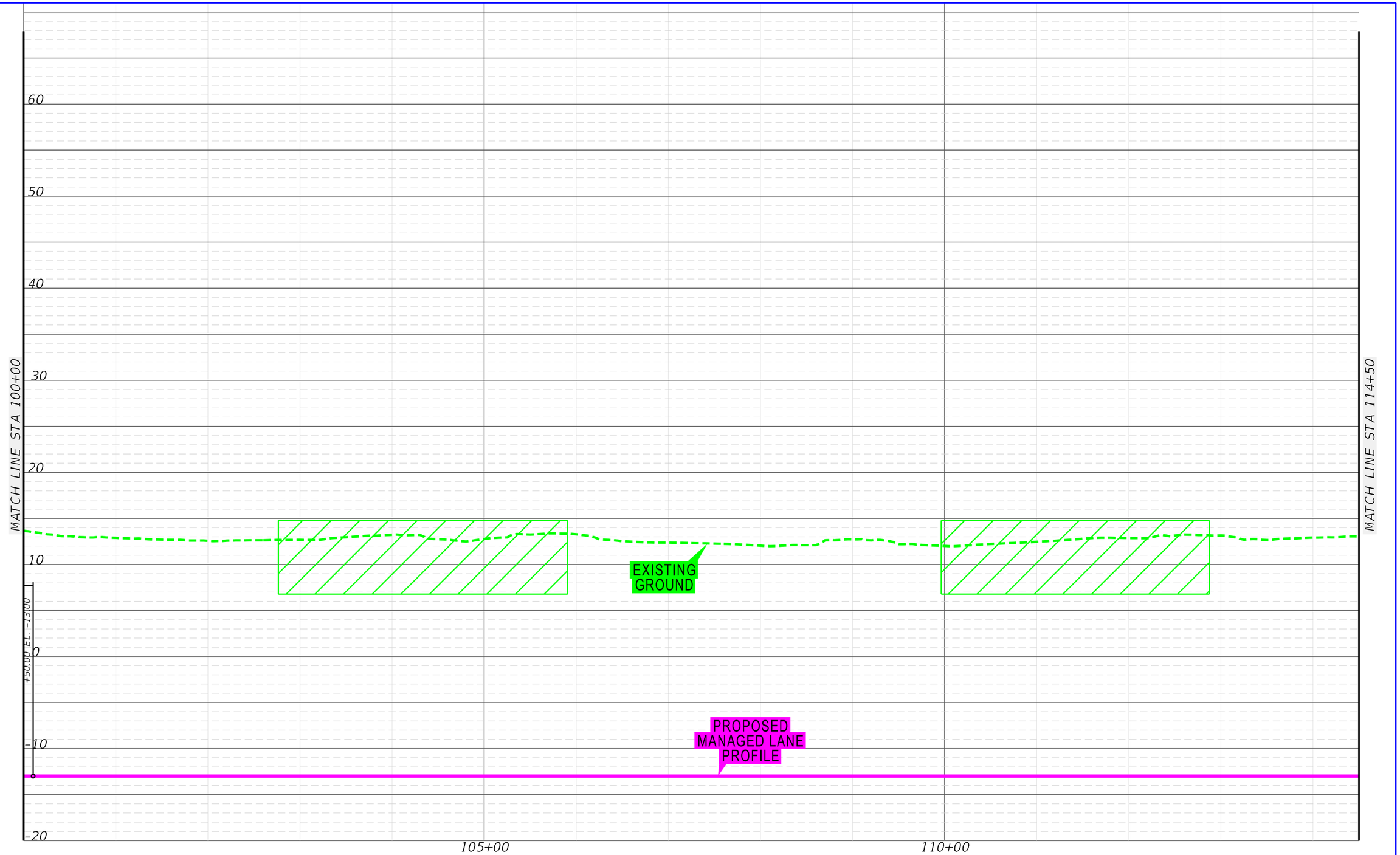
-5.33
-7.24
-8.87
-10.24
-11.33
-12.15
-12.69
-12.97

(-) 2.183%
(+) 0.000%

PI +50.00
EL. -13.00

POWERLINE ROAD

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE	SHEET NO. B-74



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE	SHEET NO. B-75

MATCH LINE STA 114+50

MATCH LINE STA 129+00

60
50
40
30
20
10
0
-10
-20

115+00
120+00
125+00

EXISTING GROUND

PROPOSED MANAGED LANE PROFILE

SW 30TH AVE

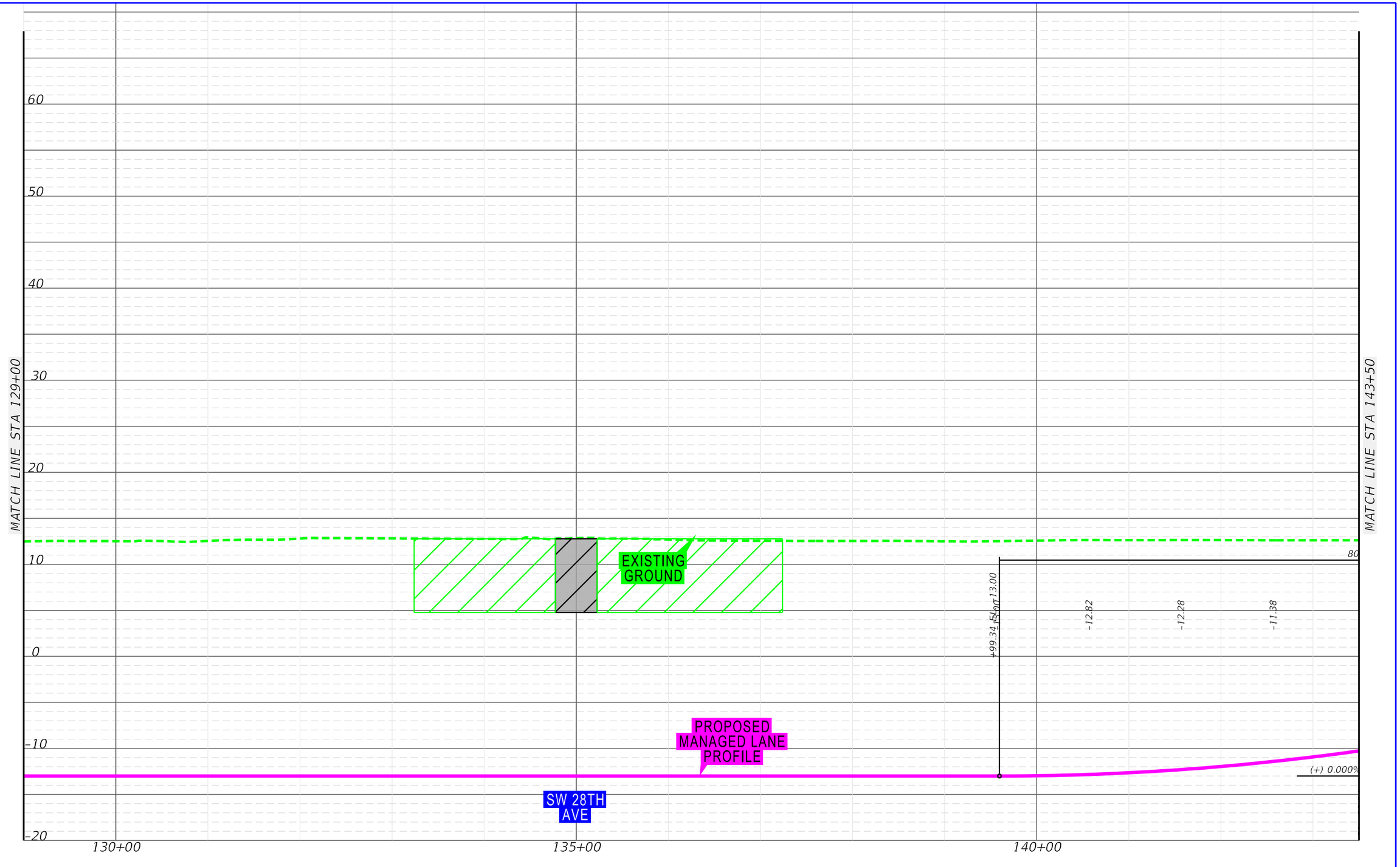
FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

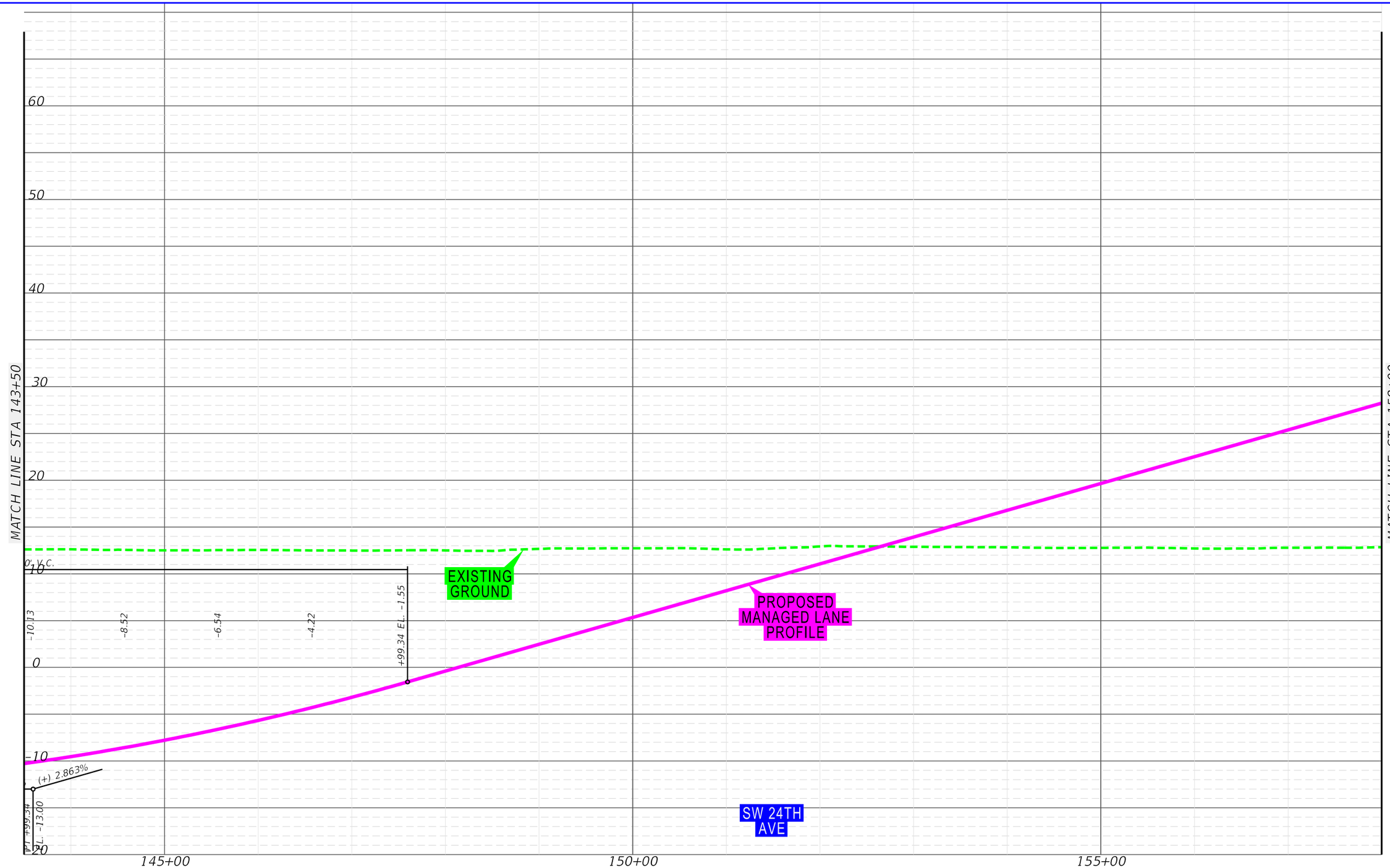
APPENDIX B
FULL DEPRESSED PROFILE

SHEET NO.
B-76



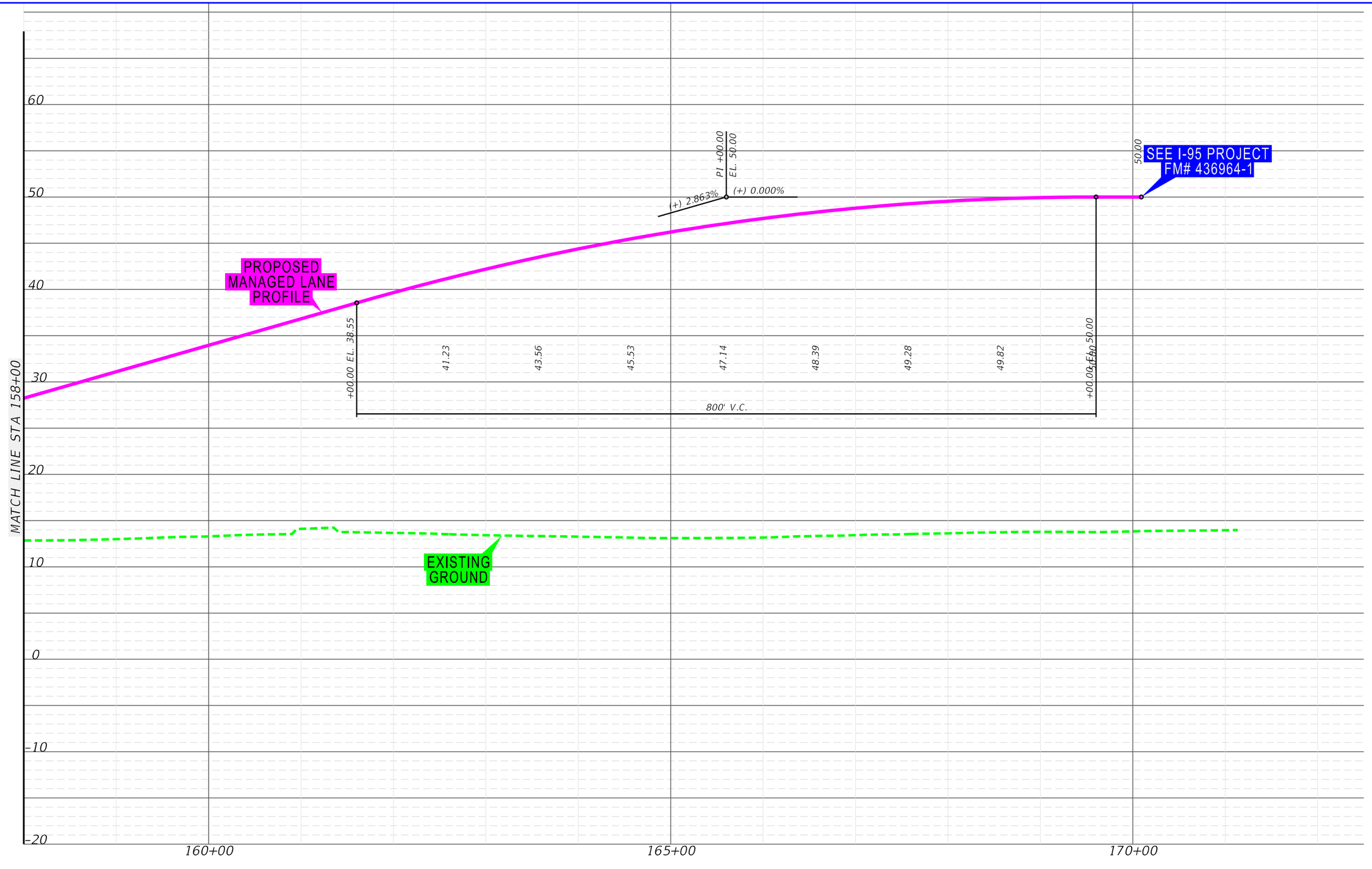
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE

SHEET NO.
B-77



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE

SHEET NO.
B-78

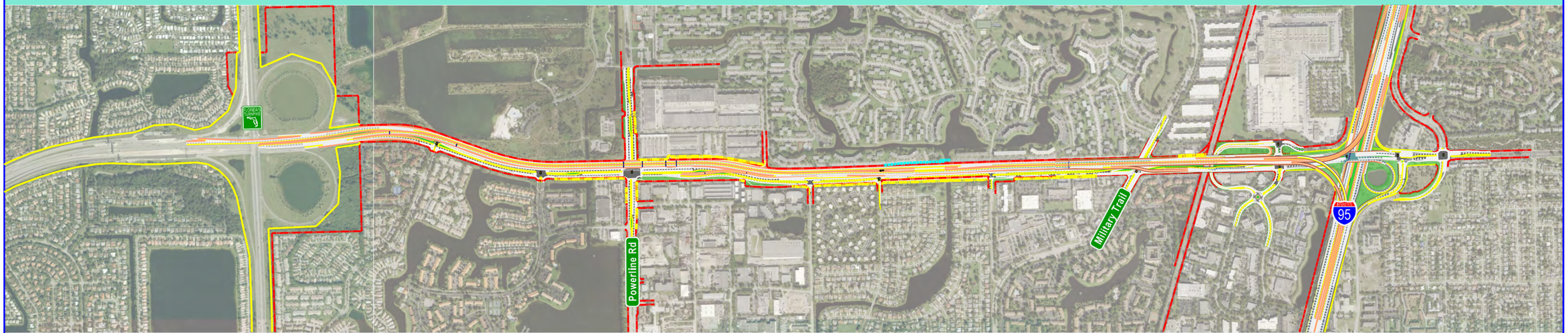


FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B FULL DEPRESSED PROFILE

SHEET NO.

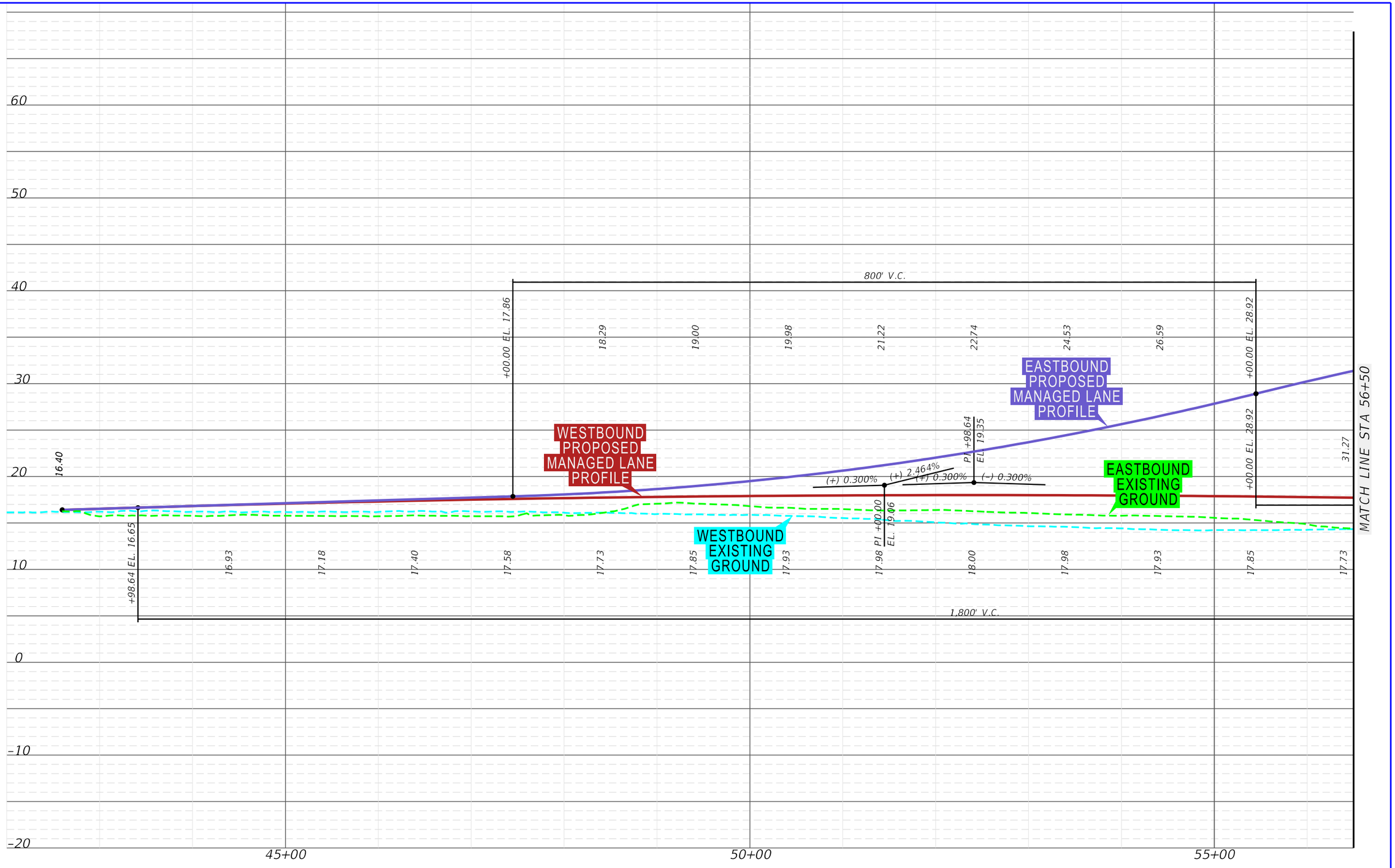
B-79

DEPRESSED WESTBOUND EXIT RAMP PROFILE SHEETS



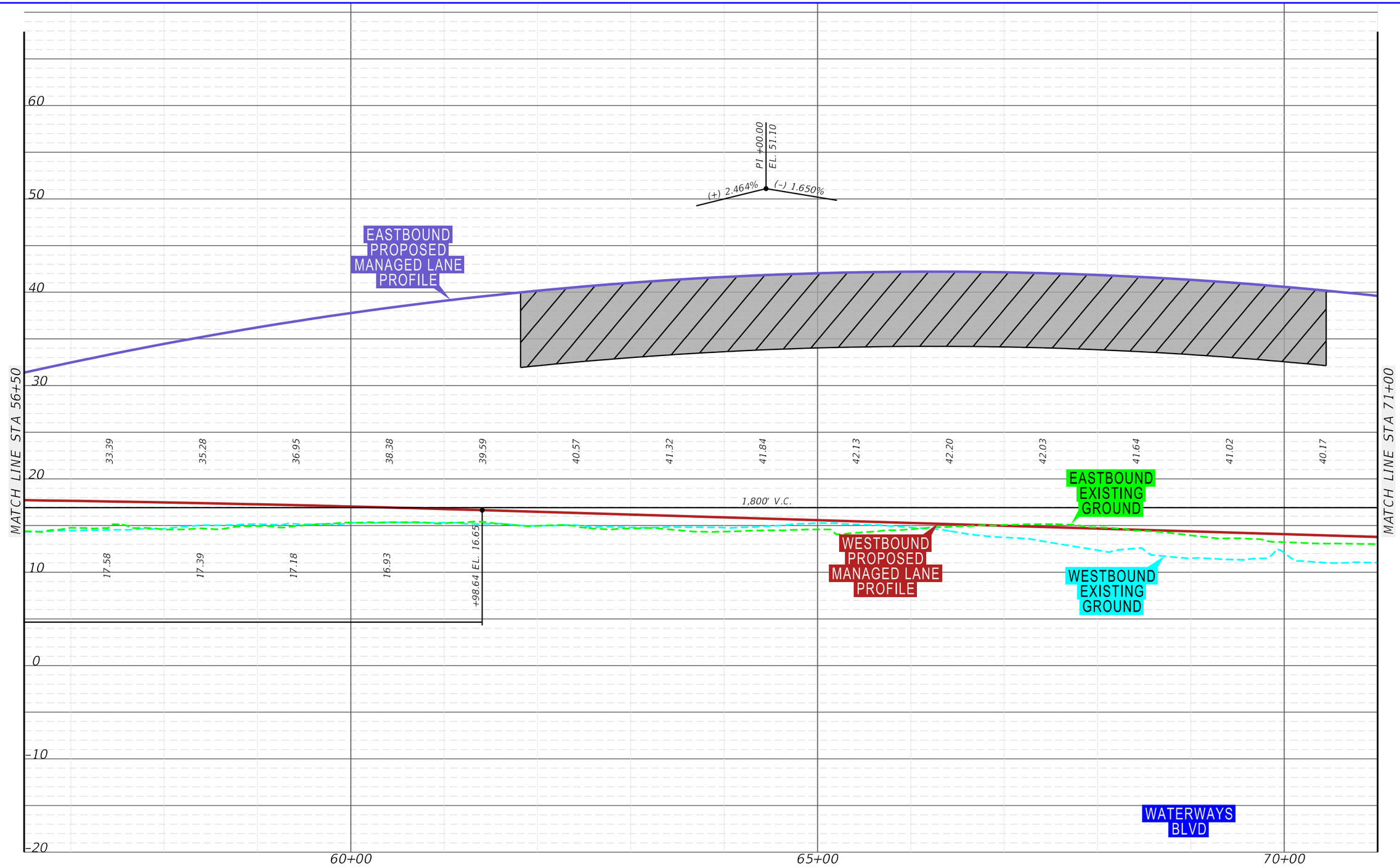
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

SHEET NO.
ix



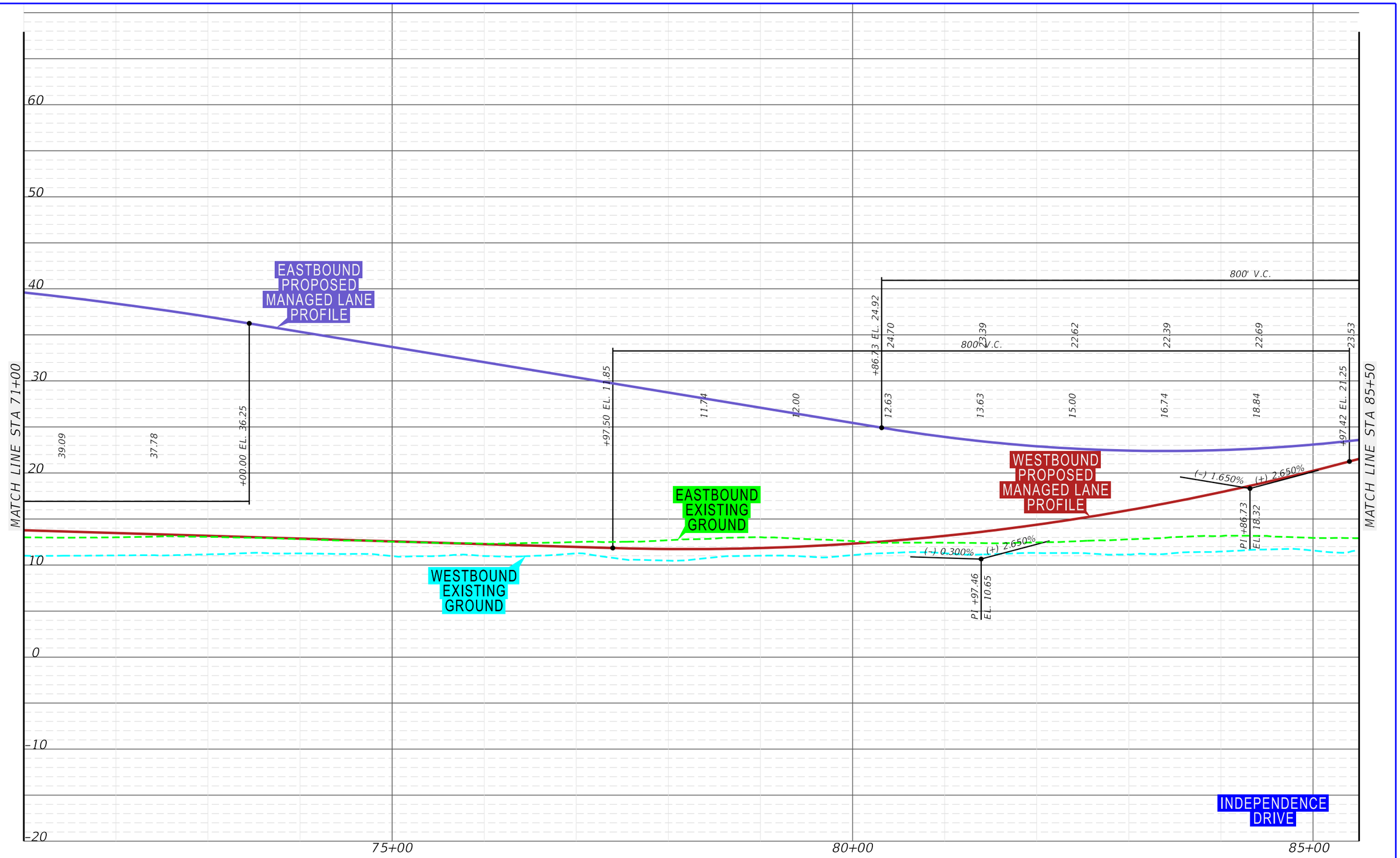
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-80



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

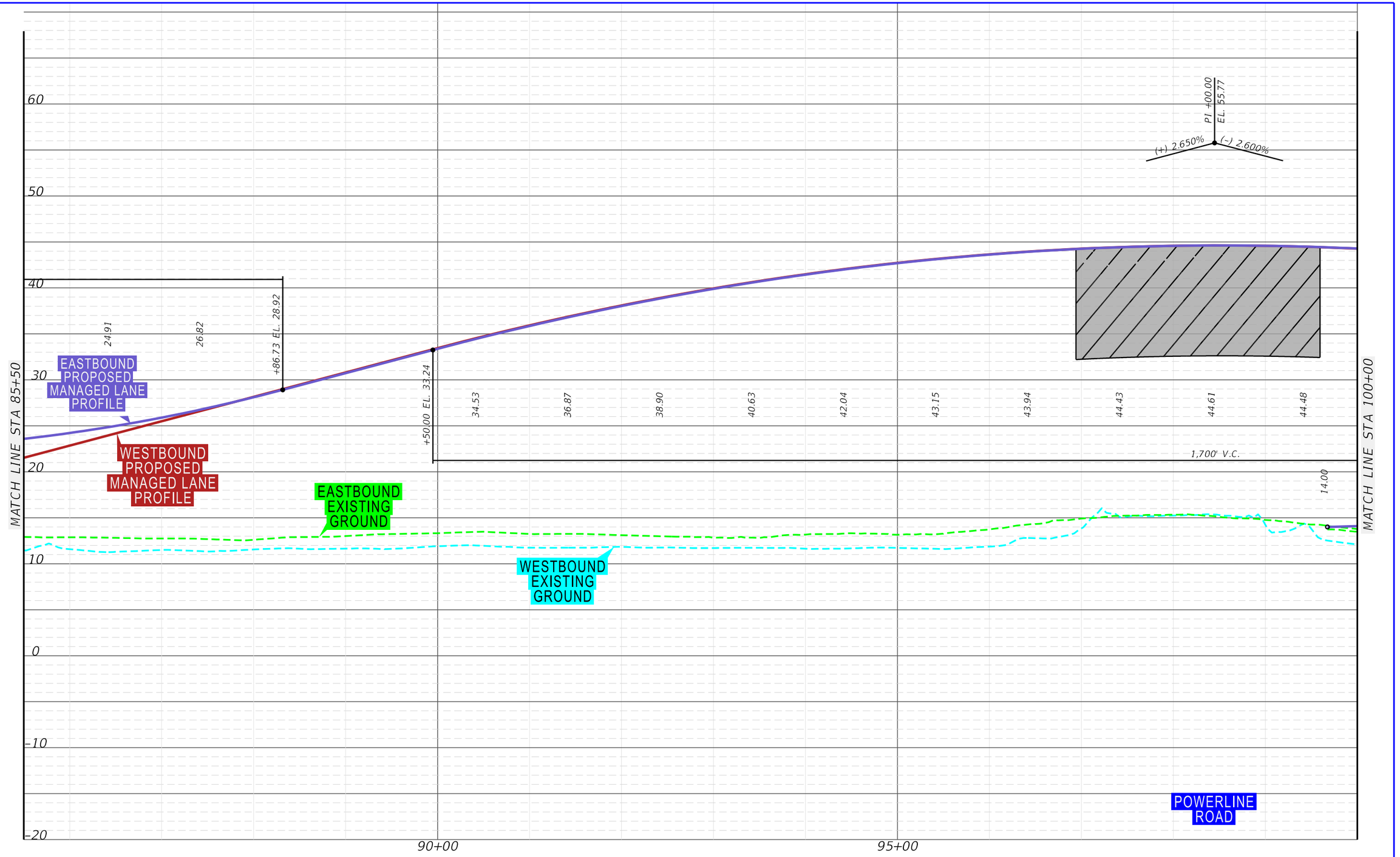
SHEET NO.
B-81



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-82



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-83

WESTBOUND PROPOSED MANAGED LANE PROFILE

EASTBOUND PROPOSED MANAGED LANE PROFILE

EASTBOUND ENTRANCE RAMP

WESTBOUND EXISTING GROUND

EASTBOUND EXISTING GROUND

MATCH LINE STA 100+00

MATCH LINE STA 114+50

60
50
40
30
20
10
0
-10
-20

105+00
110+00

K = 49
279' V.C.

K = 52
605' V.C.

(+) 0.300%
(+) 6.000%
(+) 6.000%
(-) 5.600%

PI +87.50
EL. 54.09

PI +52.00
EL. 15.96

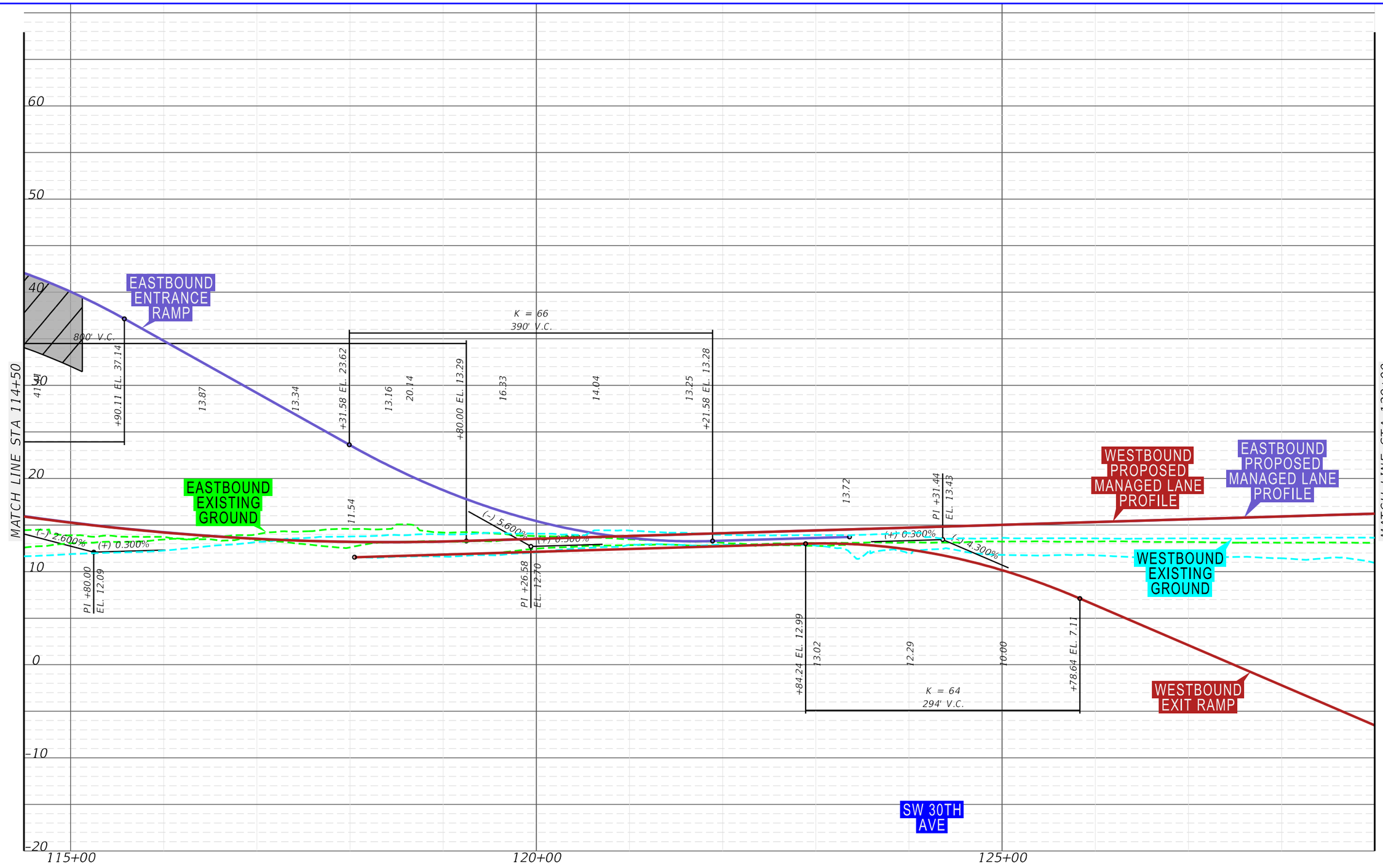
+12.35 EL. 15.54
+50.00 EL. 33.67
+91.65 EL. 24.34
+80.00 EL. 22.49
+84.89 EL. 35.93

44.04
43.30
42.24
40.88
39.20
37.22
16.58
34.93
19.69
36.81
41.57
21.98
44.40
19.63
45.32
17.65
44.32
16.02

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

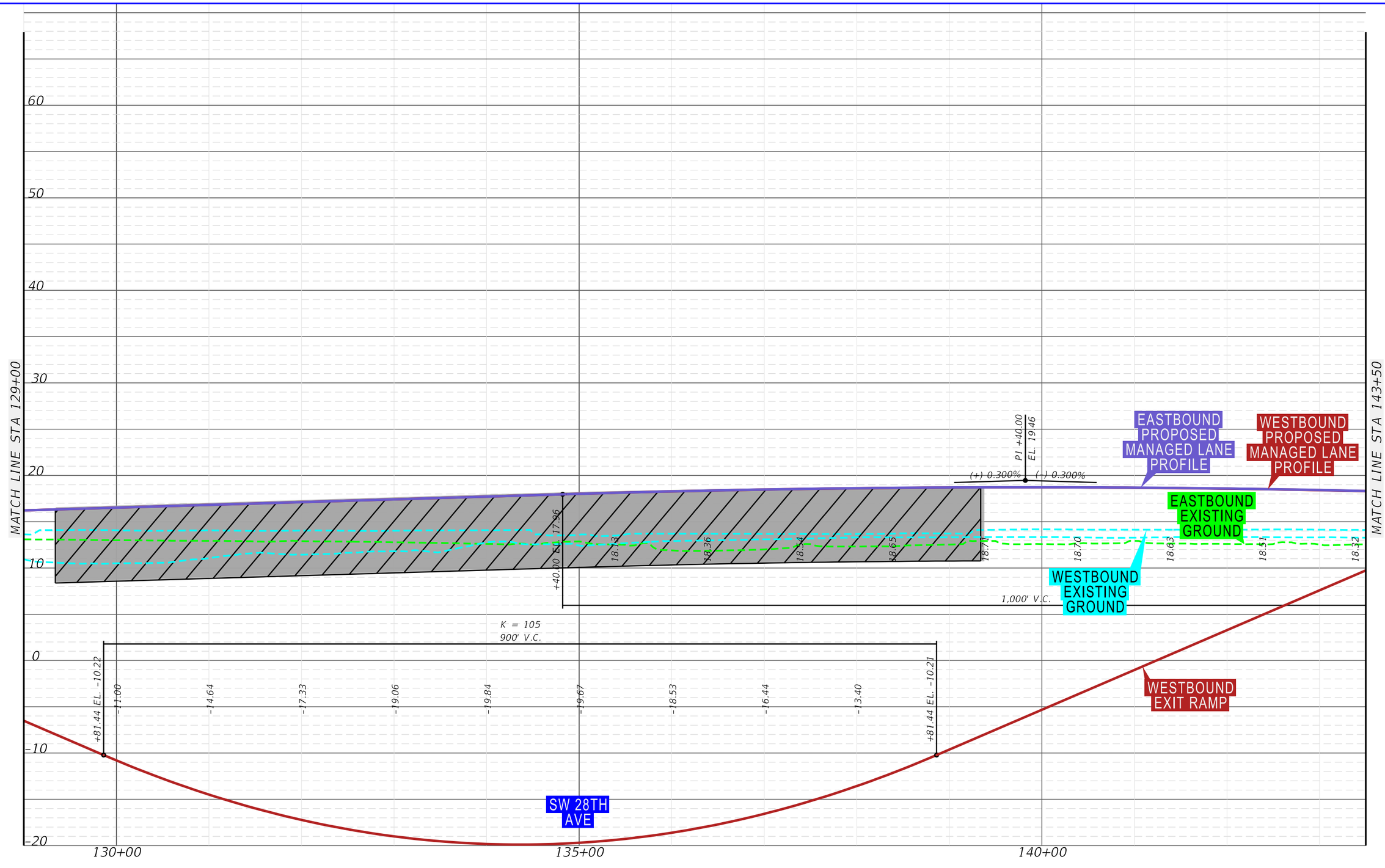
APPENDIX B
DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-84



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-85



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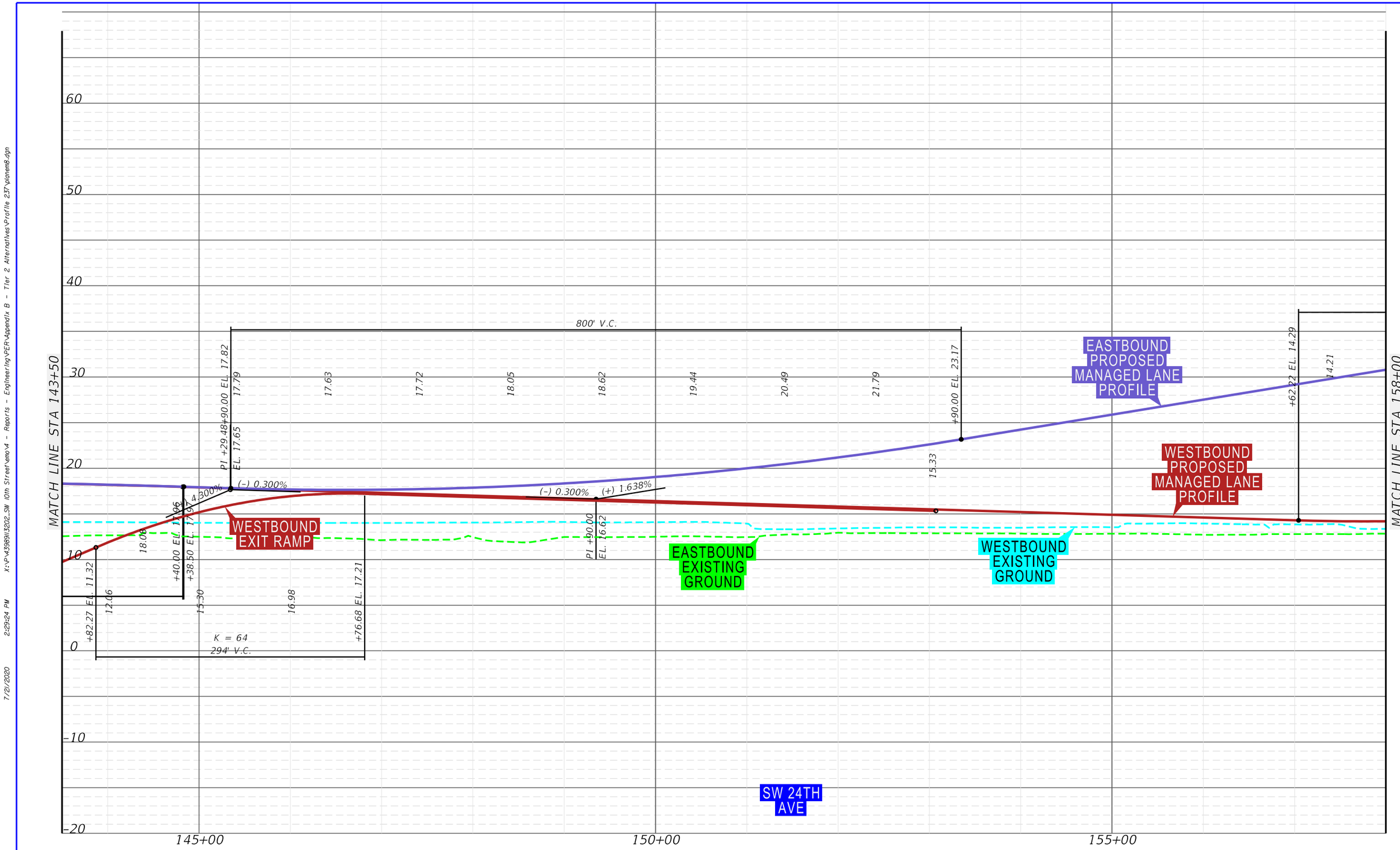
7/21/2020 2:29:23 PM
kenljm

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

SHEET NO.
B-86



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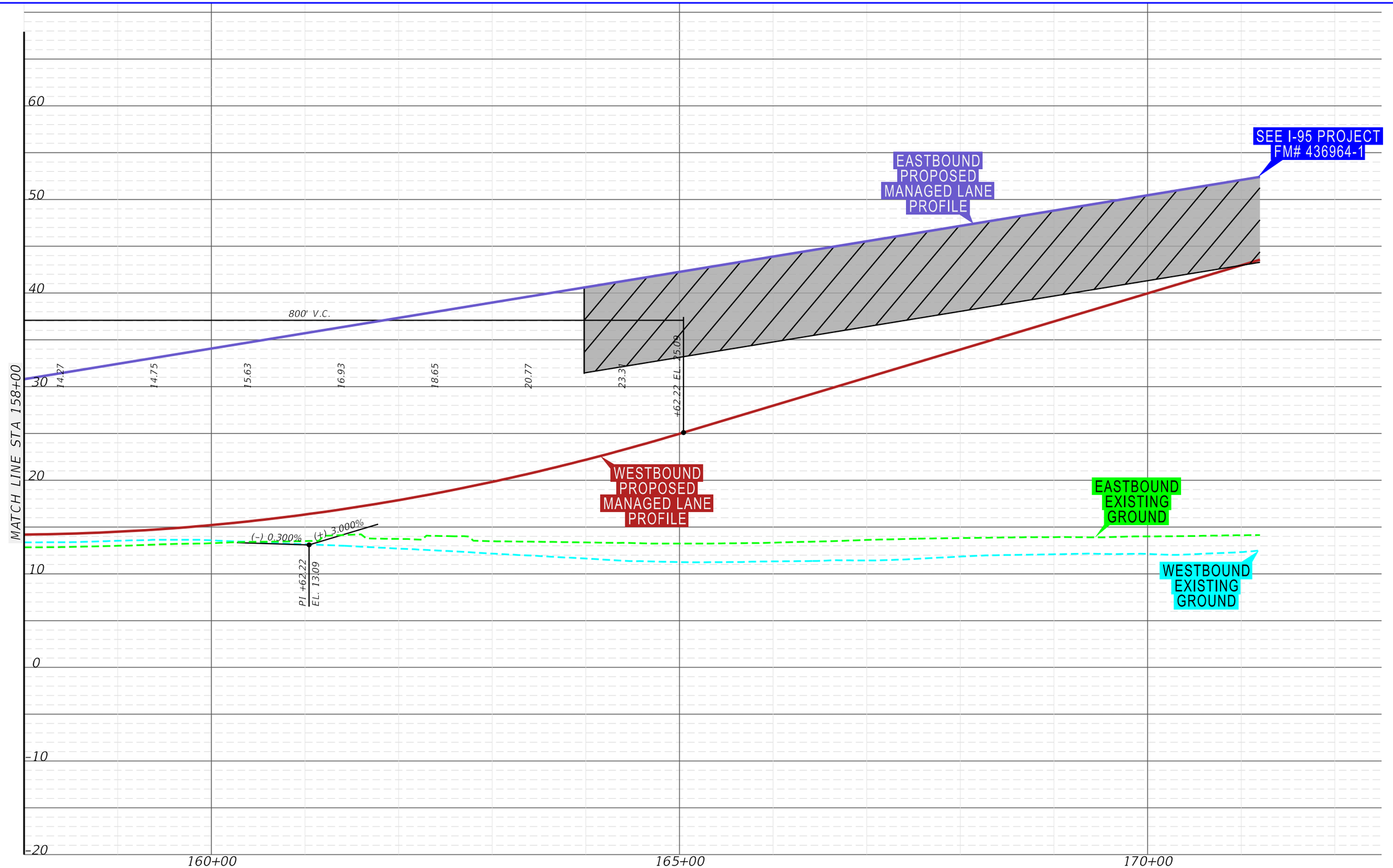
kent.jm

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

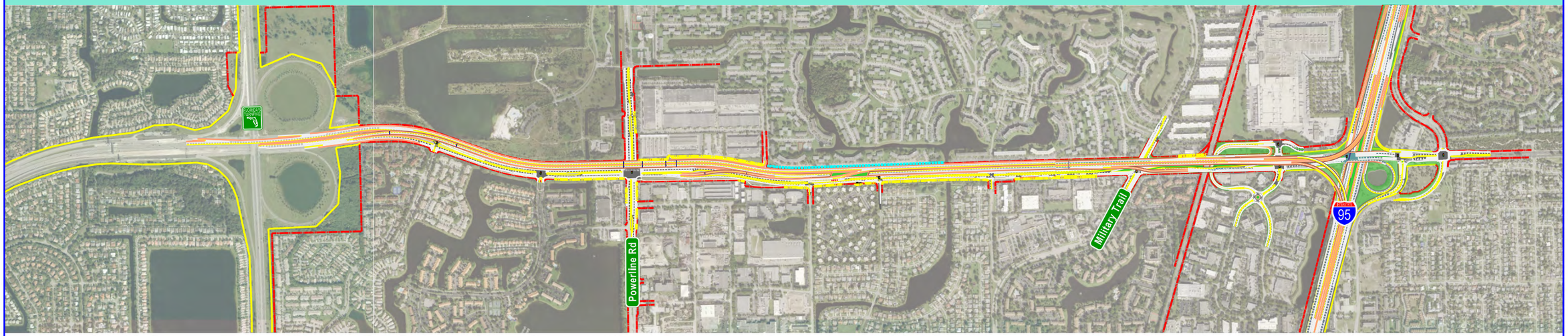
SHEET NO.
B-87



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED WESTBOUND EXIT RAMP PROFILE

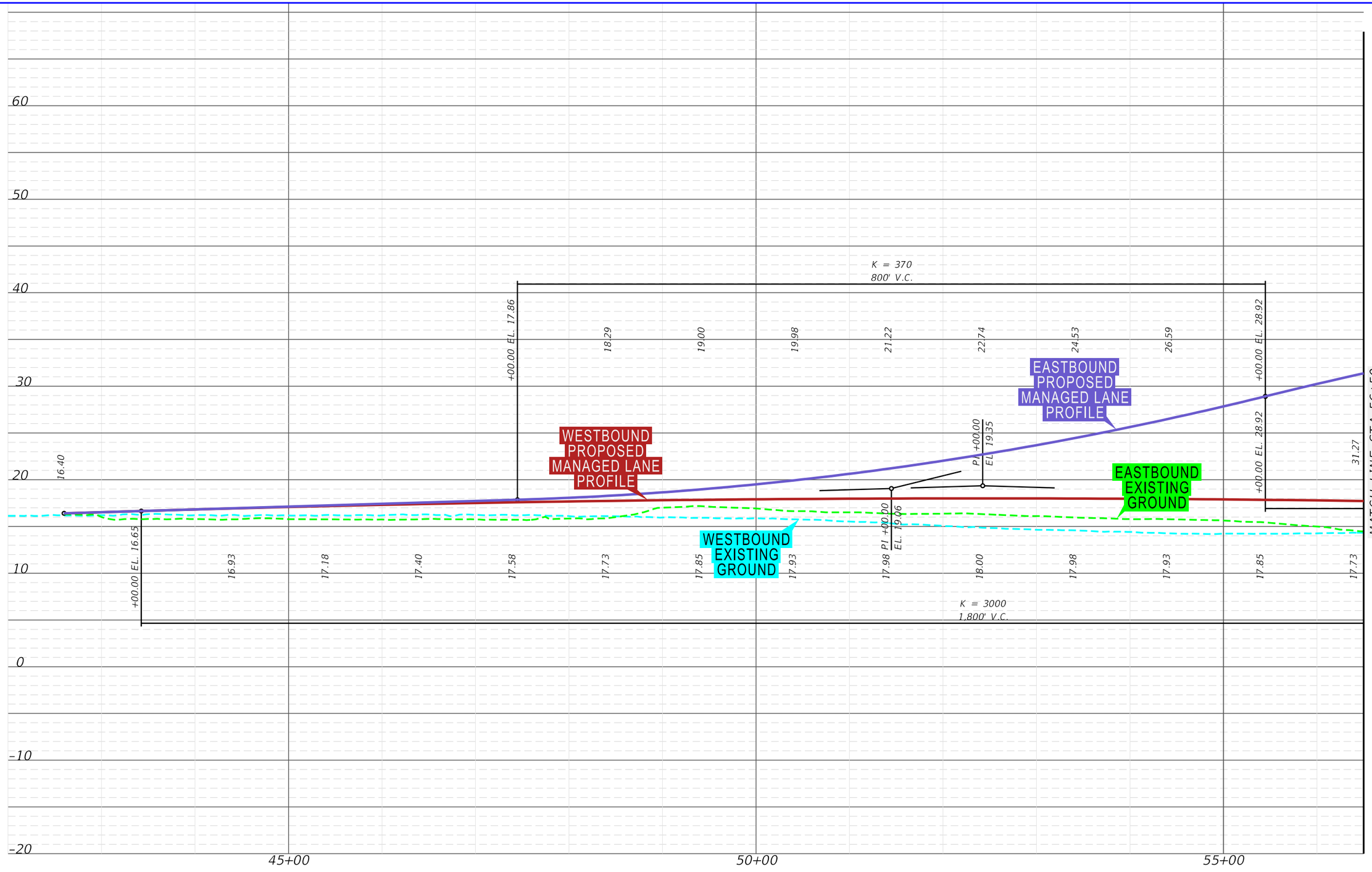
SHEET NO.
B-88

DEPRESSED EASTBOUND MANAGED LANES
PROFILE SHEETS



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

SHEET NO.
x



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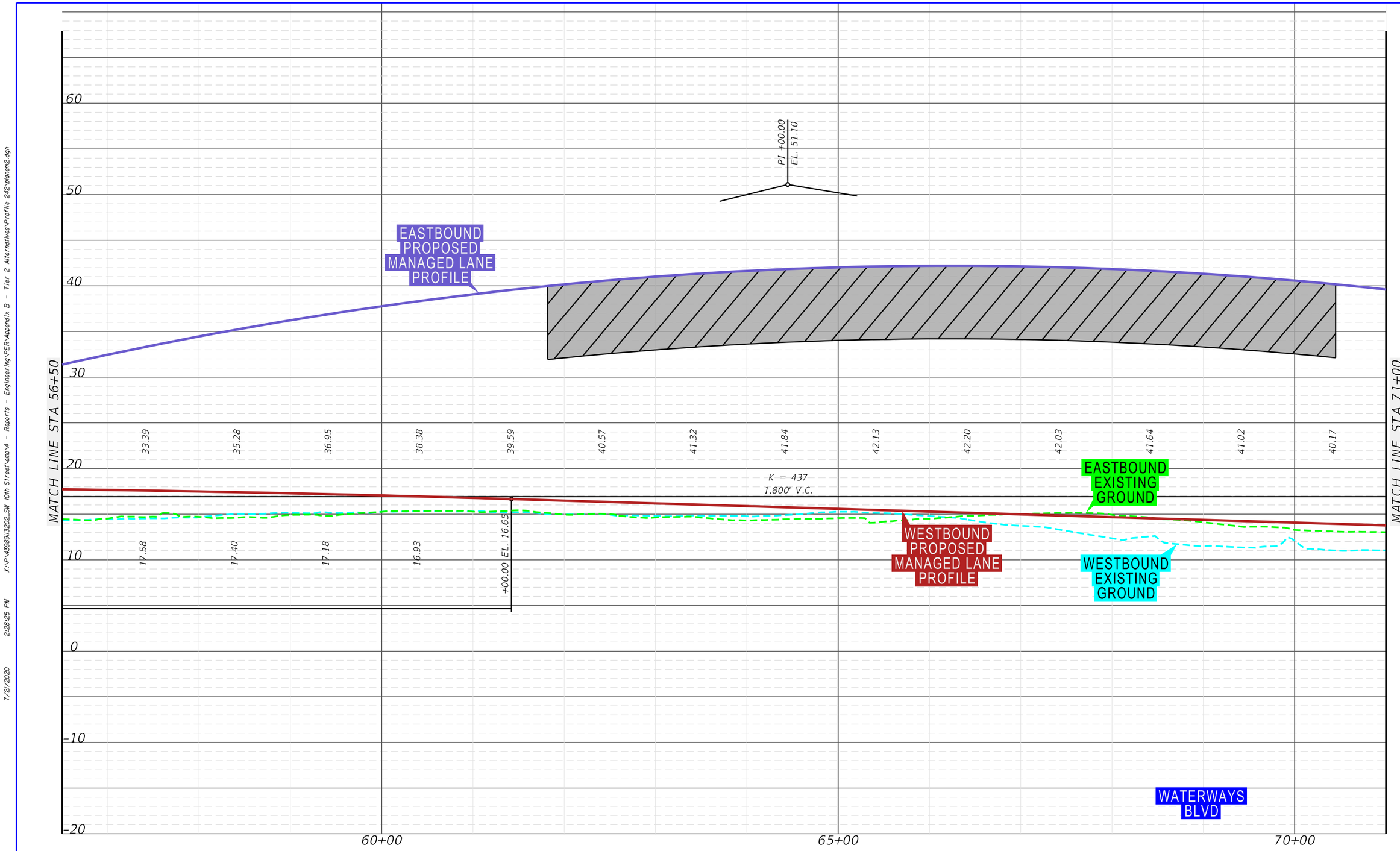
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE	SHEET NO. B-89



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
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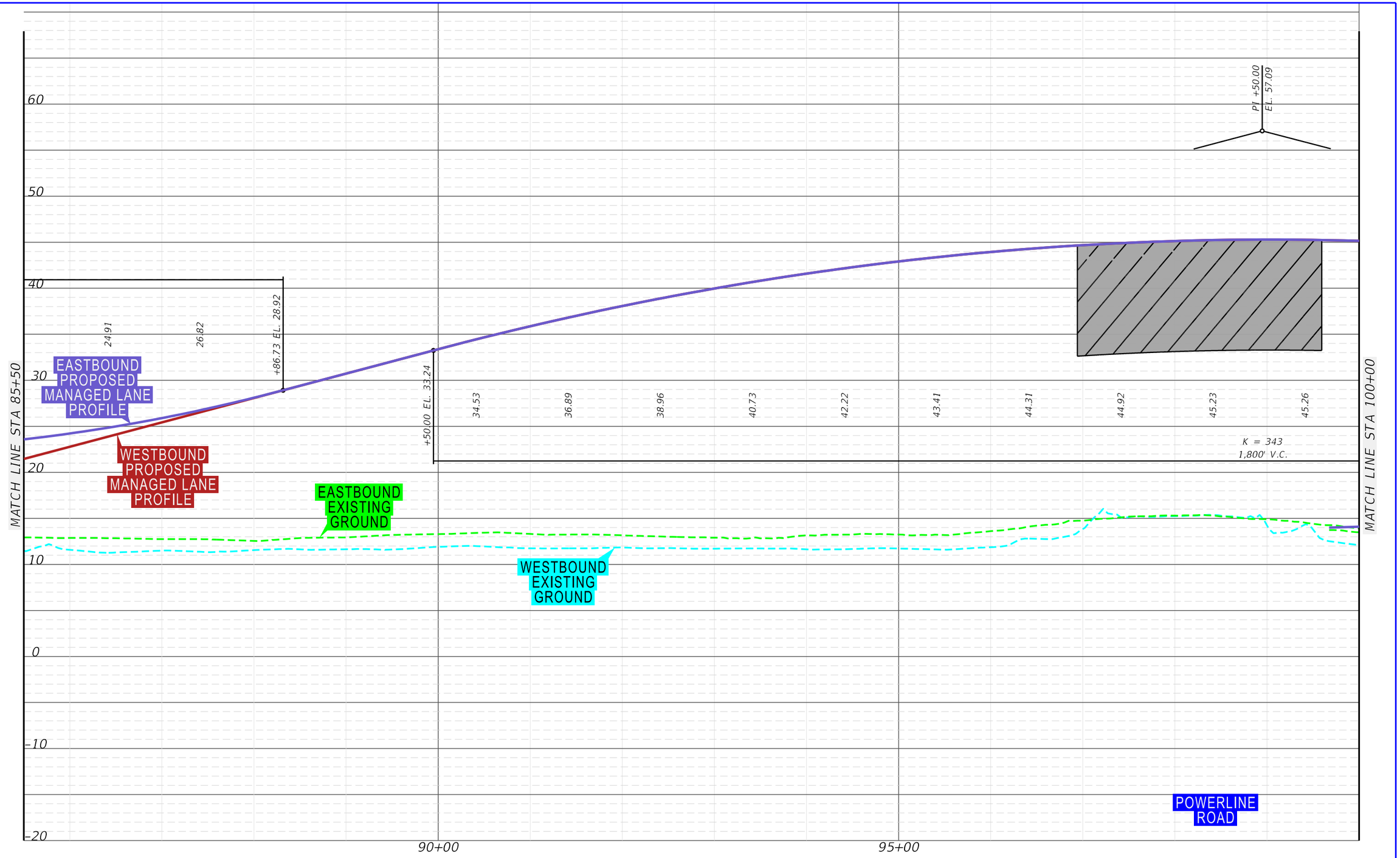
APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES PROFILE

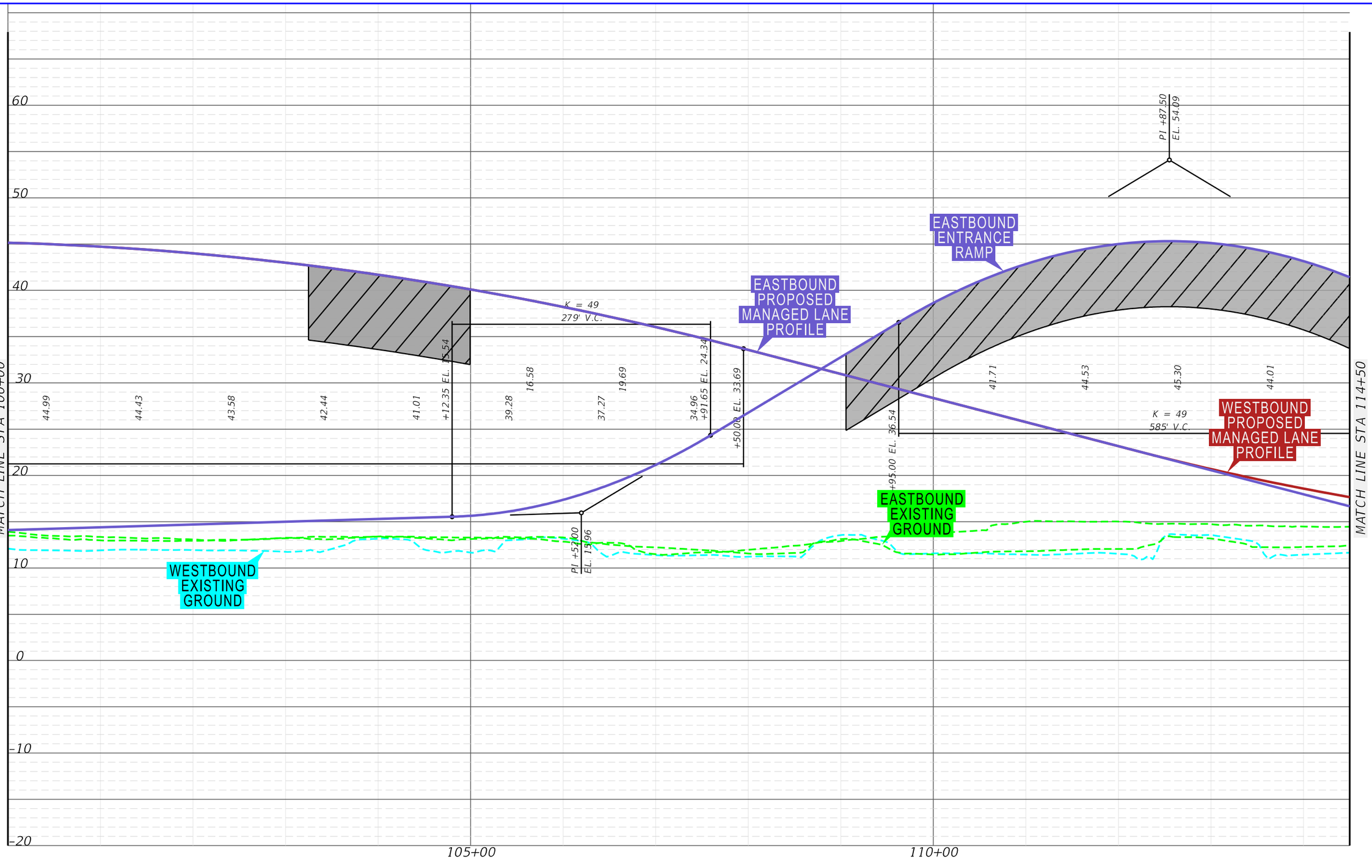
SHEET NO.
B-90

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE

SHEET NO.
B-91



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

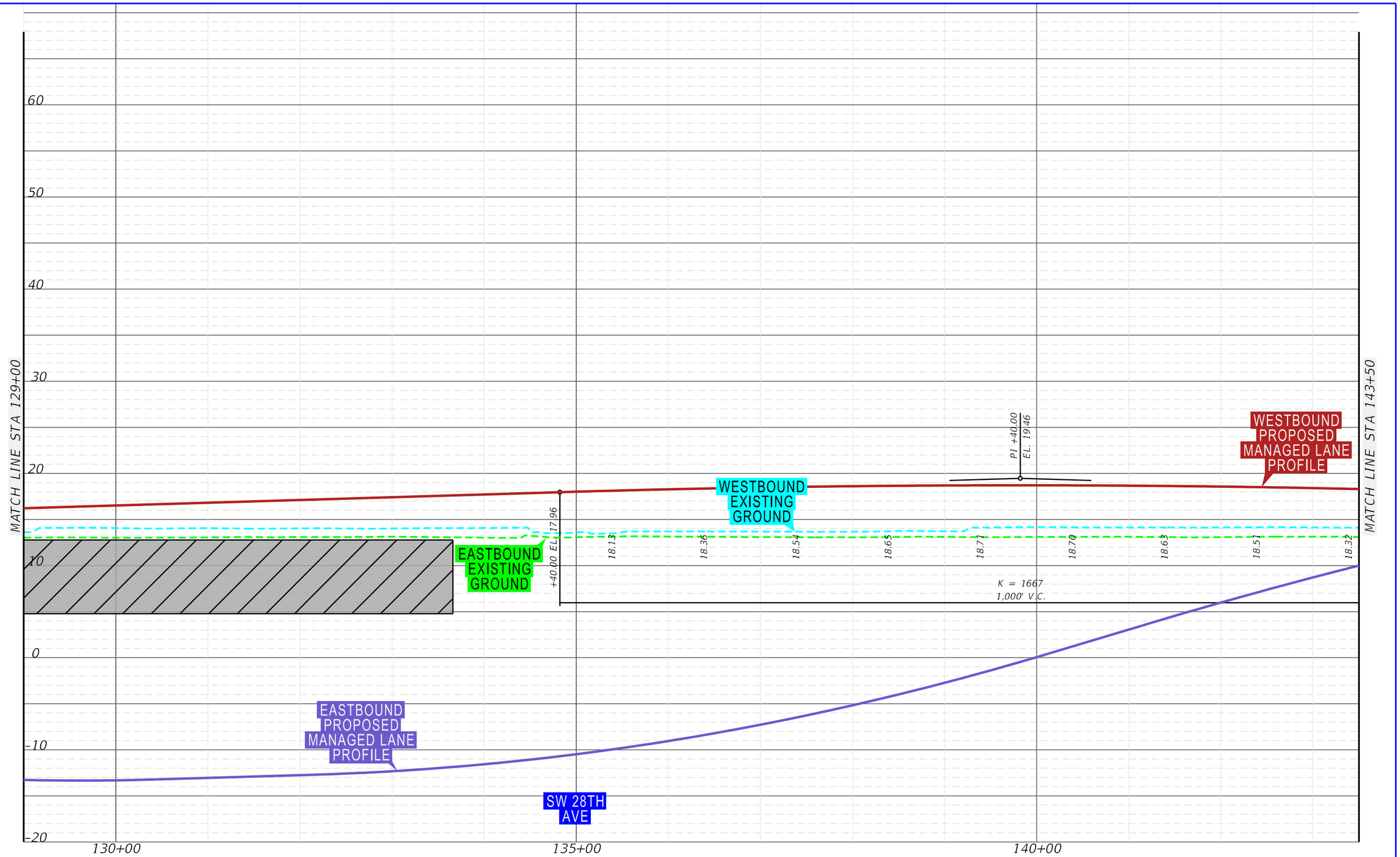
APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES PROFILE

SHEET NO.
B-93

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

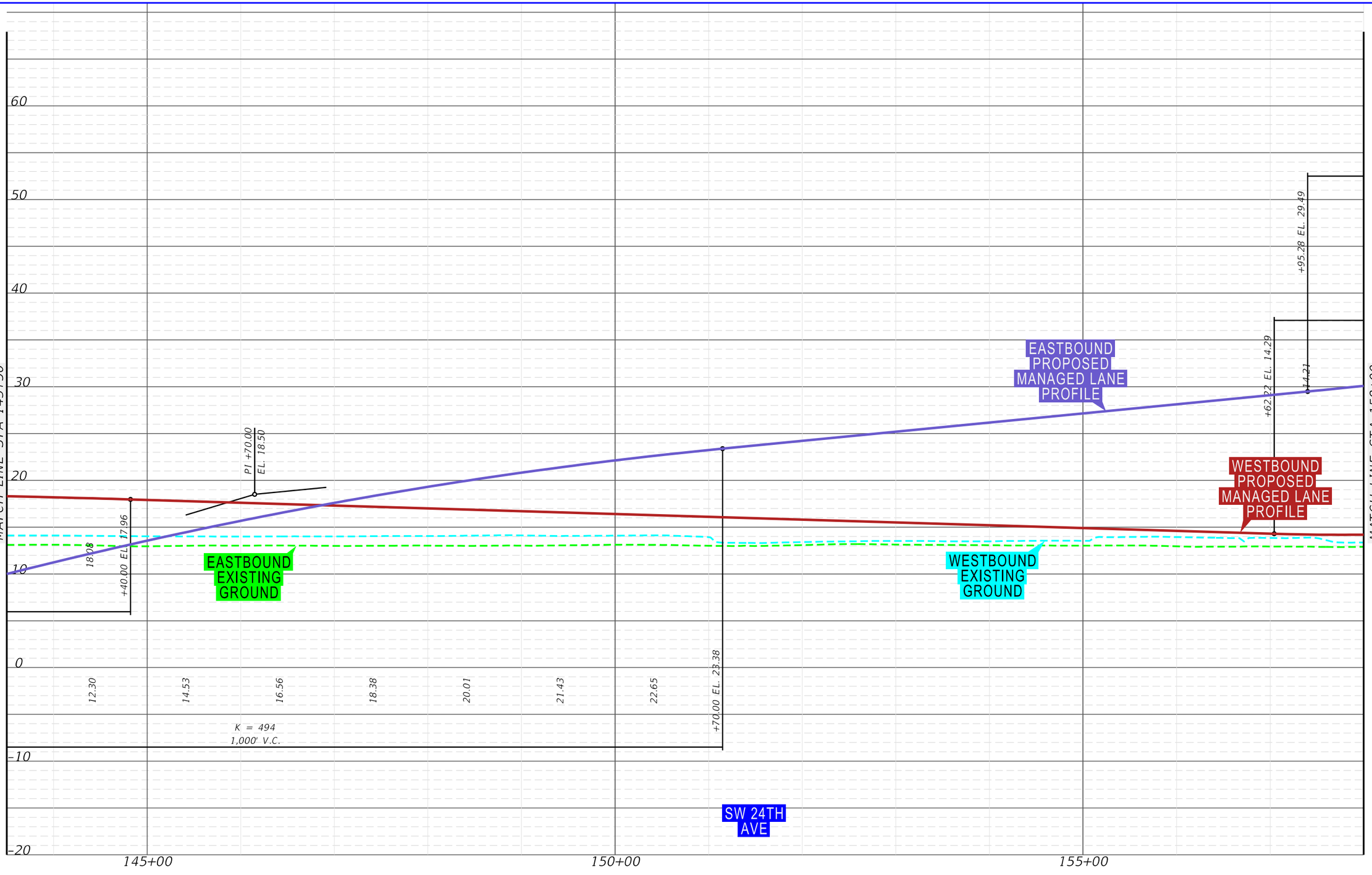
APPENDIX B
DEPRESSED EASTBOUND MANAGED LANES PROFILE

SHEET NO.
B-94



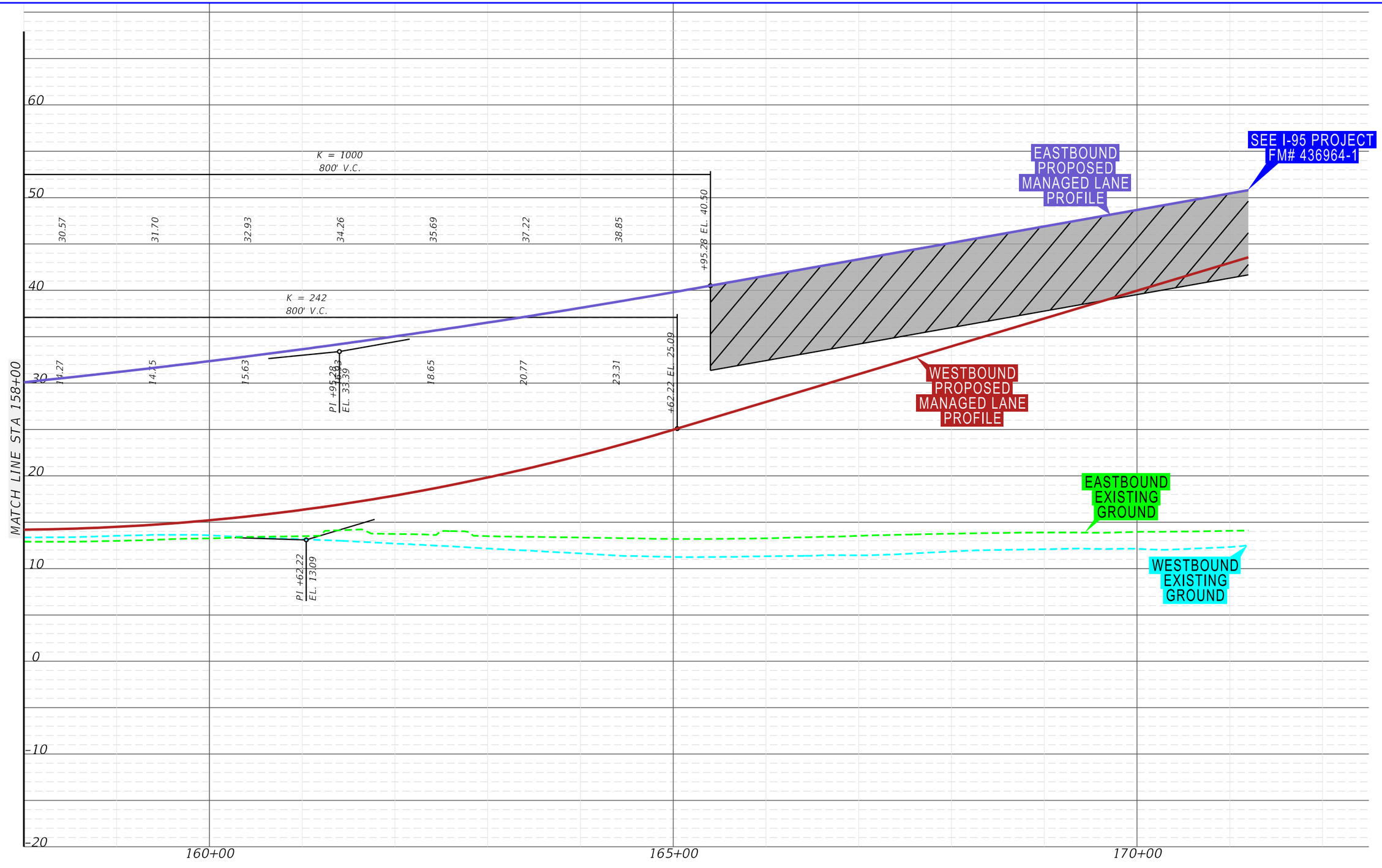
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE

SHEET NO.
B-95



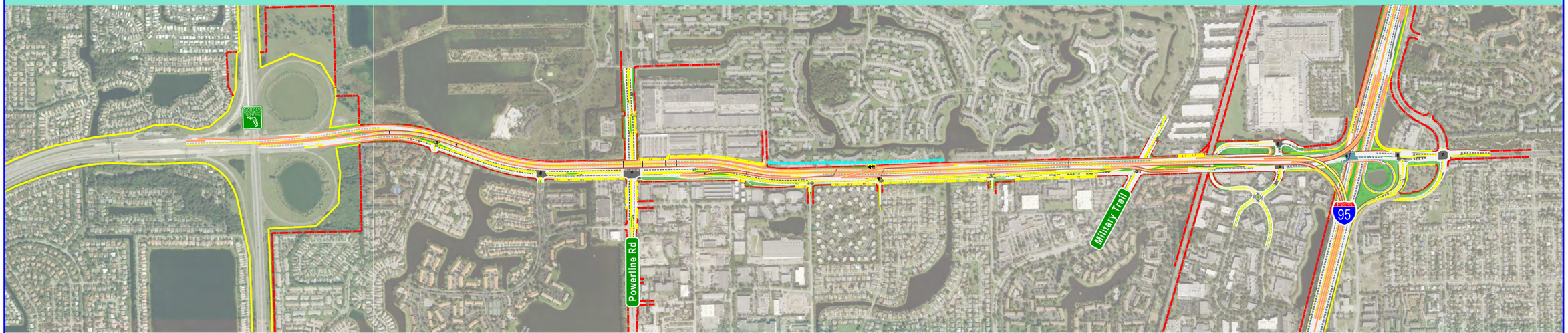
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE

SHEET NO.
B-96



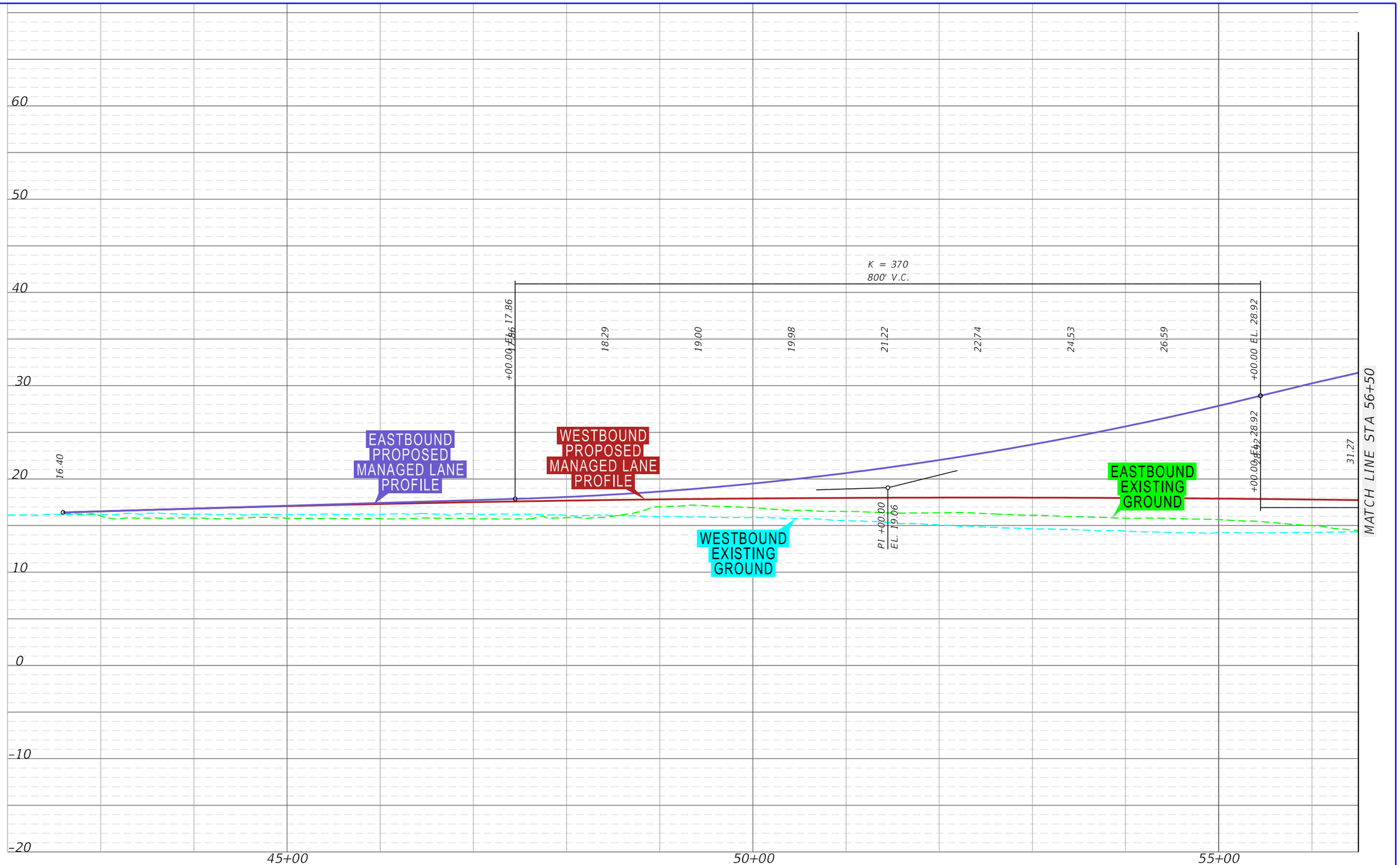
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND MANAGED LANES PROFILE

DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE SHEETS



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

SHEET NO.
xi



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE
			SHEET NO. B-98

60
50
40
30
20
10
0
-10
-20

MATCH LINE STA 56+50

33.39 35.28 36.95 38.38 39.59 40.57 41.32 41.84 42.13 42.20 42.03 41.64 41.02 40.17

MATCH LINE STA 71+00

P1 +00.00
EL. 51.10

K = 437
1,800' V.C.

EASTBOUND PROPOSED MANAGED LANE PROFILE

EASTBOUND EXISTING GROUND

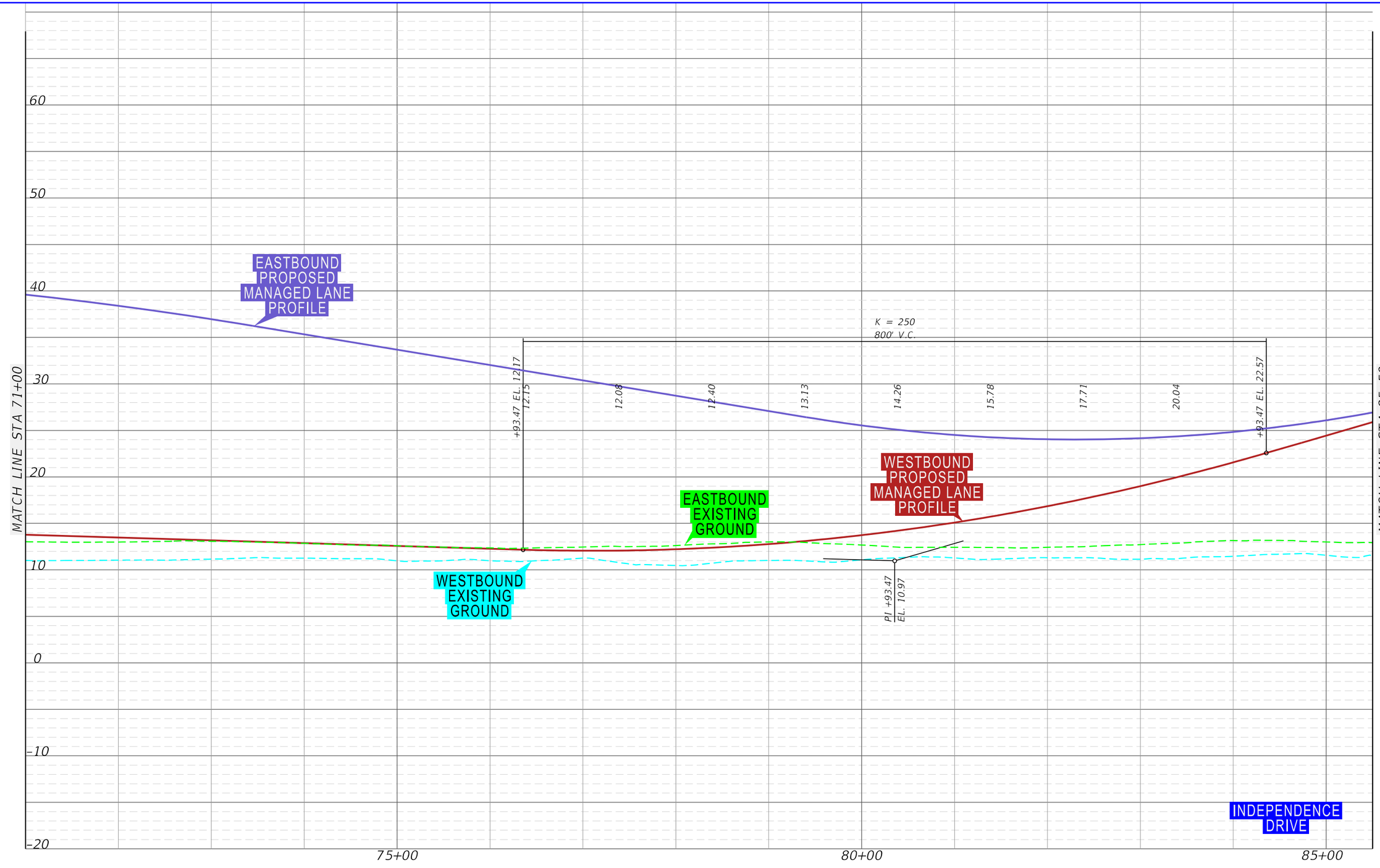
WESTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING GROUND

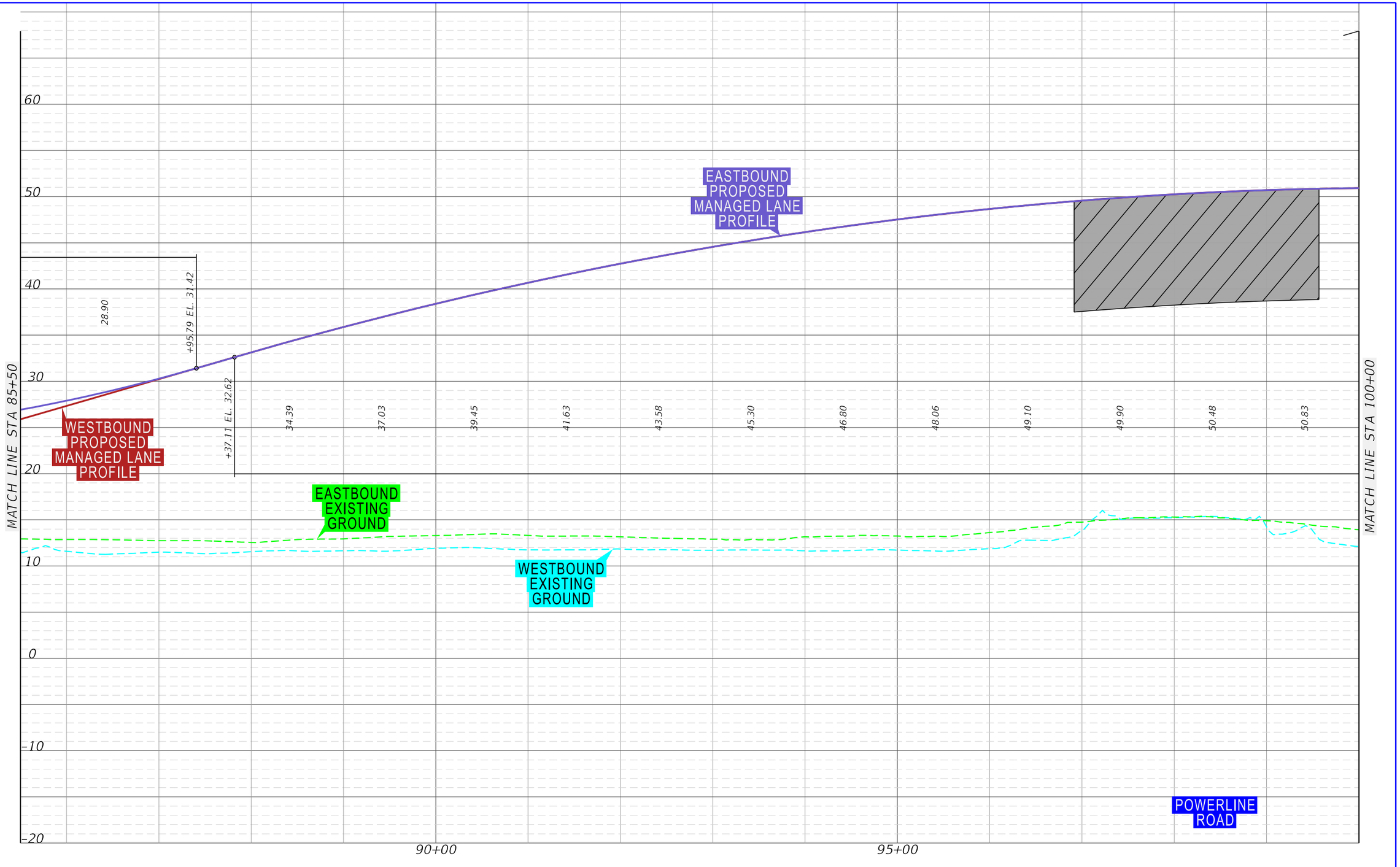
WATERWAYS BLVD

60+00 65+00 70+00

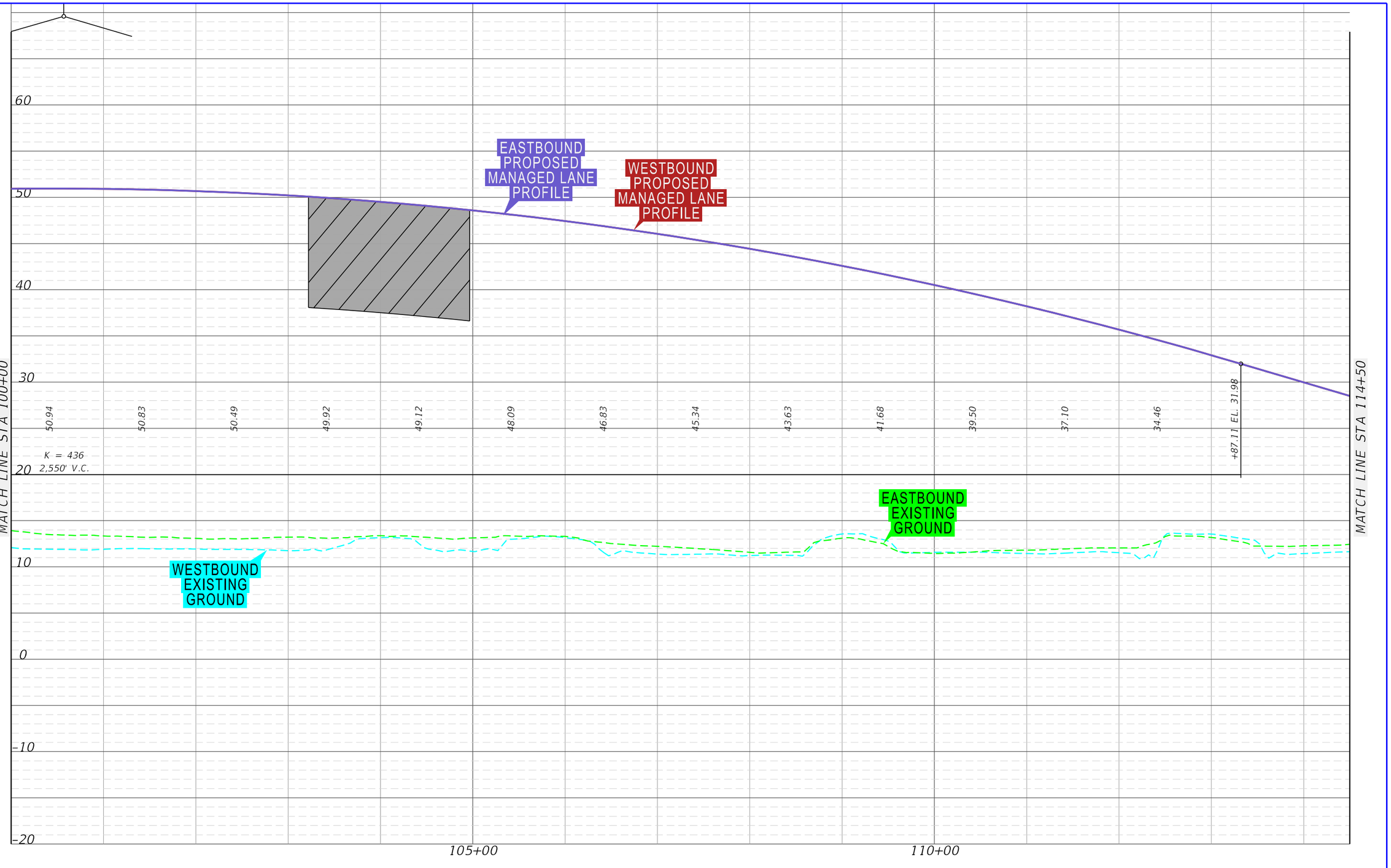
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE	SHEET NO. B-99



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE
			SHEET NO. B-100



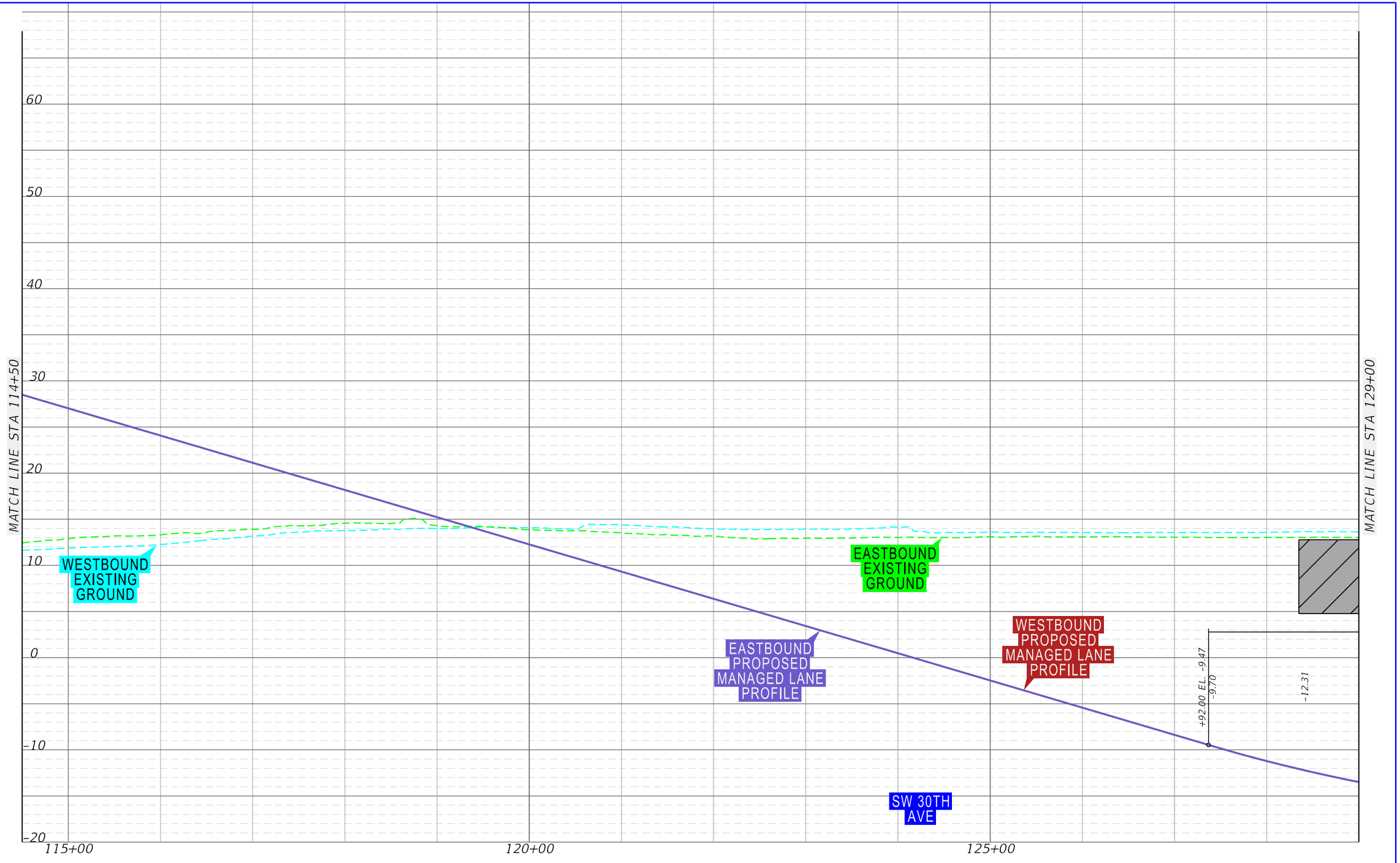
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE	SHEET NO. B-101



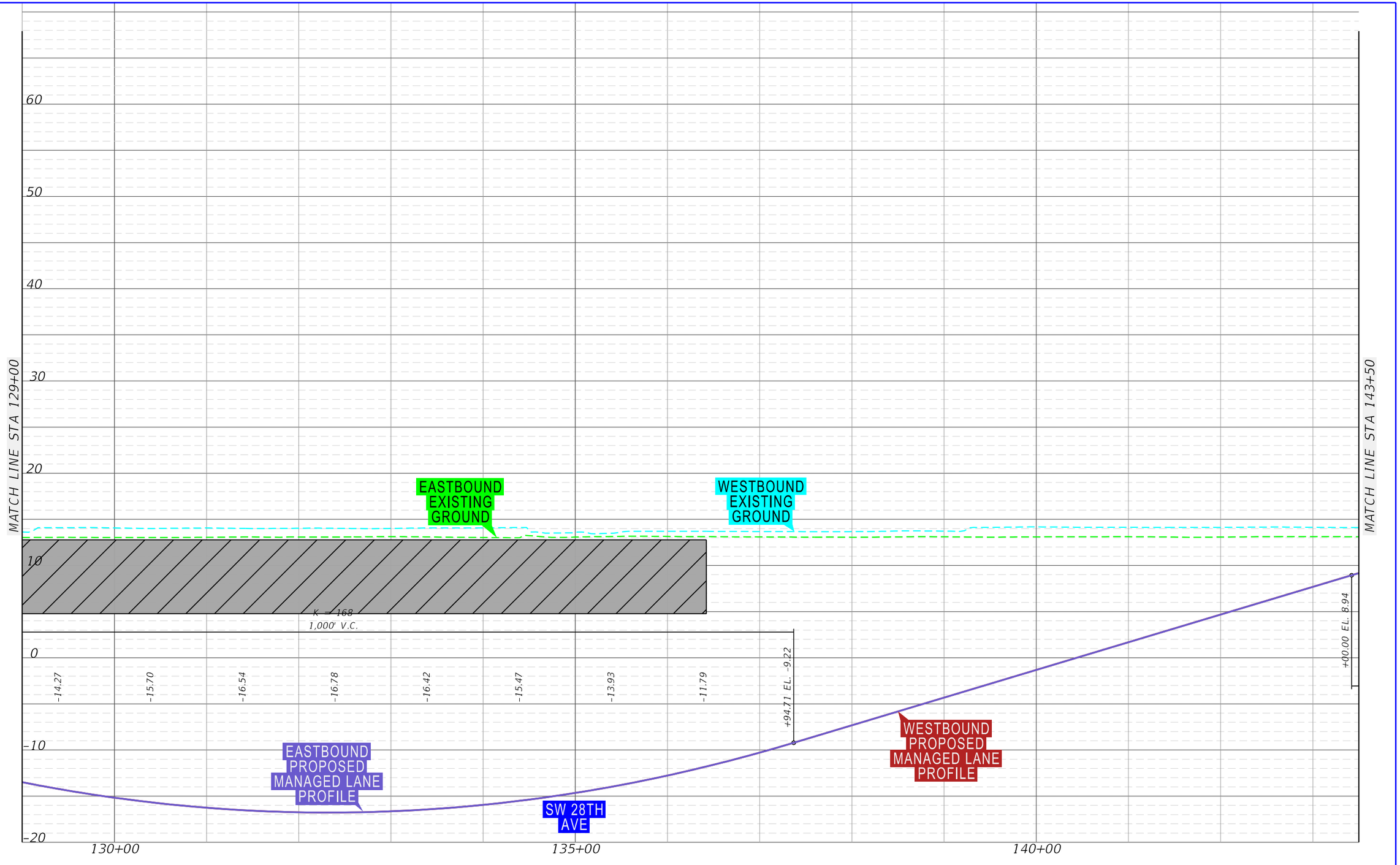
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE

SHEET NO.
B-102

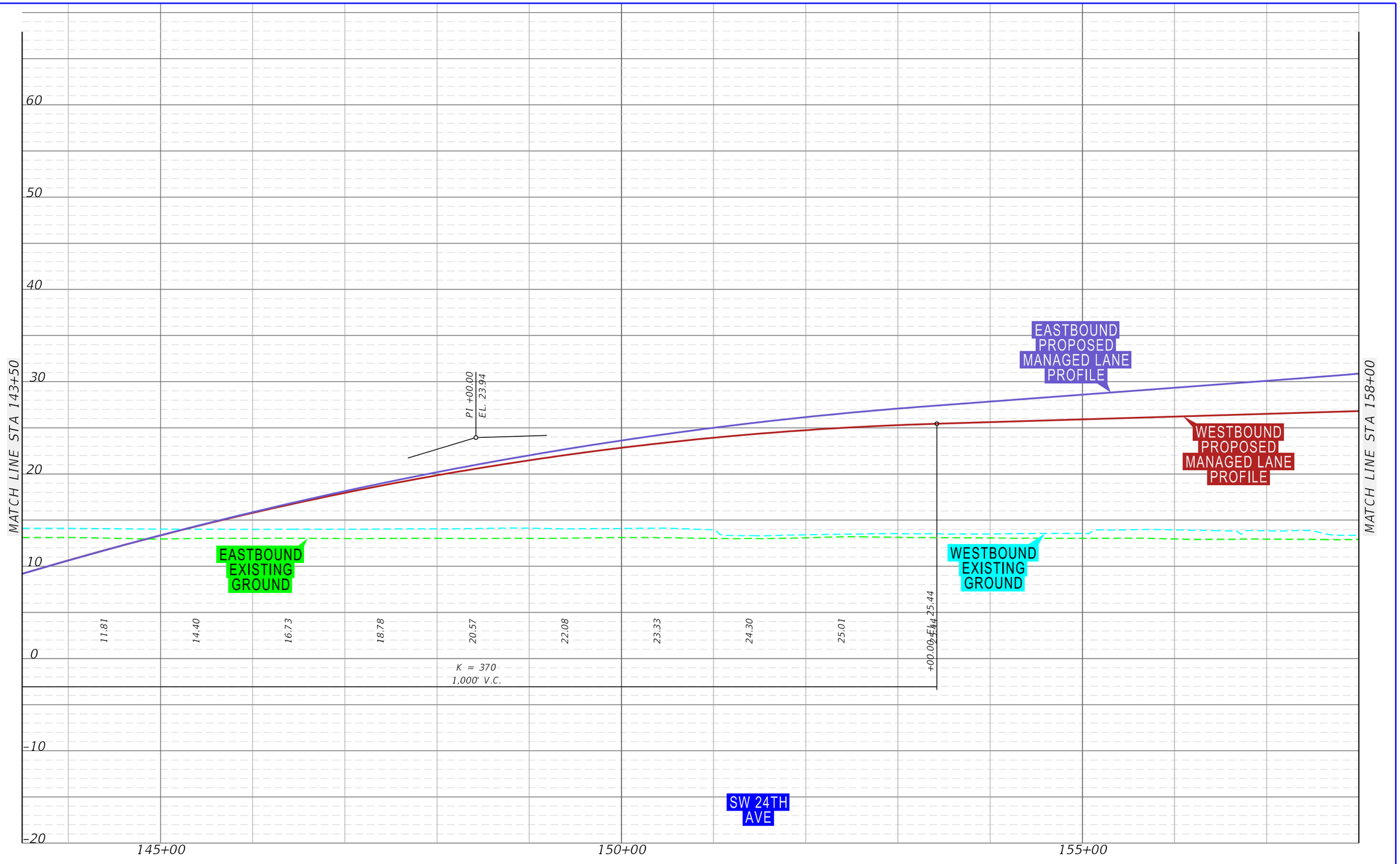


FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE	SHEET NO. B-103

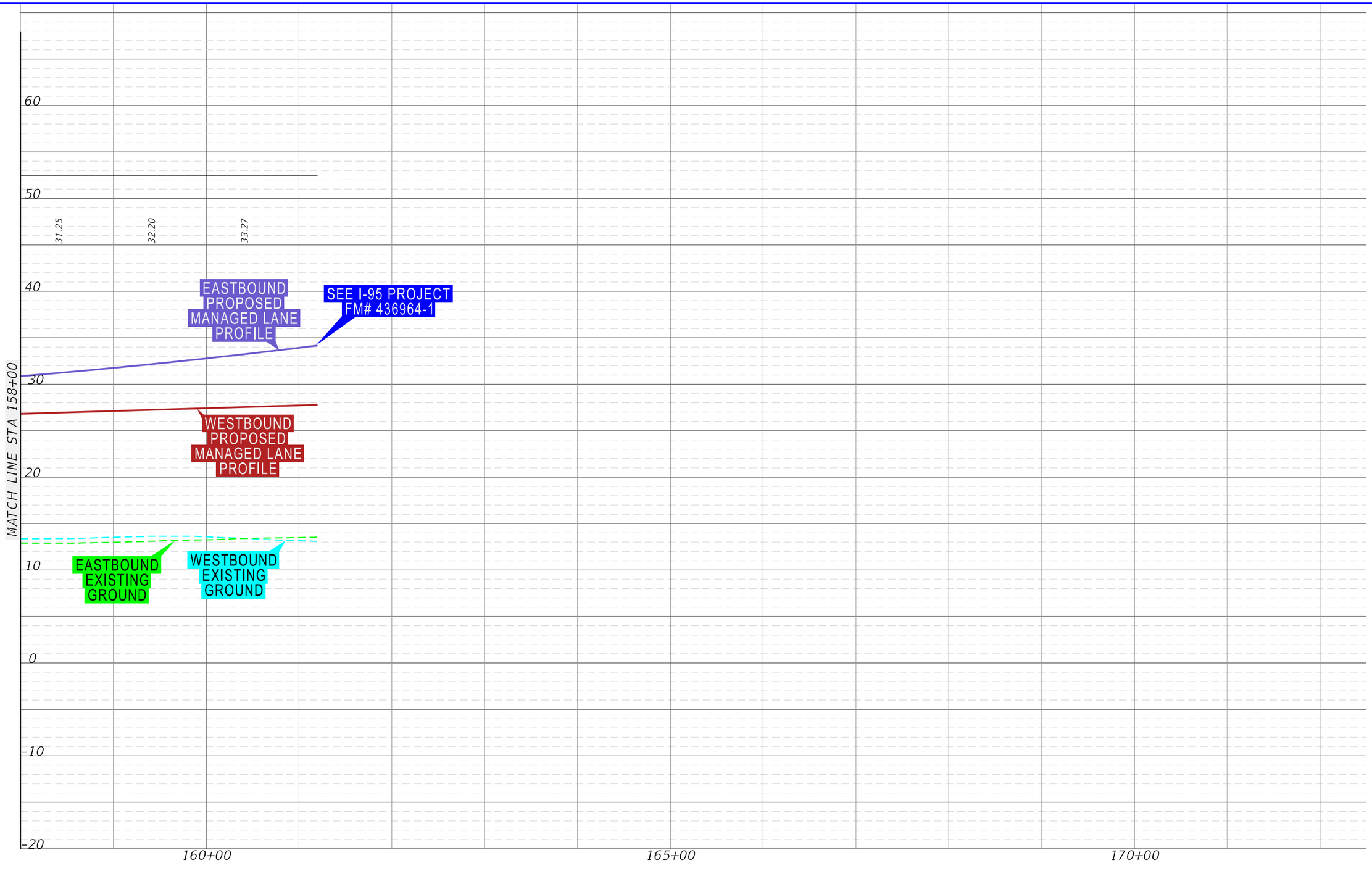


FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE

SHEET NO.
B-104



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE	SHEET NO. B-105

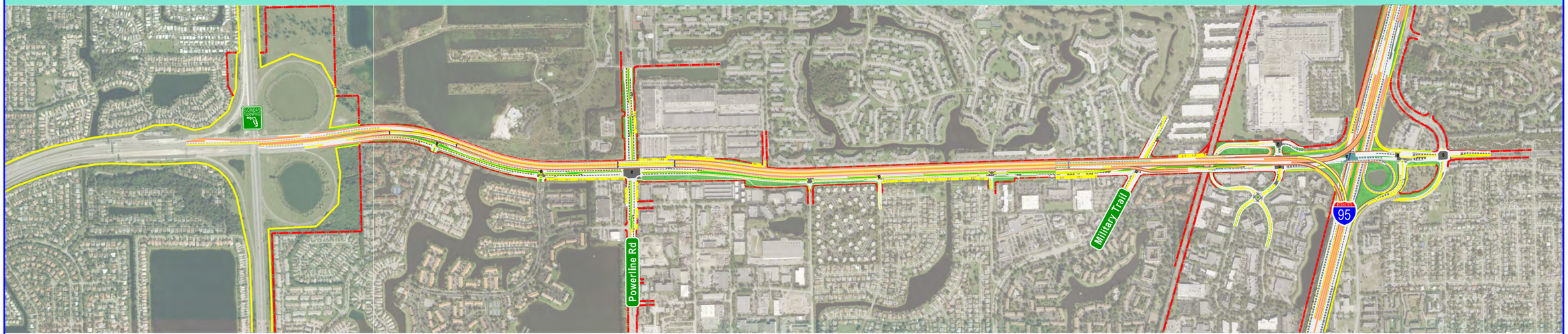


SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

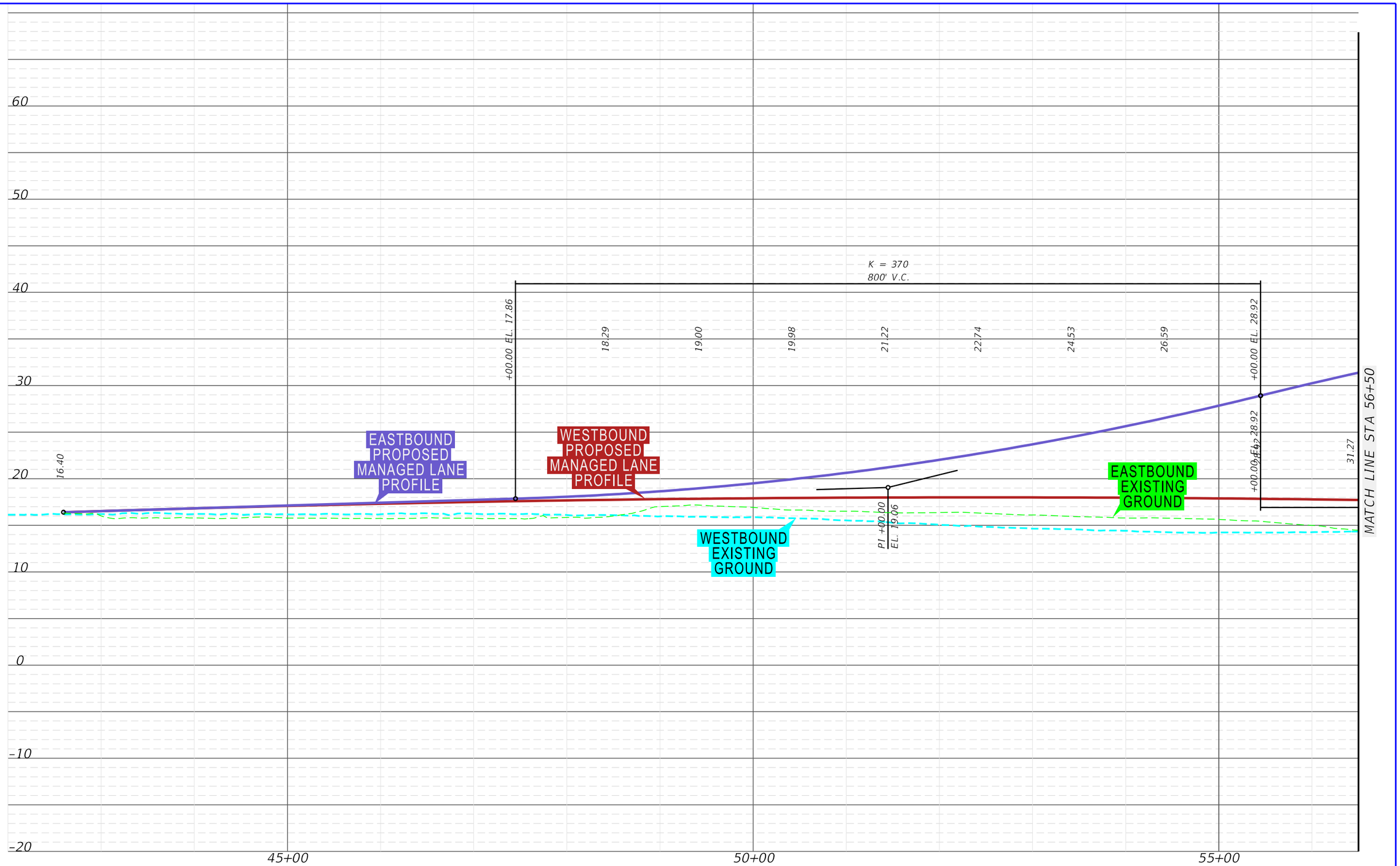
APPENDIX B
DEPRESSED EASTBOUND AND WESTBOUND MANAGED LANES PROFILE

SHEET NO.
B-106

NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE SHEETS



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO.
B-107

60
50
40
30
20
10
0
-10
-20

MATCH LINE STA 56+50

33.39 35.28 36.95 38.38 39.59 40.57 41.32 41.84 42.13 42.20 42.03 41.64 41.02 40.17

MATCH LINE STA 71+00

PI +00.00
EL. 51.10

K = 437
1,800' V.C.

EASTBOUND PROPOSED MANAGED LANE PROFILE

EASTBOUND EXISTING GROUND

WESTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING GROUND

WATERWAYS BLVD

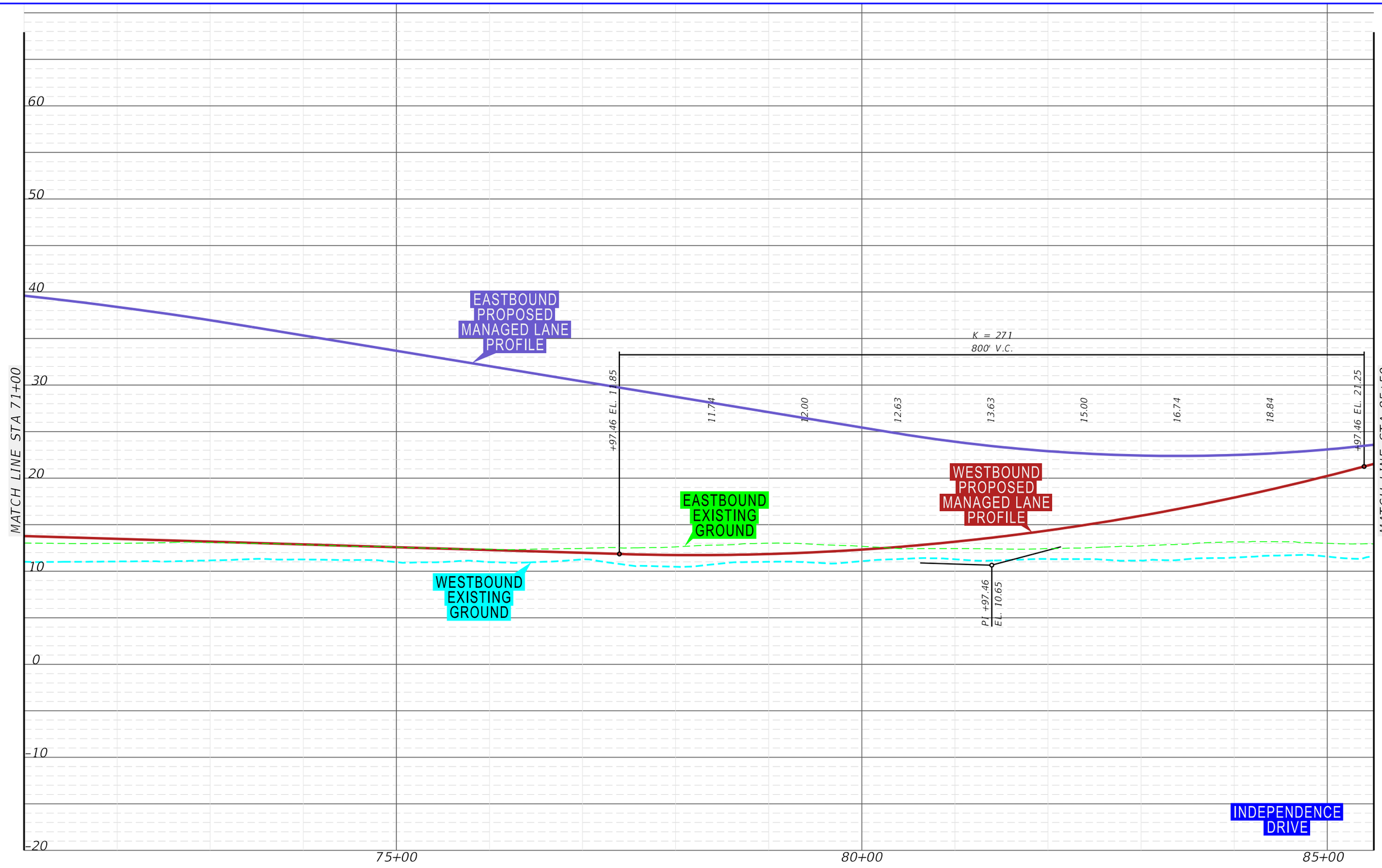
60+00 65+00 70+00

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

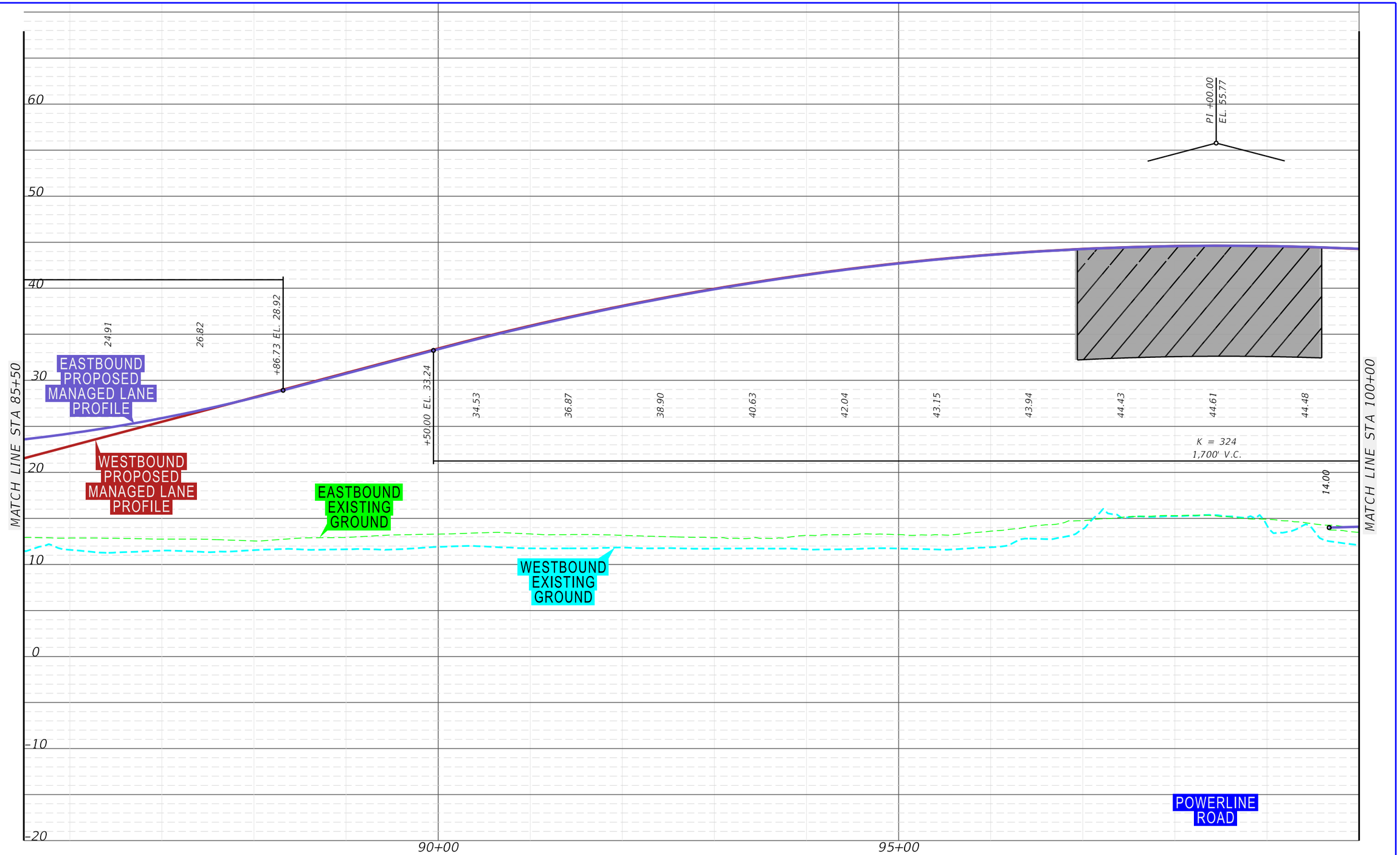
SHEET NO.
B-108



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

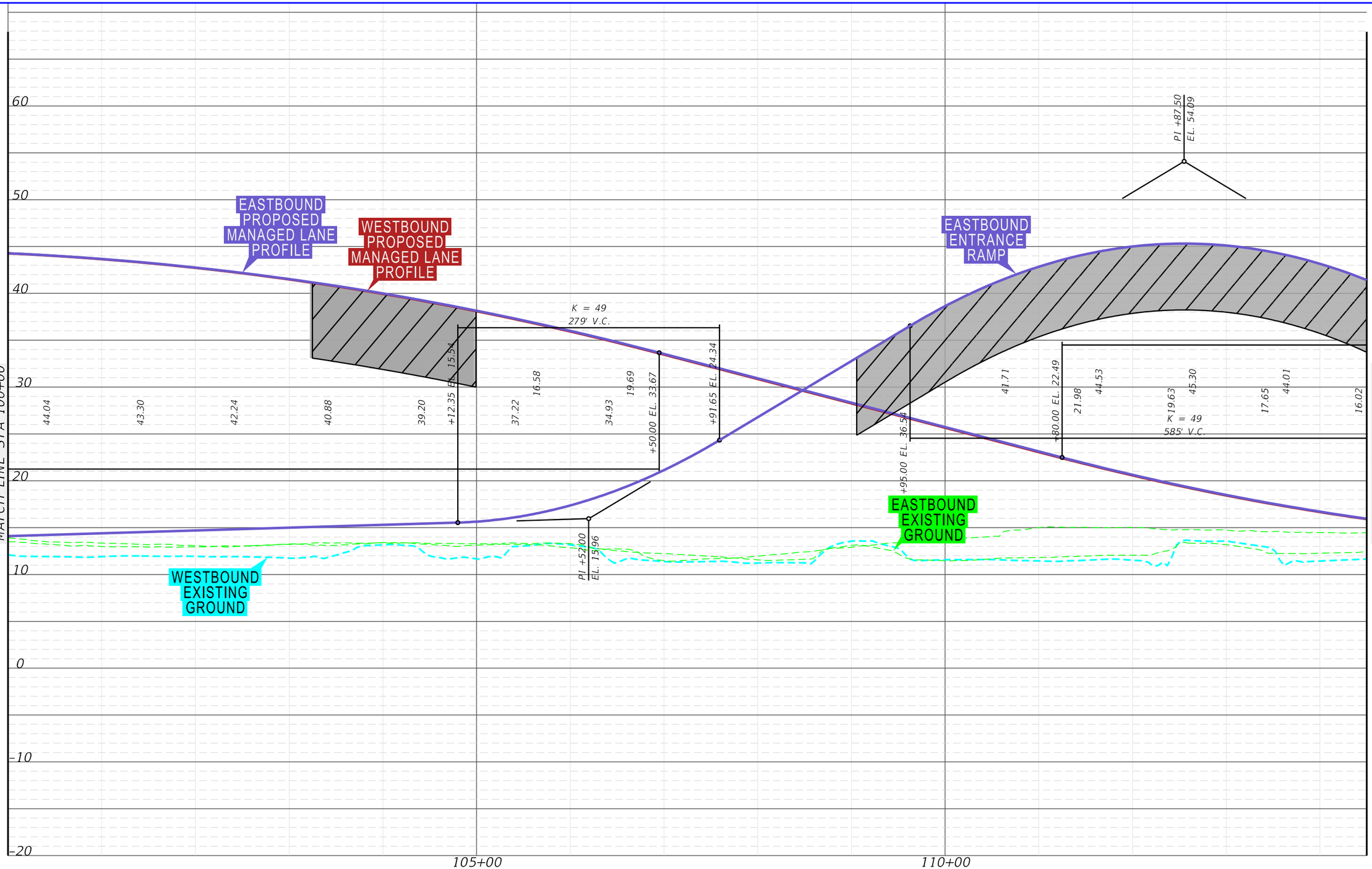
APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO.
B-109



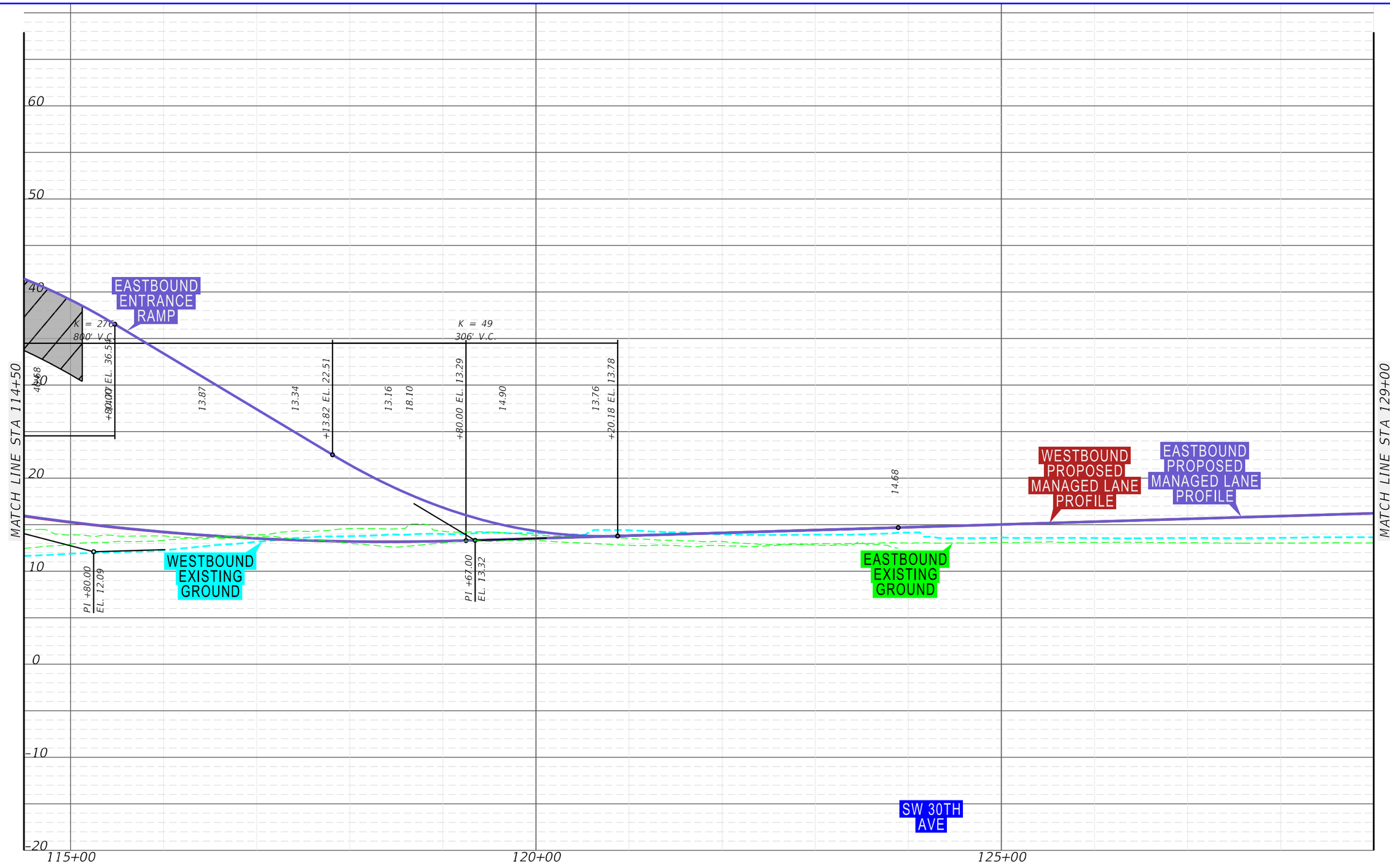
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO. B-110



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO.
B-111



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO.
B-112

MATCH LINE STA 129+00

MATCH LINE STA 143+50

EASTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING GROUND

EASTBOUND EXISTING GROUND

PI +40.00
EL. 19.46

+40.00 EL. 17.96

K = 1668
1,000' V.C.

18.13 18.36 18.54 18.65 18.71 18.70 18.63 18.51 18.32

SW 28TH AVE

60
50
40
30
20
10
0
-10
-20

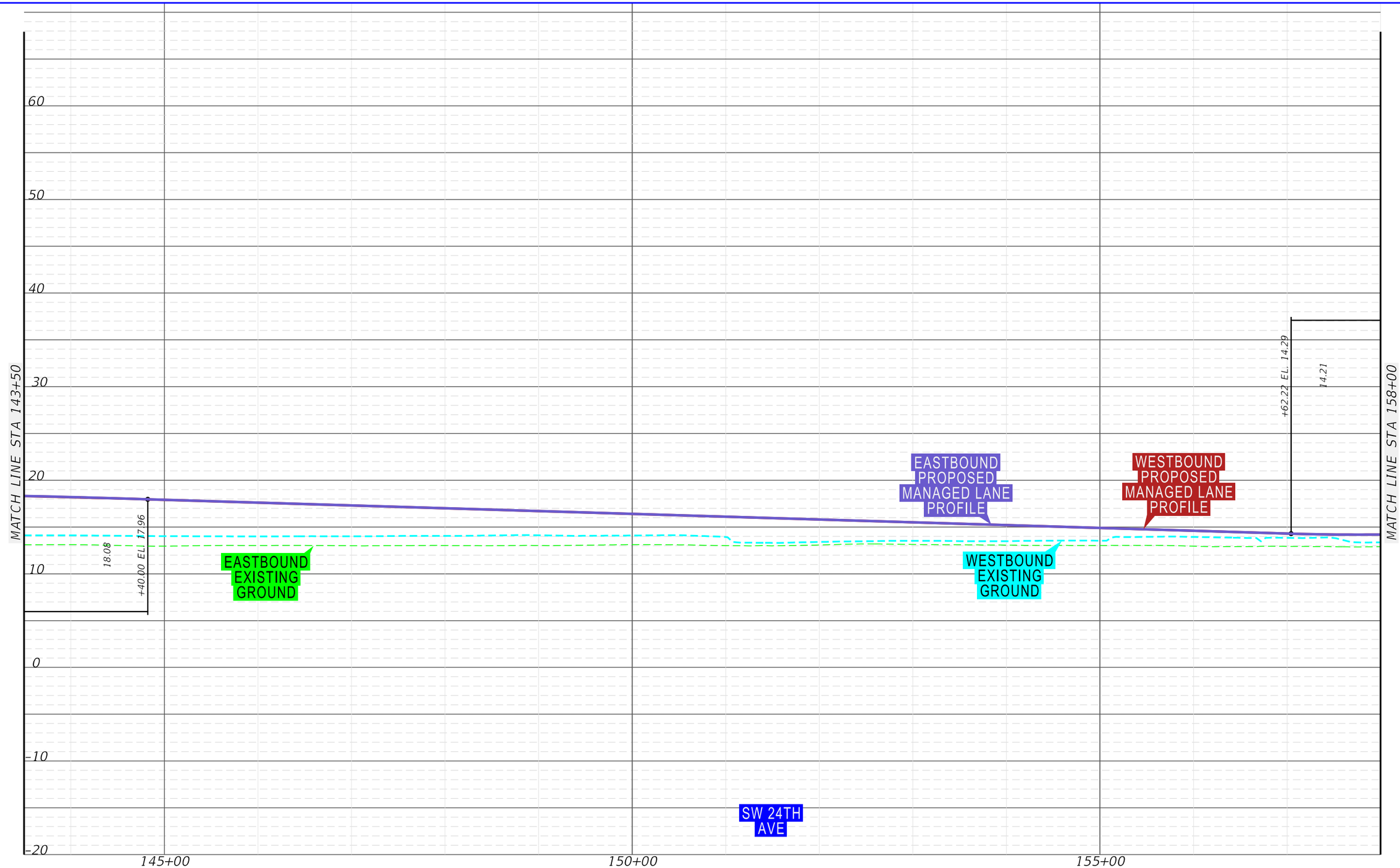
130+00 135+00 140+00

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

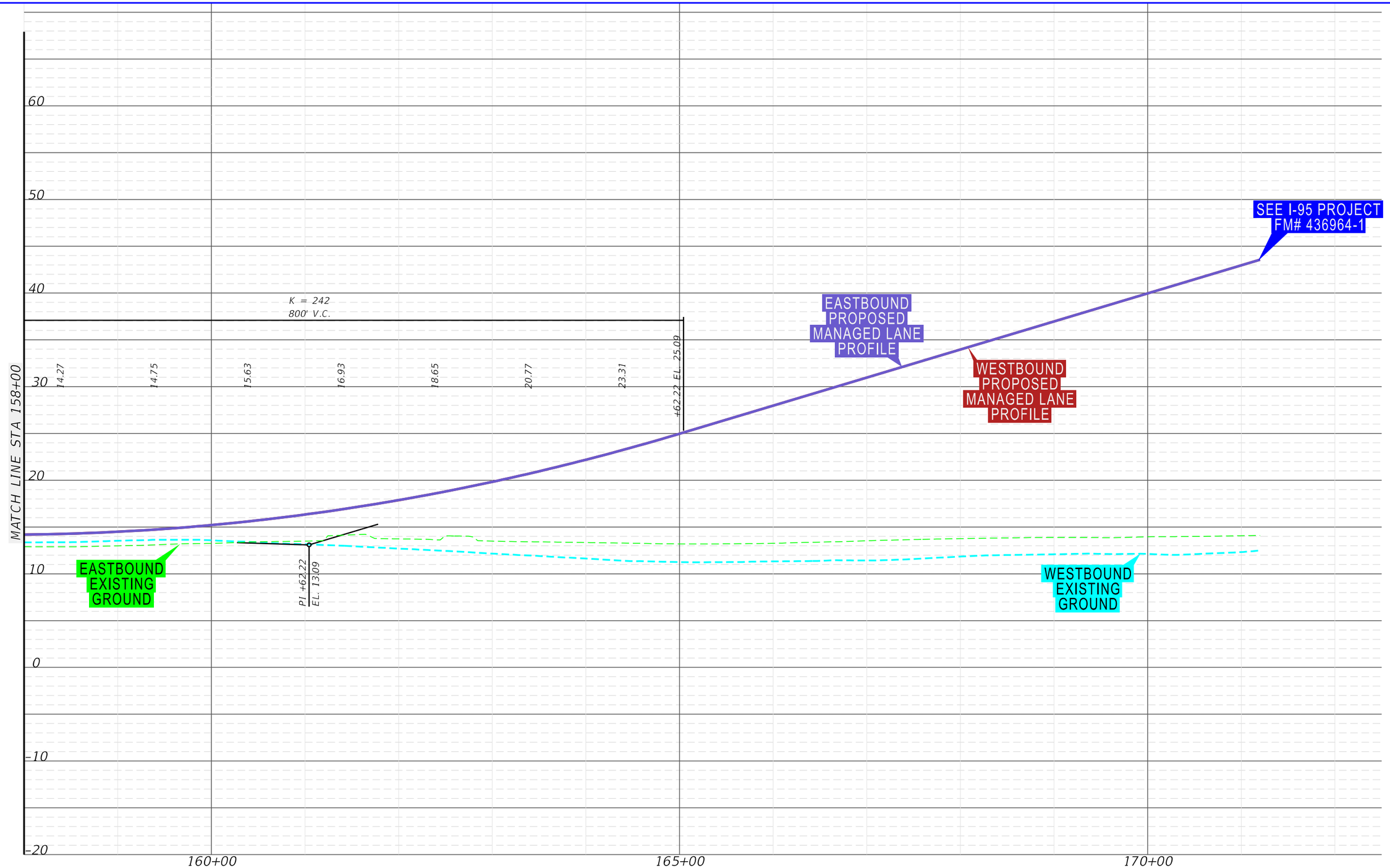
SHEET NO.
B-113



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX B
NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE

SHEET NO.
B-114

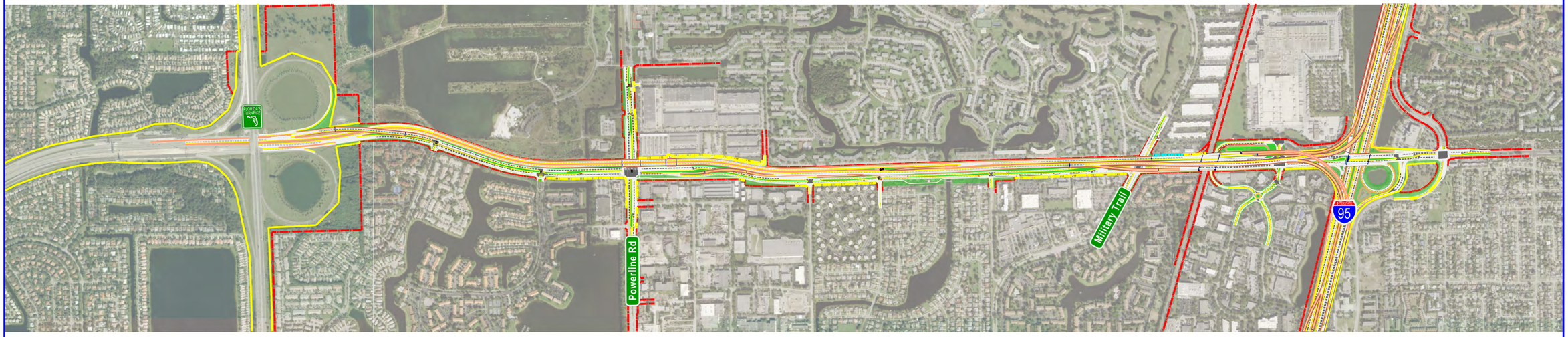


FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX B NON-DEPRESSED / NO MANAGED LANE ACCESS PROFILE	SHEET NO. B-115

Appendix C

Tier 3 Alternatives

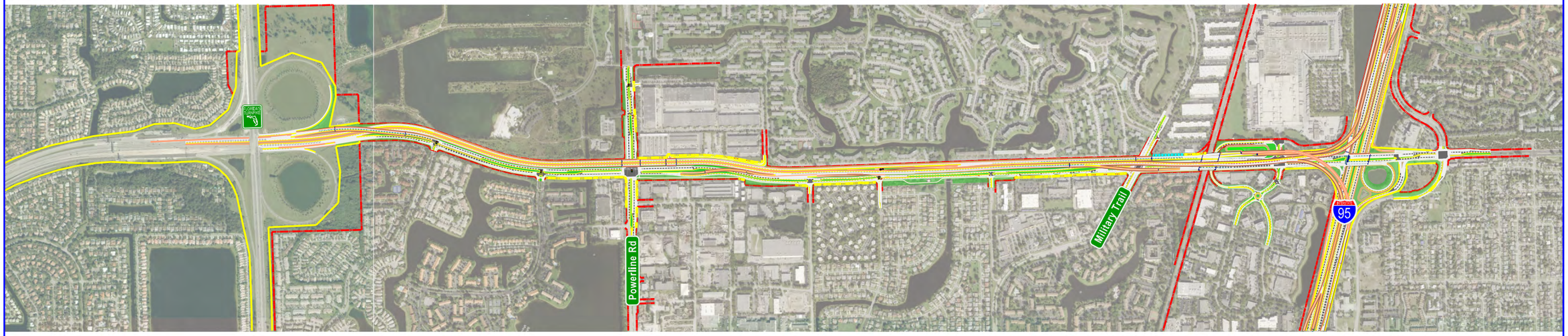
APPENDIX C - TIER 3 ALTERNATIVES



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

Financial Project ID: 439891-1-22-02
ETDM No: 14291

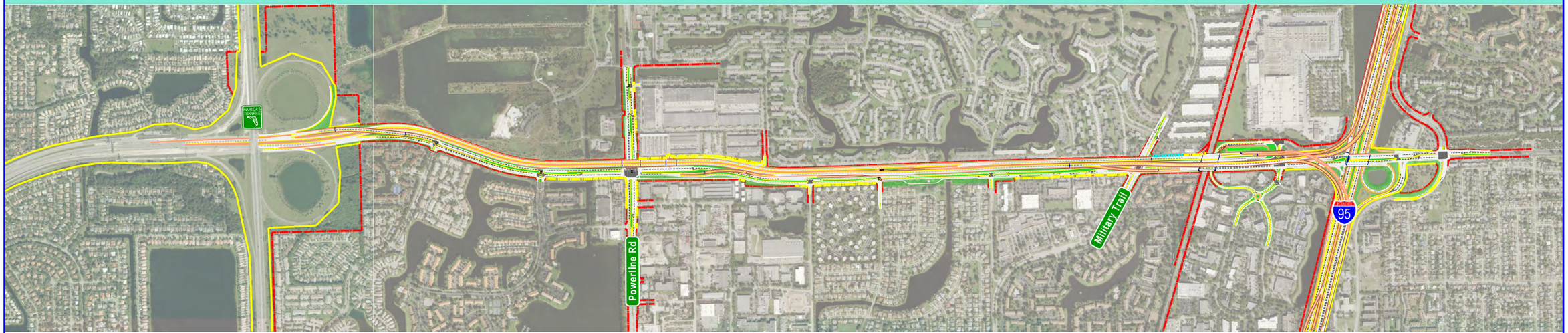
APPENDIX C - TIER 3 ALTERNATIVES

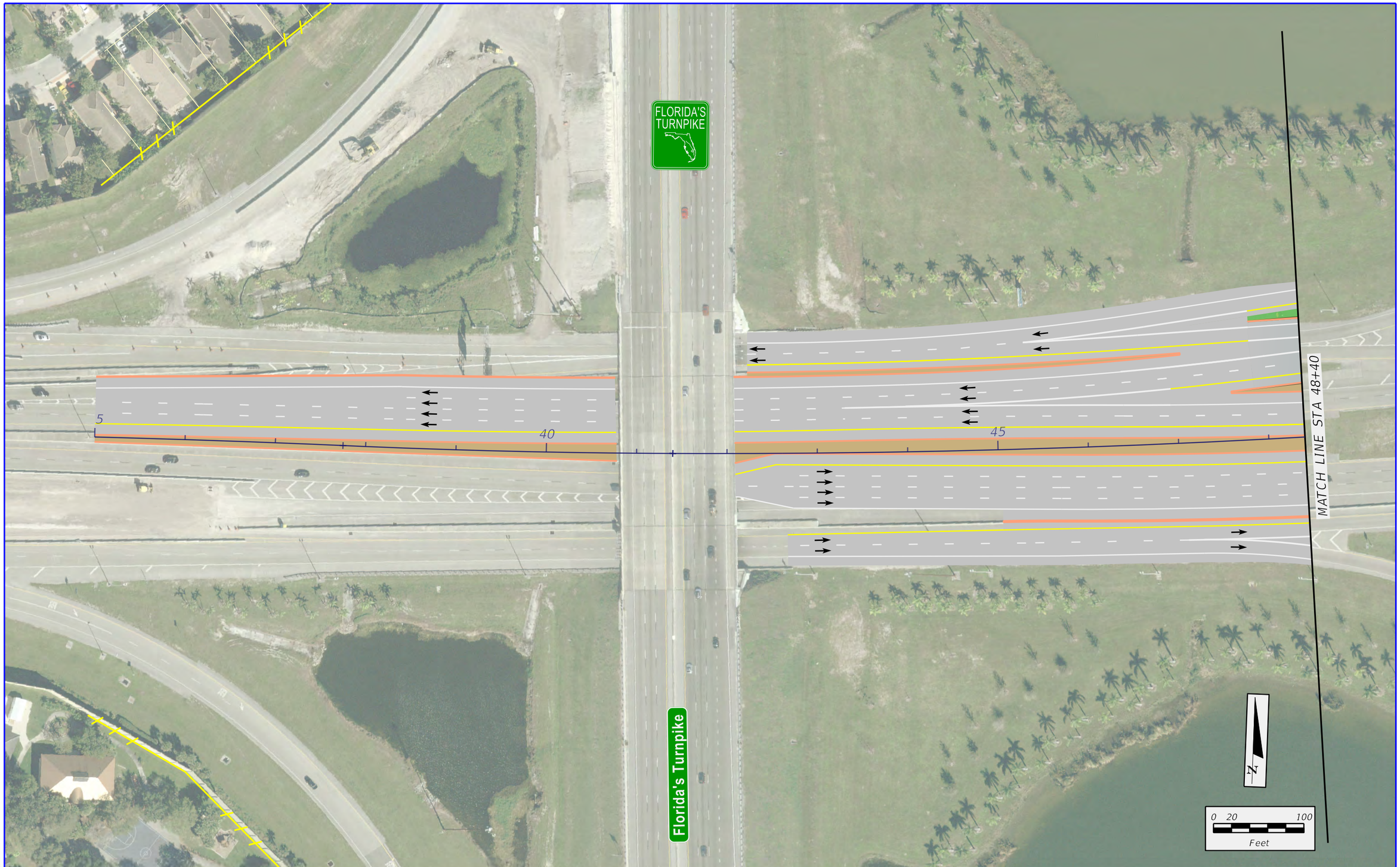


INDEX OF DRAWINGS

SHEET NUMBER	SHEET DESCRIPTION
1 - 14	WITH POWERLINE ROAD RAMPS ALTERNATIVE
15 - 28	WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE
29 - 39	WITH POWERLINE ROAD RAMPS PROFILE
40 - 50	WITHOUT POWERLINE ROAD RAMPS PROFILE

WITH POWERLINE ROAD RAMPS ALTERNATIVE





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FDOT | SW 10th Street Connector

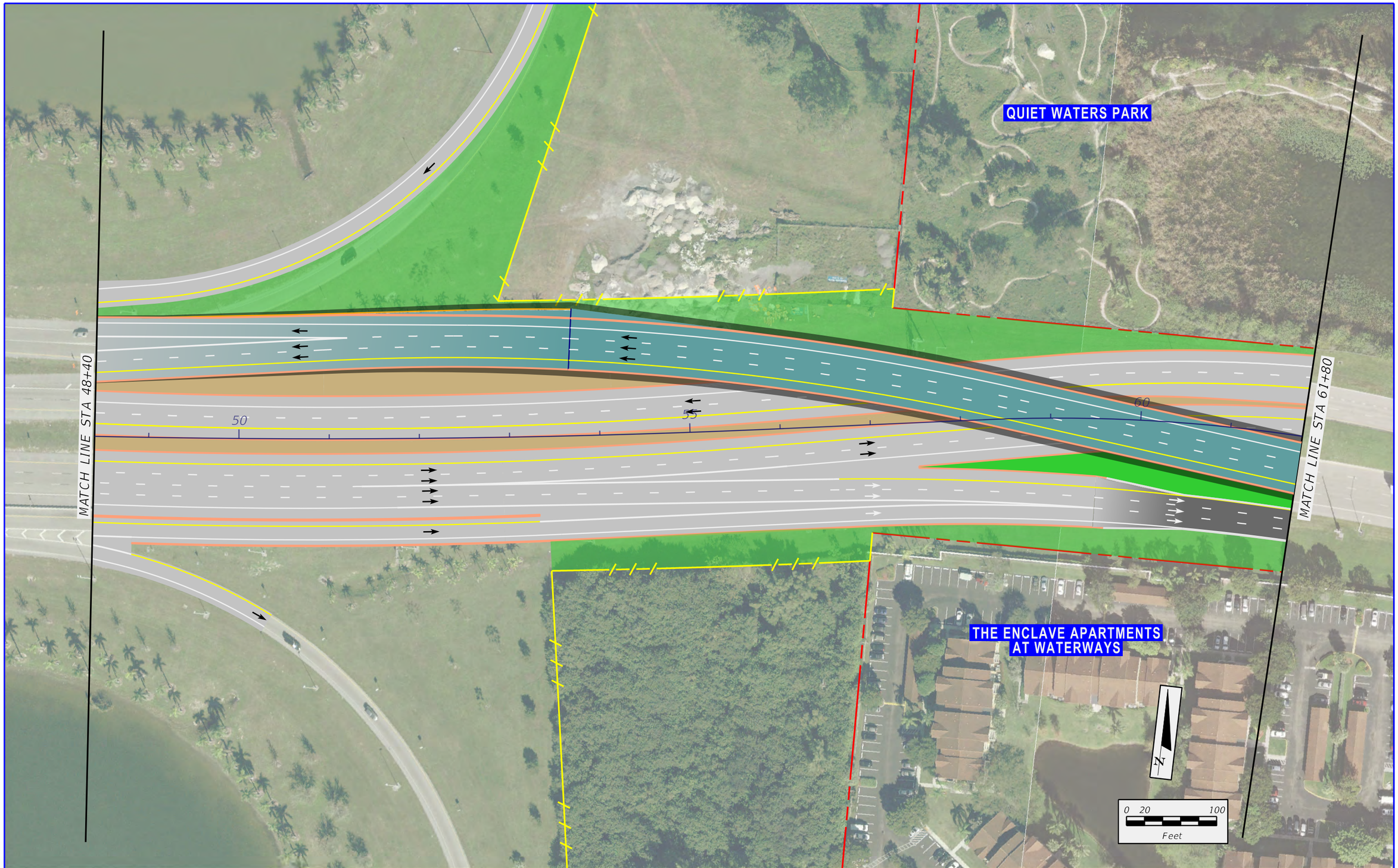
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-1



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FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-2

QUIET WATERS PARK

MATCH LINE STA 61+80

65

70

75

MATCH LINE STA 75+20

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.

C-3

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-4

QUIET WATERS PARK

DEERFIELD STORAGE

ONLY
BUS

MATCH LINE STA 88+60

MATCH LINE STA 102+00

90

95

100

SW 10th St

C-3 CANAL

SHELL GAS STATION

Powerline Rd

MED CARE PHARMACY

N

0 20 100
Feet

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FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-5

DEERFIELD STORAGE

PUBLIC STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

N

0 20 100
Feet

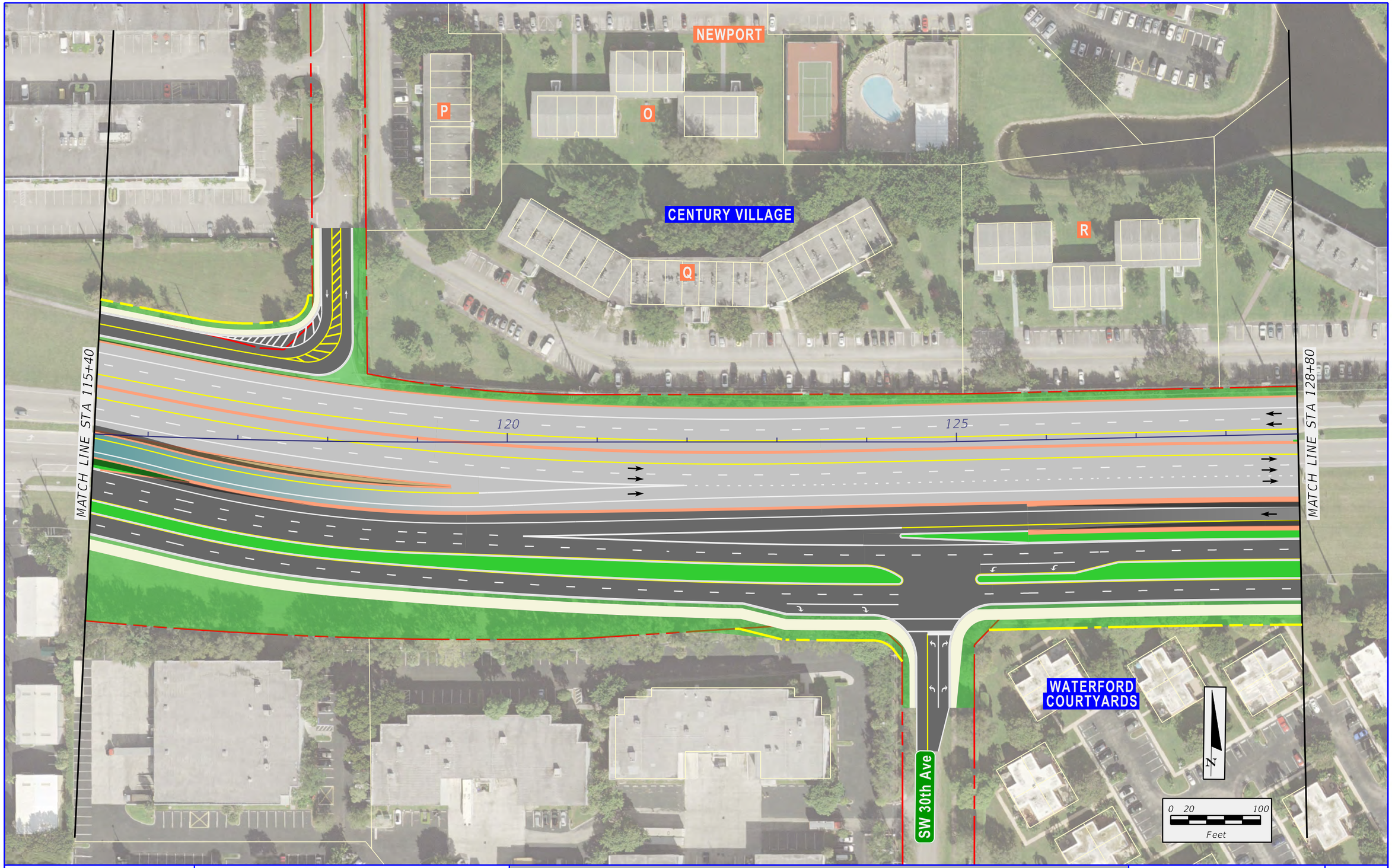
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

EXISTING RIGHT-OF-WAY	PROPOSED MANAGED LANES	PROPOSED 4TH LEVEL BRIDGE
EXISTING PARCEL LINES	PROPOSED LOCAL SW 10TH ST	TEMPORARY EASEMENT
LIMITED ACCESS RIGHT-OF-WAY	PROPOSED 2ND LEVEL BRIDGE	PROPOSED SIDEWALK
PROPOSED RIGHT-OF-WAY	PROPOSED 3RD LEVEL BRIDGE	PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-6



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-7

OAKRIDGE

CENTURY VILLAGE

WATERFORD COURTYARDS

WATERFORD HOMES

SW 28th Ave

PUMP STATION

MATCH LINE STA 128+80

MATCH LINE STA 142+20

130 135 140

N

0 20 100
Feet

FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
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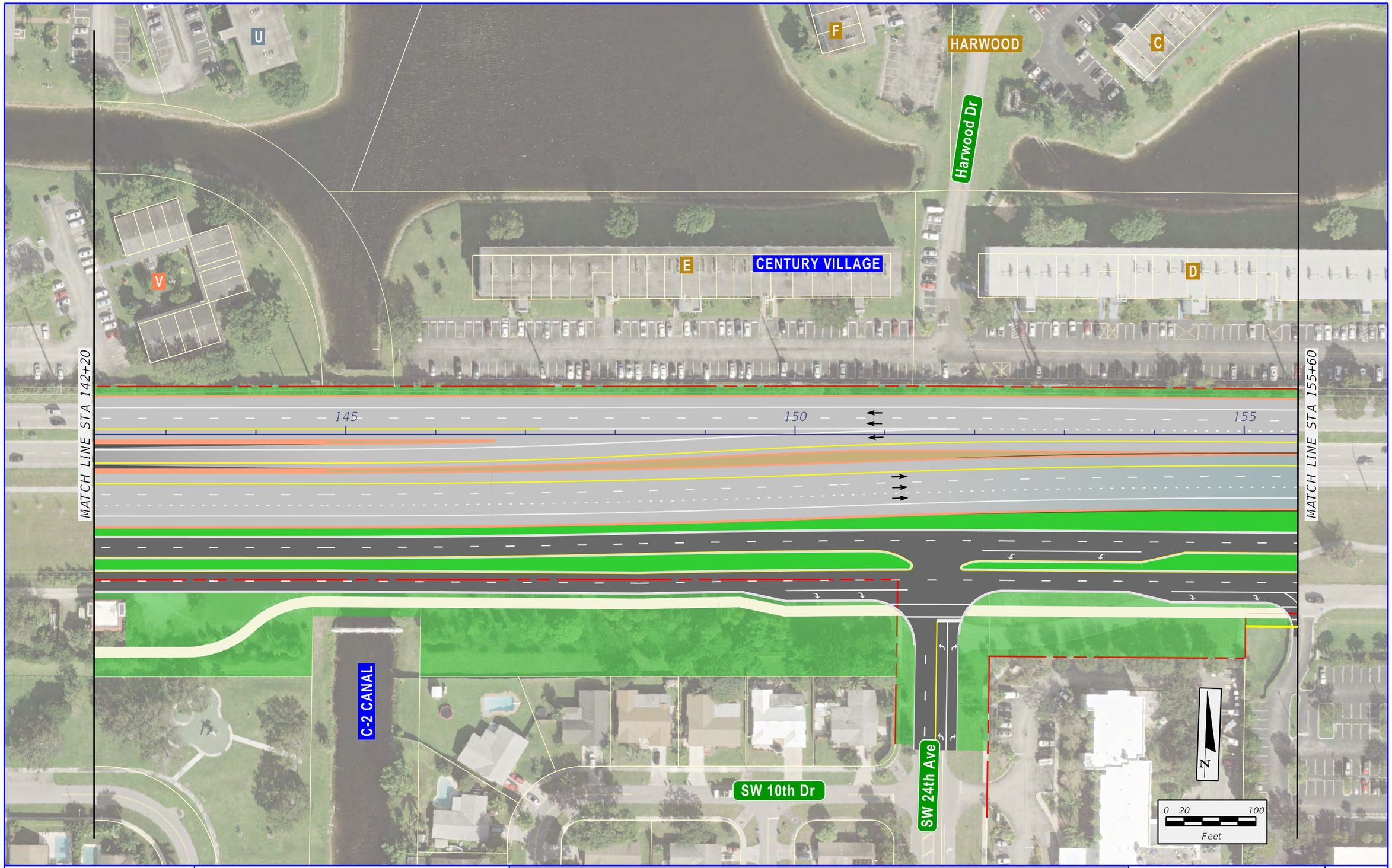
LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-8



FDOT | SW 10th Street Connector

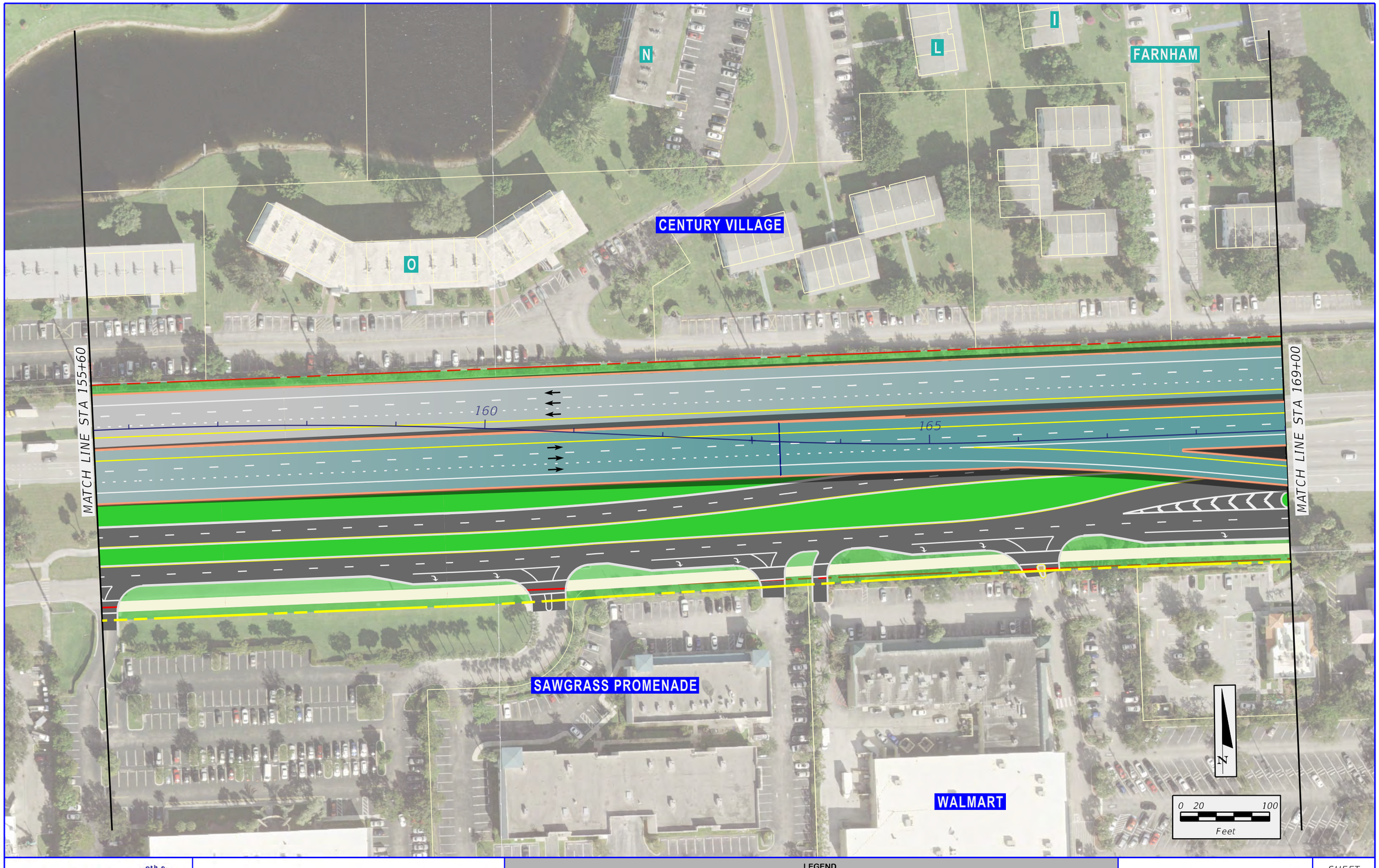
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-9



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX C WITH POWERLINE ROAD RAMPS ALTERNATIVE

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

SHEET NO. C-10

F

C

P

CENTURY VILLAGE

MATCH LINE STA 169+00

170

175

180

MATCH LINE STA 182+40

Military Trail

THE LAKES AT
DEERFIELD APARTMENTS

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD
RAMPS ALTERNATIVE

SHEET NO.
C-11

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

N

0 20 100

Feet

LEGEND		
EXISTING RIGHT-OF-WAY	PROPOSED MANAGED LANES	PROPOSED 4TH LEVEL BRIDGE
EXISTING PARCEL LINES	PROPOSED LOCAL SW 10TH ST	TEMPORARY EASEMENT
LIMITED ACCESS RIGHT-OF-WAY	PROPOSED 2ND LEVEL BRIDGE	PROPOSED SIDEWALK
PROPOSED RIGHT-OF-WAY	PROPOSED 3RD LEVEL BRIDGE	PROPOSED TRAFFIC SIGNAL

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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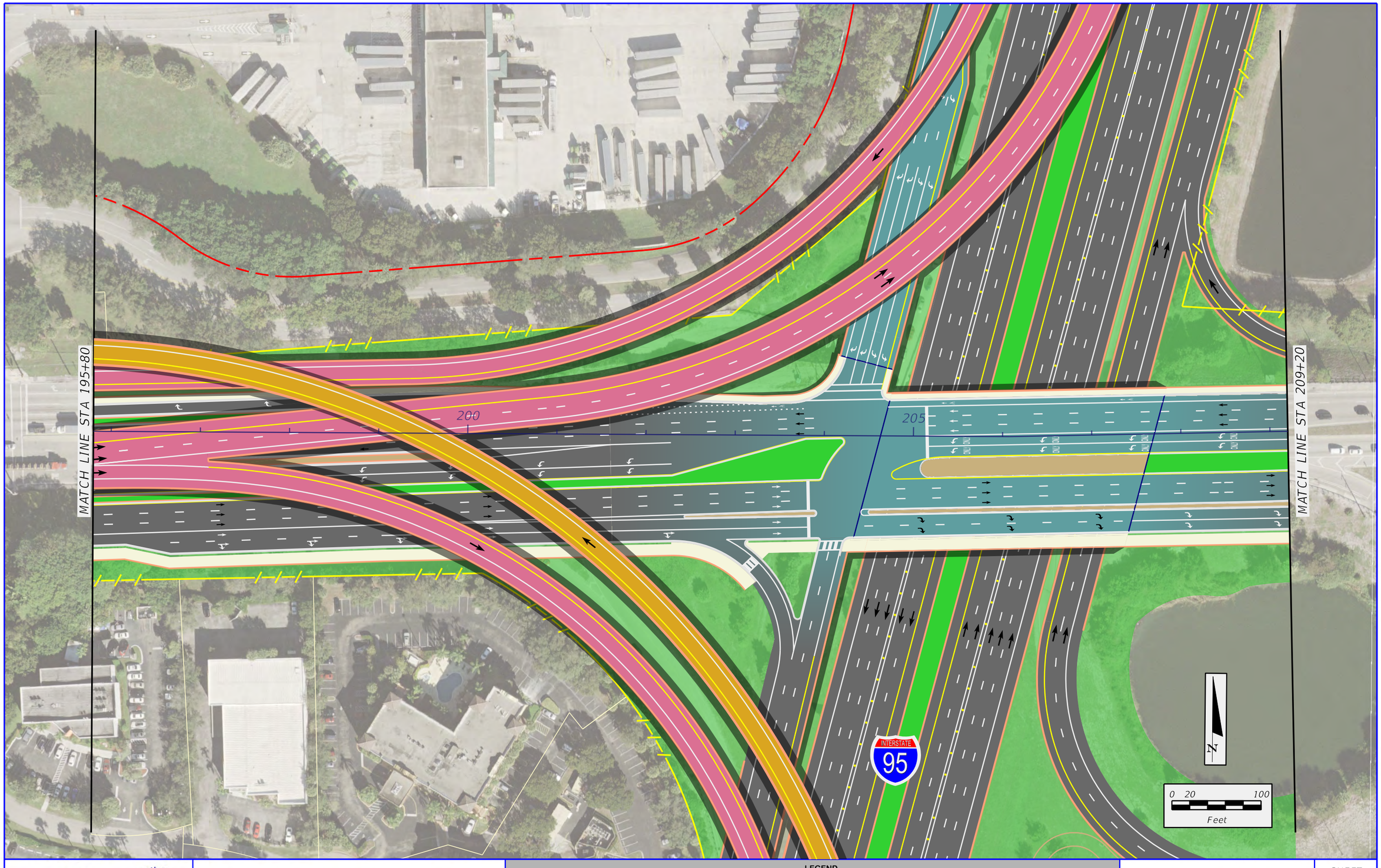
APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-12



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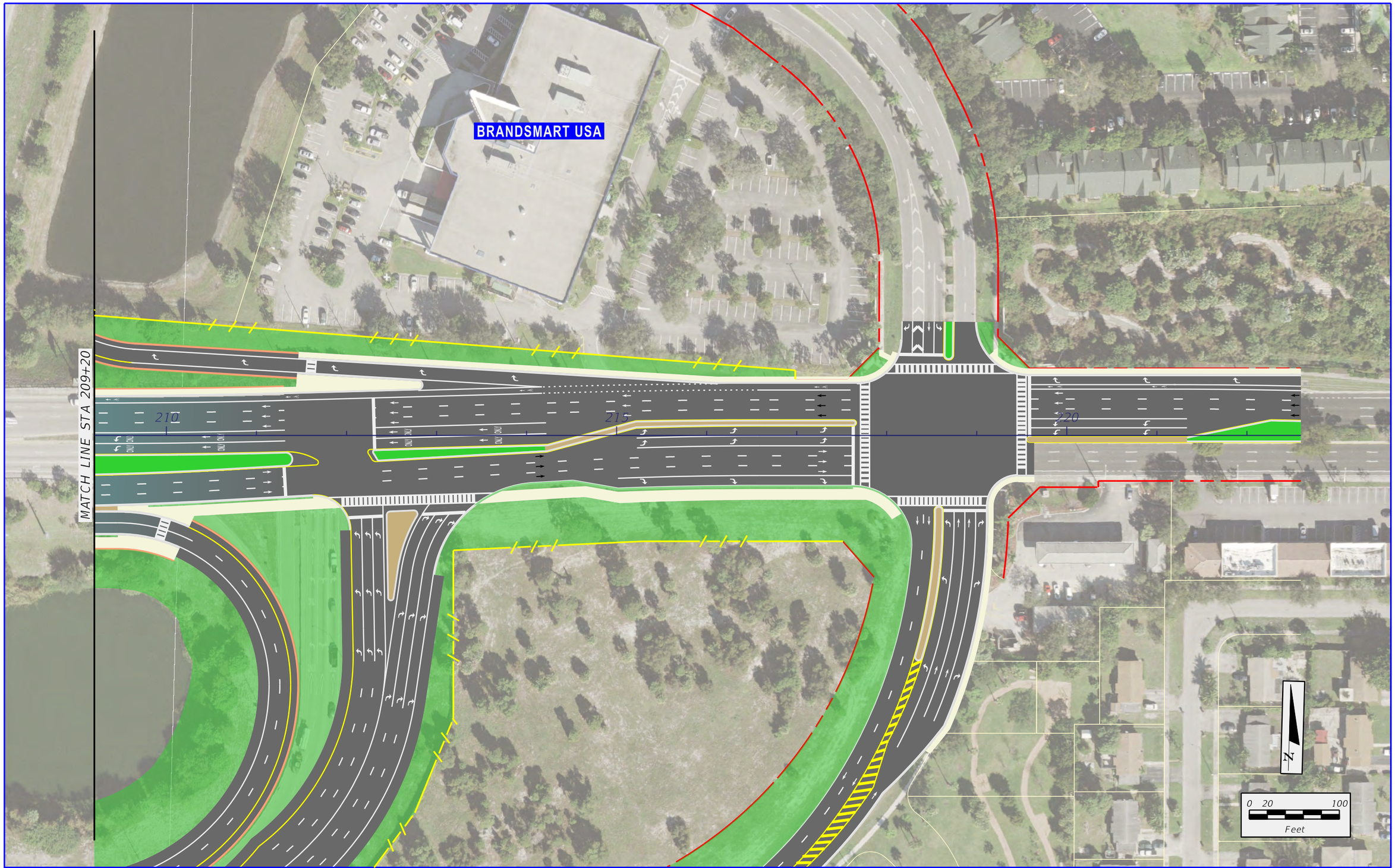
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	LEGEND EXISTING RIGHT-OF-WAY EXISTING PARCEL LINES LIMITED ACCESS RIGHT-OF-WAY PROPOSED RIGHT-OF-WAY PROPOSED MANAGED LANES PROPOSED LOCAL SW 10TH ST PROPOSED 2ND LEVEL BRIDGE PROPOSED 3RD LEVEL BRIDGE PROPOSED 4TH LEVEL BRIDGE TEMPORARY EASEMENT PROPOSED SIDEWALK PROPOSED TRAFFIC SIGNAL	APPENDIX C WITH POWERLINE ROAD RAMPS ALTERNATIVE	SHEET NO. C-13



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

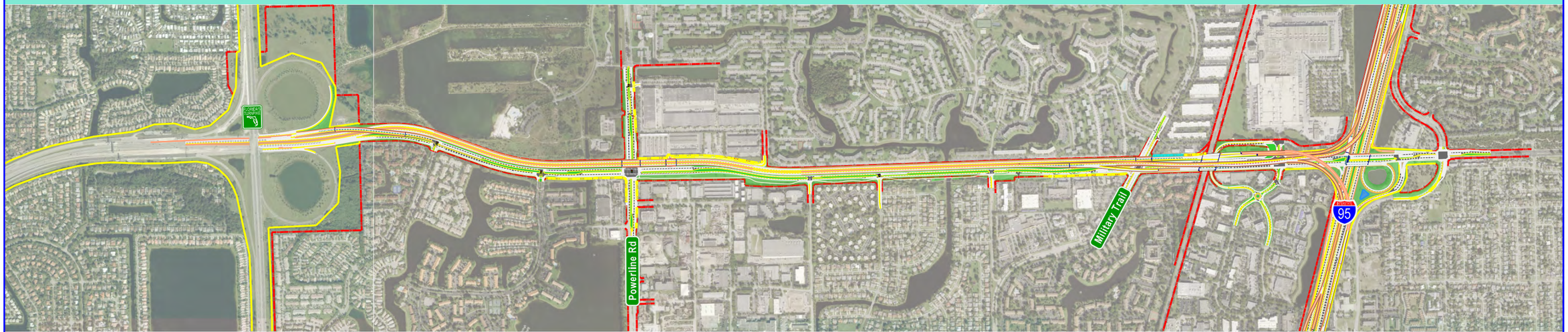
LEGEND

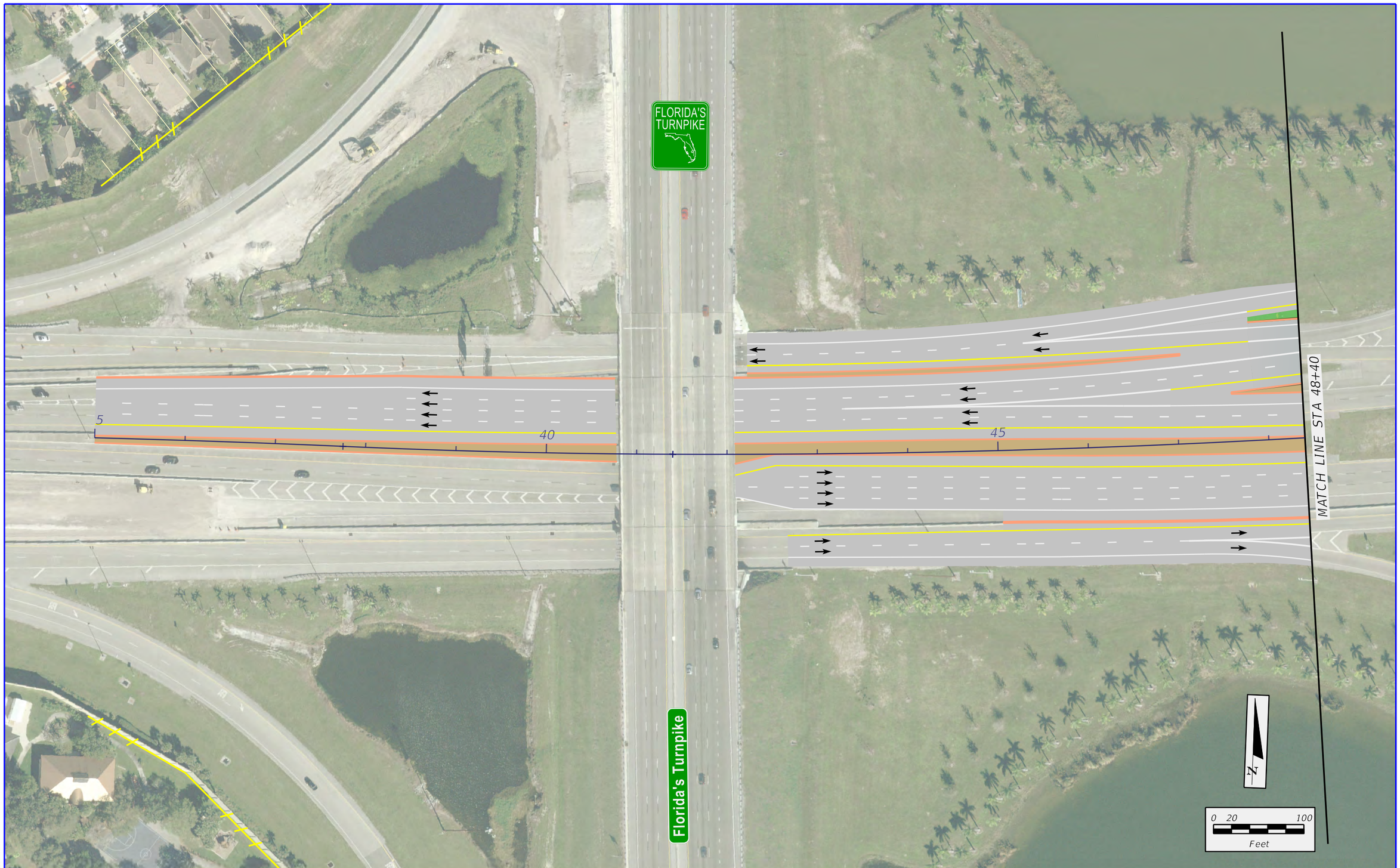
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITH POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-14

WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE





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FDOT | SW 10th Street Connector

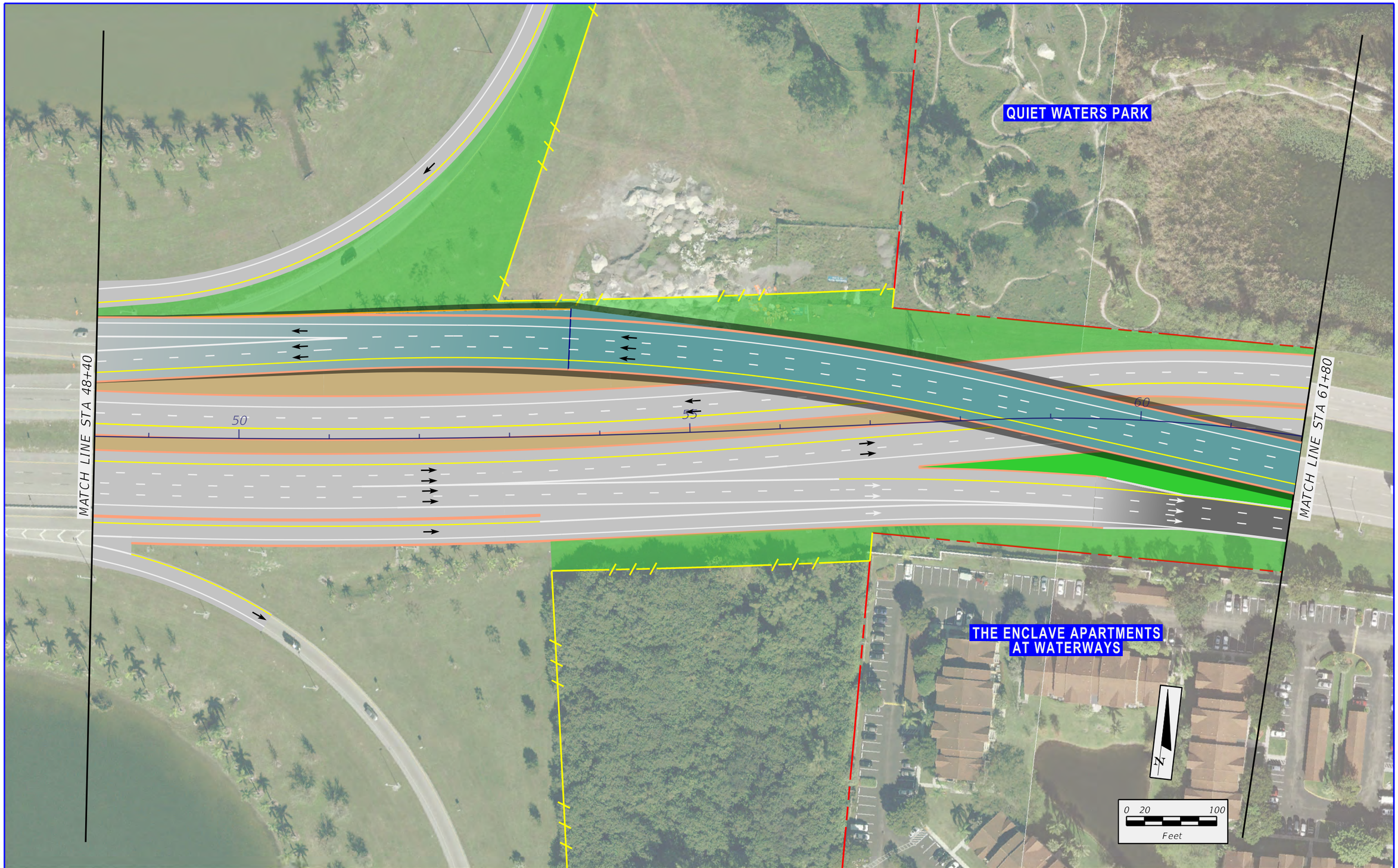
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-15



LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-16

QUIET WATERS PARK

MATCH LINE STA 61+80

65

70

75

MATCH LINE STA 75+20

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.

C-17

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

0 20 100

Feet

N

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.

C-18

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QUIET WATERS PARK

DEERFIELD STORAGE

ONLY
BUS

MATCH LINE STA 88+60

90

95

100

SW 10th St

MATCH LINE STA 102+00

C-3 CANAL

SHELL GAS STATION

STR

RND

Powerline Rd

MED CARE PHARMACY

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-19

DEERFIELD STORAGE

PUBLIC STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

N

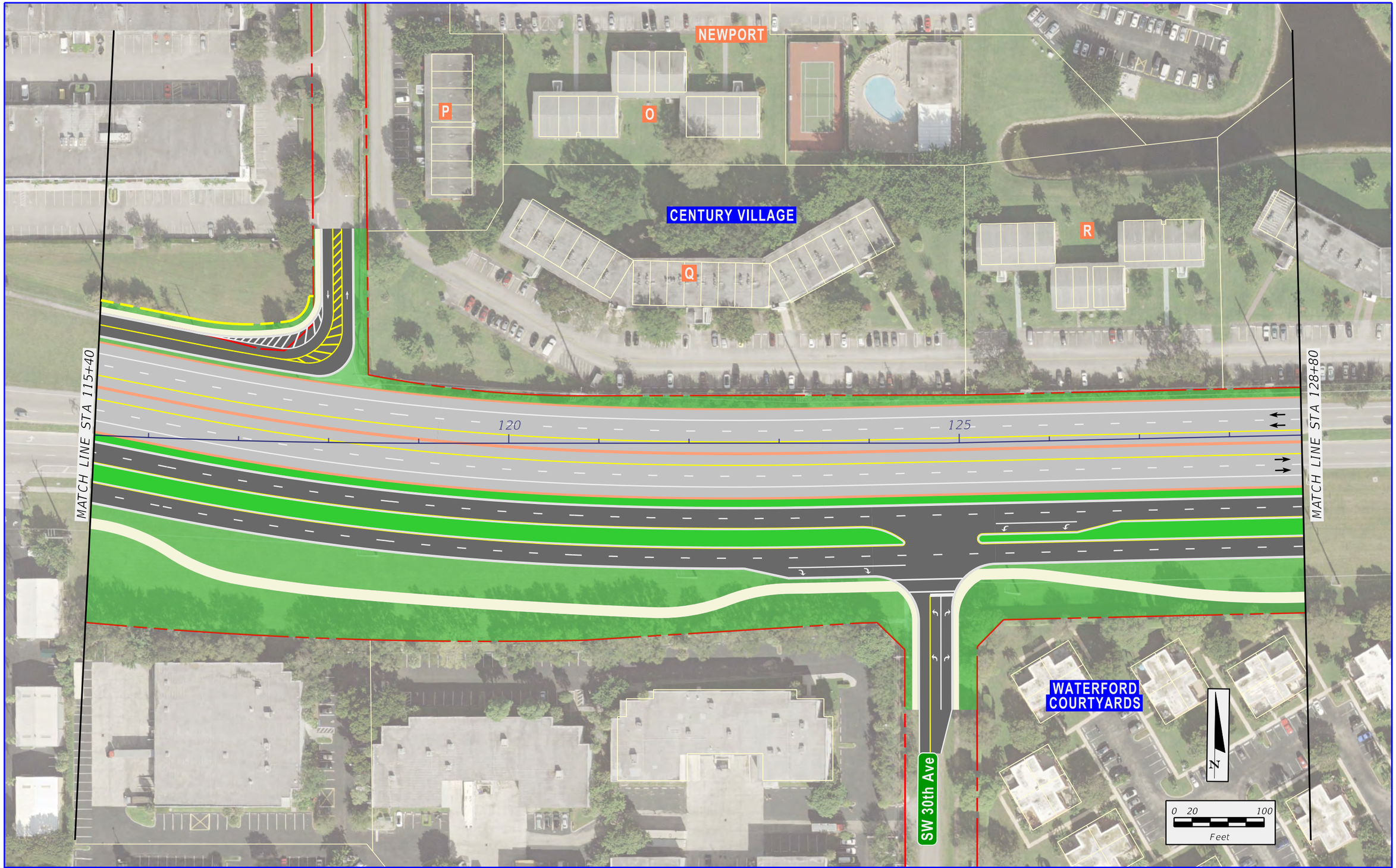
0 20 100

Feet

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	LEGEND EXISTING RIGHT-OF-WAY EXISTING PARCEL LINES LIMITED ACCESS RIGHT-OF-WAY PROPOSED RIGHT-OF-WAY PROPOSED MANAGED LANES PROPOSED LOCAL SW 10TH ST PROPOSED 2ND LEVEL BRIDGE PROPOSED 3RD LEVEL BRIDGE PROPOSED 4TH LEVEL BRIDGE TEMPORARY EASEMENT PROPOSED SIDEWALK PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-20



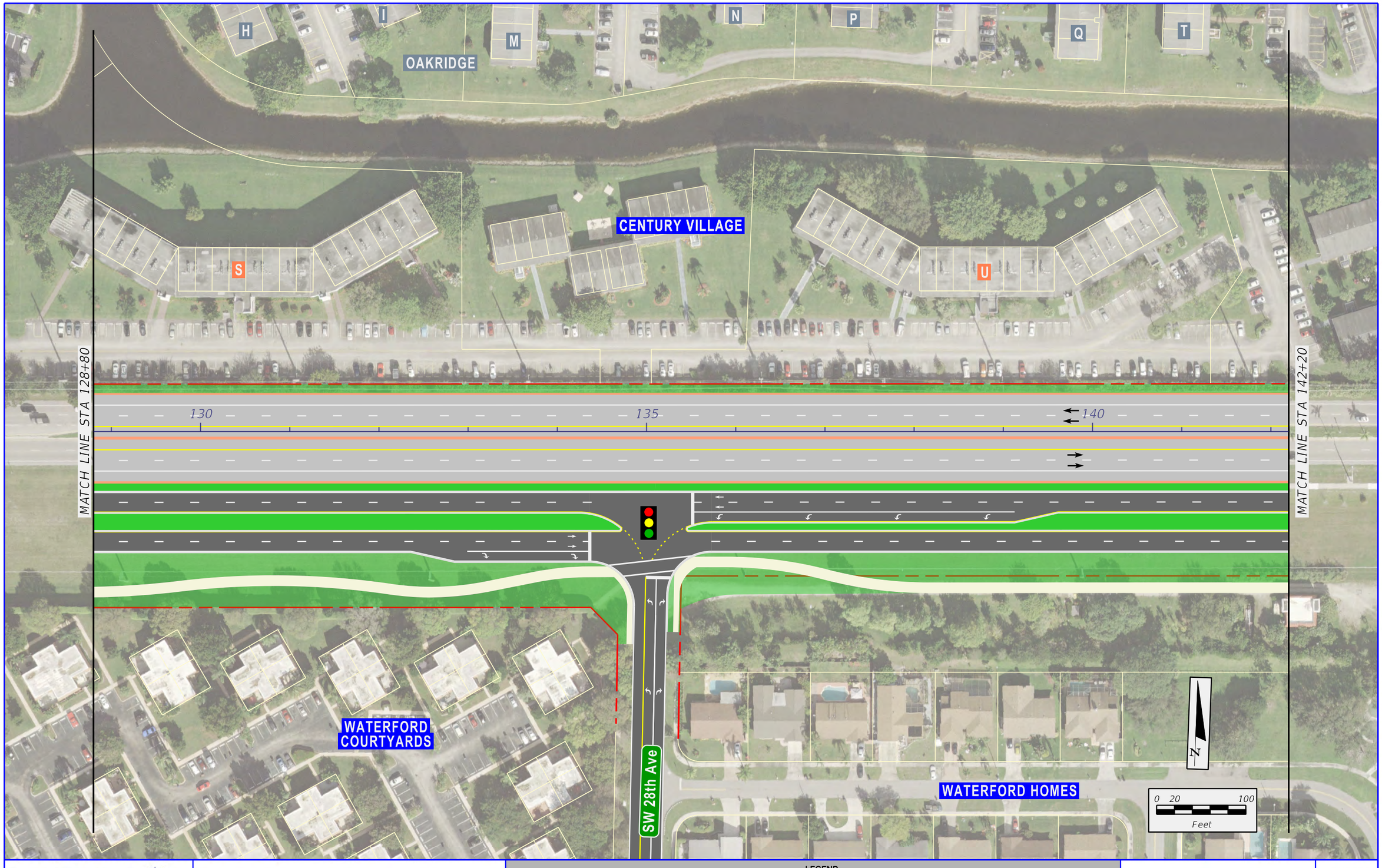
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-21



FDOT | SW 10th Street Connector

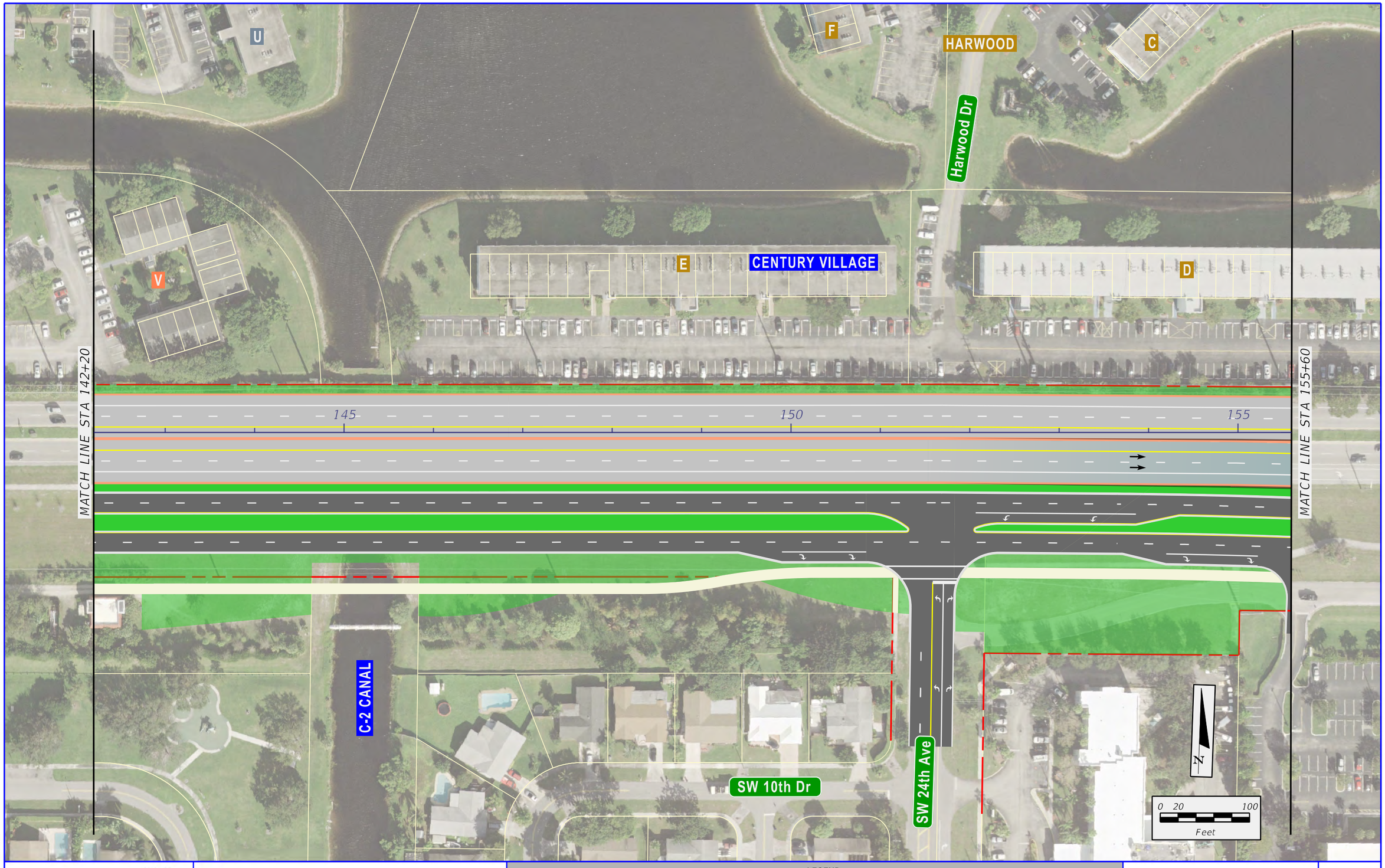
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-22



FDOT SW 10th Street Connector

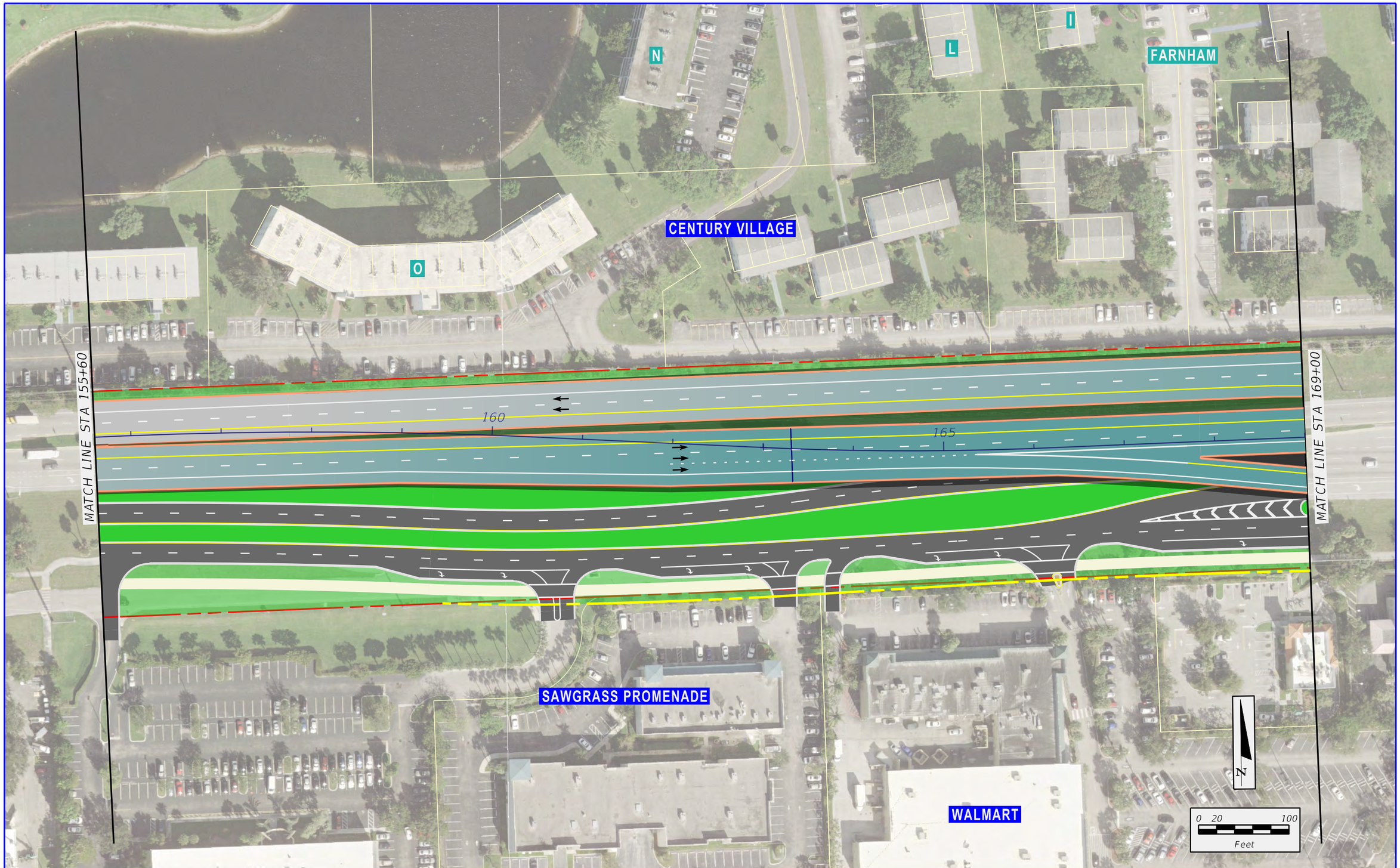
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-23



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
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- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-24

CENTURY VILLAGE

THE LAKES AT DEERFIELD APARTMENTS

Military Trail

MATCH LINE STA 169+00

MATCH LINE STA 182+40

170

175

180

N

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-25

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-26

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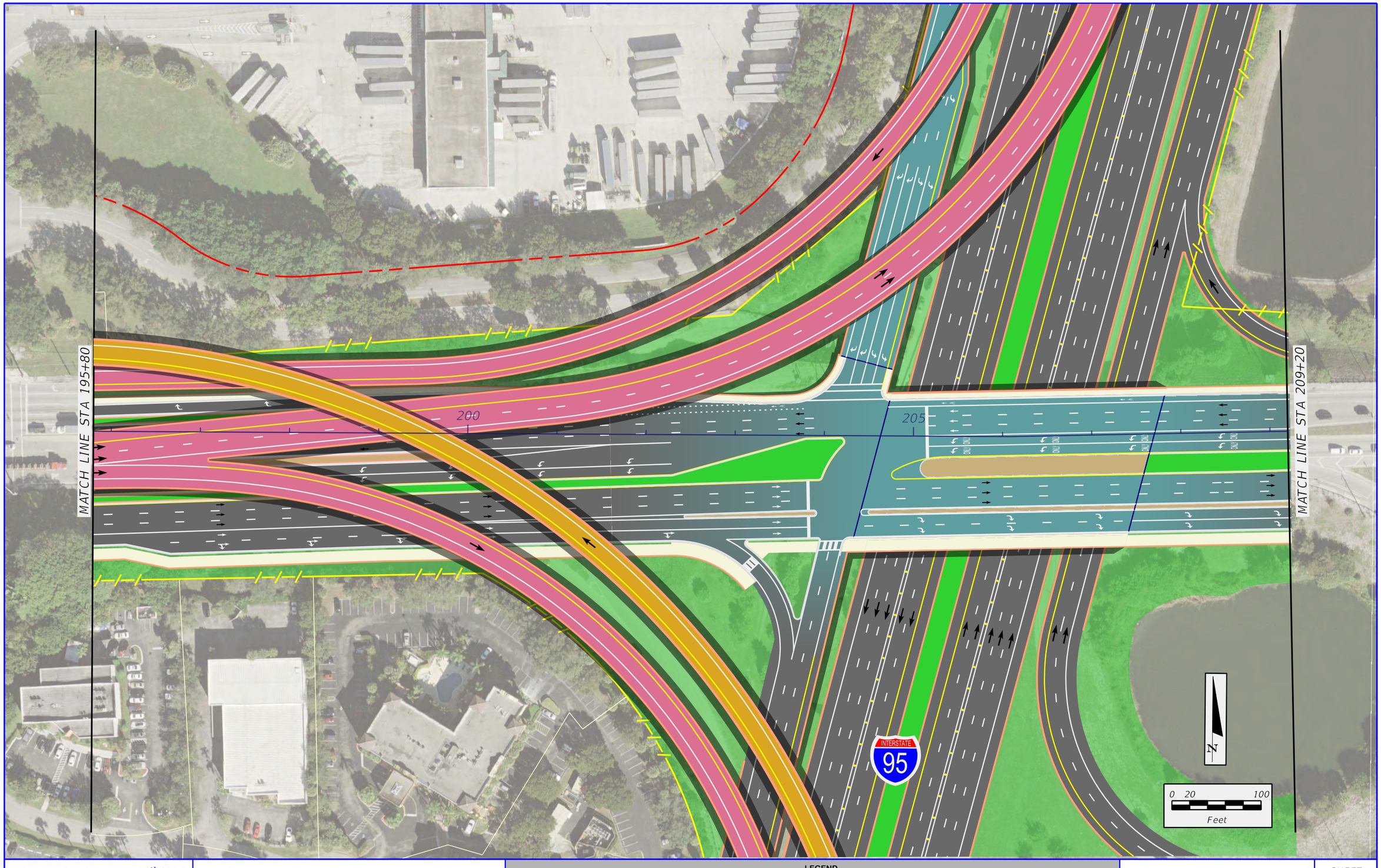


FDOT SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

SHEET NO.
C-27

BRANDSMART USA

MATCH LINE STA 209+20

210

215

220

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

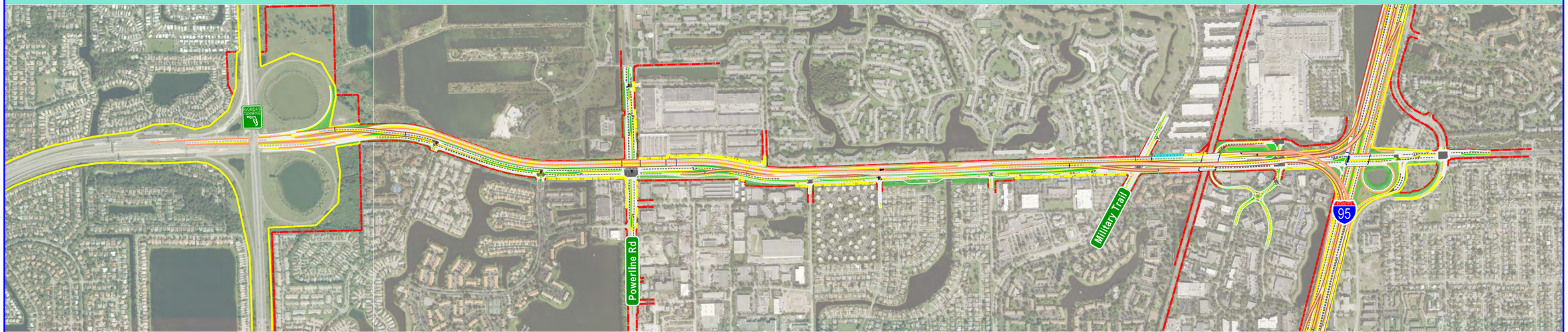
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD RAMPS ALTERNATIVE

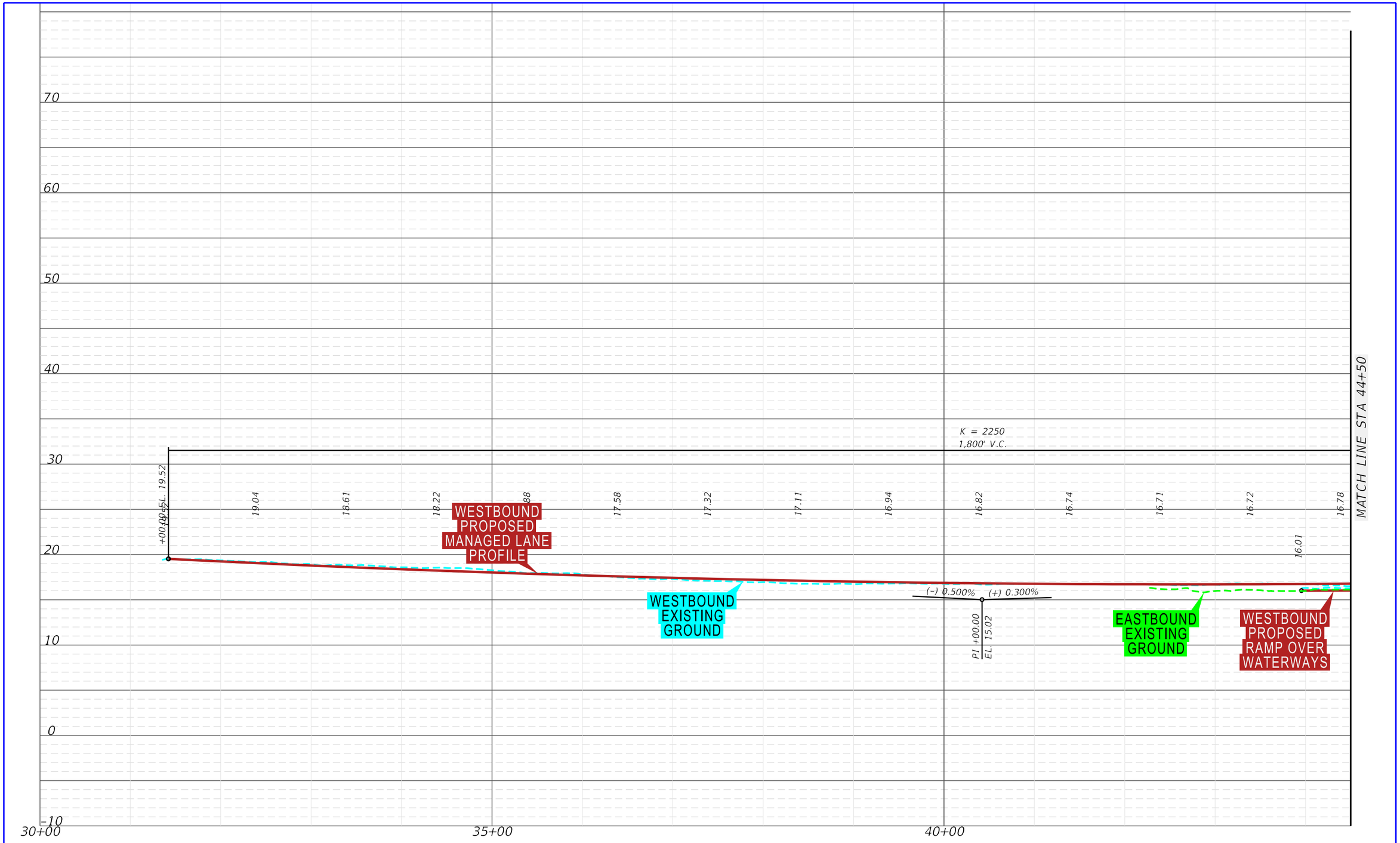
SHEET NO.

C-28

WITH POWERLINE ROAD RAMPS
PROFILE SHEETS



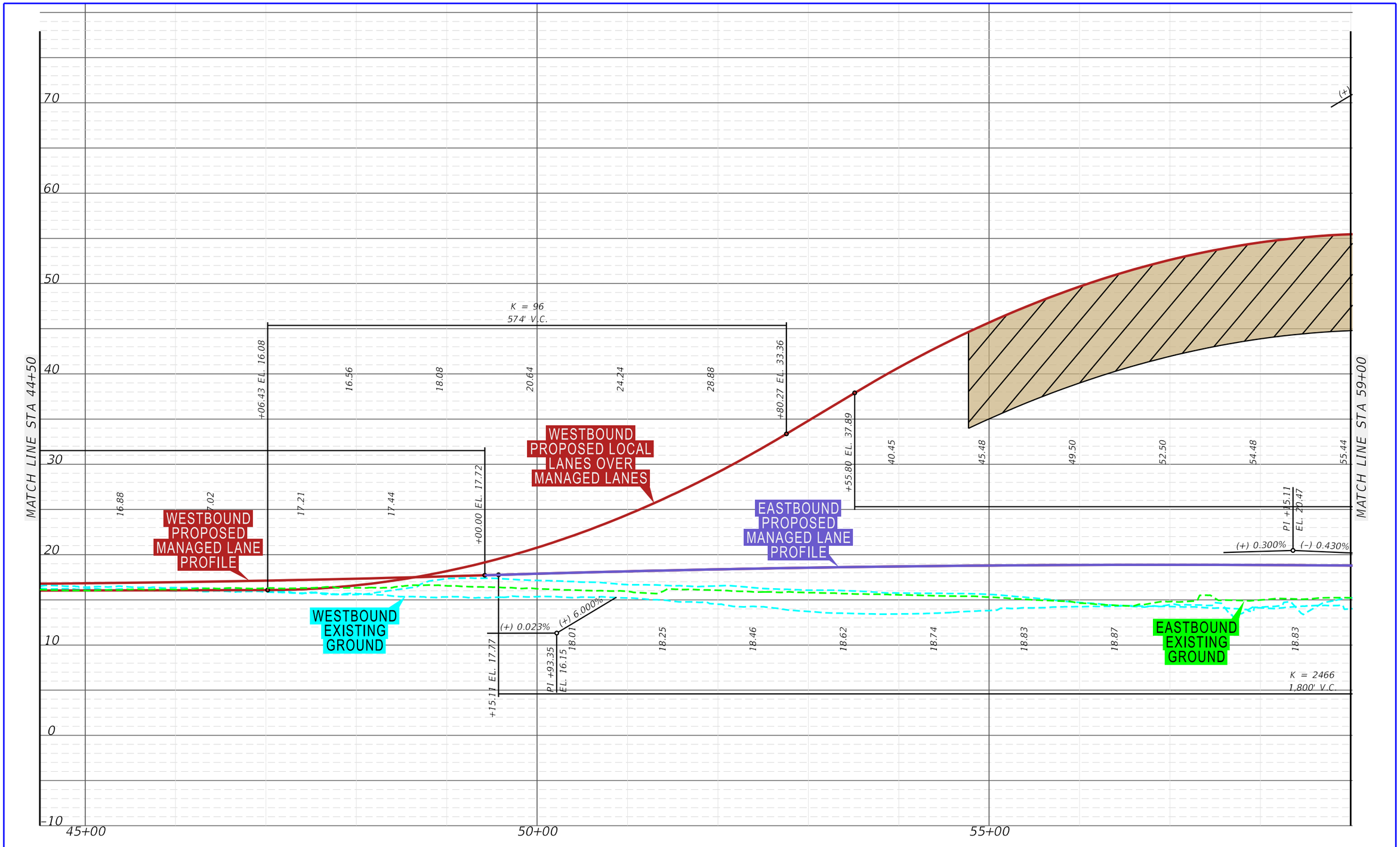
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		SHEET NO. V



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITH POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-29



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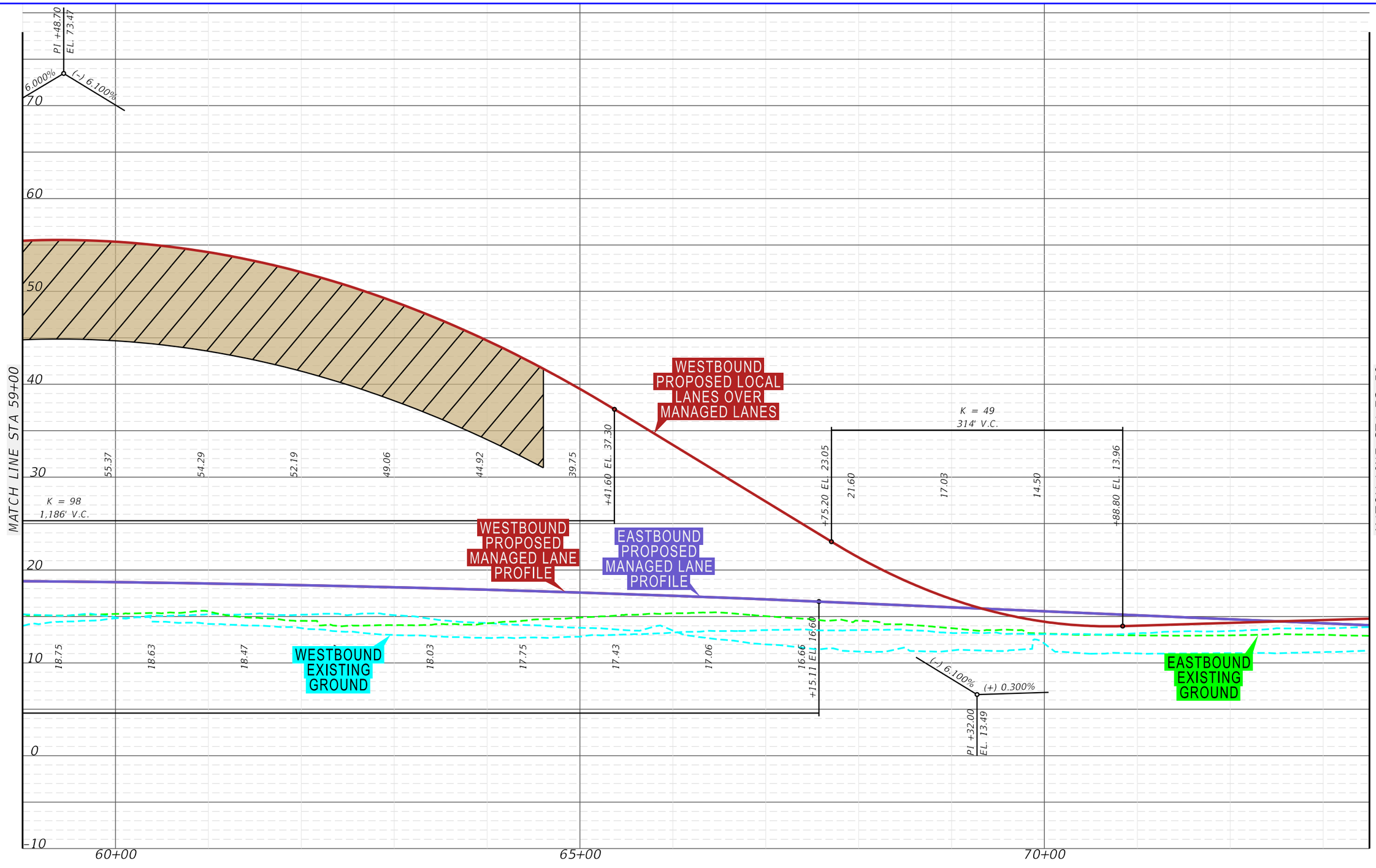
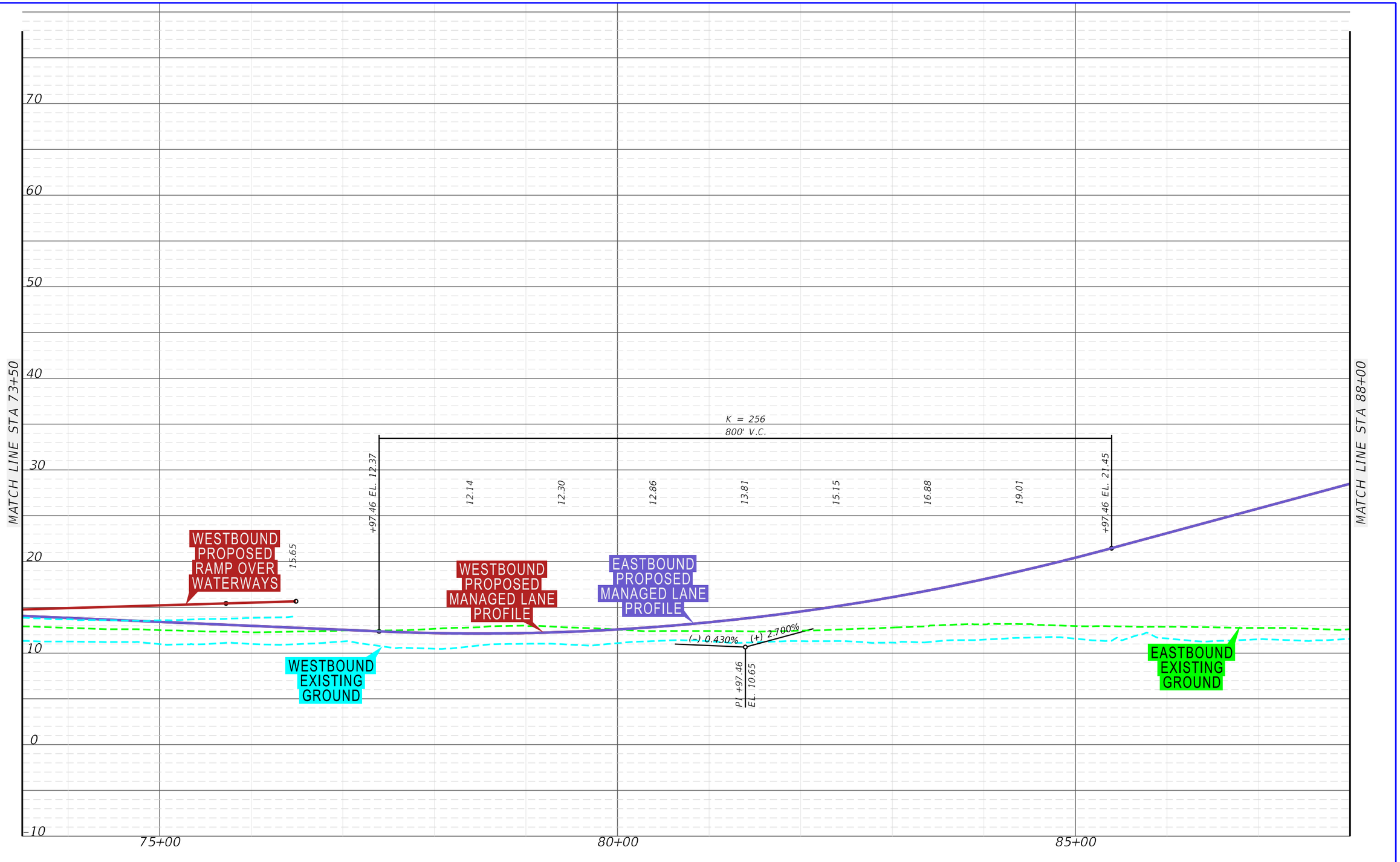
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE

SHEET NO.
C-30



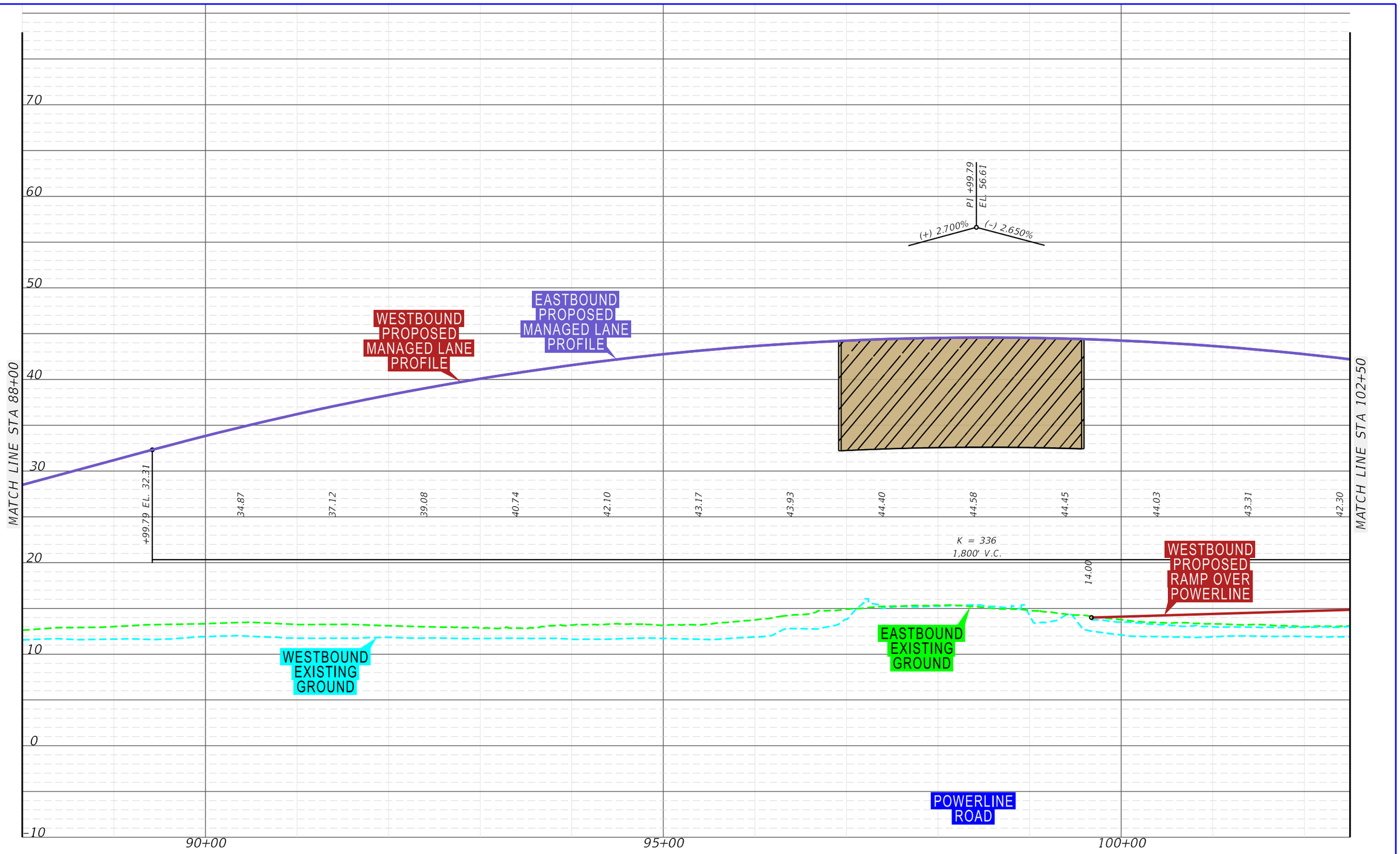
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE

SHEET NO.
C-31



FDOT SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE

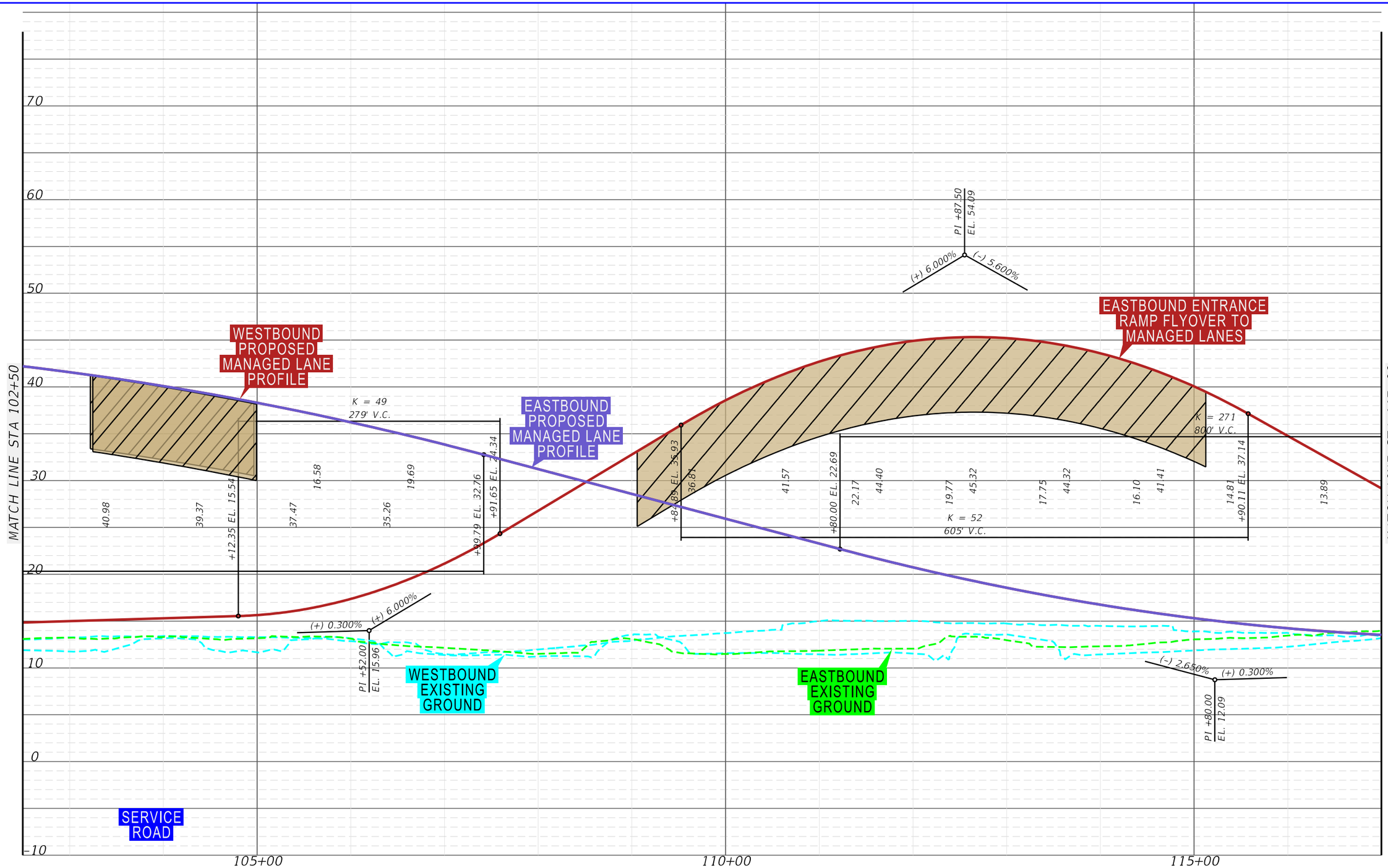
SHEET NO.
C-32



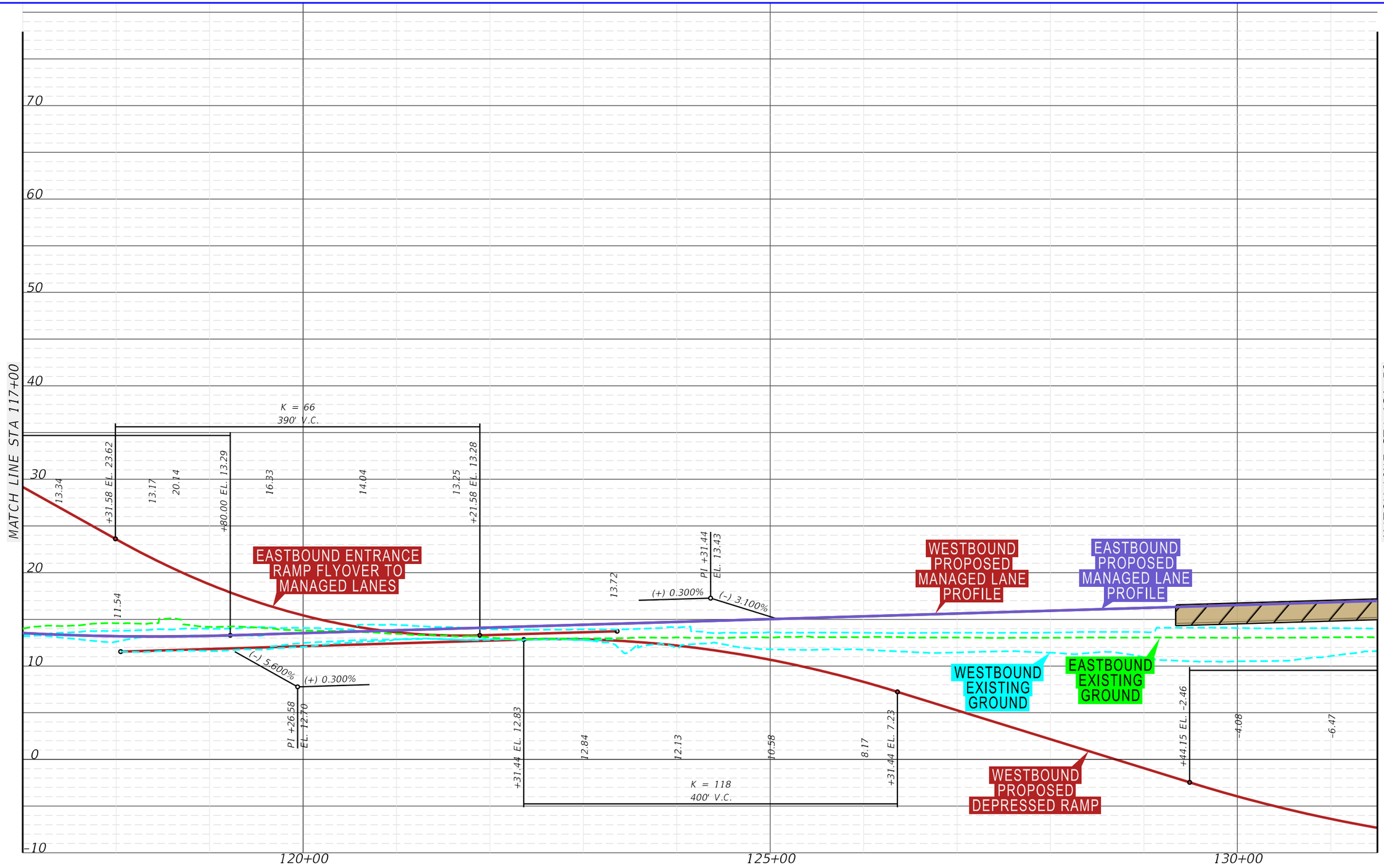
SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITH POWERLINE ROAD
RAMPS PROFILE

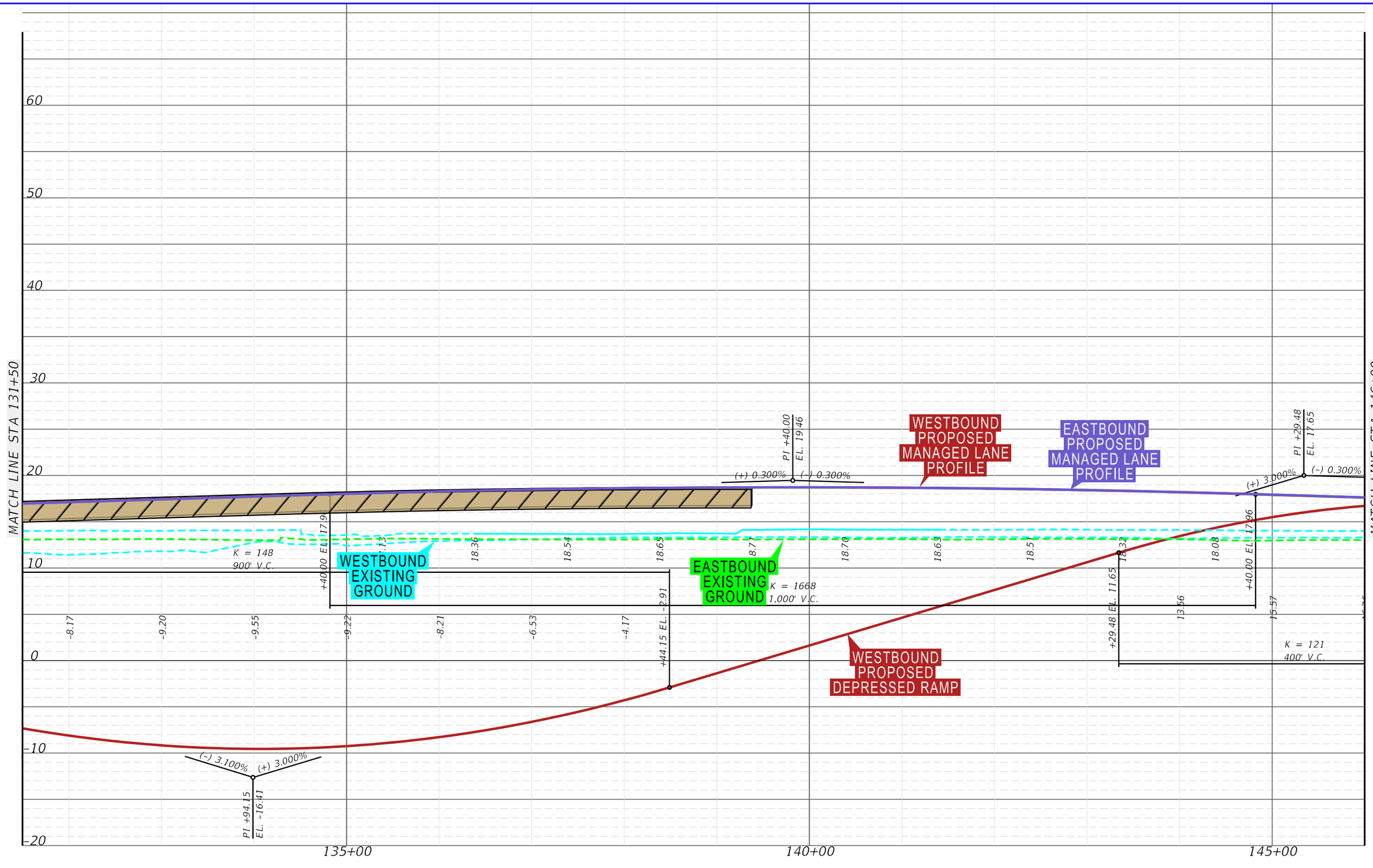
SHEET NO.
C-33

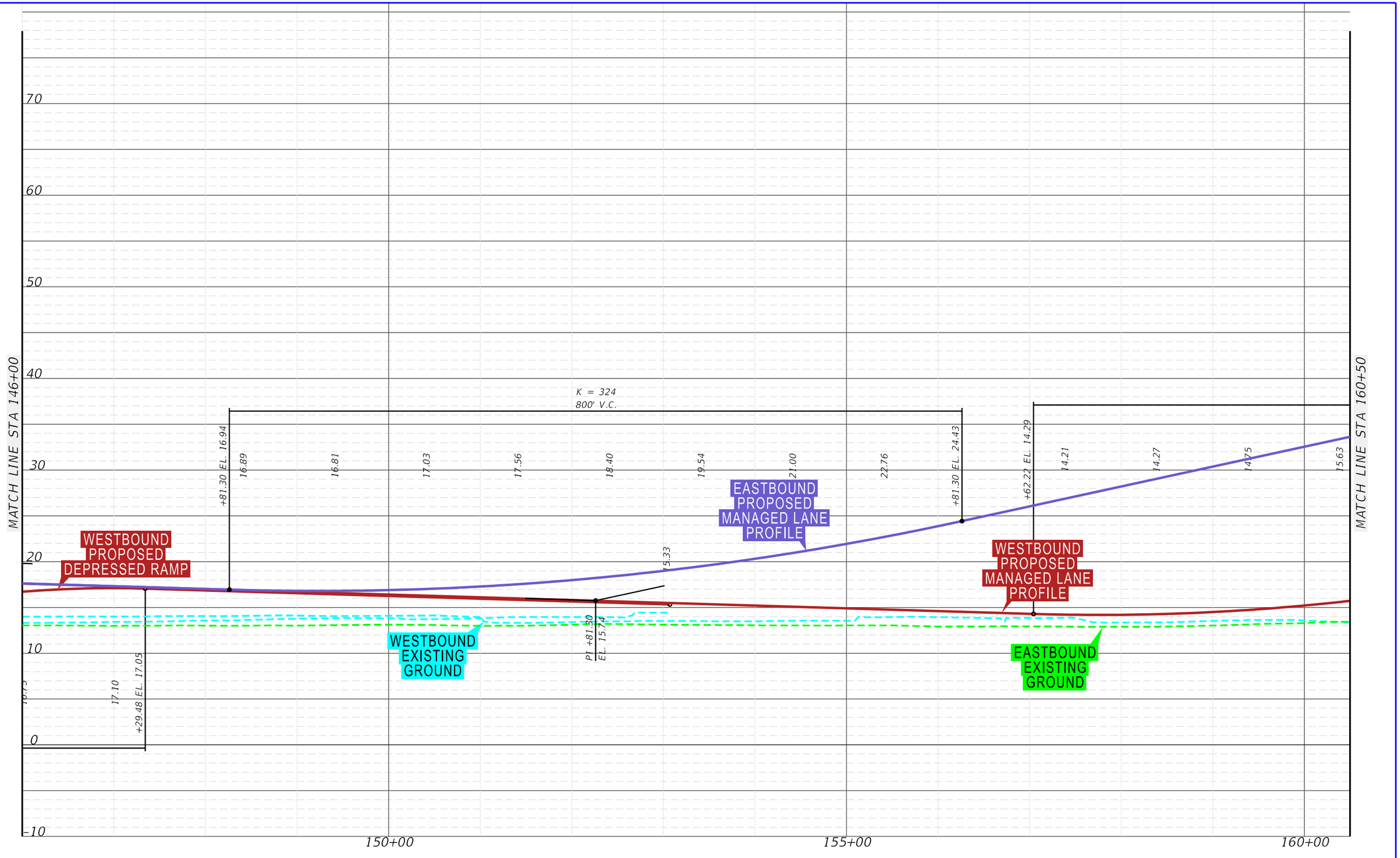


FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE	SHEET NO. C-34



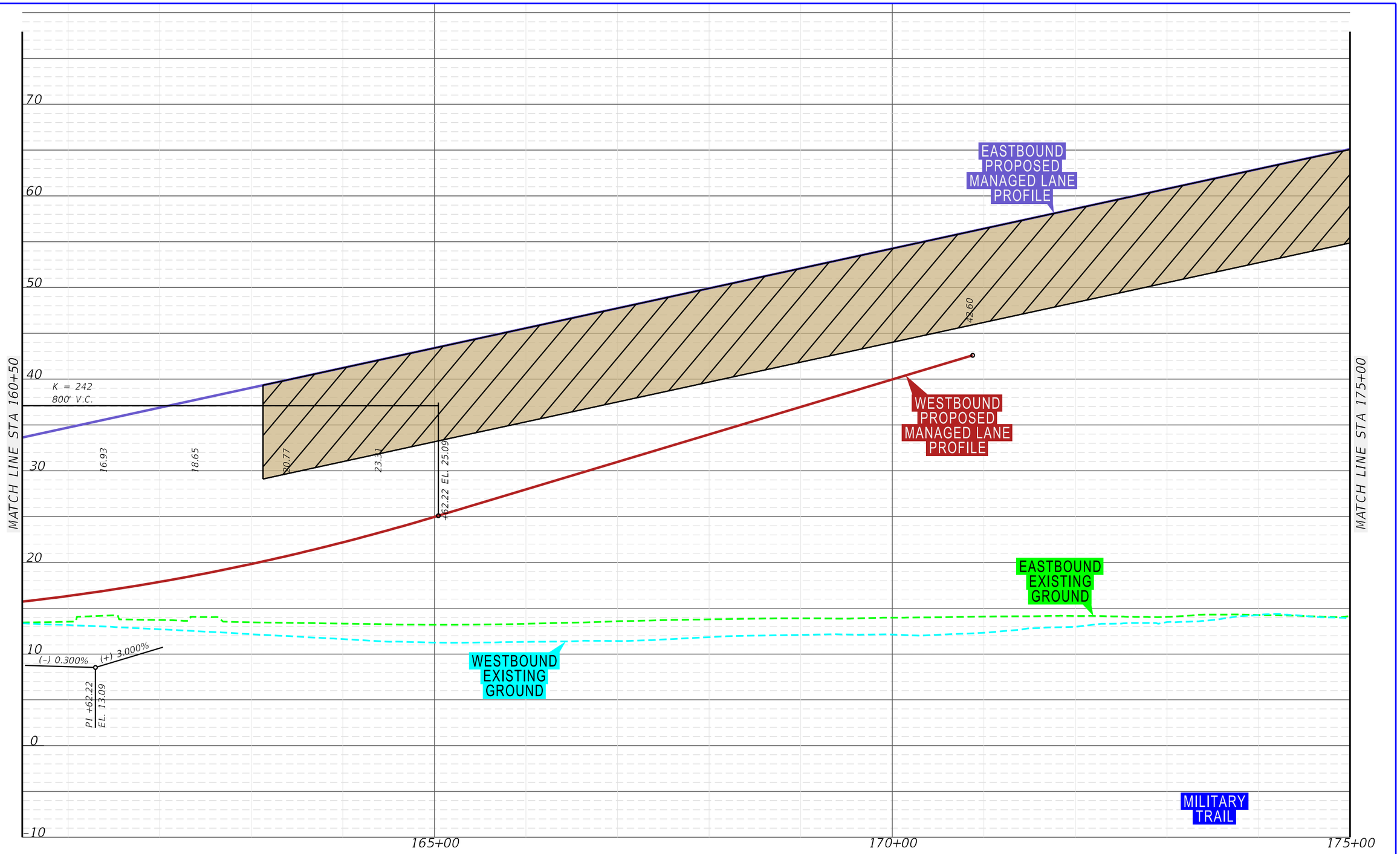
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE	SHEET NO. C-35





FDOT SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITH POWERLINE ROAD RAMPS PROFILE

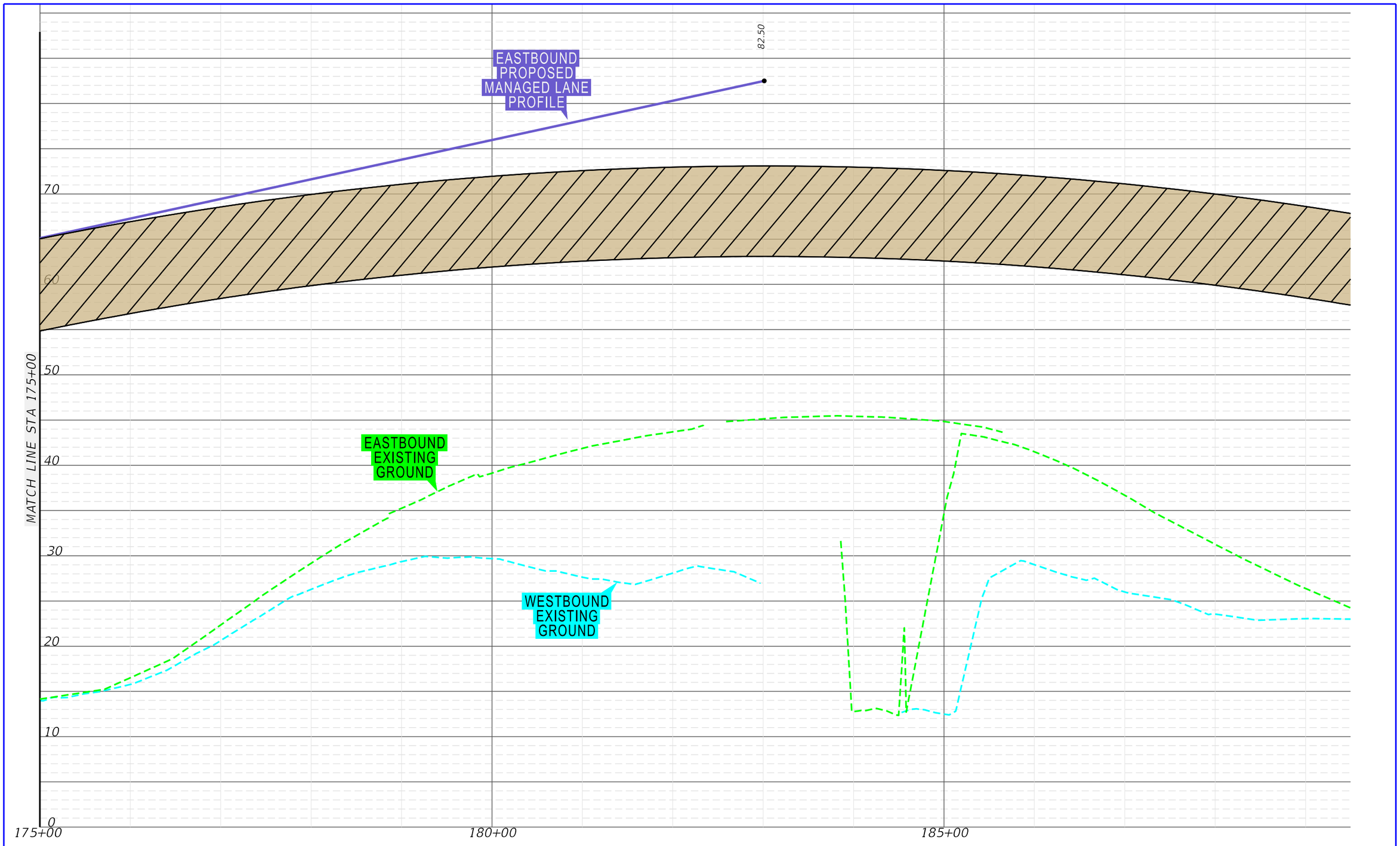
SHEET NO.
C-37



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITH POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-38



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
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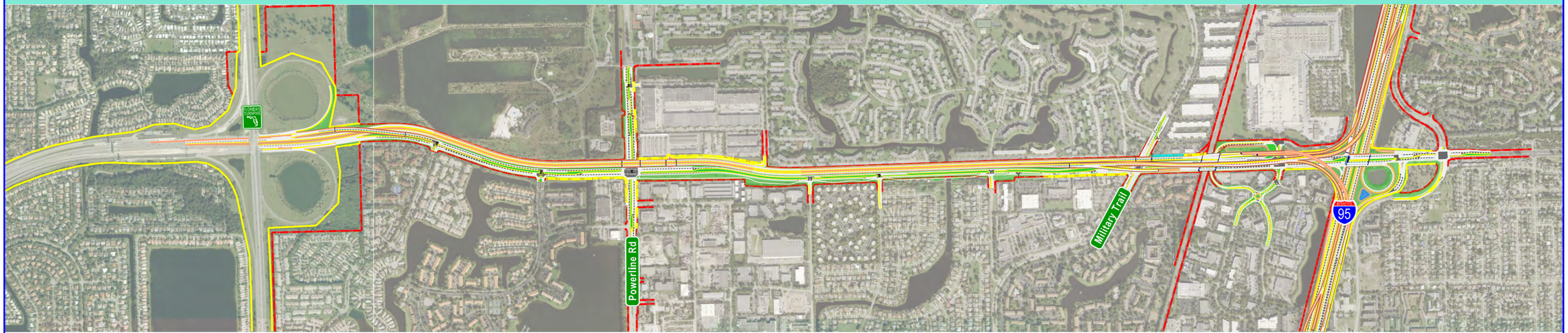
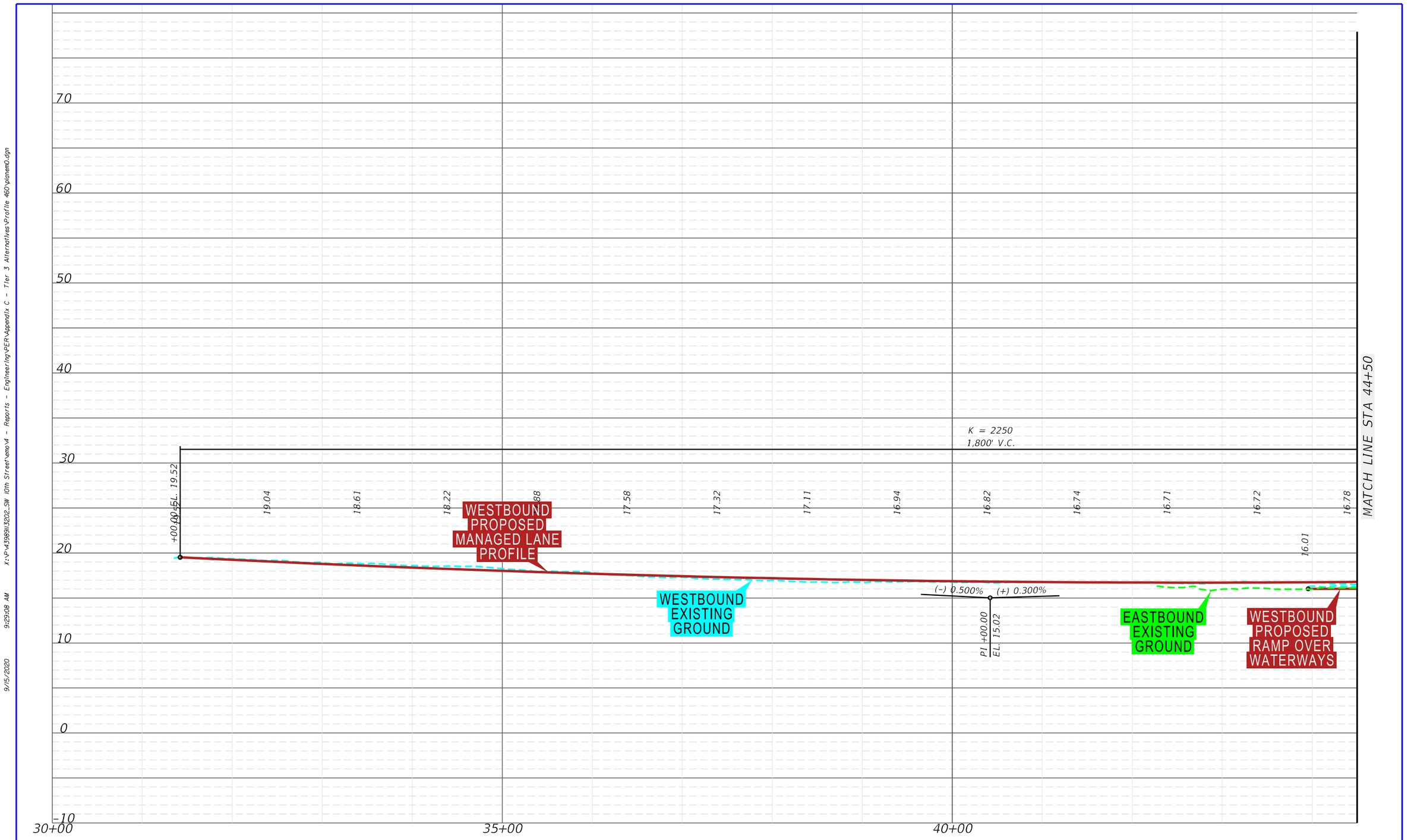
APPENDIX C
WITH POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-39

WITHOUT POWERLINE ROAD RAMPS
PROFILE SHEETS



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		SHEET NO. vi



SR 869 / SW 10th Street Connector PD&E Study from
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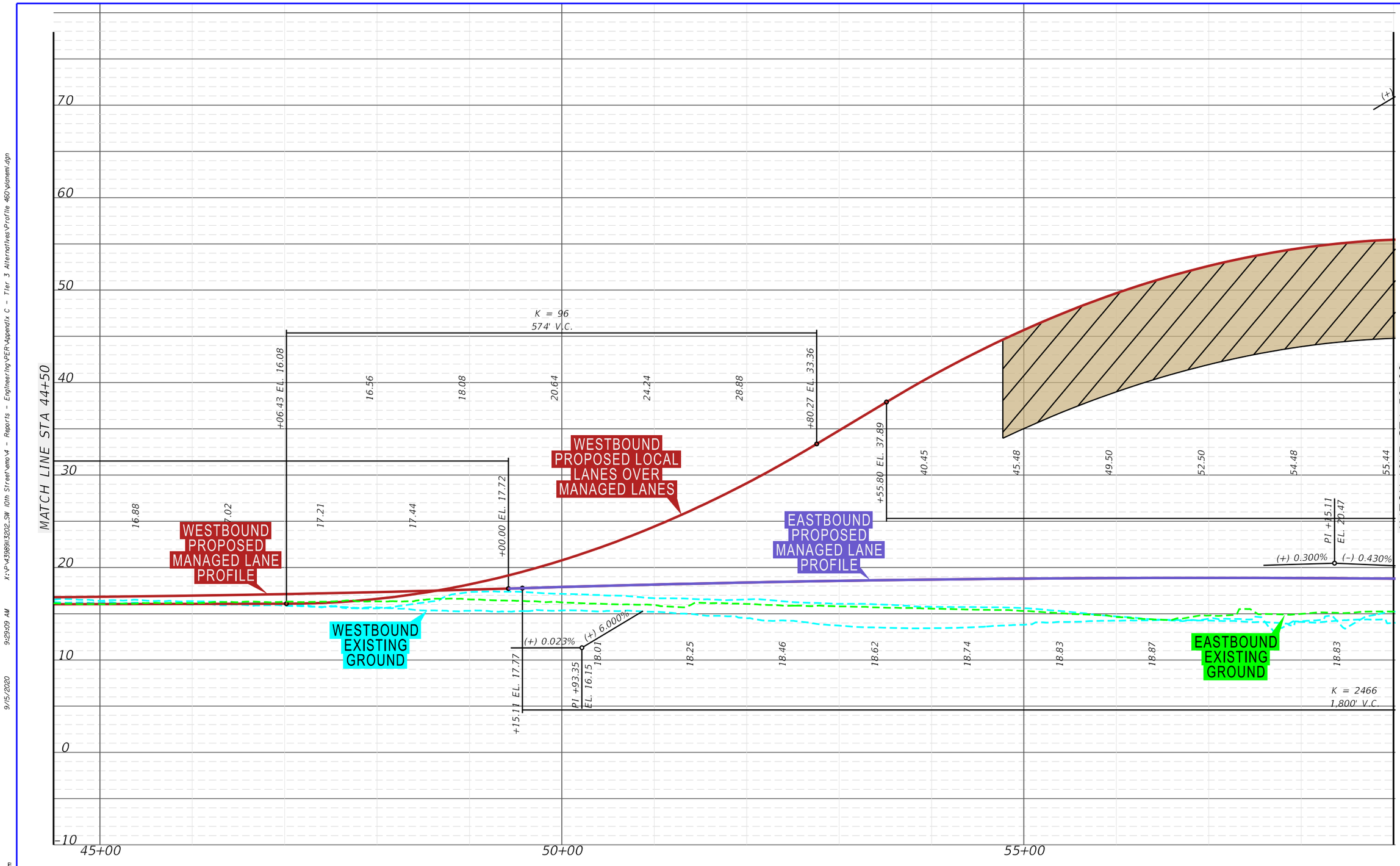
APPENDIX C
WITHOUT POWERLINE ROAD RAMPS PROFILE

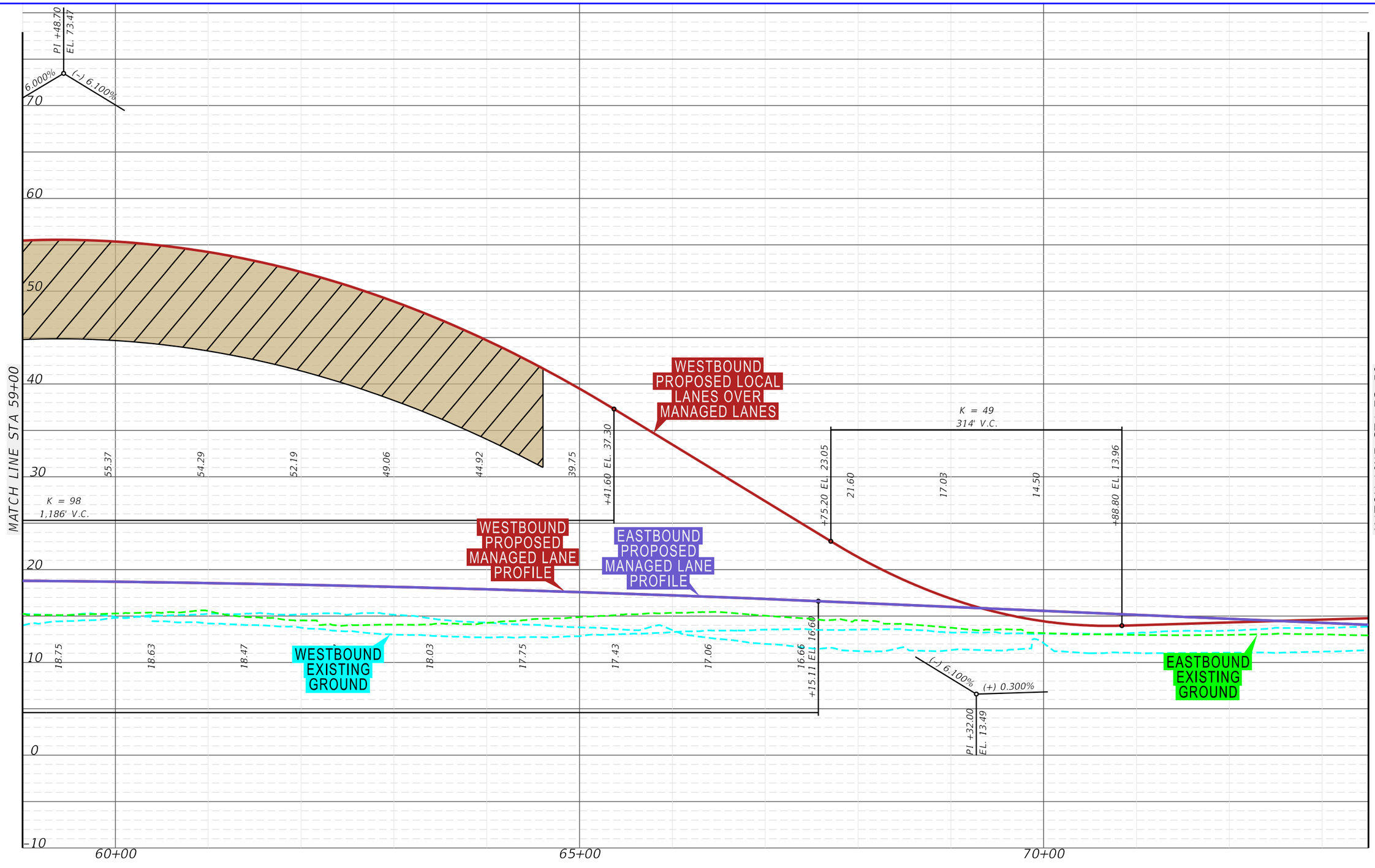
SHEET NO.
C-40



SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

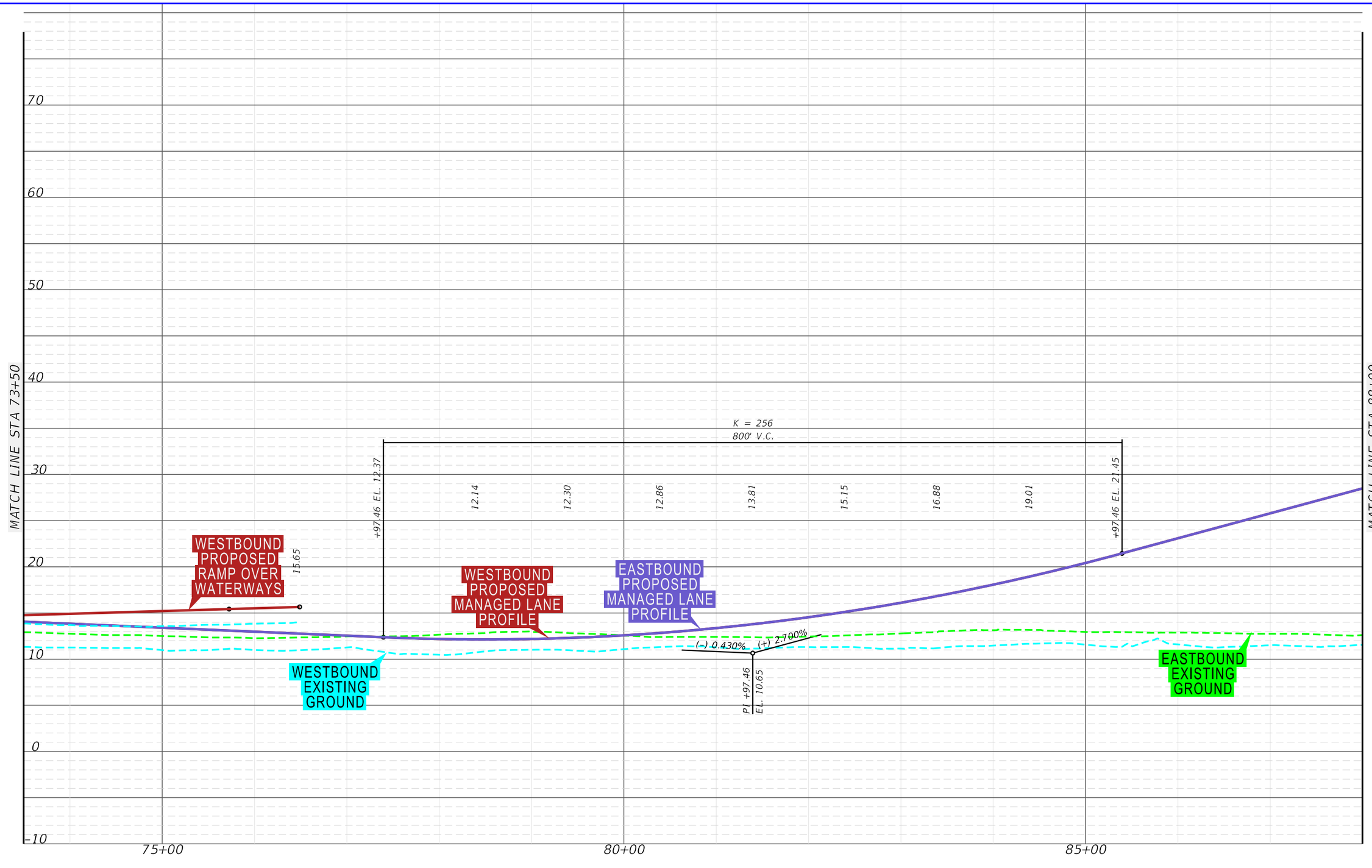
APPENDIX C
WITHOUT POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-41



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITHOUT POWERLINE ROAD RAMPS PROFILE

SHEET NO.
C-42



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FDOT SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITHOUT POWERLINE ROAD RAMPS PROFILE

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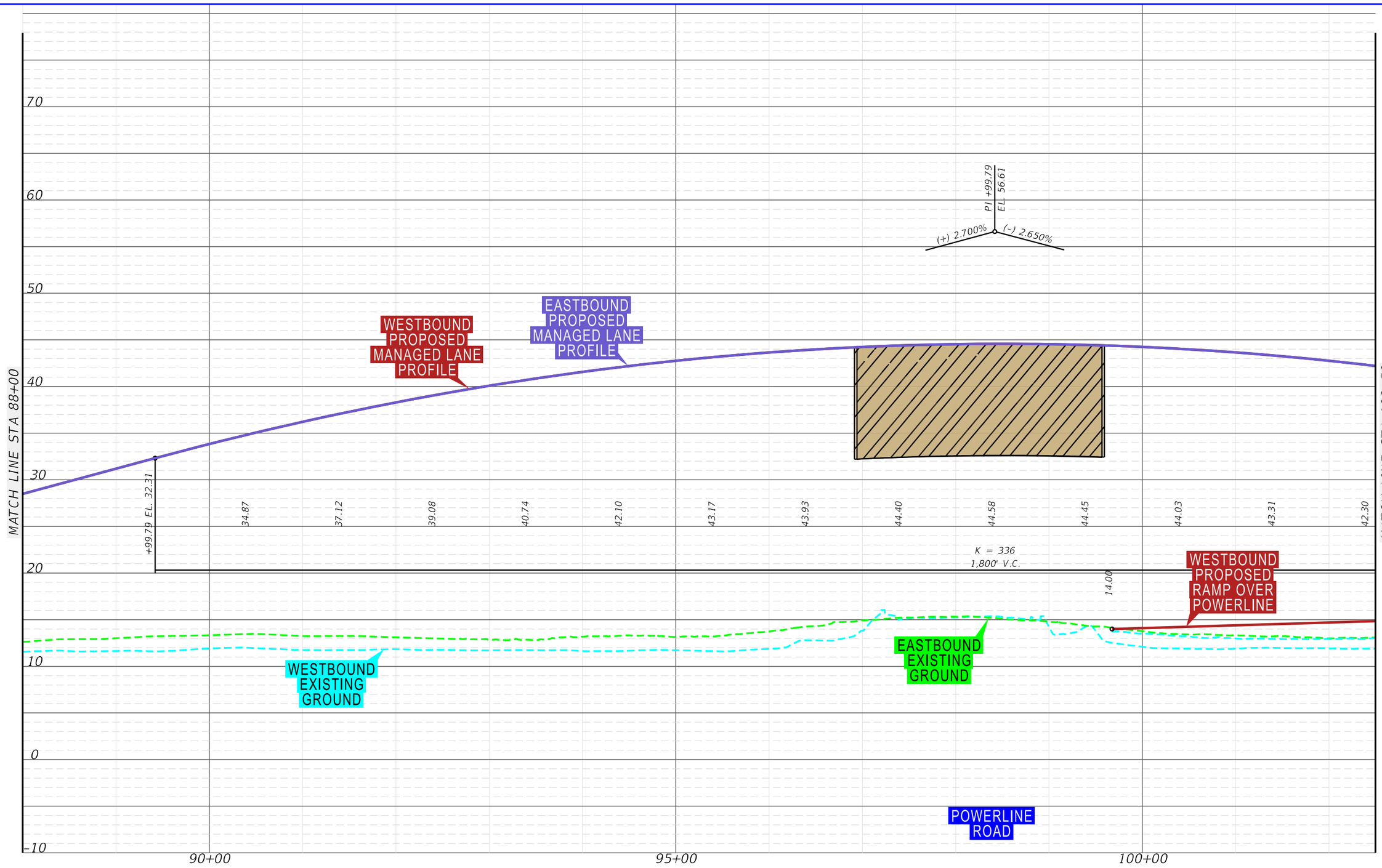
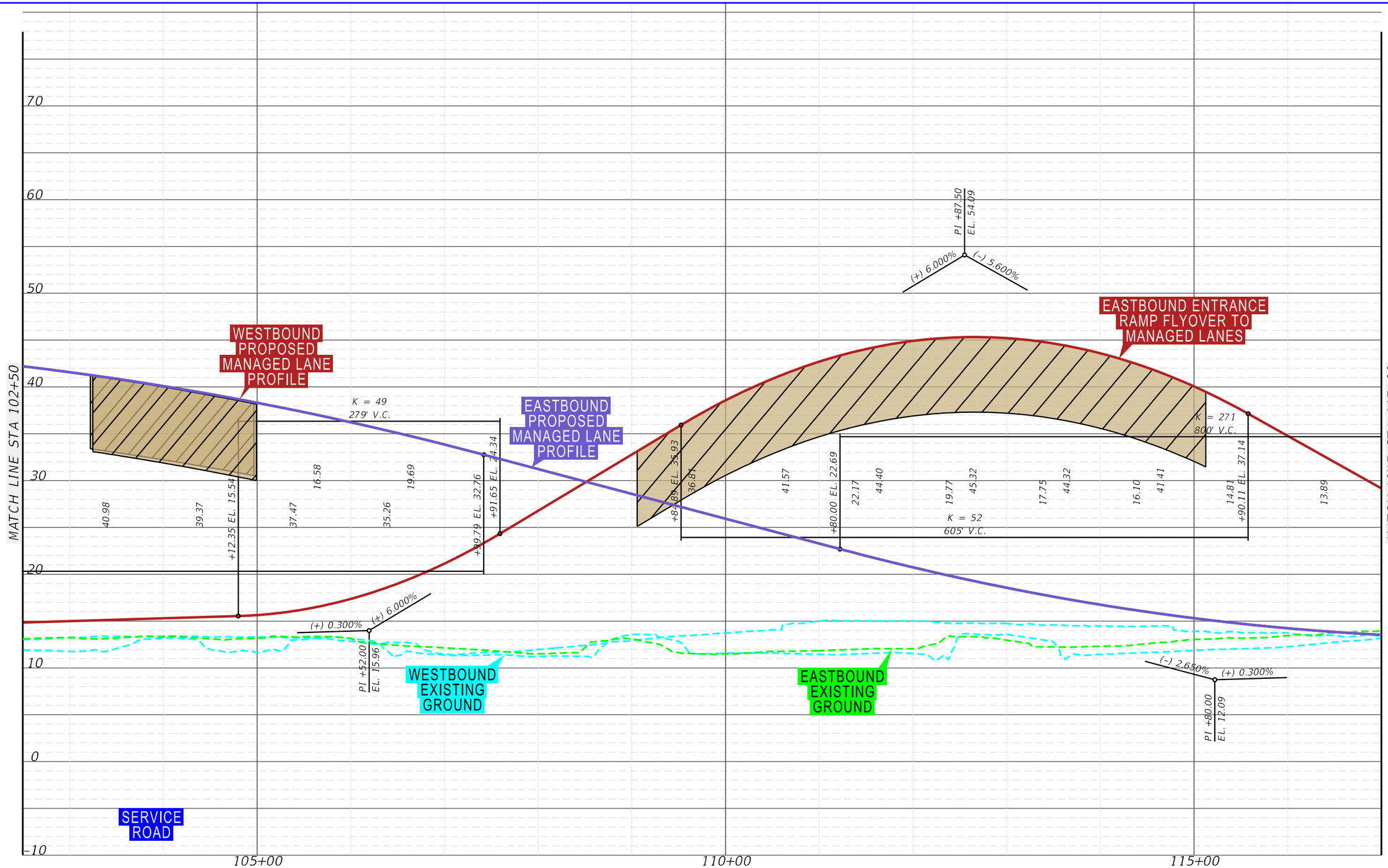
C-43



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITHOUT POWERLINE ROAD RAMPS PROFILE

SHEET NO.
C-44



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITHOUT POWERLINE ROAD RAMPS PROFILE	SHEET NO. C-45

MATCH LINE STA 117+00

MATCH LINE STA 131+50

70
60
50
40
30
20
10
0
-10

120+00
125+00
130+00

K = 66
390' V.C.

13.34
+31.58 EL. 23.62
13.17
20.14
+80.00 EL. 13.29
16.33
14.04
13.25
+21.58 EL. 13.28
13.72

(-) 5.600%
(+) 0.300%
PI +26.58
EL. 12.70

EASTBOUND ENTRANCE RAMP FLYOVER TO MANAGED LANES

WESTBOUND PROPOSED MANAGED LANE PROFILE

EASTBOUND PROPOSED MANAGED LANE PROFILE

WESTBOUND EXISTING GROUND

EASTBOUND EXISTING GROUND

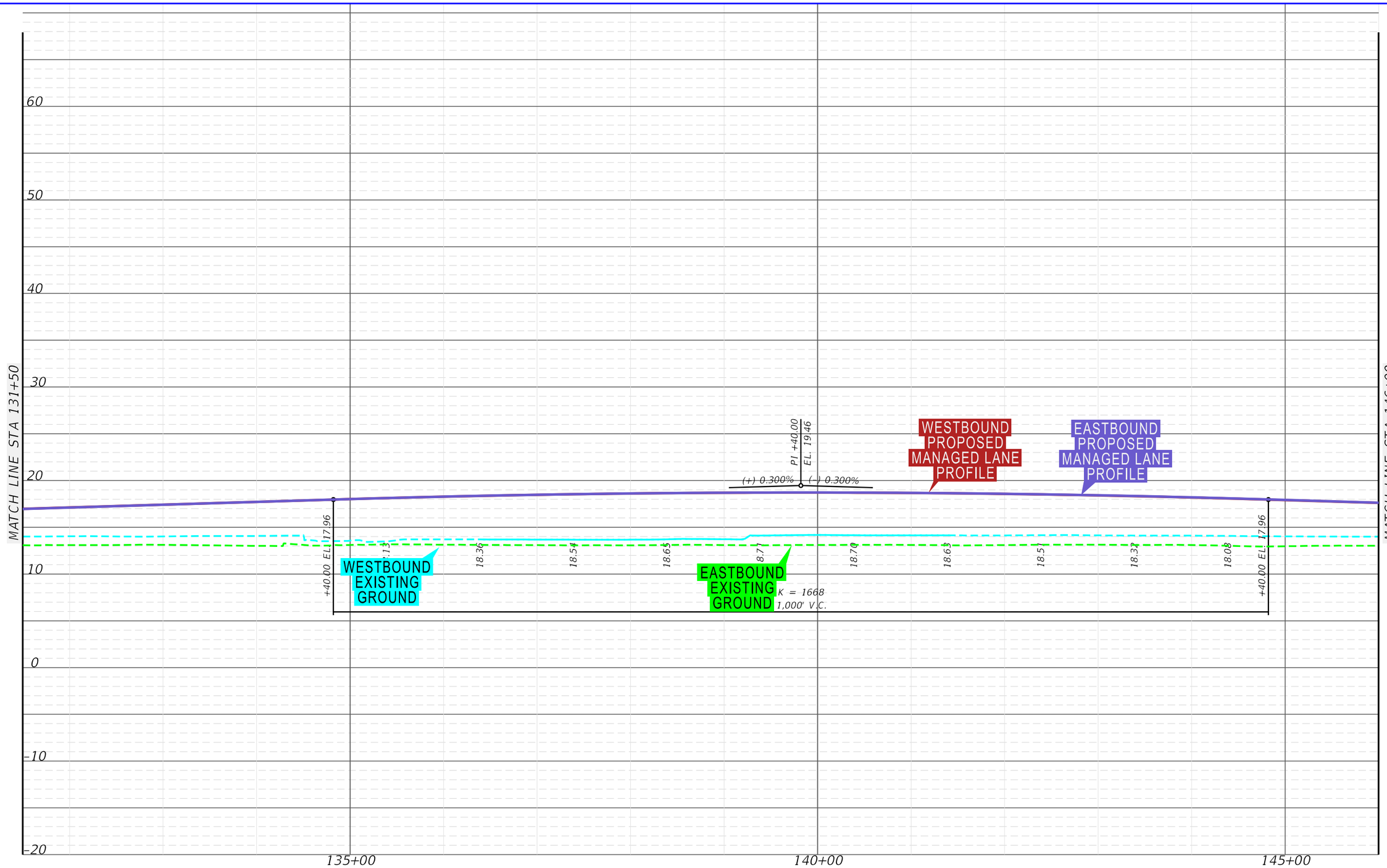
FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD
RAMPS PROFILE

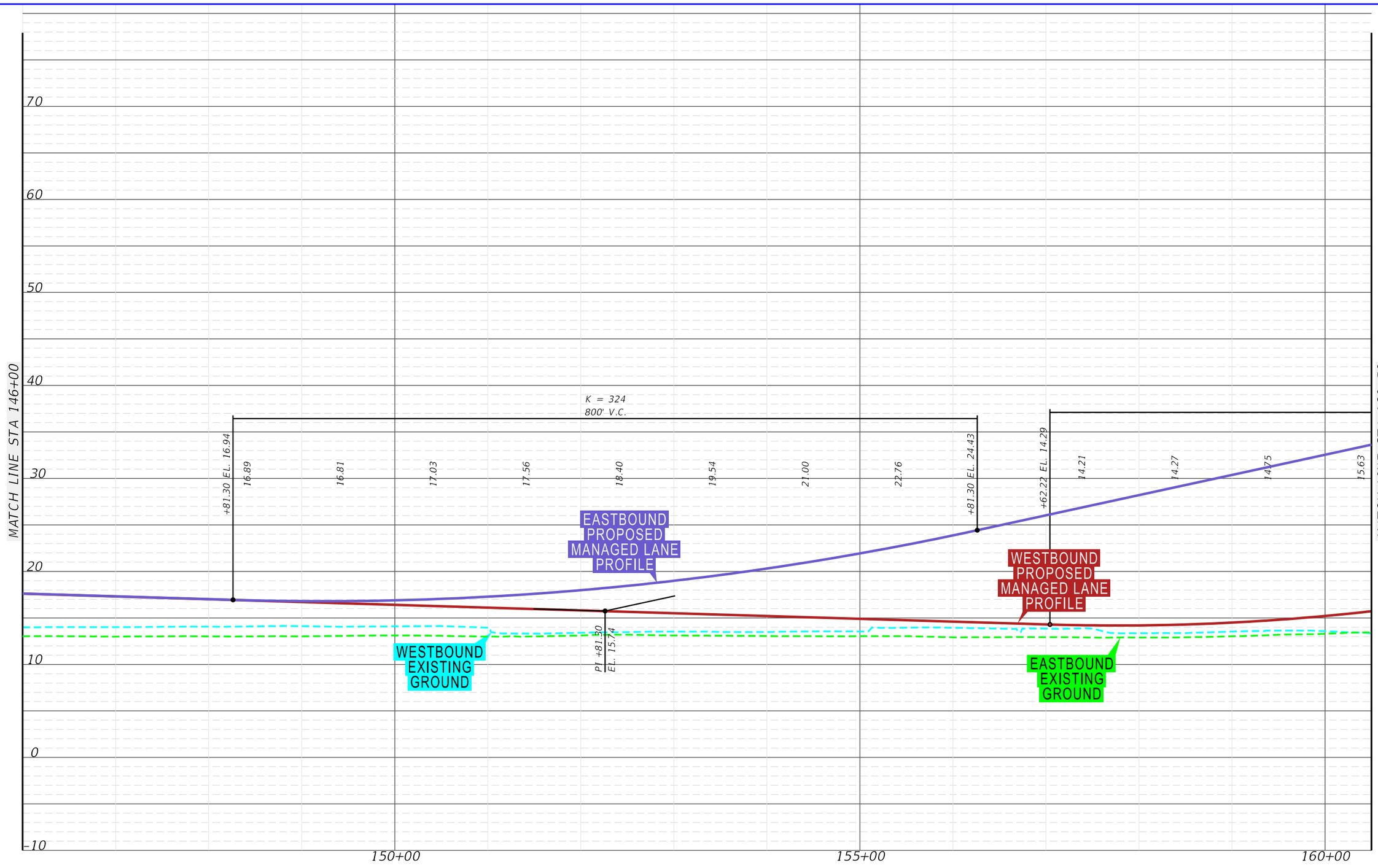
SHEET NO.
C-46



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-47



SR 869 / SW 10th Street Connector PD&E Study from
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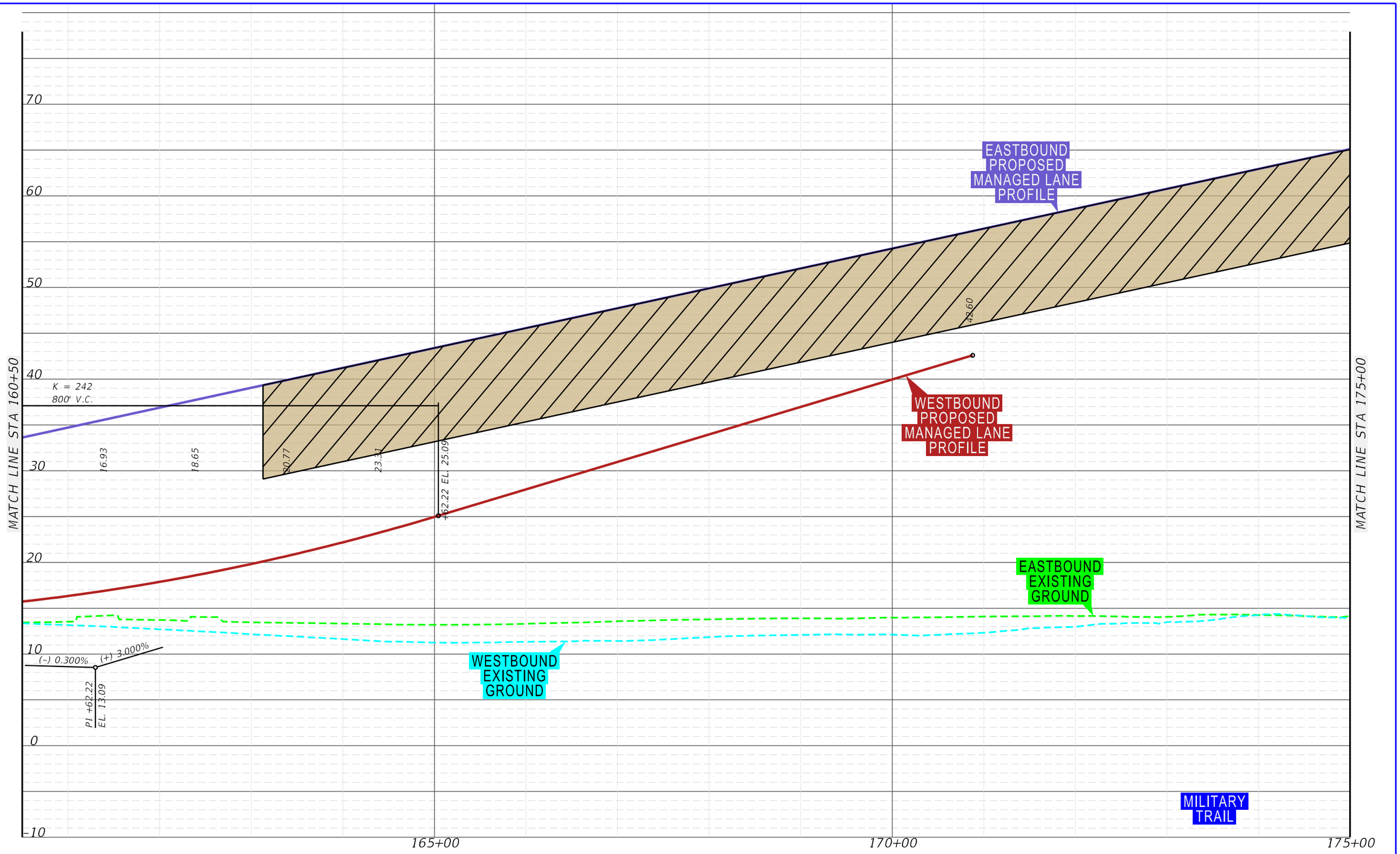
APPENDIX C
WITHOUT POWERLINE ROAD
RAMPS PROFILE

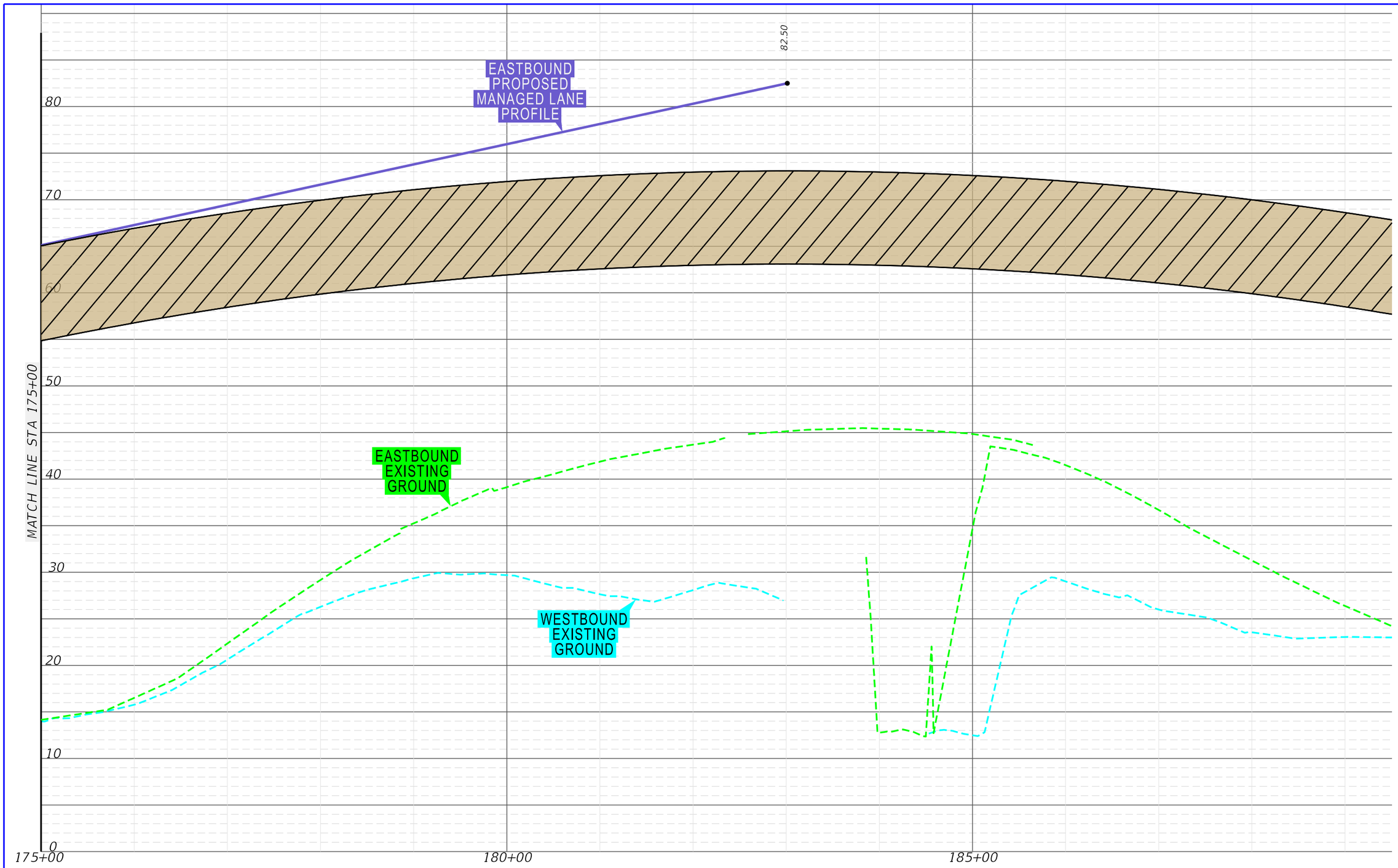
SHEET NO.
C-48



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

APPENDIX C
WITHOUT POWERLINE ROAD
RAMPS PROFILE

SHEET NO.
C-49



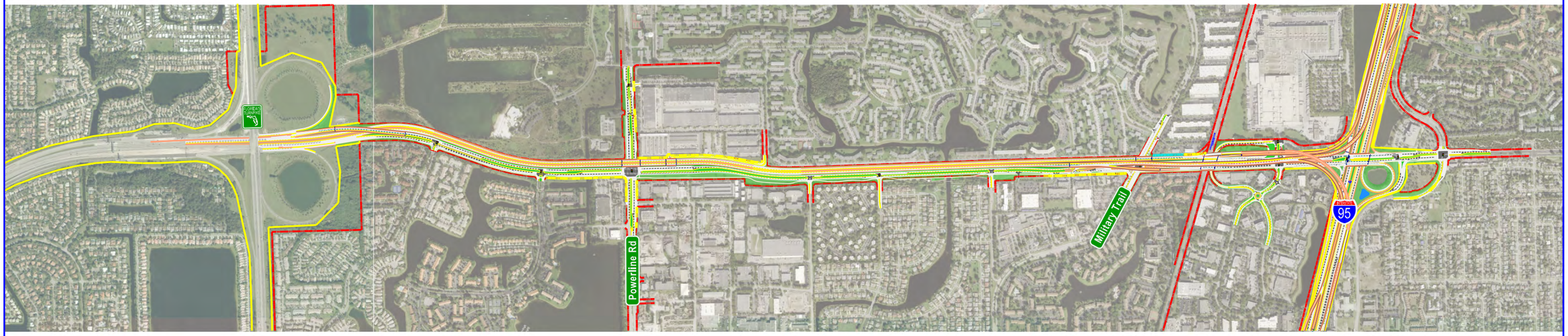
FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		APPENDIX C WITHOUT POWERLINE ROAD RAMPS PROFILE

SHEET NO.
C-50

Appendix D

Preferred Alternative

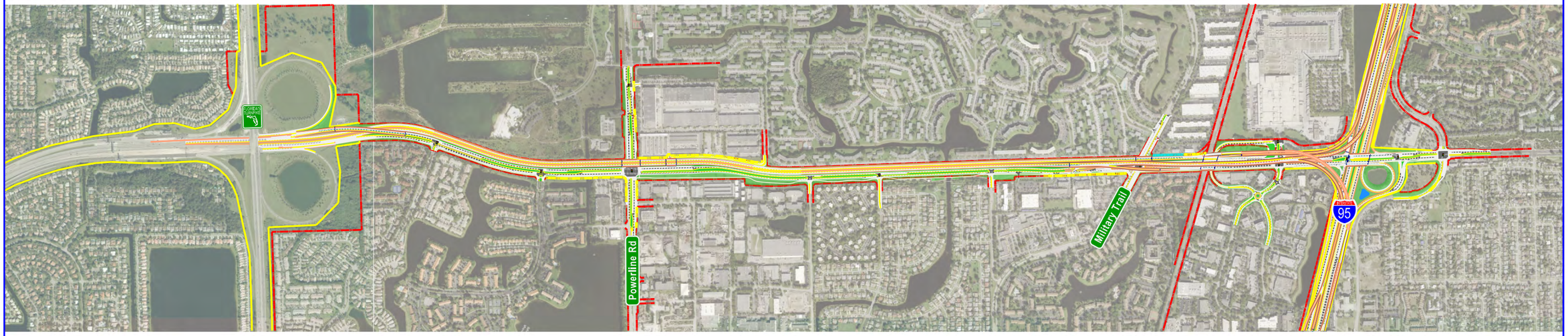
APPENDIX D - PREFERRED ALTERNATIVE



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291

Financial Project ID: 439891-1-22-02
ETDM No: 14291

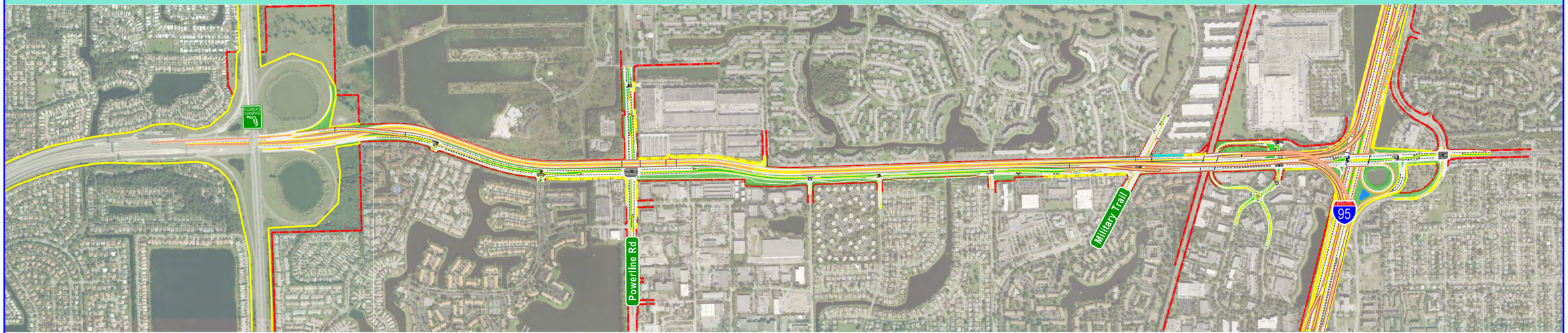
APPENDIX D - PREFERRED ALTERNATIVE

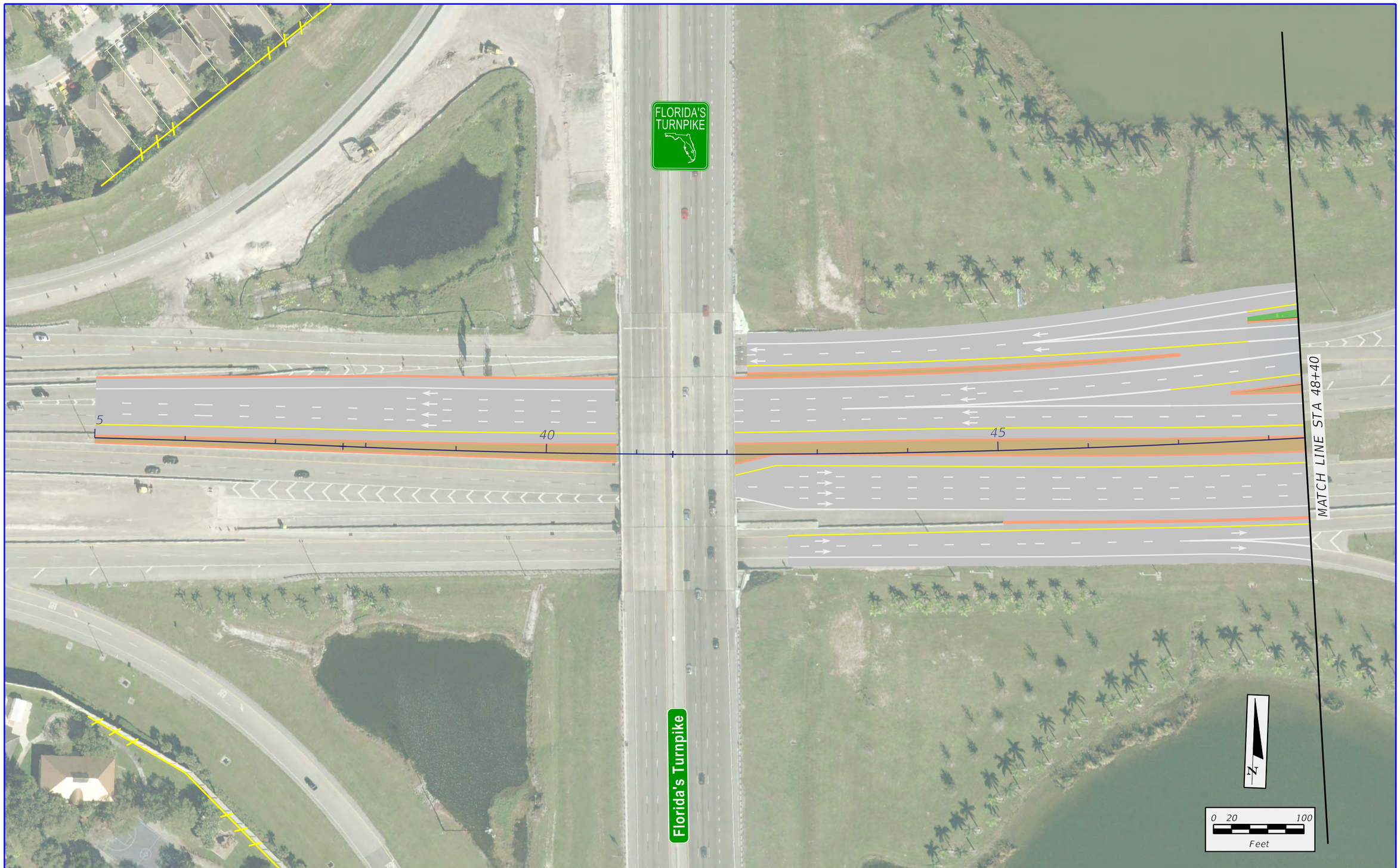


INDEX OF DRAWINGS

SHEET NUMBER	SHEET DESCRIPTION
1 - 14	PREFERRED ALTERNATIVE
15 - 25	PREFERRED ALTERNATIVE PROFILE

PREFERRED ALTERNATIVE
PLAN SHEETS





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FDOT | SW 10th Street Connector

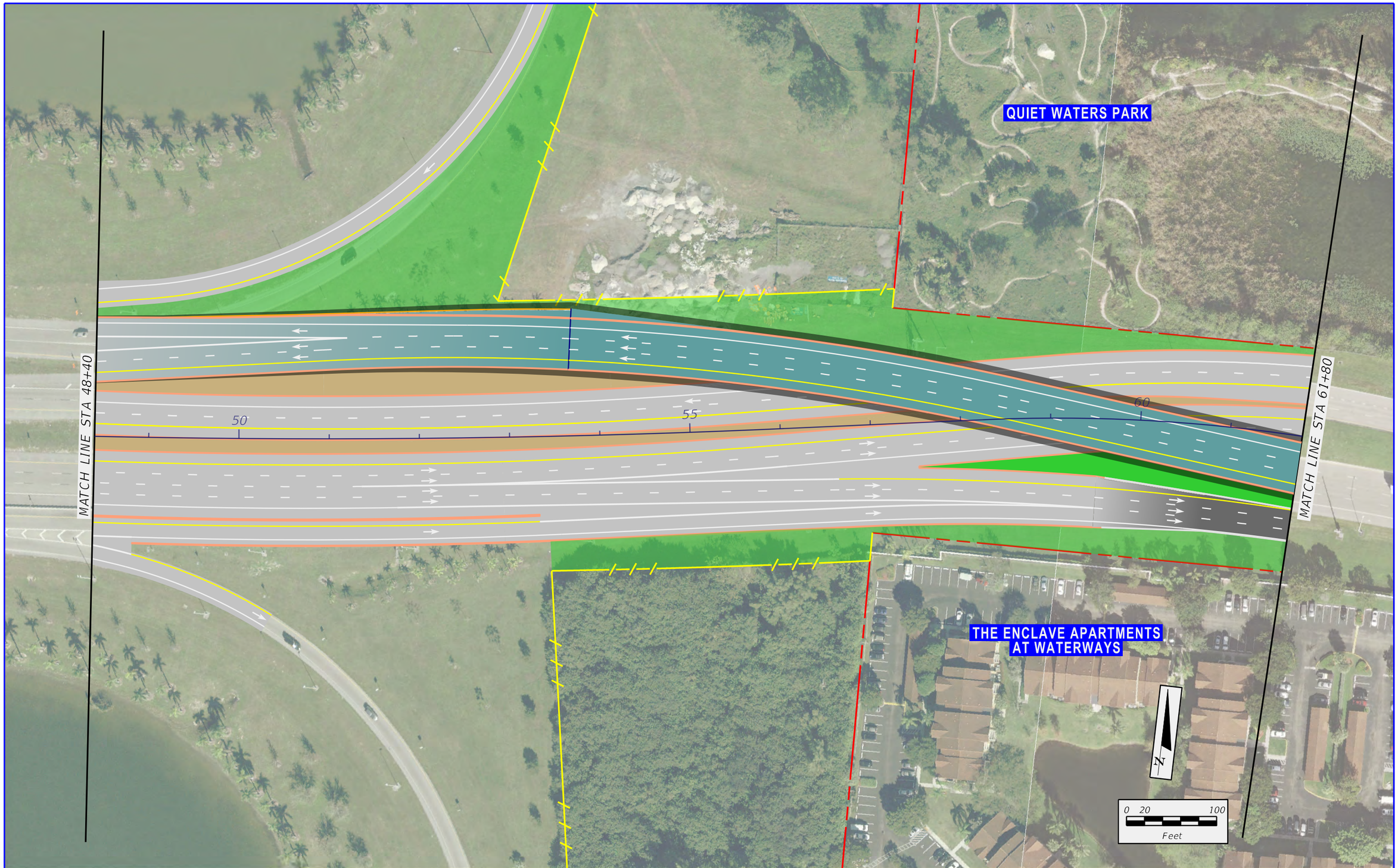
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.
D-1



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO. **D-2**

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QUIET WATERS PARK

MATCH LINE STA 61+80

65

70

75

MATCH LINE STA 75+20

THE ENCLAVE APARTMENTS AT WATERWAYS

Waterways Blvd

WATERWAYS

0 20 100

Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95

Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

D-3

QUIET WATERS PARK

MATCH LINE STA 75+20

MATCH LINE STA 88+60

80

85

INDEPENDENCE BAY

Independence Dr

0 20 100

Feet

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

D-4

QUIET WATERS PARK

DEERFIELD STORAGE

ONLY
BUS

MATCH LINE STA 88+60

90

95

100

SW 10th St

MATCH LINE STA 102+00

C-3 CANAL

SHELL GAS STATION

STR

IND

Powerline Rd

MED CARE PHARMACY

N

0 20 100
Feet

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

D-5

DEERFIELD STORAGE

MATCH LINE STA 102+00

MATCH LINE STA 115+40

105

110

115

PUBLIC STORAGE

N

0 20 100

Feet

LEGEND

EXISTING RIGHT-OF-WAY
EXISTING PARCEL LINES
LIMITED ACCESS RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPOSED MANAGED LANES
PROPOSED LOCAL SW 10TH ST
PROPOSED 2ND LEVEL BRIDGE
PROPOSED 3RD LEVEL BRIDGE
PROPOSED 4TH LEVEL BRIDGE
TEMPORARY EASEMENT
PROPOSED SIDEWALK
PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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PREFERRED ALTERNATIVE

SHEET NO.

D-6

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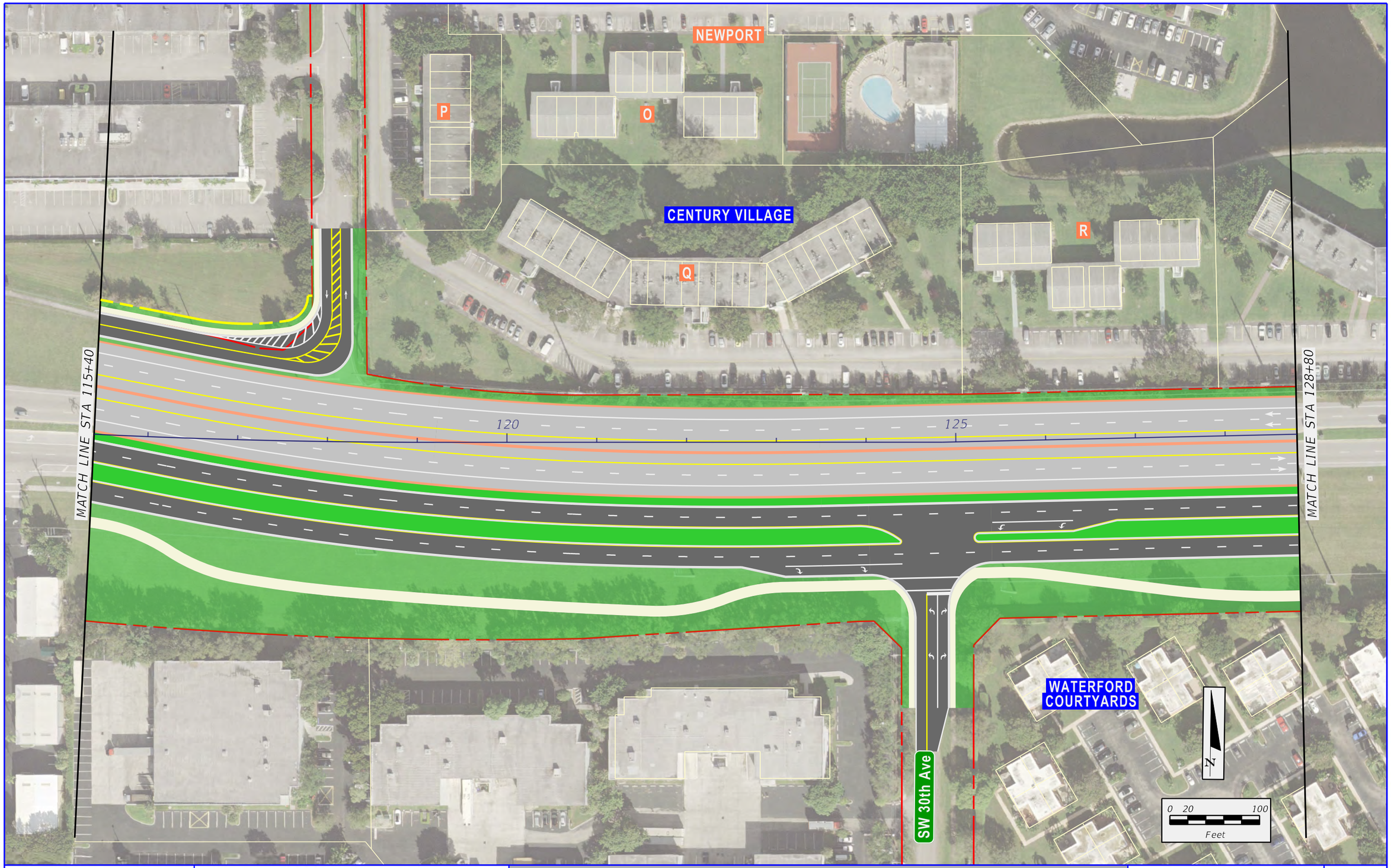

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SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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LEGEND

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- PROPOSED 4TH LEVEL BRIDGE
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- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.
D-7

OAKRIDGE

CENTURY VILLAGE

WATERFORD COURTYARDS

WATERFORD HOMES

SW 28th Ave

MATCH LINE STA 128+80

MATCH LINE STA 142+20

130 135 140

0 20 100
Feet

N

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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- PROPOSED RIGHT-OF-WAY
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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

D-8

U
F
HARWOOD
C
Harwood Dr
V
E
CENTURY VILLAGE
D
MATCH LINE STA 142+20
145
150
155
MATCH LINE STA 155+60
C-2 CANAL
SW 10th Dr
SW 24th Ave
N
0 20 100
Feet

FDOT
SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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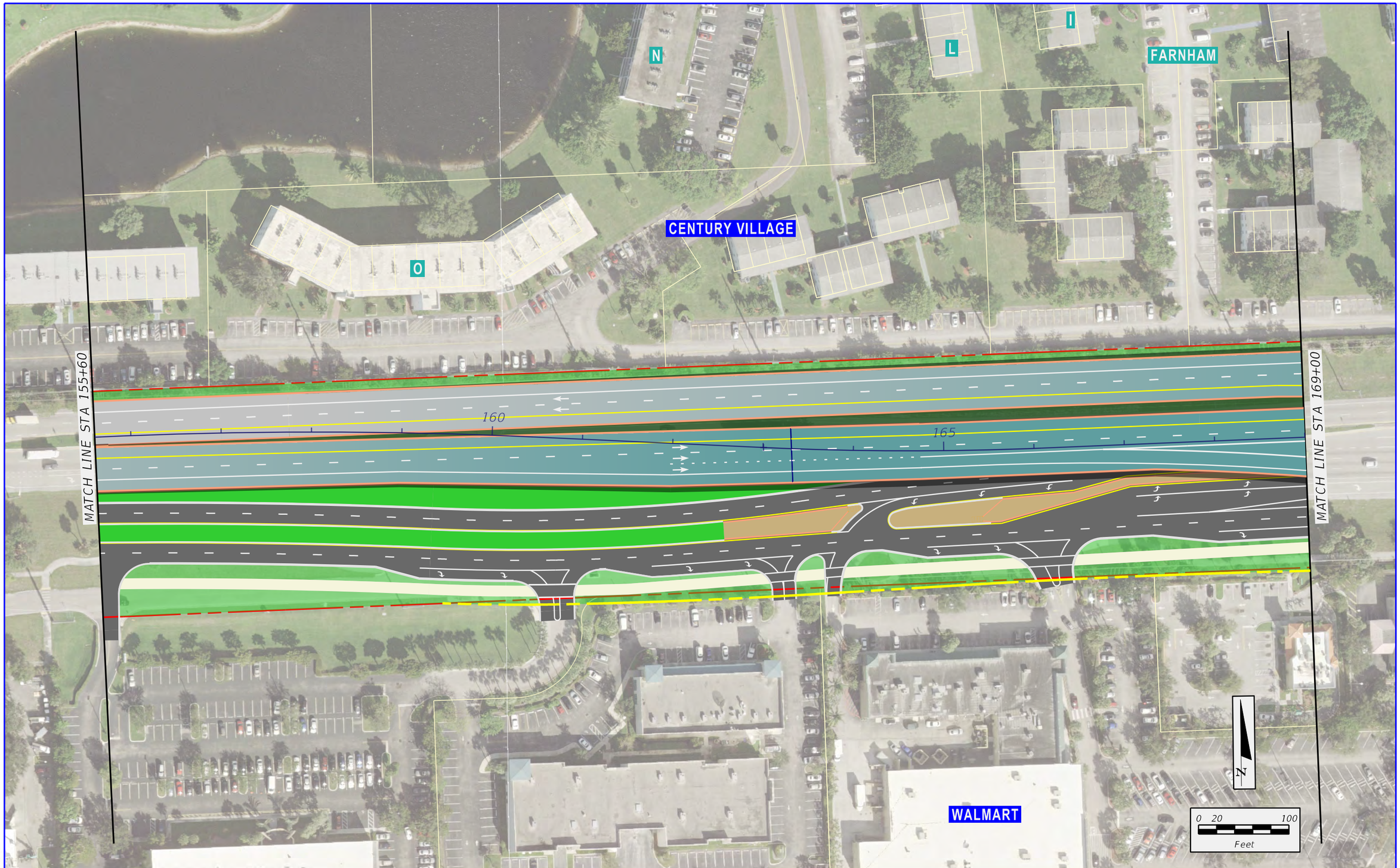
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.
D-9



FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
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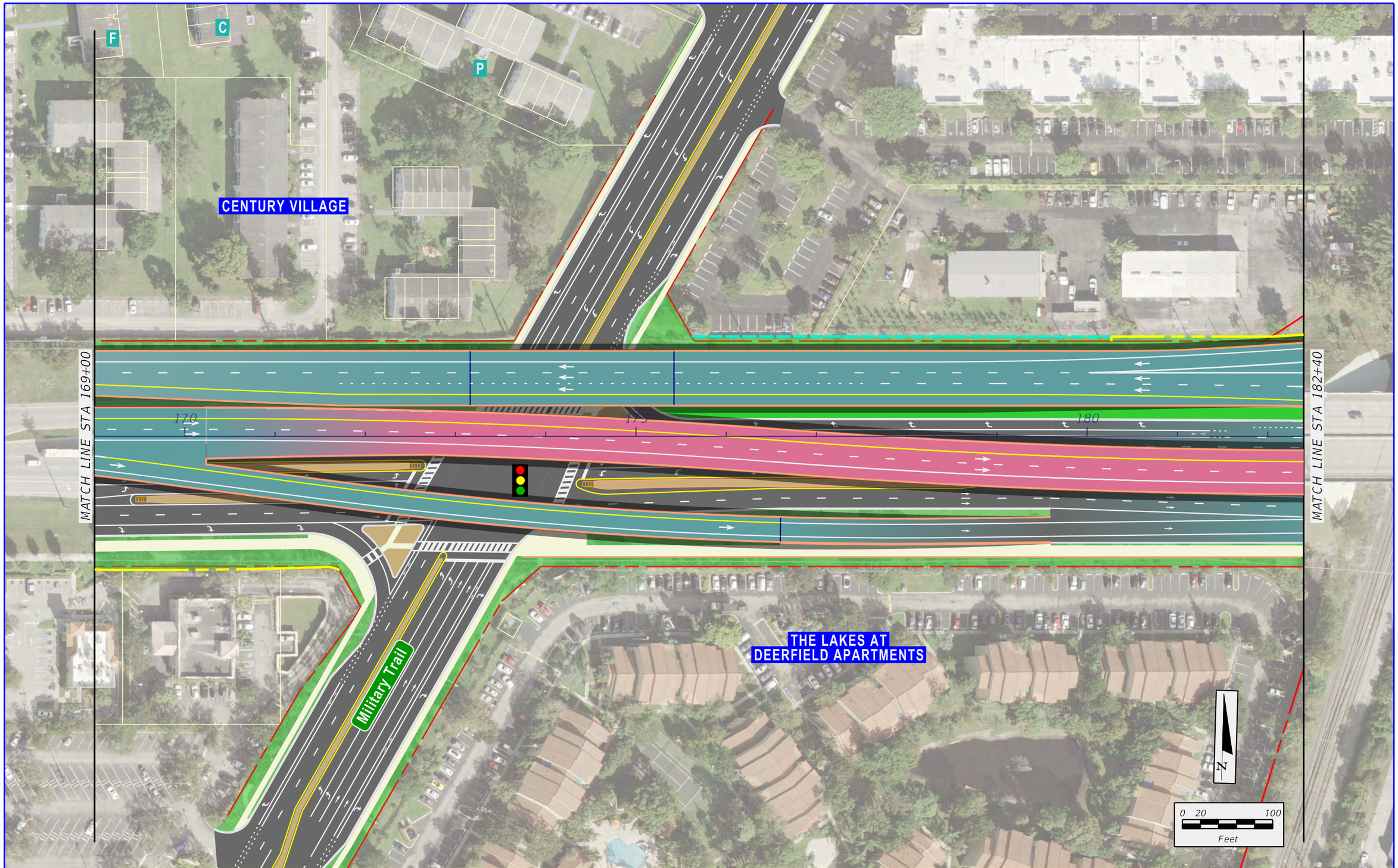
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.
D-10



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SW 10th Street Connector

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- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

D-11

SOUTH FLORIDA RAIL CORRIDOR / CSX RAILROAD

SW 12th Ave

MATCH LINE STA 182+40

MATCH LINE STA 195+80

185

190

195

NEWPORT CENTER

N

0 20 100

Feet

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

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- TEMPORARY EASEMENT
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PREFERRED ALTERNATIVE

SHEET NO.

D-12

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MATCH LINE STA 195+80

MATCH LINE STA 209+20

200

205

INTERSTATE 95

N

0 20 100

Feet

LEGEND

- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

FDOT

SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

PREFERRED ALTERNATIVE

SHEET NO.

D-13

BRANDSMART USA

MATCH LINE STA 209+20

210 215 220

0 20 100
Feet

N

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

LEGEND

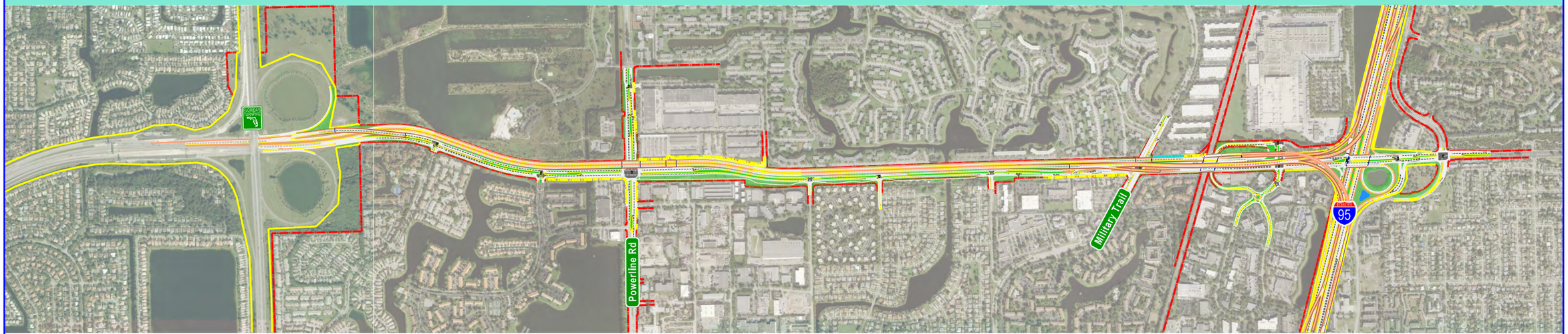
- EXISTING RIGHT-OF-WAY
- EXISTING PARCEL LINES
- LIMITED ACCESS RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED MANAGED LANES
- PROPOSED LOCAL SW 10TH ST
- PROPOSED 2ND LEVEL BRIDGE
- PROPOSED 3RD LEVEL BRIDGE
- PROPOSED 4TH LEVEL BRIDGE
- TEMPORARY EASEMENT
- PROPOSED SIDEWALK
- PROPOSED TRAFFIC SIGNAL

PREFERRED ALTERNATIVE

SHEET NO.

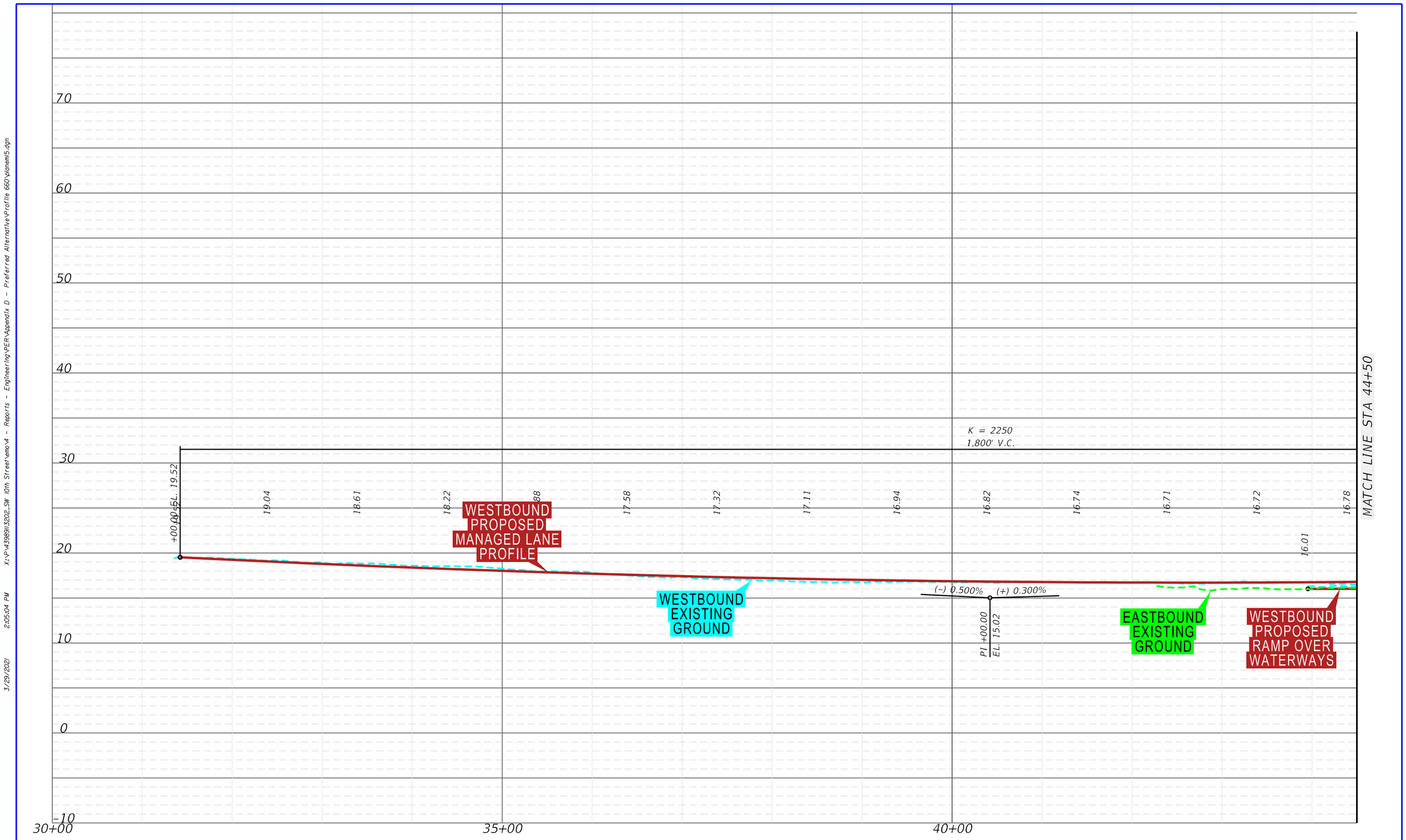
D-14

PREFERRED ALTERNATIVE PROFILE SHEETS



SW 10th Street Connector

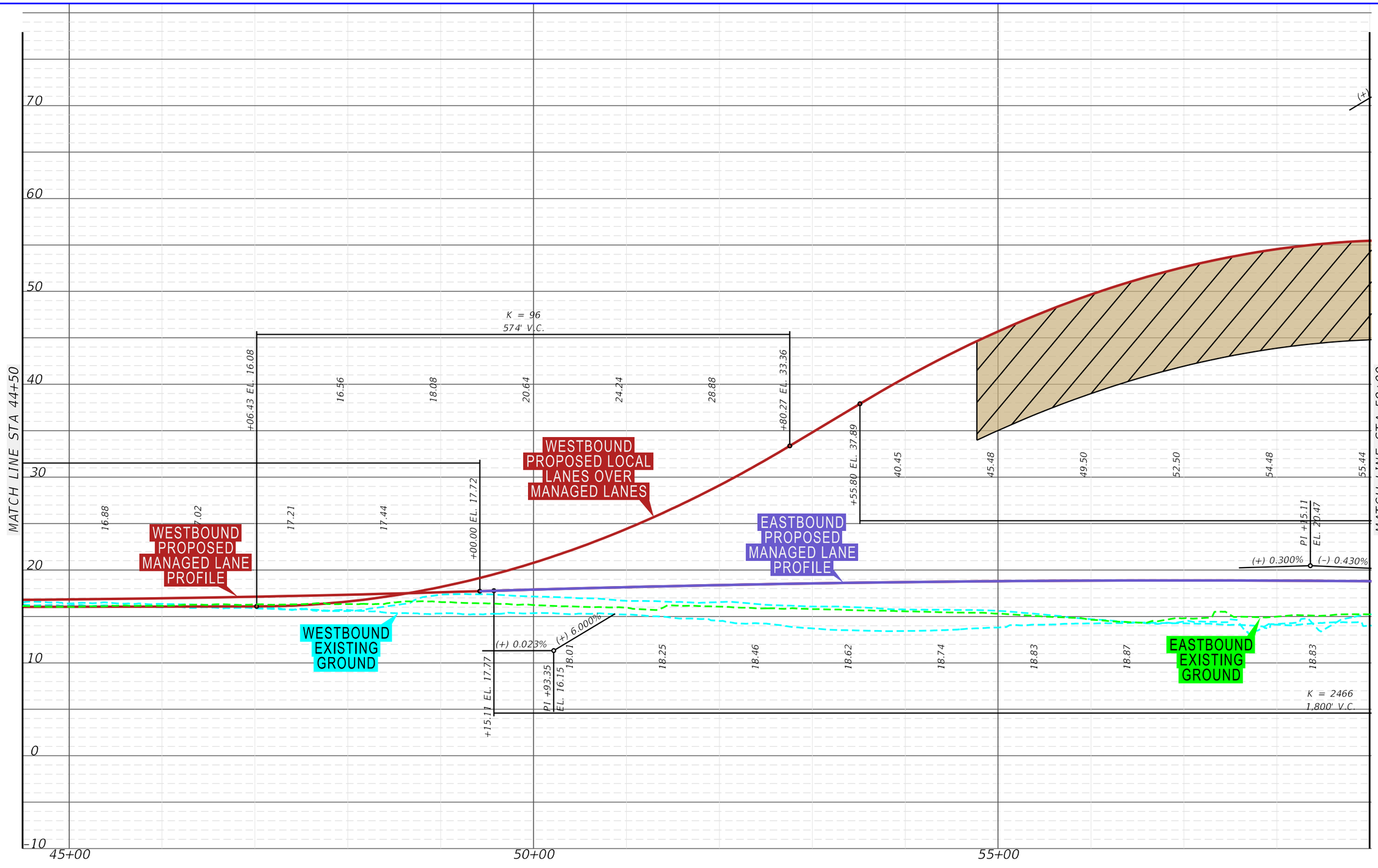
SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291



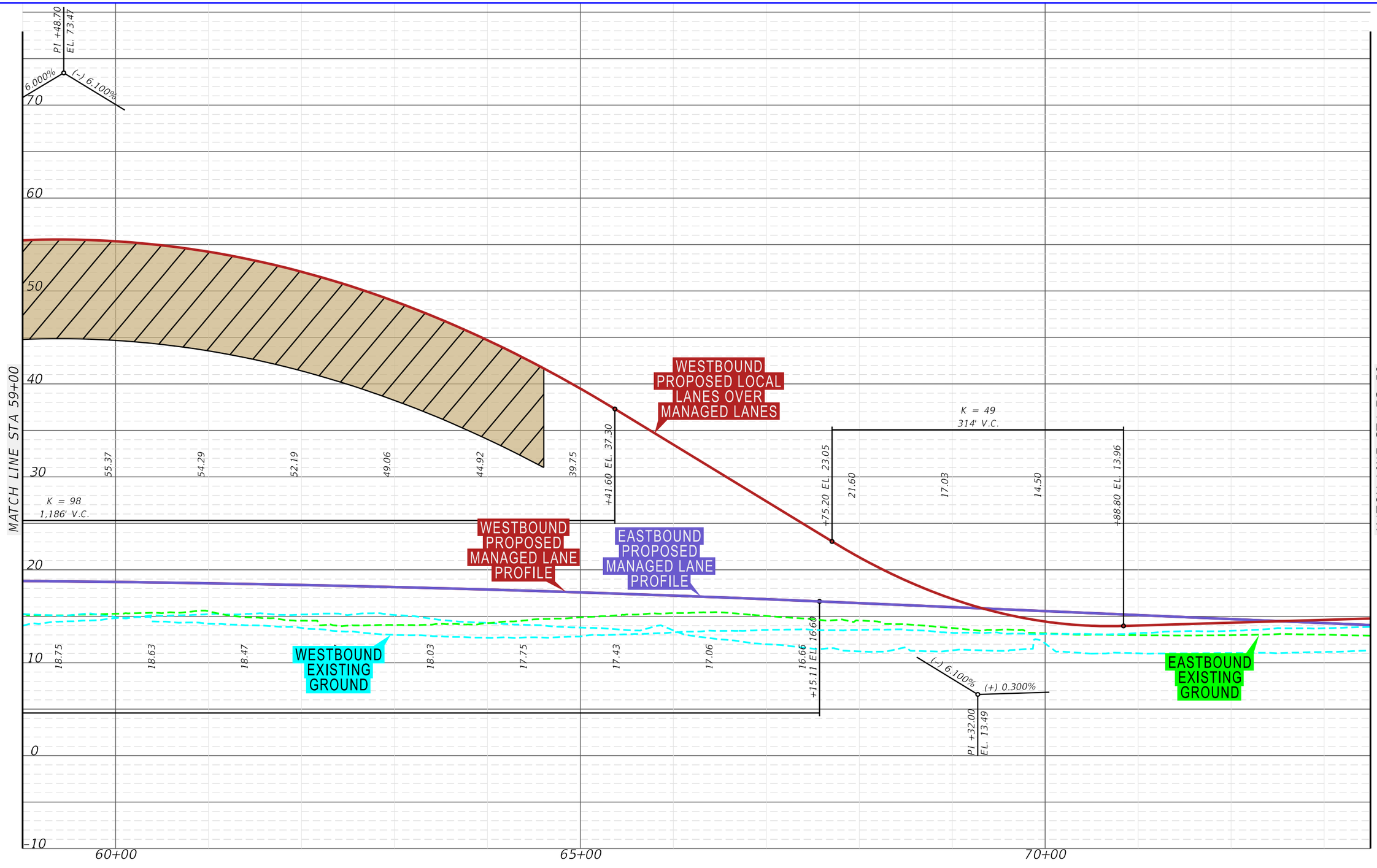
SR 869 / SW 10th Street Connector PD&E Study from
Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

PREFERRED ALTERNATIVE

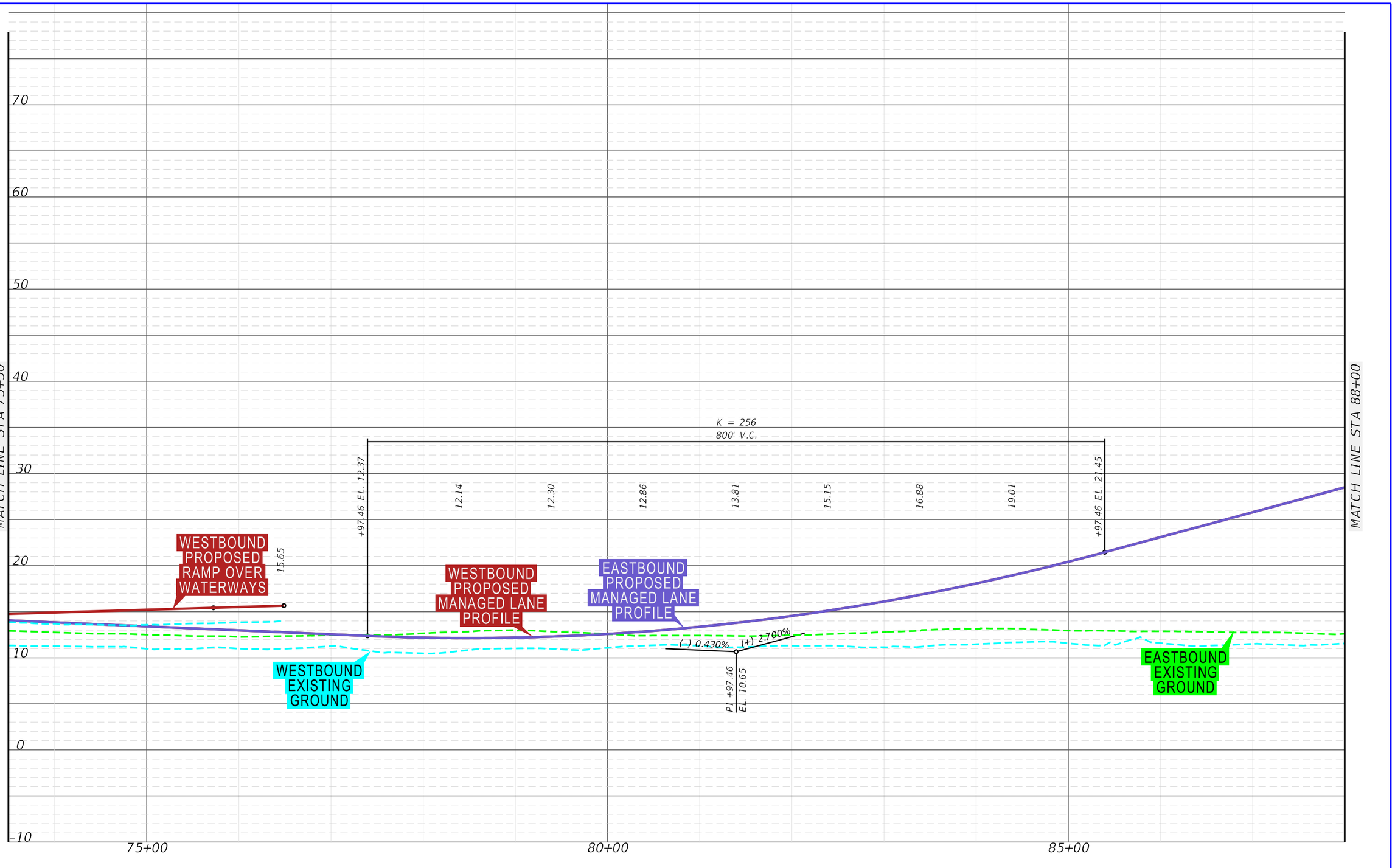
SHEET NO.
D-15



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	PREFERRED ALTERNATIVE	SHEET NO. D-16



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291	PREFERRED ALTERNATIVE	SHEET NO. D-17

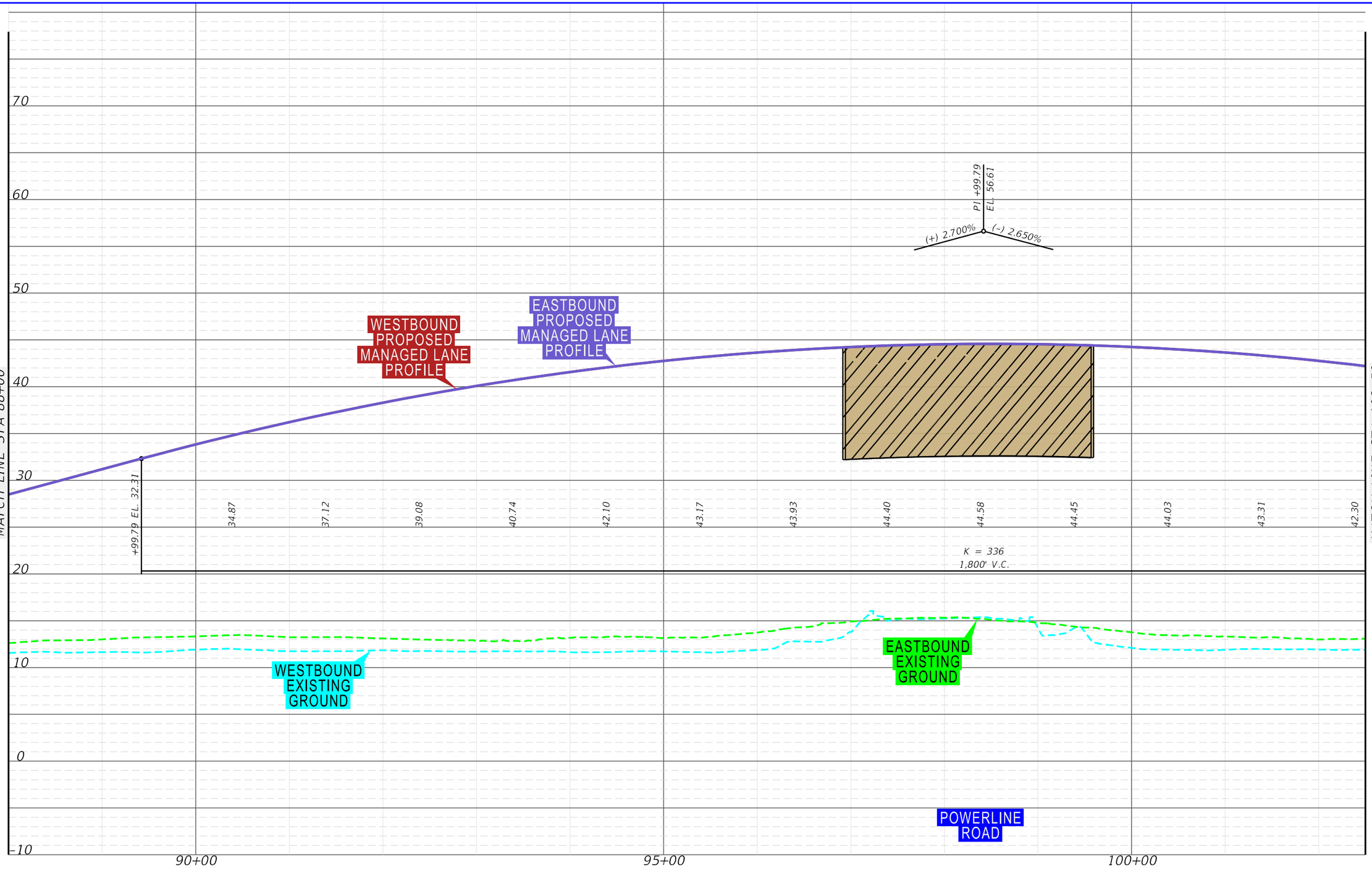


FDOT | SW 10th Street Connector

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

PREFERRED ALTERNATIVE

SHEET NO.
D-18



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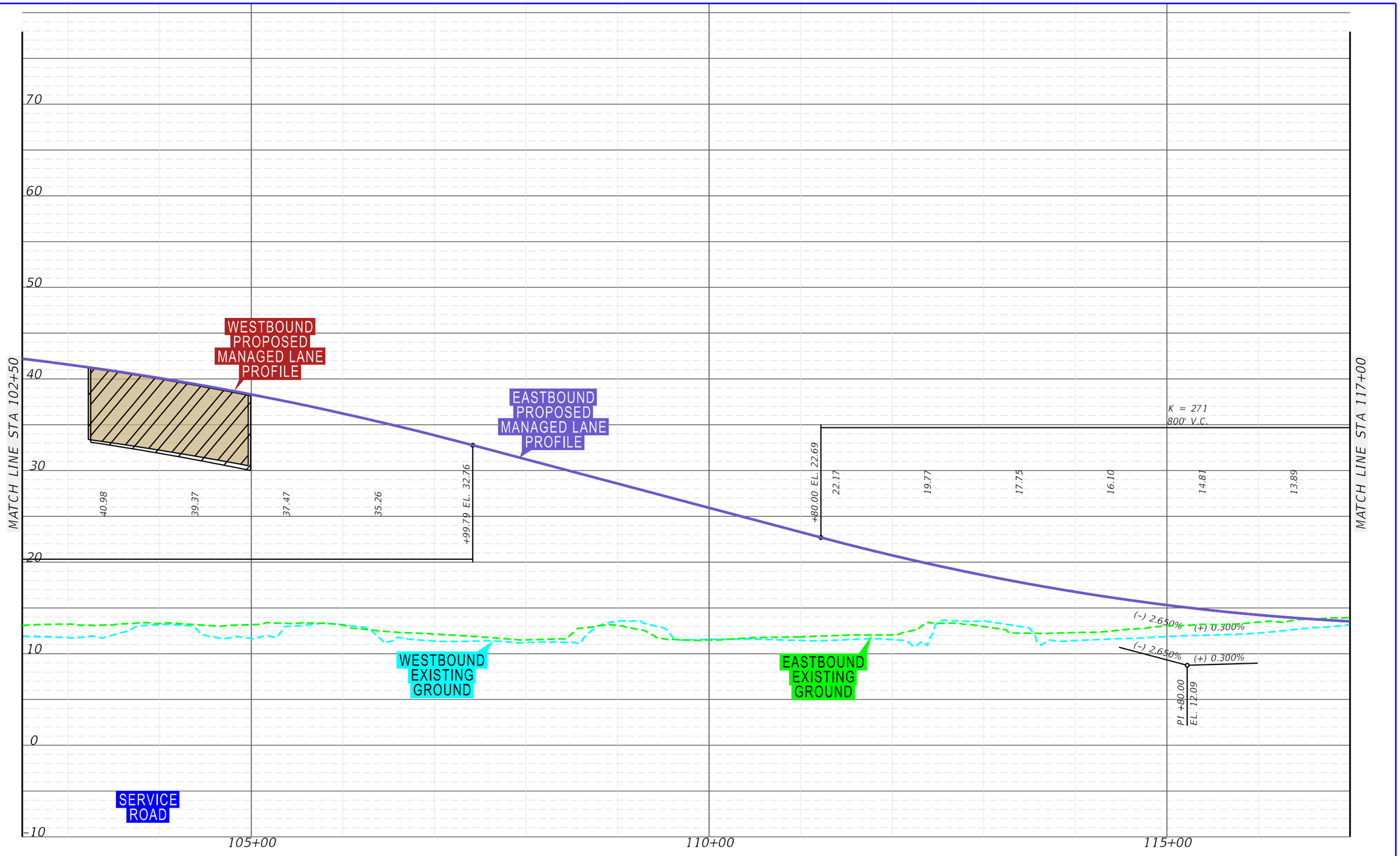
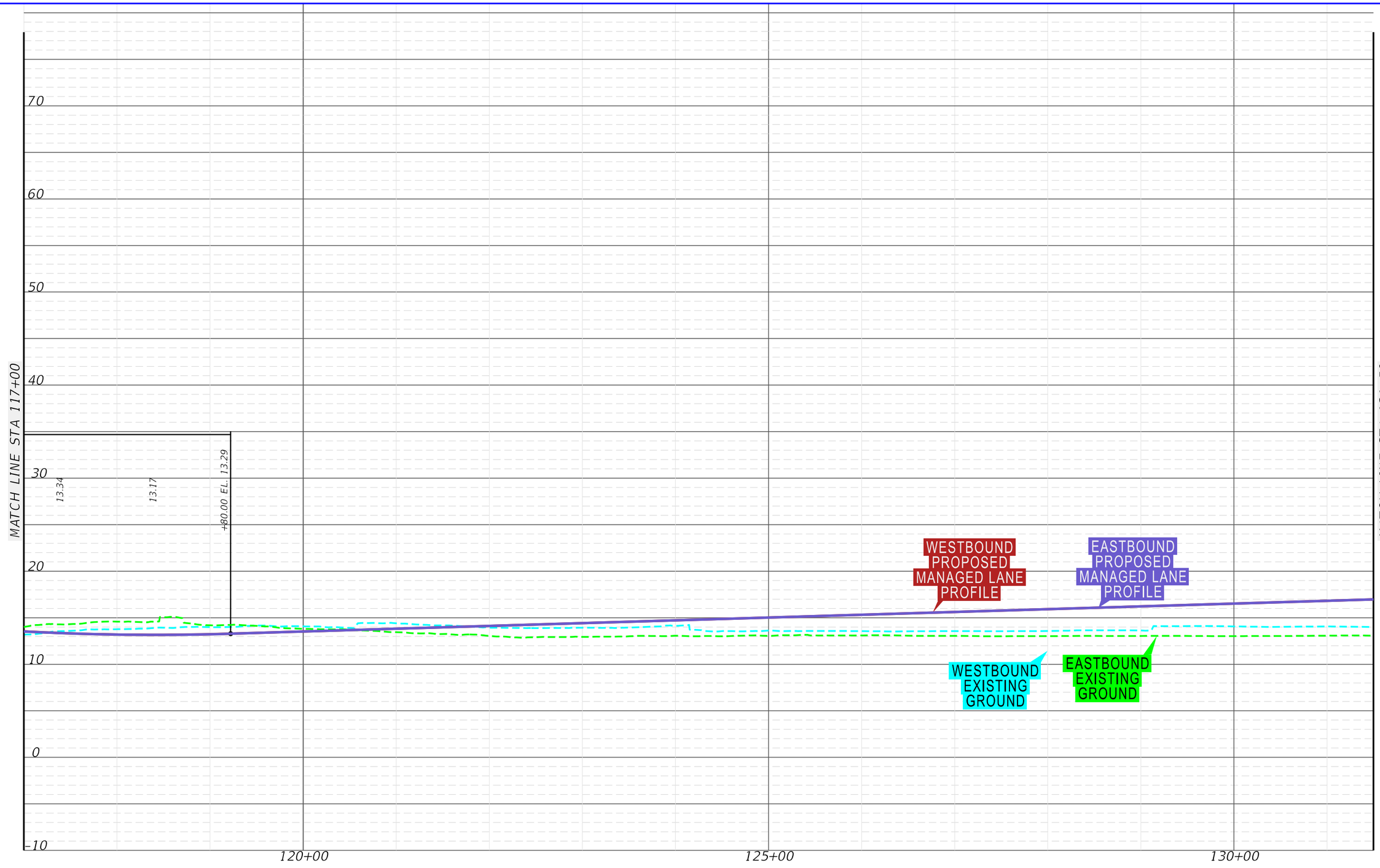
donohuem

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		PREFERRED ALTERNATIVE

SHEET NO.
D-19



FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		PREFERRED ALTERNATIVE	SHEET NO. D-20



SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

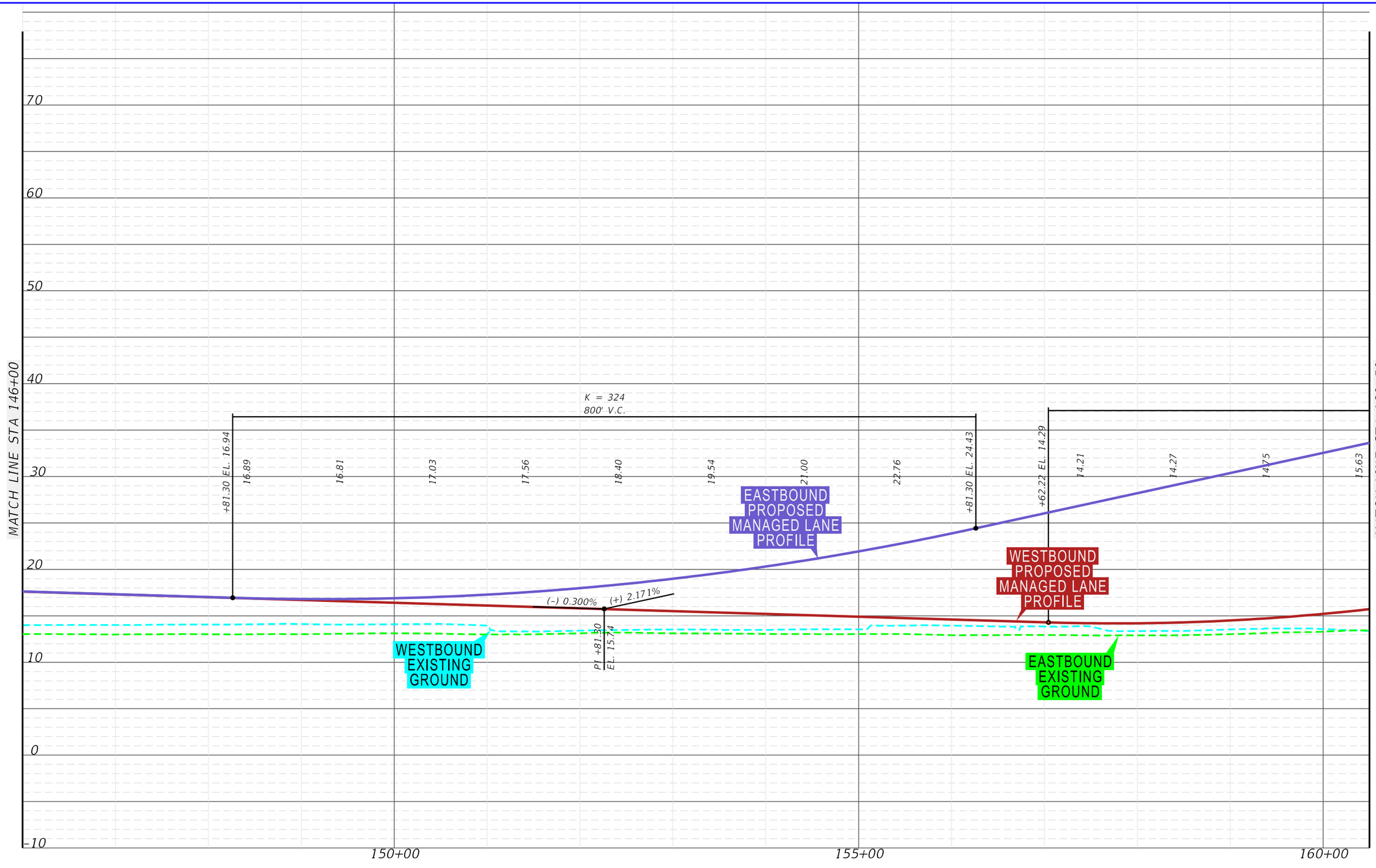
PREFERRED ALTERNATIVE

SHEET NO.
D-21

SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95
Financial Project ID: 439891-1-22-02, ETDM No: 14291

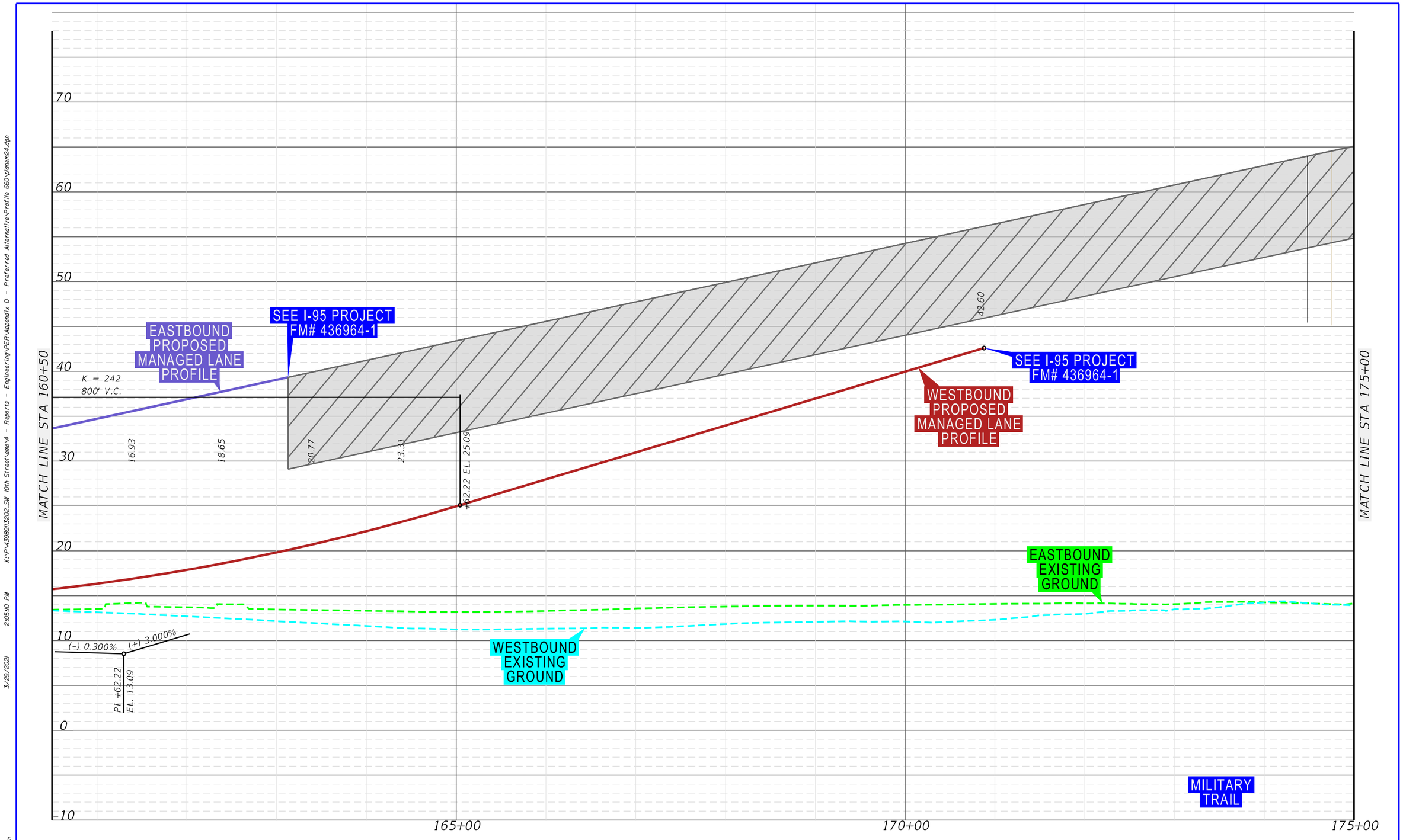
PREFERRED ALTERNATIVE

SHEET NO.
D-22



FDOT SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		PREFERRED ALTERNATIVE

SHEET NO.
D-23



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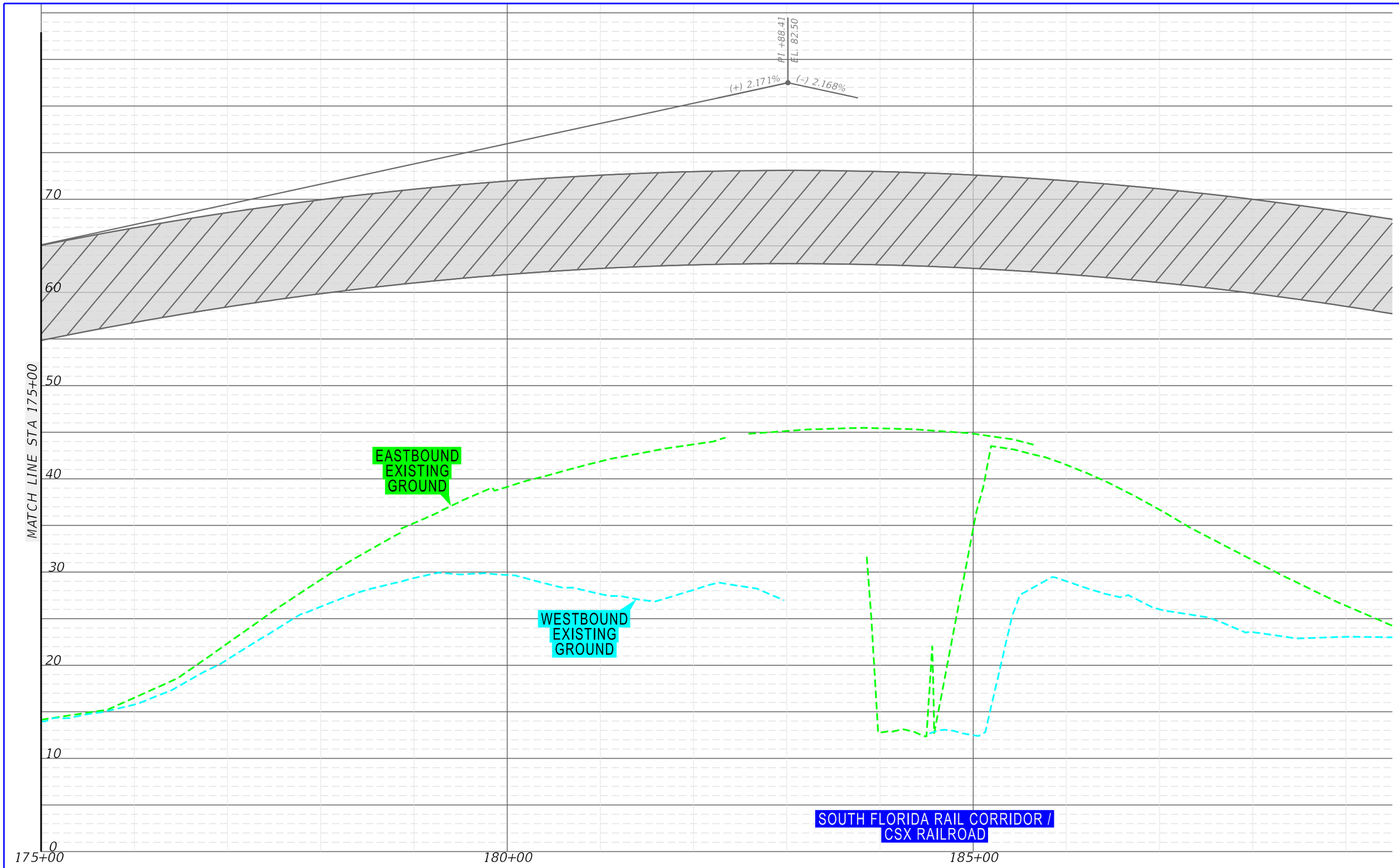
SHEET NO.
D-24



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3/29/2021 2:05:11 PM
donohuem

FDOT / SW 10th Street Connector	SR 869 / SW 10th Street Connector PD&E Study from Florida's Turnpike / Sawgrass Expressway to west of I-95 Financial Project ID: 439891-1-22-02, ETDM No: 14291		PREFERRED ALTERNATIVE

SHEET NO.
D-25

Appendix E –

Typical Section Package

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

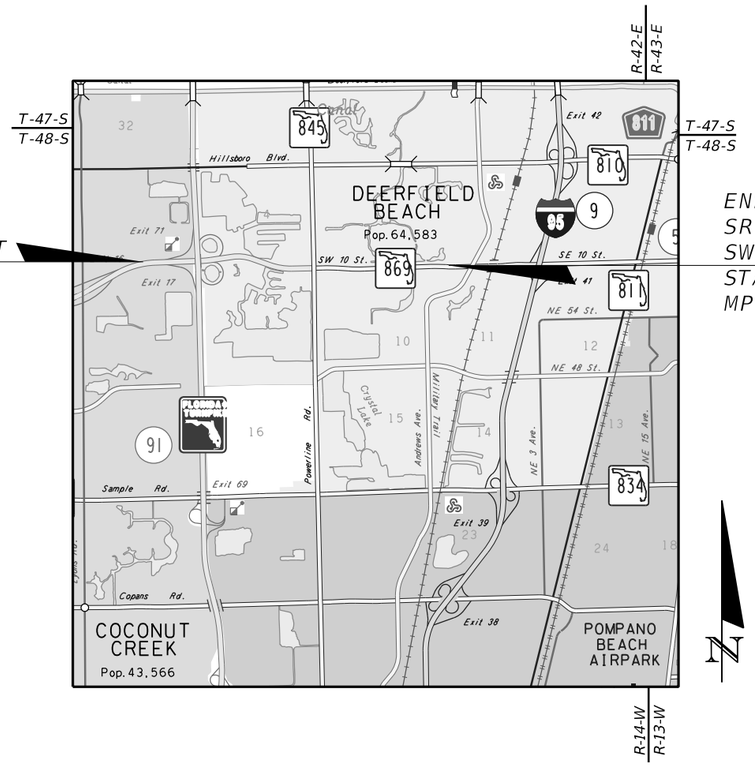
TYPICAL SECTION PACKAGE

FINANCIAL PROJECT ID 439891-1-22-02

BROWARD COUNTY (86012)

STATE ROAD NO. 869

SW 10TH STREET CONNECTOR



BEGIN PROJECT
SR 869
SW 10TH STREET
STA 31+30.60
MP 20.253

END PROJECT
SR 869
SW 10TH STREET
STA 163+31.43
MP 1.232

APPROVED BY:

JIMMY BATTAGLIA
LICENSE
No 67589
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

RS&H, INC.
3125 W COMMERCIAL BLVD SUITE 130
FORT LAUDERDALE, FL 33309
CERTFICATE OF AUTHORIZATION: 5620
JIMMY BATTAGLIA, P.E. NO. 67589

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

TYPICAL SECTION PACKAGE

TYPICAL SECTION CONCURRENCE

JOHN OLSON, P.E.
FDOT DISTRICT DESIGN ENGINEER

RAMON OTERO, P.E.
FDOT DISTRICT STRUCTURES DESIGN ENGINEER

CESAR J. MARTINEZ, P.E.
FDOT DISTRICT PROJECT DEVELOPMENT MANAGER

FLORIDA'S TURNPIKE CONCURRENCE:

FLORIDA'S TURNPIKE TRANSPORTATION ENGINEER
TYPICAL SECTIONS 1, 2, 3, 4, 17, 18, 19, & 20

FHWA CONCURRENCE:

FHWA TRANSPORTATION ENGINEER

DESIGN SPEED AND POSTED SPEED CONCURRENCE:

MARK PLASS, P.E.
FDOT DISTRICT TRAFFIC OPERATIONS ENGINEER

JOHN OLSON, P.E.
FDOT DISTRICT DESIGN ENGINEER

CONTEXT CLASSIFICATION CONCURRENCE:

LAWRENCE E. WALLACE
FDOT DISTRICT BICYCLE/PEDSTRIAN/ COMPLETE STREETS COORDINATOR
TYPICAL SECTIONS 9, 10, 11, & 12

SHEET NO.
1

$DATE$ $TIME$

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

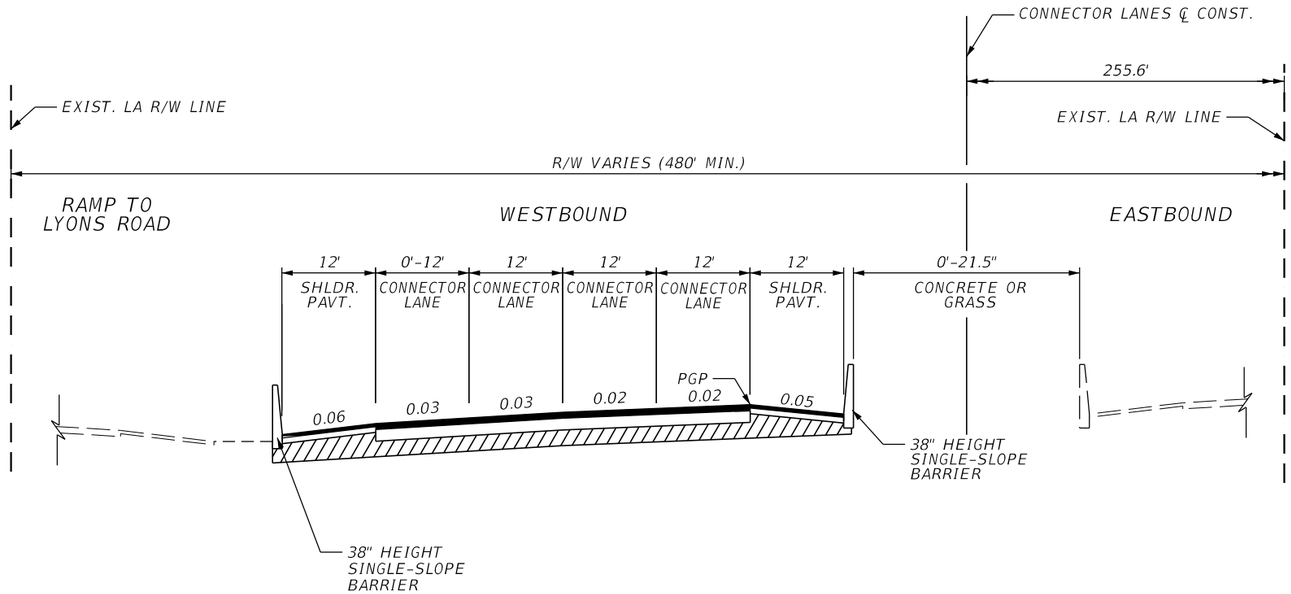
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 1



SAWGRASS EXPRESSWAY
STA. 31+30.60 TO STA. 42+67.02
MP 20.523 TO MP 20.468

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	2

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

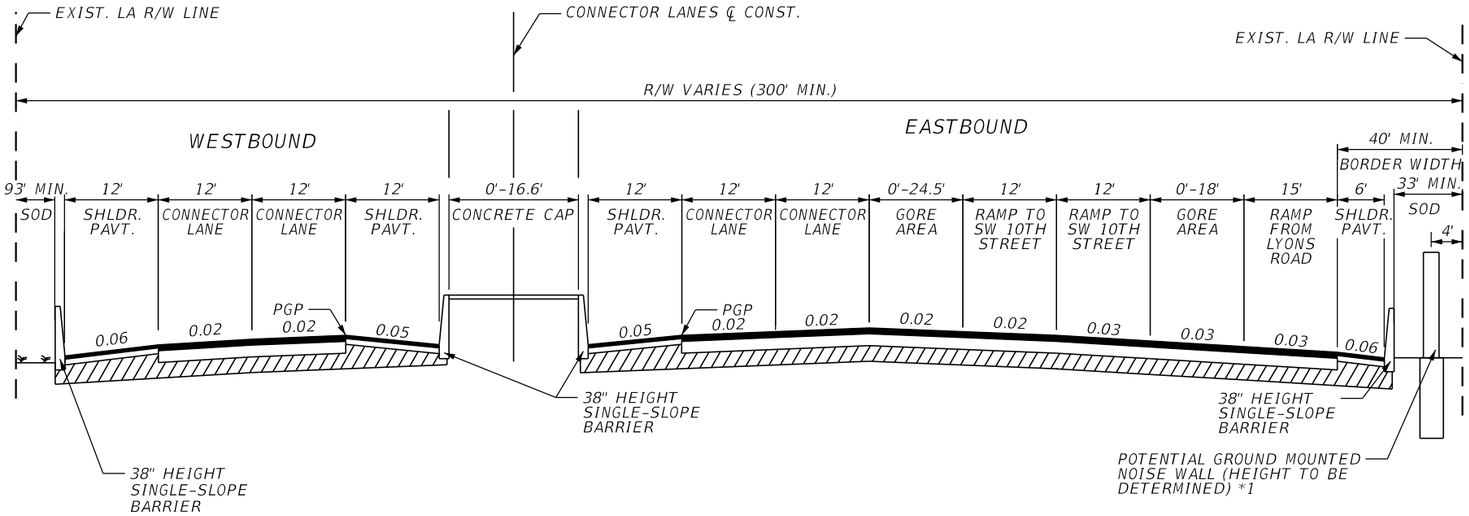
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 2



SR 869 - CONNECTOR LANES
RAMPS TO SW 10TH STREET
RAMP FROM LYONS ROAD
STA. 42+67.02 TO STA. 56+82.65
MP 20.468 TO MP 20.736

*1 - STA. 53+40.71 TO STA. 56+82.65

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	3

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

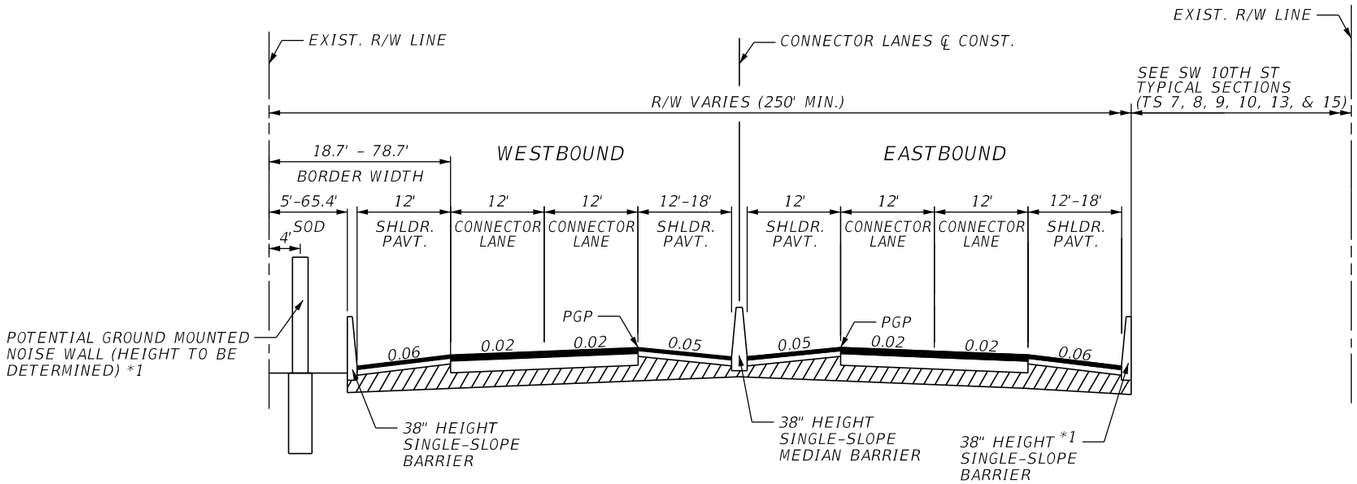
CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

1. BORDER WIDTH

TYPICAL SECTION No. 3



*1 - STA. 119+22.73 TO STA. 154+91.75

SR 869 - CONNECTOR LANES
STA. 56+82.65 TO STA. 81+34.52
STA. 119+22.73 TO 154+91.75
M.P. 20.736 TO M.P. 21.201
M.P. 0.397 TO M.P. 1.073

*1 - 38" HEIGHT SINGLE-SLOPE MEDIAN BARRIER - GRADE SEPARATED
STA. 151+53.41 TO 154+91.75

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	4

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

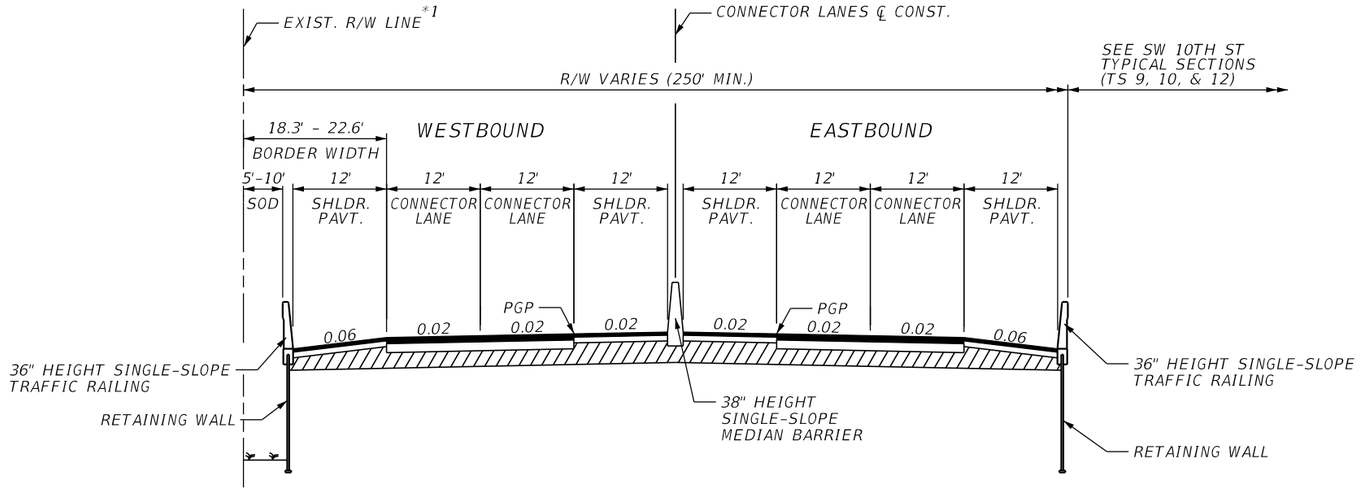
CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

1. BORDER WIDTH

TYPICAL SECTION No. 4



*1 - SEE SERVICE ROAD TYPICAL SECTION

SR 869 - CONNECTOR LANES
STA. 81+34.52 TO STA. 96+96.64
STA. 99+57.31 TO STA. 103+49.35
STA. 104+91.43 TO STA. 119+22.73
MP 21.201 TO MP 21.497
MP 0.025 TO MP 0.099
MP 0.126 TO MP 0.397

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	5

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

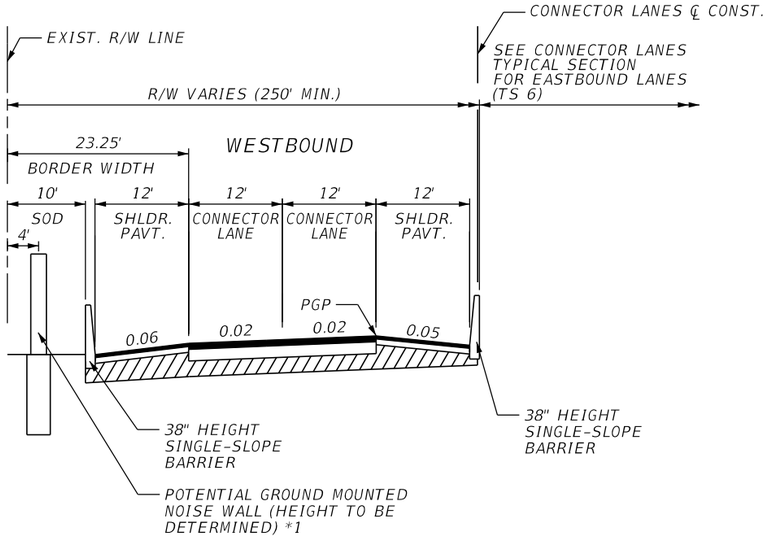
CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

1. BORDER WIDTH

TYPICAL SECTION No. 5



*1 - STA. 154+91.75 TO STA. 163+31.43

SR 869 - CONNECTOR LANES
STA. 154+91.75 TO STA. 163+31.43
M.P. 1.073 TO M.P. 1.232

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	6

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

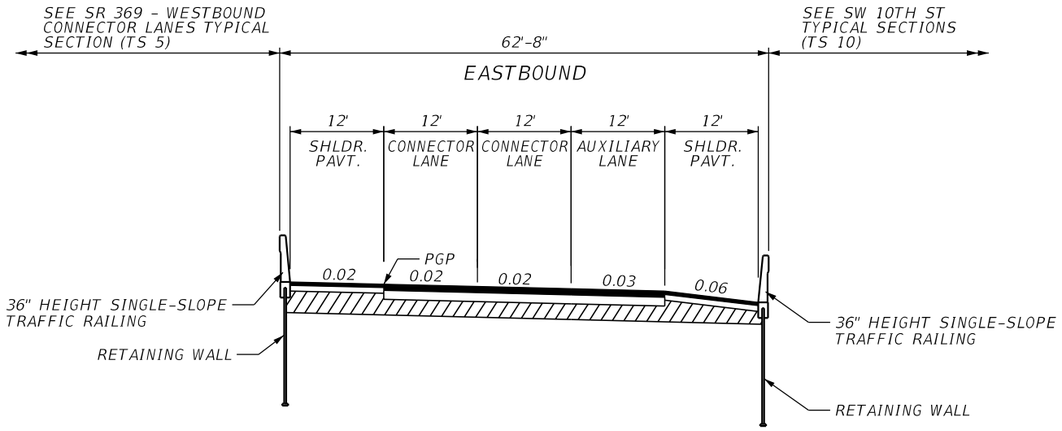
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 6



SR 869 - EASTBOUND CONNECTOR LANES
STA. 154+91.75 TO STA. 163+31.43
MP 1.073 TO MP 1.232

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	7

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

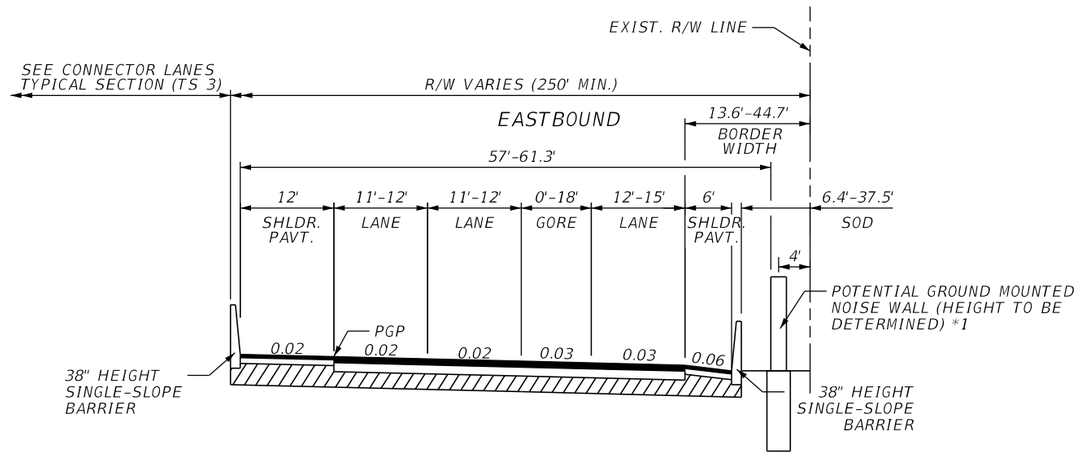
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 7



*1 - STA. 56+82.65 TO STA. 59+54.54

SR 869 - EASTBOUND SW 10TH STREET
STA. 56+64.54 TO STA. 59+54.54
MP 20.733 TO MP 20.788

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 38,000
ESTIMATED OPENING YEAR = 2020 AADT = 29,200
ESTIMATED DESIGN YEAR = 2040 AADT = 42,200
K = 9% D = 61.2% AM PEAK T = 2.7% (24 HOUR)
61.2% PM PEAK
DESIGN HOUR T = 1.3%
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	8

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4/12/2021 9:43:48 AM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

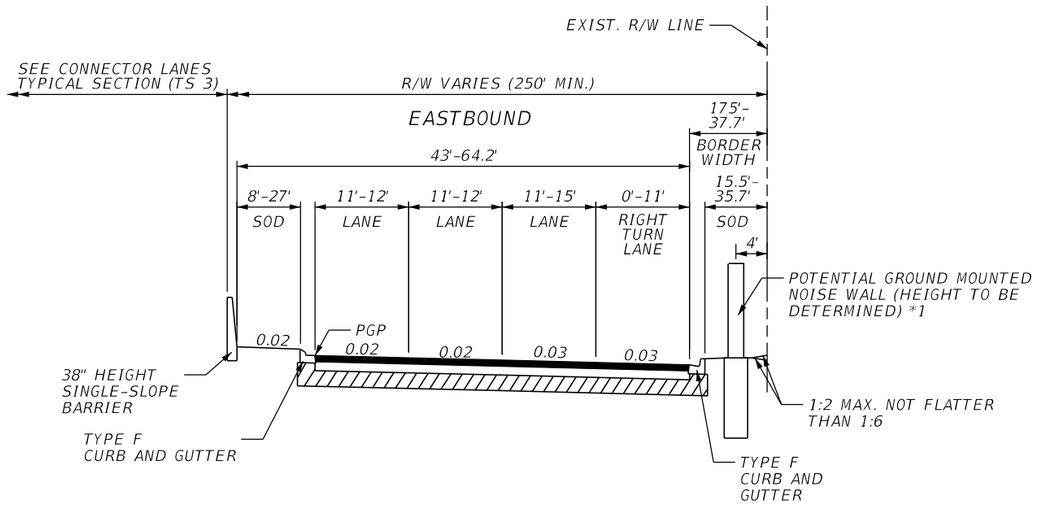
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 8



*1 - STA. 59+54.54 TO STA. 68+04.12

SR 869 - EASTBOUND SW 10TH STREET
STA. 59+54.54 TO STA. 68+24.48
MP 20.788 TO MP 20.953

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 38,000
ESTIMATED OPENING YEAR = 2020 AADT = 29,200
ESTIMATED DESIGN YEAR = 2040 AADT = 42,200
K = 9% D = 61.2% AM PEAK T = 2.7% (24 HOUR)
61.2% PM PEAK
DESIGN HOUR T = 1.3%
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	9

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4/12/2021 9:43:49 AM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
(X) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
( ) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
( ) FREEWAY/EXPWY.
(X) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

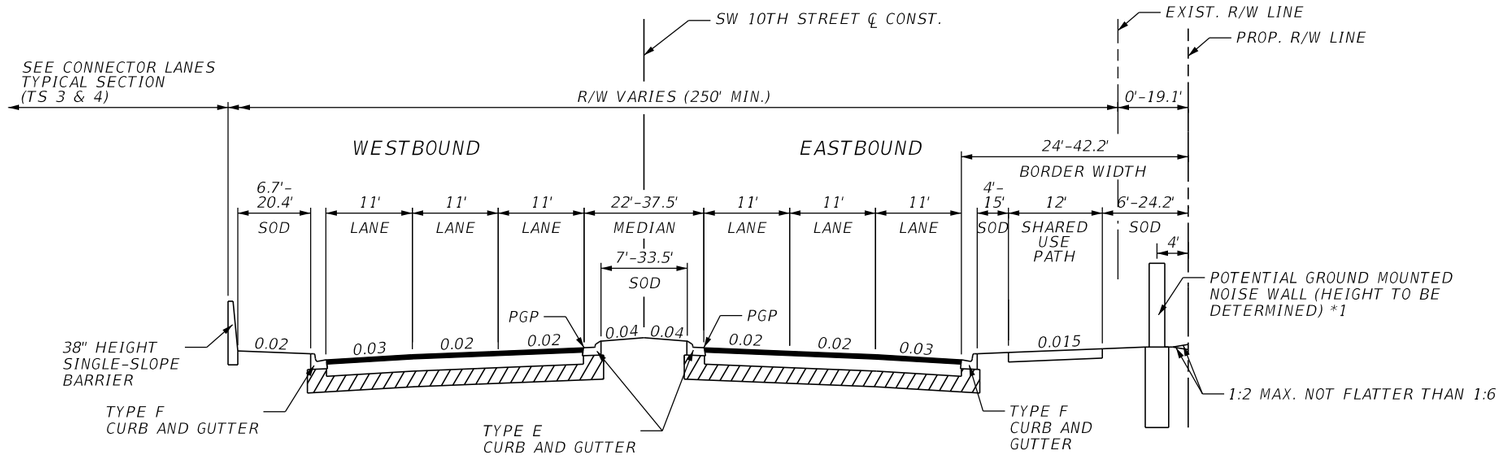
( ) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
(X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 9



*1 - STA. 69+72.23 TO STA. 84+14.44
STA. 85+77.26 TO STA. 92+52.37

SR 869 - SW 10TH STREET
STA. 68+24.48 TO STA. 99+57.31
MP 20.953 TO MP 21.546
MP 0.000 TO MP 0.593

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 38,000
ESTIMATED OPENING YEAR = 2020 AADT = 29,200
ESTIMATED DESIGN YEAR = 2040 AADT = 42,200
K = 9% D = 61.2% AM PEAK T = 2.7% (24 HOUR)
61.2% PM PEAK
DESIGN HOUR T = 1.3%
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	10

4/12/2021 9:43:50 AM

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

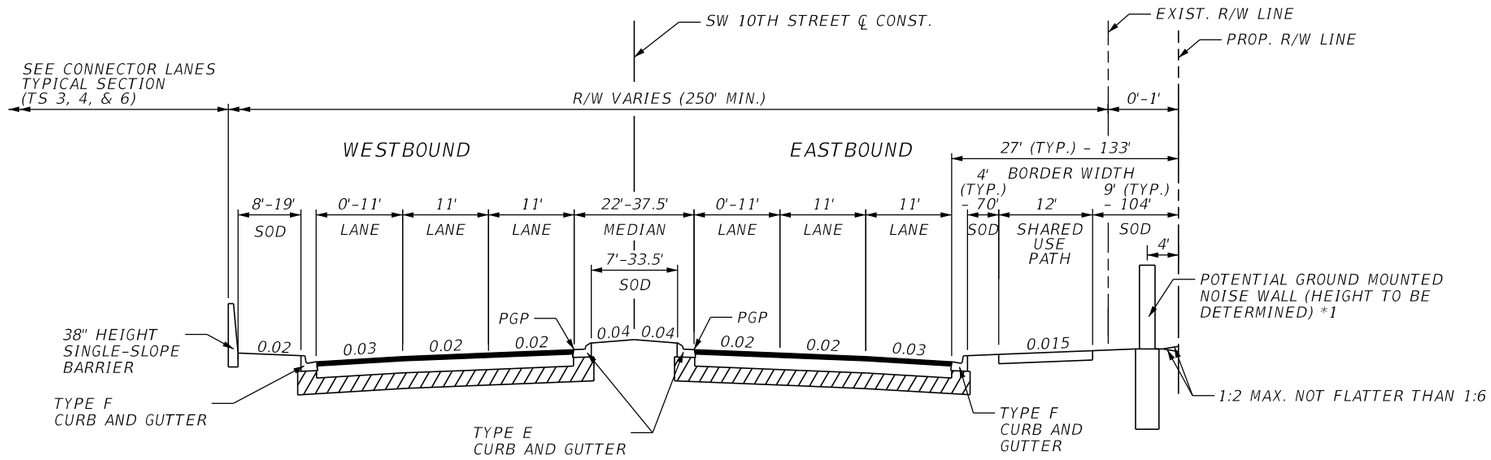
( )	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
(X)	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 10



*1 - STA. 125+36.45 TO STA. 134+37.67
STA. 135+42.08 TO STA. 144+57.50
STA. 145+87.52 TO STA. 151+09.07

SR 869 - SW 10TH STREET
STA. 99+57.31 TO STA. 159+50.20
MP 0.593 TO MP 1.728

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 46,000
ESTIMATED OPENING YEAR = 2020 AADT = 25,800
ESTIMATED DESIGN YEAR = 2040 AADT = 36,000
K = 9% D = 61.2% AM PEAK T = 1.7% (24 HOUR)
58.5% PM PEAK
DESIGN HOUR T = 0.8%
DESIGN SPEED = 35 MPH
POSTED SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	11

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4/12/2021 9:43:51 AM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
(X)	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

- ( ) NATIONAL HIGHWAY SYSTEM
- ( ) STRATEGIC INTERMODAL SYSTEM
- (X) STATE HIGHWAY SYSTEM
- ( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

- ( ) 1 - FREEWAY
- ( ) 2 - RESTRICTIVE w/Service Roads
- (X) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- ( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- ( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
- ( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- ( ) 7 - BOTH MEDIAN TYPES

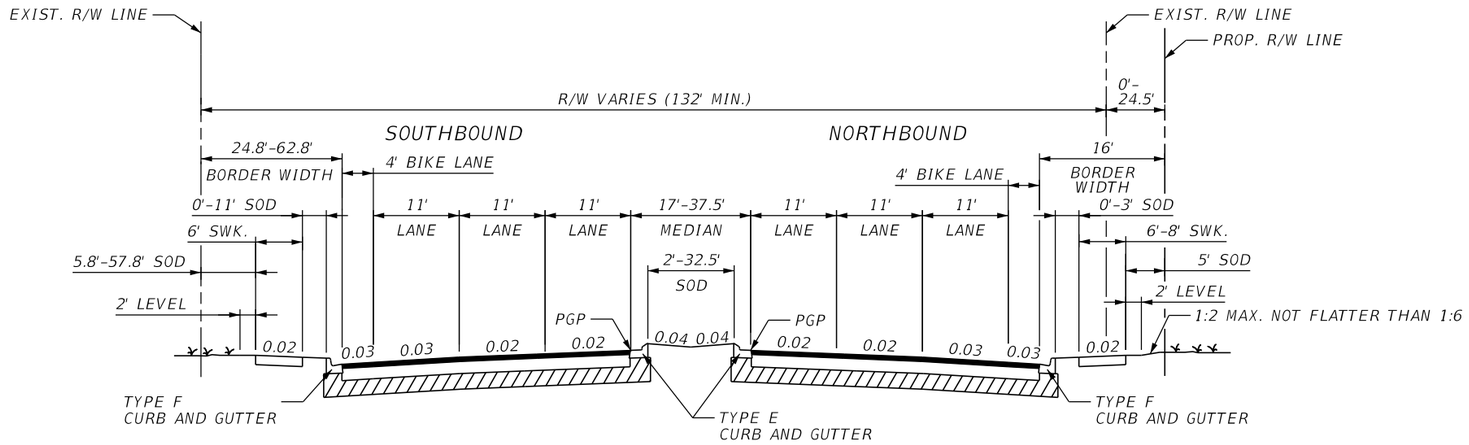
CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- ( ) RESURFACING (LA FACILITIES)
- ( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

1. BIKE LANE WIDTH
2. MEDIAN WIDTH

TYPICAL SECTION No. 11



SR 845 - POWERLINE ROAD
MP 11.426 TO MP 11.957

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 39,000
ESTIMATED OPENING YEAR = 2020 AADT = 46,000
ESTIMATED DESIGN YEAR = 2040 AADT = 46,000
K = 9% D = 58% AM PEAK T = 5-7% (24 HOUR)
56% PM PEAK
DESIGN HOUR T = 2.5-3.5%
DESIGN SPEED = 45 MPH
POSTED SPEED = 45 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	12

4/12/2021 9:43:52 AM

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
(X)	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
( )	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
( )	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	(X)	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

- ( ) NATIONAL HIGHWAY SYSTEM
- ( ) STRATEGIC INTERMODAL SYSTEM
- ( ) STATE HIGHWAY SYSTEM
- (X) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

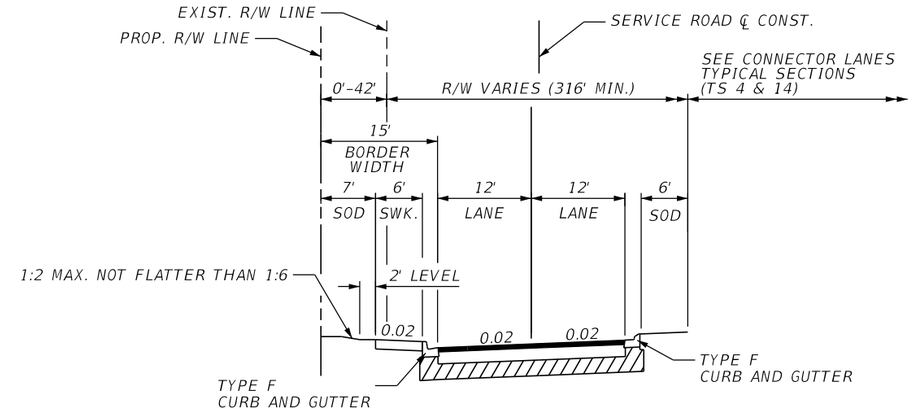
- ( ) 1 - FREEWAY
- ( ) 2 - RESTRICTIVE w/Service Roads
- ( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
- ( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- ( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
- ( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- ( ) 7 - BOTH MEDIAN TYPES

CRITERIA

- (X) NEW CONSTRUCTION / RECONSTRUCTION
- ( ) RESURFACING (LA FACILITIES)
- ( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 12



ACCESS ROAD
STA. 104+25.16 TO STA. 118+08.71
MP 0.114 TO MP 0.376

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 2,300
ESTIMATED OPENING YEAR = 2020 AADT = 950
ESTIMATED DESIGN YEAR = 2040 AADT = 950
K = 9% D = 58.8% AM PEAK T = 22.4% (24 HOUR)
84.6% PM PEAK
DESIGN HOUR T = 11.2%
DESIGN SPEED = 15 MPH
POSTED SPEED = 15 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	13

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PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

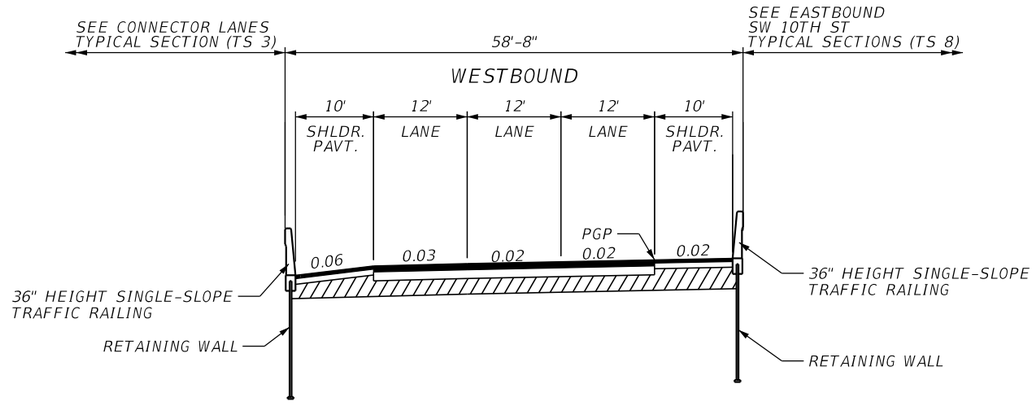
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 13



3-LANE WESTBOUND RAMP
FROM SW 10TH ST TO SAWGRASS EXPRESSWAY
STA. 47+60.85 TO STA. 54+13.56
STA. 63+96.71 TO STA. 68+24.48
MP 20.562 TO MP 20.685
MP 20.872 TO MP 20.953

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 38,000
ESTIMATED OPENING YEAR = 2020 AADT = 29,200
ESTIMATED DESIGN YEAR = 2040 AADT = 42,200
K = 9% D = 61.2% AM PEAK T = 2.7% (24 HOUR)
61.2% PM PEAK
DESIGN HOUR T = 1.3%
DESIGN SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	14

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4/12/2021 9:43:53 AM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

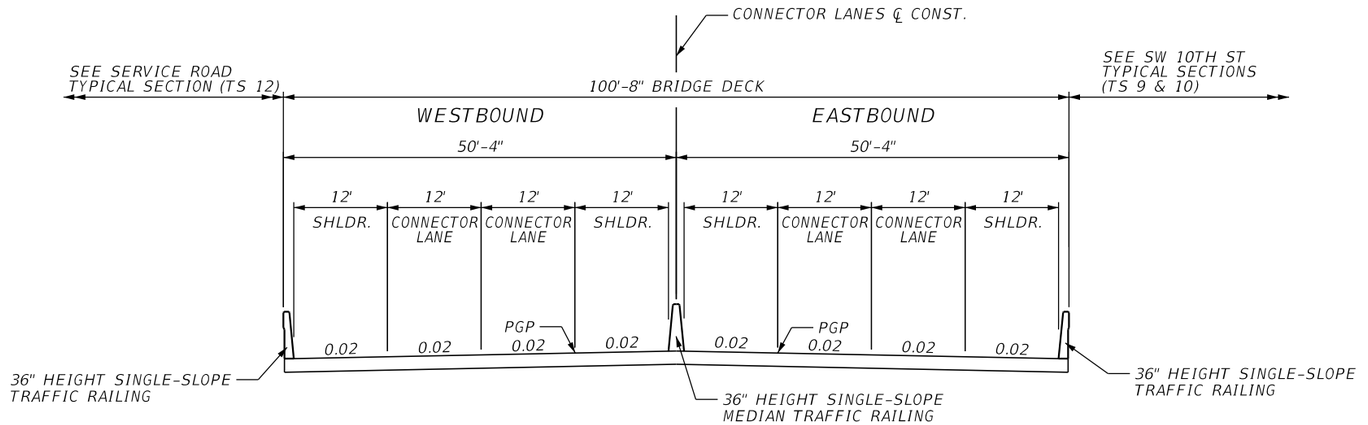
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 14



SR 869 - CONNECTOR LANES
SW 10TH STREET CONNECTOR
BRIDGES OVER POWERLINE ROAD
AND SERVICE ROAD
STA. 96+96.64 TO STA. 99+57.31
STA. 103+49.35 TO STA. 104+91.43
MP 21.497 TO MP 0.025
MP 0.099 TO MP 0.126

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH
POSTED SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	15

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4/12/2021 9:43:54 AM

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

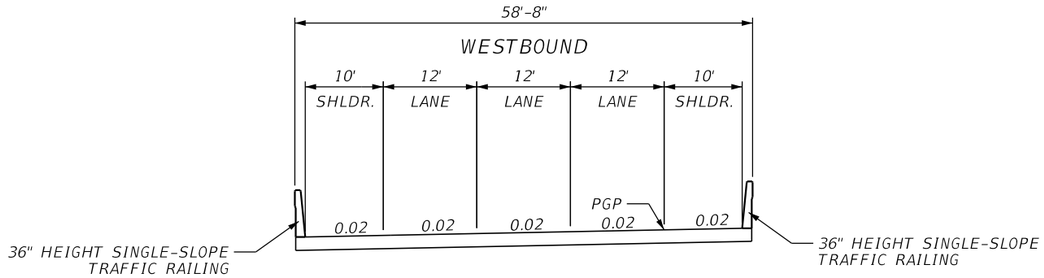
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 15



3-LANE WESTBOUND RAMP
FROM SW 10TH ST TO SAWGRASS EXPRESSWAY
BRIDGE OVER SR 869 - CONNECTOR LANES
STA. 54+13.56 TO STA. 63+96.71
MP 20.685 TO MP 20.872

TRAFFIC DATA

CURRENT YEAR = 2016 AADT = 38,000
ESTIMATED OPENING YEAR = 2020 AADT = 29,200
ESTIMATED DESIGN YEAR = 2040 AADT = 42,200
K = 9% D = 61.2% AM PEAK T = 2.7% (24 HOUR)
61.2% PM PEAK
DESIGN HOUR T = 1.3%
DESIGN SPEED = 35 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	16

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( )	NATIONAL HIGHWAY SYSTEM
(X)	STRATEGIC INTERMODAL SYSTEM
(X)	STATE HIGHWAY SYSTEM
( )	OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

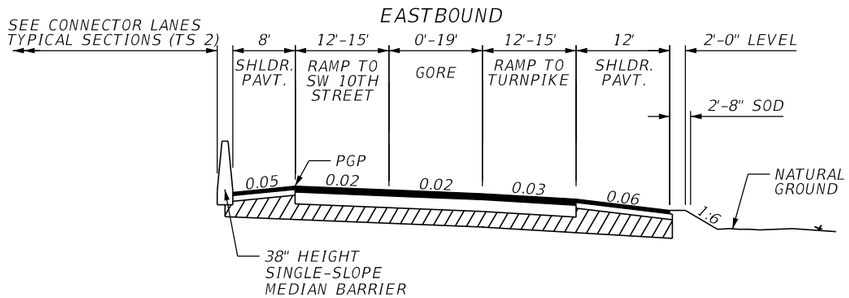
(X)	1 - FREEWAY
( )	2 - RESTRICTIVE w/Service Roads
( )	3 - RESTRICTIVE w/660 ft. Connection Spacing
( )	4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( )	5 - RESTRICTIVE w/440 ft. Connection Spacing
( )	6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( )	7 - BOTH MEDIAN TYPES

CRITERIA

(X)	NEW CONSTRUCTION / RECONSTRUCTION
( )	RESURFACING (LA FACILITIES)
( )	RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 16



EASTBOUND RAMP FROM LYONS ROAD
2-LANE RAMP
STA. 42+67.02 TO STA. 48+83.25
MP 20.468 TO MP 20.585

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	17

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
(X) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
(X) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

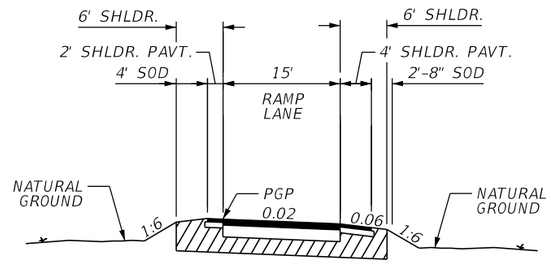
(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 17



EB TO NB LOOP RAMP TO TURNPIKE
1-LANE RAMP
STA. 48+83.25 TO STA. 50+38.02
MP 20.585 TO MP 20.614

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	18

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( )	C1 : NATURAL	( )	C3C : SUBURBAN COMM.
( )	C2 : RURAL	( )	C4 : URBAN GENERAL
( )	C2T : RURAL TOWN	( )	C5 : URBAN CENTER
( )	C3R : SUBURBAN RES.	( )	C6 : URBAN CORE
(X)	N/A : L.A. FACILITY		

FUNCTIONAL CLASSIFICATION

( )	INTERSTATE	( )	MAJOR COLLECTOR
(X)	FREEWAY/EXPWY.	( )	MINOR COLLECTOR
( )	PRINCIPAL ARTERIAL	( )	LOCAL
( )	MINOR ARTERIAL		

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

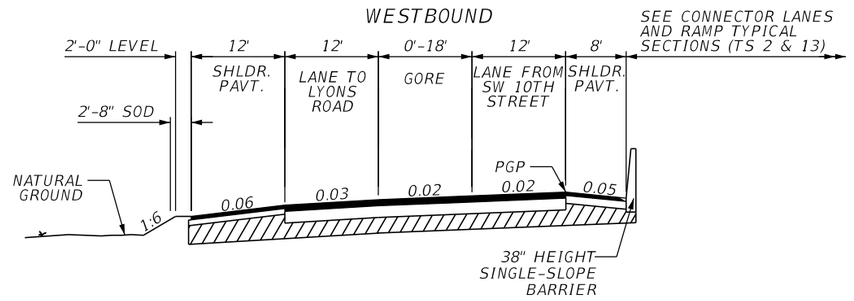
(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 18



WESTBOUND RAMP FROM FLORIDA'S TURNPIKE
2-LANE RAMP
STA. 42+22.72 TO STA. 47+85.90
MP 20.460 TO MP 20.567

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	19

PROJECT CONTROLS

CONTEXT CLASSIFICATION

( ) C1 : NATURAL
( ) C2 : RURAL
( ) C2T : RURAL TOWN
( ) C3R : SUBURBAN RES.
( ) C3C : SUBURBAN COMM.
( ) C4 : URBAN GENERAL
( ) C5 : URBAN CENTER
( ) C6 : URBAN CORE
(X) N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

( ) INTERSTATE
(X) FREEWAY/EXPWY.
( ) PRINCIPAL ARTERIAL
( ) MINOR ARTERIAL
( ) MAJOR COLLECTOR
( ) MINOR COLLECTOR
( ) LOCAL

HIGHWAY SYSTEM

( ) NATIONAL HIGHWAY SYSTEM
(X) STRATEGIC INTERMODAL SYSTEM
(X) STATE HIGHWAY SYSTEM
( ) OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

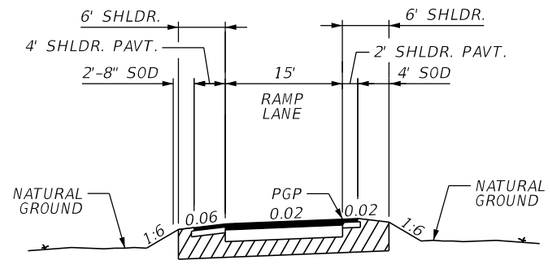
(X) 1 - FREEWAY
( ) 2 - RESTRICTIVE w/Service Roads
( ) 3 - RESTRICTIVE w/660 ft. Connection Spacing
( ) 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
( ) 5 - RESTRICTIVE w/440 ft. Connection Spacing
( ) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
( ) 7 - BOTH MEDIAN TYPES

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
( ) RESURFACING (LA FACILITIES)
( ) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 19



WESTBOUND RAMP FROM FLORIDA'S TURNPIKE
1-LANE RAMP
STA. 47+85.90 TO STA. 54+01.22
MP 20.567 TO MP 20.683

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = NA
ESTIMATED OPENING YEAR = 2020 AADT = 45,600
ESTIMATED DESIGN YEAR = 2040 AADT = 61,600
K = 9% D = 61.2% AM PEAK T = 5.3% (24 HOUR)
60% PM PEAK
DESIGN HOUR T = 2.7%
DESIGN SPEED = 60 MPH

NOT TO SCALE

FINANCIAL PROJECT ID	SHEET NO.
439891-1-22-02	20

Appendix F – Long Range Estimate (LRE)

Full Depressed Alternative

Date: 3/28/2019 2:27:29 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 24 Project Grand Total **$804,845,736.04**

Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 117 - FULLY DEPRESSED, NORTH ALTERNATIVE, WITH RAMPS. 2019 LRE UPDATE.

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 0.644 MI
3,400 LF

Description: Florida's Turnpike to Independence Drive (Sta. 2008+00 to Sta. 2042+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.644
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	8.31 AC	$33,534.39	$278,670.78
120-6	EMBANKMENT	10,563.66 CY	$26.21	$276,873.53
	Earthwork Component Total			$555,544.31

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	35,257.54	SY	$5.84	$205,904.03
285-709	OPTIONAL BASE,BASE GROUP 09	31,358.51	SY	$23.39	$733,475.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	5,174.15	TN	$173.02	$895,231.43
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,587.08	TN	$136.41	$352,903.58

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	435.00	EA	$4.46	$1,940.10
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	5.15	GM	$886.31	$4,564.50
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	5.15	GM	$381.64	$1,965.45

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,400.00	LF	$193.50	$657,900.00

Roadway Component Total $2,853,884.64

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	3,400.32	LF	$27.11	$92,182.68

522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	2,266.88 SY	$40.79	$92,466.04

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,800.64 LF	$1.87	$12,717.20
104-11	FLOATING TURBIDITY BARRIER	161.00 LF	$15.21	$2,448.81
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	161.00 LF	$9.50	$1,529.50
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	33.00 EA	$107.47	$3,546.51
107-1	LITTER REMOVAL	16.39 AC	$41.03	$672.48
107-2	MOWING	16.39 AC	$73.69	$1,207.78
	Shoulder Component Total			$208,854.20

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	6,800.64 LF	$29.08	$197,762.61
570-1-1	PERFORMANCE TURF	3,778.13 SY	$3.13	$11,825.55
	Median Component Total			$209,588.16

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	11.59 CY	$2,500.00	$28,975.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	24.00 EA	$6,422.69	$154,144.56
425-1-451	INLETS, CURB, TYPE J-5, <10'	7.00 EA	$8,307.63	$58,153.41
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	$5,333.93	$21,335.72
425-2-41	MANHOLES, P-7, <10'	4.00 EA	$5,967.25	$23,869.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,712.00 LF	$166.55	$285,133.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	152.00 LF	$245.14	$37,261.28
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,224.00 LF	$372.58	$1,201,197.92
570-1-1	PERFORMANCE TURF	195.78 SY	$3.13	$612.79
	Drainage Component Total			$1,810,683.28

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Waterways Boulevard

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$33,534.39	$39,570.58
120-1	REGULAR EXCAVATION	738.74	CY	$19.85	$14,663.99
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.39	$26,453.39
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.39	$41,720.28
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$173.02	$32,287.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$173.02	$50,921.52
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$136.41	$20,072.73
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$136.41	$12,728.42
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.11	$12,172.39
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$40.79	$10,174.66
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Independence Drive

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$33,534.39	$39,570.58
120-1	REGULAR EXCAVATION	738.74 CY	$19.85	$14,663.99
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68 SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.39	$26,453.39
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68 SY	$23.39	$41,720.28
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$173.02	$32,287.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31 TN	$173.02	$50,921.52
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$136.41	$12,728.42
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15 TN	$136.41	$20,072.73
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00 LF	$27.11	$12,172.39
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44 SY	$40.79	$10,174.66
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	249.44 SY	$3.13	$780.75
	Intersections Component Total			$618,737.58

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	16.00 AS	$350.88	$5,614.08
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	$1,059.25	$2,118.50
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00 AS	$6,694.62	$13,389.24
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00 AS	$9,107.62	$18,215.24
	Signing Component Total			$39,337.06

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Waterways Boulevard Intersection.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.44	$5,908.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$19.02	$5,706.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,746.26	$5,746.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$649.86	$14,296.92
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,608.78	$2,608.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.89	$293.40
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$672.27	$5,378.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$243.95	$1,951.60
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Independence Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.44	$5,908.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$19.02	$5,706.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,746.26	$5,746.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$649.86	$14,296.92
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,608.78	$2,608.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.89	$293.40
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$672.27	$5,378.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11		8.00 EA	$243.95	$1,951.60

	PEDESTRIAN DETECTOR, F&I, STANDARD			
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$916,555.44

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,400.32	LF	$8.44	$28,698.70
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	674.91	LF	$19.02	$12,836.79
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	23.00	EA	$649.86	$14,946.78
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	12,418.90	LF	$2.48	$30,798.87
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	23.00	EA	$6,064.29	$139,478.67
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	23.00	EA	$611.83	$14,072.09
	Subcomponent Total				$240,831.90
	Lighting Component Total				$240,831.90

Sequence 1 Total $7,454,016.57

Sequence: 2 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI
2,400 LF

Description: From Independence Drive to approximately 1000' east of Powerline Road (Sta. 2042+00 to Sta. 2066+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.455
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.86 AC	$33,534.39	$196,511.53
120-6	EMBANKMENT	7,463.46 CY	$26.21	$195,617.29
	Earthwork Component Total			$392,128.82

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,882.84 SY	$5.84	$145,315.79
285-709	OPTIONAL BASE,BASE GROUP 09	22,131.12 SY	$23.39	$517,646.90
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,651.63 TN	$173.02	$631,805.02
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,825.82 TN	$136.41	$249,060.11

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	307.00	EA	$4.46	$1,369.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.64	GM	$886.31	$3,226.17
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.64	GM	$381.64	$1,389.17

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,400.00	LF	$193.50	$464,400.00

Roadway Component Total $2,014,212.38

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,399.76	LF	$27.11	$65,057.49
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,599.84	SY	$40.79	$65,257.47

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,799.52	LF	$1.87	$8,975.10
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	$15.21	$1,728.16
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	$9.50	$1,079.39
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	24.00	EA	$107.47	$2,579.28
107-1	LITTER REMOVAL	11.57	AC	$41.03	$474.72
107-2	MOWING	11.57	AC	$73.69	$852.59

	Shoulder Component Total	$148,087.40

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,799.52	LF	$29.08	$139,570.04
570-1-1	PERFORMANCE TURF	2,666.40	SY	$3.13	$8,345.83
	Median Component Total				$147,915.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18	CY	$2,500.00	$20,450.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	$6,422.69	$109,185.73
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	$8,307.63	$41,538.15
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,333.93	$16,001.79
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,967.25	$17,901.75
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	$166.55	$201,192.40
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$245.14	$27,455.68
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	$372.58	$849,482.40
570-1-1	PERFORMANCE TURF	138.17	SY	$3.13	$432.47
	Drainage Component Total				$1,283,640.37

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	4
Mainline No. of Right Turn Lanes	3
Mainline Design Speed	45
Cross Street Thru Lanes	4
Cross Street No. of Left Turn Lanes	4
Cross Street No. of Right Turn Lanes	3
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	$33,534.39	$92,219.57

120-1	REGULAR EXCAVATION	2,607.33 CY	$19.85	$51,755.50
160-4	TYPE B STABILIZATION	3,312.31 SY	$5.84	$19,343.89
160-4	TYPE B STABILIZATION	6,295.36 SY	$5.84	$36,764.90
285-709	OPTIONAL BASE,BASE GROUP 09	3,312.31 SY	$23.39	$77,474.93
285-709	OPTIONAL BASE,BASE GROUP 09	6,295.36 SY	$23.39	$147,248.47
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	546.53 TN	$173.02	$94,560.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,038.73 TN	$173.02	$179,721.06
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	273.27 TN	$136.41	$37,276.76
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	519.37 TN	$136.41	$70,847.26
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68 LF	$29.08	$11,797.17
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,058.00 LF	$27.11	$28,682.38
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	570.00 LF	$44.08	$25,125.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	370.00 LF	$44.08	$16,309.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	587.78 SY	$40.79	$23,975.55
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	$51.64	$8,979.68
570-1-1	PERFORMANCE TURF	587.78 SY	$3.13	$1,839.75
	Intersections Component Total			$923,922.69

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00 AS	$350.88	$3,859.68
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,059.25	$1,059.25
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	$6,694.62	$6,694.62
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	$9,107.62	$9,107.62
	Signing Component Total			$20,721.17

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Powerline Road Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.44	$5,908.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$19.02	$5,706.00

632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,746.26	$5,746.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$649.86	$14,296.92
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,608.78	$2,608.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.89	$293.40
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$672.27	$5,378.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$243.95	$1,951.60
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$458,277.72

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,399.76	LF	$8.44	$20,253.97
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.32	LF	$19.02	$9,059.61
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$649.86	$10,397.76
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,764.58	LF	$2.48	$21,736.16
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	$6,064.29	$97,028.64
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	$611.83	$9,789.28
	Subcomponent Total				$168,265.42
	Lighting Component Total				$168,265.42

Sequence 2 Total $5,557,171.84

Sequence: 3 NDU - New Construction, Divided, Urban **Net Length:** 1.193 MI
6,300 LF

Description: Approximately 1000' east of Powerline Road to Military Trail (Sta. 2066+00 to Sta. 2129+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	39.75 / 44.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.193
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	12.22	AC	$33,534.39	$409,790.25
120-6	EMBANKMENT	19,053.43	CY	$26.21	$499,390.40
	Earthwork Component Total				$909,180.65

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	49,924.76	SY	$5.84	$291,560.60
285-709	OPTIONAL BASE,BASE GROUP 09	42,700.65	SY	$23.39	$998,768.20
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	7,045.61	TN	$173.02	$1,219,031.44
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,522.80	TN	$136.41	$480,545.15

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,250.00	LF	$193.50	$435,375.00
	Comment: For slip ramp to express lanes.				

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	483.00	EA	$4.46	$2,154.18
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.55	GM	$886.31	$8,464.26
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.77	GM	$381.64	$1,820.42

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,300.00	LF	$193.50	$1,219,050.00

Roadway Component Total $4,656,769.25

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,300.10	LF	$27.11	$170,795.71
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	4,200.06	SY	$40.79	$171,320.45

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,600.19	LF	$1.87	$23,562.36
104-11	FLOATING TURBIDITY BARRIER	298.30	LF	$15.21	$4,537.14
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	298.30	LF	$9.50	$2,833.85
104-15		2.00	EA	$2,083.20	$4,166.40

	SOIL TRACKING PREVENTION DEVICE			
104-18	INLET PROTECTION SYSTEM	61.00 EA	$107.47	$6,555.67
107-1	LITTER REMOVAL	30.37 AC	$41.03	$1,246.08
107-2	MOWING	30.37 AC	$73.69	$2,237.97
	Shoulder Component Total			$387,255.63

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	12,600.19	LF	$29.08	$366,413.53
570-1-1	PERFORMANCE TURF	7,000.11	SY	$3.13	$21,910.34
	Median Component Total				$388,323.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	21.48	CY	$2,500.00	$53,700.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	43.00	EA	$6,422.69	$276,175.67
425-1-451	INLETS, CURB, TYPE J-5, <10'	12.00	EA	$8,307.63	$99,691.56
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	$5,333.93	$32,003.58
425-2-41	MANHOLES, P-7, <10'	6.00	EA	$5,967.25	$35,803.50
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,160.00	LF	$166.55	$526,298.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	288.00	LF	$245.14	$70,600.32
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,968.00	LF	$372.58	$2,223,557.44
570-1-1	PERFORMANCE TURF	362.73	SY	$3.13	$1,135.34
	Drainage Component Total				$3,318,965.41

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y

Multiplier	1
Description	Intersection leading to Sirius XM Radio building.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70	AC	$33,534.39	$23,474.07
120-1	REGULAR EXCAVATION	391.86	CY	$19.85	$7,778.42
160-4	TYPE B STABILIZATION	1,107.64	SY	$5.84	$6,468.62
160-4	TYPE B STABILIZATION	946.13	SY	$5.84	$5,525.40
285-709	OPTIONAL BASE,BASE GROUP 09	1,107.64	SY	$23.39	$25,907.70
285-709	OPTIONAL BASE,BASE GROUP 09	946.13	SY	$23.39	$22,129.98
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	182.76	TN	$173.02	$31,621.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	156.11	TN	$173.02	$27,010.15
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	91.38	TN	$136.41	$12,465.15
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	78.06	TN	$136.41	$10,648.16
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	273.00	LF	$27.11	$7,401.03
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	151.67	SY	$40.79	$6,186.62
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	151.67	SY	$3.13	$474.73

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 30th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$33,534.39	$39,570.58
120-1	REGULAR EXCAVATION	628.29	CY	$19.85	$12,471.56
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01	SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.39	$26,453.39
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01	SY	$23.39	$35,482.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$173.02	$32,287.26

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$173.02	$43,308.64
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$136.41	$12,728.42
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$136.41	$17,071.71
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.11	$12,823.03
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$40.79	$10,718.80
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 3

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description SW 28th Avenue	

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$33,534.39	$39,570.58
120-1	REGULAR EXCAVATION	628.29 CY	$19.85	$12,471.56
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.39	$26,453.39
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.39	$35,482.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$173.02	$32,287.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$173.02	$43,308.64
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$136.41	$12,728.42
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$136.41	$17,071.71
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.11	$12,823.03
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$40.79	$10,718.80

522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 4

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 24th Avenue

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$33,534.39	$39,570.58
120-1	REGULAR EXCAVATION	772.70 CY	$19.85	$15,338.10
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,865.68 SY	$5.84	$10,895.57
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.39	$26,453.39
285-709	OPTIONAL BASE,BASE GROUP 09	1,865.68 SY	$23.39	$43,638.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$173.02	$32,287.26
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	307.84 TN	$173.02	$53,262.48
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$136.41	$12,728.42
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	153.92 TN	$136.41	$20,996.23
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.11	$12,823.03
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$40.79	$10,718.80
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$51.64	$4,489.58
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50
	Intersections Component Total			$1,106,246.03

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	29.00 AS	$350.88	$10,175.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00 AS	$1,059.25	$3,177.75

700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00 AS	$6,694.62	$20,083.86
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00 AS	$9,107.62	$27,322.86
	Signing Component Total			$60,759.99

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.44	$6,330.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.02	$4,755.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,746.26	$5,746.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$649.86	$10,397.76
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,608.78	$2,608.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.89	$293.40
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$40,041.33	$160,165.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	$995.45	$11,945.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$672.27	$5,378.16
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$172.57	$2,070.84
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,322.11	$15,865.32
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$243.95	$1,951.60
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$259.33	$1,037.32
	Signalizations Component Total				$257,241.22

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,300.10	LF	$8.44	$53,172.84
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,250.47	LF	$19.02	$23,783.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	42.00	EA	$649.86	$27,294.12

715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	23,009.67	LF	$2.48	$57,063.98
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	42.00	EA	$6,064.29	$254,700.18
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	42.00	EA	$611.83	$25,696.86
	Subcomponent Total				$441,711.92
	Lighting Component Total				$441,711.92
Sequence 3 Total					$11,526,453.97

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Powerline Road from West Drive to approximately 1200' south of SW 10th Street.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.16 AC	$33,534.39	$240,106.23
120-6	EMBANKMENT	10,157.16 CY	$26.21	$266,219.16
	Earthwork Component Total			$506,325.39

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	28,099.39 SY	$5.84	$164,100.44
285-709	OPTIONAL BASE,BASE GROUP 09	24,888.75 SY	$23.39	$582,147.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64 TN	$173.02	$710,530.85
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,053.32 TN	$136.41	$280,093.38

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00 EA	$4.46	$1,596.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24 GM	$886.31	$3,757.95
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24 GM	$381.64	$1,618.15
	Roadway Component Total			$1,743,845.31

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98 LF	$27.11	$75,907.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98 LF	$27.11	$75,907.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,733.31 SY	$40.79	$152,281.71

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97 LF	$1.87	$10,471.94
104-11	FLOATING TURBIDITY BARRIER	132.57 LF	$15.21	$2,016.39
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	132.57 LF	$9.50	$1,259.42
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	28.00 EA	$107.47	$3,009.16
107-1	LITTER REMOVAL	13.50 AC	$41.03	$553.90
107-2	MOWING	13.50 AC	$73.69	$994.82
	Shoulder Component Total			$324,485.47

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,599.97 LF	$29.08	$162,847.13
570-1-1	PERFORMANCE TURF	3,111.09 SY	$3.13	$9,737.71

	Median Component Total	$172,584.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$2,500.00	$23,875.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,422.69	$128,453.80
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$8,307.63	$49,845.78
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,333.93	$16,001.79
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,967.25	$17,901.75
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,408.00	LF	$166.55	$234,502.40
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	128.00	LF	$245.14	$31,377.92
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,656.00	LF	$372.58	$989,572.48
570-1-1	PERFORMANCE TURF	161.21	SY	$3.13	$504.59
	Drainage Component Total				$1,492,035.51

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00	AS	$350.88	$4,561.44
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,059.25	$2,118.50
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$6,694.62	$13,389.24
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24
	Signing Component Total				$38,284.42

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,799.98	LF	$8.44	$23,631.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	555.75	LF	$19.02	$10,570.36
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$649.86	$12,347.34
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,226.31	LF	$2.48	$25,361.25
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	19.00	EA	$6,064.29	$115,221.51
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00	EA	$611.83	$11,624.77
	Subcomponent Total				$198,757.06

Lighting Component Total	$198,757.07
Sequence 4 Total	$4,476,318.01

Sequence: 5 NDR - New Construction, Divided, Rural **Net Length:** 2.292 MI
12,102 LF

Description: Express lane section along SW 10th Street from Florida's Turnpike to Military Trail.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	53.50 / 53.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	0.00
Top of Structural Course For End Section	0.00
Horizontal Elevation For Begin Section	0.00
Horizontal Elevation For End Section	0.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	29.73	AC	$33,534.39	$996,977.41

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	951,360.00	CY	$19.85	$18,884,496.00
	Comment: For depressed section.				
120-6	EMBANKMENT	167,931.00	CY	$26.21	$4,401,471.51
	Comment: For bridge segment 1 = 63903 CY, for bridge segment 2 = 104028 CY				
	Earthwork Component Total				$24,282,944.92

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	0
Friction Course Spread Rate	80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	35,667.00	SY	$5.84	$208,295.28
	Comment: For bridge segment 1 = 17834 SY For bridge segment 2 = 17833 SY				
285-709	OPTIONAL BASE,BASE GROUP 09	34,000.00	SY	$23.39	$795,260.00
	Comment: For bridge segment 1 = 17000 SY For bridge segment 2 = 17000 SY				
334-1-13		5,610.00	TN	$173.02	$970,642.20

	SUPERPAVE ASPHALTIC CONC, TRAFFIC C			
	Comment: For bridge segment 1 = 2805 TN For bridge segment 2 = 2805 TN			
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,806.00 TN	$136.41	$382,766.46
	Comment: For bridge segment 1 = 1403 TN For bridge segment 2 = 1403 TN			
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	27,200.00 LF	$193.50	$5,263,200.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	928.00	EA	$4.46	$4,138.88
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.34	GM	$886.31	$16,254.93
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	9.17	GM	$381.64	$3,499.64

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	10,700.00
Noise Barrier Wall Begin Height	22.00
Noise Barrier Wall End Height	22.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	235,400.00	SF	$33.63	$7,916,502.00

Roadway Component Total $15,560,559.39

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	31,464.58	LF	$1.87	$58,838.76
104-11	FLOATING TURBIDITY BARRIER	573.00	LF	$15.21	$8,715.33
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	573.00	LF	$9.50	$5,443.50
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,083.20	$6,249.60
104-18	INLET PROTECTION SYSTEM	14.00	EA	$107.47	$1,504.58
107-1	LITTER REMOVAL	55.56	AC	$41.03	$2,279.63
107-2	MOWING	55.56	AC	$73.69	$4,094.22
	Shoulder Component Total				$87,125.62

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	12,100.00	LF	$103.50	$1,252,350.00
	Median Component Total				$1,252,350.00

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	110.00	EA	$6,856.78	$754,245.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-791	INLETS, MED BARRIER, TYPE 2, J BOT,<=10'	55.00	EA	$5,644.20	$310,431.00
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	5,504.00	LF	$149.25	$821,472.00
	Comment: Cross drains.				
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	12,104.00	LF	$268.84	$3,254,039.36
	Comment: Main trunk line.				
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	904.00	LF	$446.61	$403,735.44

Comment: 3-72" box culverts at canal crossing

Drainage Component Total $5,543,923.60

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$350.88	$1,754.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	56.00	AS	$1,059.25	$59,318.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,801.35	$24,006.75
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	14.00	AS	$6,694.62	$93,724.68

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-207	SIGN PANEL, F&I OM, 201-300 SF	7.00	EA	$5,879.77	$41,158.39
	Comment: Local exits panels.				
700-3-208	SIGN PANEL, F&I OM, 301-400 SF	1.00	EA	$9,137.52	$9,137.52
	Comment: I-95 direct connect panel.				
700-4-112	OH STATIC SIGN STR, F&I, C 21-30 FT	7.00	EA	$65,034.94	$455,244.58
	Comment: Structure for local exits panels.				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	3.00	EA	$42,409.29	$127,227.87
	Comment: Structure for EL DMS and I-95 direct connect panels.				
700-4-125	OH STATIC SIGN STR, F&I, S 51-100 FT	5.00	EA	$197,000.00	$985,000.00
	Comment: Structures for Express Lanes and toll amounts panels.				
700-7-132	EMBED DYNAMIC MESS SIGN, F&I, FULL,12-20	4.00	EA	$27,589.55	$110,358.20
	Comment: T-DMS bricks.				
700-8-135	FRONT ACC DYN MESS SIGN, F&I, FUL,51-100	3.00	EA	$73,326.96	$219,980.88
	Comment: Lane Status DMS.				
700-8-136	FRONT ACC DYN MESS SIGN, F&I, FULL,101-	1.00	EA	$104,433.33	$104,433.33
	Comment: Express lanes DMS.				
700-9-117	WALK-IN DYN MESS SIGN,F&I, MONO,201-	1.00	EA	$75,000.00	$75,000.00
	Comment: GP Lanes DMS.				

Signing Component Total $2,306,344.60

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	7,667.00	LF	$8.44	$64,709.48
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,556.00	LF	$19.02	$48,615.12
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	4,646.00	LF	$3.79	$17,608.34
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	9,293.00	LF	$4.00	$37,172.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	323.00	EA	$50.86	$16,427.78
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	16.00	EA	$938.41	$15,014.56
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	16.00	EA	$69.54	$1,112.64
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	16.00	EA	$77.50	$1,240.00
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	16.00	EA	$1,837.83	$29,405.28
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	4,740.00	LF	$4.24	$20,097.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$649.86	$12,347.34
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	16.00	EA	$1,321.67	$21,146.72
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$2,651.78	$2,651.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30,666.00	LF	$4.89	$149,956.74
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	4.00	EA	$29,728.00	$118,912.00
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	7.00	EA	$2,250.00	$15,750.00
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	7.00	EA	$13,500.00	$94,500.00
676-2-122	ITS CABINET- F&I, POLE, 336S	8.00	EA	$6,600.00	$52,800.00
676-2-143	ITS CABINET- F&I, BASE, 334	8.00	EA	$10,633.33	$85,066.64
676-2-400	ITS CABINET- RELOCATE	2.00	EA	$2,708.64	$5,417.28
682-1-111	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.	4.00	EA	$7,180.53	$28,722.12
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	17.00	EA	$3,751.76	$63,779.92
684-2-1	DEVICE SERVER, F&I	7.00	EA	$1,500.00	$10,500.00
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	4.00	EA	$2,917.45	$11,669.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR-PERMANENT, UP TO 25 KW	2.00	EA	$39,679.10	$79,358.20
641-2-13	PREST CNC POLE, F&I, TYP P-III	7.00	EA	$9,785.71	$68,499.97
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	2.00	EA	$800,000.00	$1,600,000.00
	Intelligent Traffic System (ITS) Component Total				$2,672,481.31

BRIDGES COMPONENT

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-3-20	CONC CLASS III, SEAL	126,118.00	CY	$1,368.00	$172,529,424.00
	Comment: 5.5' depth of concrete for tremie slab for depressed section.				
400-4-5	CONC CLASS IV, SUBSTRUCTURE	146,197.00	CY	$1,158.43	$169,358,990.71
	Comment: 4' depth of concrete for depressed section.				
415-1-5	REINF STEEL- SUBSTRUCTURE	8,419,694.33	LB	$3.54	$29,805,717.93
	Comment: Actual quantity of reinforcing steel is 25259083 lbs. LRE will not allow a value over 10000000 lbs. Multiplied cost by 3 to account for entire reinforcing steel.				
451-70	PREST SOIL ANCHORS	4,061.00	EA	$7,591.08	$30,827,375.88
	Comment: For depressed section.				
451-70-1	PREST SOIL ANCHOR, PERFORMANCE TEST	1,015.00	EA	$2,335.67	$2,370,705.05
	Comment: For depressed section.				
451-70-2	PREST SOIL ANCHOR, CREEP TEST	1,015.00	EA	$2,947.00	$2,991,205.00
	Comment: For depressed section.				
455-87	ANCHOR BAR, STEEL	7,480.00	EA	$1,041.63	$7,791,392.40
	Comment: For depressed section.				
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	700,164.00	SF	$24.75	$17,329,059.00
	Comment: For depressed section.				

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
XXX-XX-XX1	WATERPROOF LINER	1,080,351.00	SF	$1.00	$1,080,351.00
XXX-XX-XX2	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00	LS	$50,937,188.84	$50,937,188.84
	Comment: Based on 10% of construction costs for the depressed section.				
	Bridge Total				$485,021,409.81
	Bridges Component Total				$485,021,409.81

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-11	CONC CLASS IV, RETAINING WALLS	14,340.00	CY	$1,831.31	$26,260,985.40
	Comment: For depressed section.				
448-73	PUMPING STATION- DRAINAGE	4.00	LS	$76,800.00	$307,200.00
548-12	RET WALL SYSTEM, PERM, EX BARRIER	84,750.00	SF	$26.74	$2,266,215.00
	Comment: For bridge segment 1 = 32250 SF For bridge segment 2 = 52500 SF				
	Miscellaneous Component Total				$28,834,400.40

Sequence 5 Total $565,561,539.65

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,102 LF

Description: All bridge sections along SW 10th Street.

BRIDGES COMPONENT

Bridge 1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	260.00
Width (LF)	100.50
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$155.02**
Basic Bridge Cost	**$3,919,500.00**
Description	BRIDGE FOR POWERLINE ROAD

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	223.33 CY	$410.22	$91,614.43
415-1-9	REINF STEEL- APPROACH SLABS	39,082.75 LB	$1.01	$39,473.58
	Bridge 1 Total			$4,050,588.01

Bridge 2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	291.00
Width (LF)	100.50
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$154.48**
Basic Bridge Cost	**$4,386,825.00**
Description	BRIDGE OVER QUIET WATERS BUSINEDD PARK ACCESS ROAD.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	223.33 CY	$410.22	$91,614.43
415-1-9	REINF STEEL- APPROACH SLABS	39,082.75 LB	$1.01	$39,473.58
	Bridge 2 Total			$4,517,913.01

Bridge 3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	600.00
Width (LF)	90.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$152.17**
Basic Bridge Cost	**$8,100,000.00**
Description	WEAVING SECTION UNDER SW 30TH AVENUE FROM APPROXIMATE STA. 2080+00 TO STA. 2086+00.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	200.00	CY	$410.22	$82,044.00
415-1-9	REINF STEEL- APPROACH SLABS	35,000.00	LB	$1.01	$35,350.00
	Bridge 3 Total				$8,217,394.00

Bridge 4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	400.00
Width (LF)	117.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$153.26**
Basic Bridge Cost	**$7,020,000.00**
Description	BRIDGE LEADING TO SW 28TH AVENUE

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	260.00	CY	$410.22	$106,657.20
415-1-9	REINF STEEL- APPROACH SLABS	45,500.00	LB	$1.01	$45,955.00
	Bridge 4 Total				$7,172,612.20
	Bridges Component Total				$23,958,507.22

Sequence 6 Total	$23,958,507.22

Sequence: 7 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: Non-Traffic Bridges.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	1,200.00 CY	$26.21	$31,452.00
	Comment: Each landscaped bridge = 400CY, 3 bridges = 1200 CY			
570-1-2	PERFORMANCE TURF, SOD	3,600.00 SY	$3.76	$13,536.00
	Comment: Each landscaped bridge = 1200 SY, 3 bridges = 3600 SY			
	Roadway Component Total			$44,988.00

BRIDGES COMPONENT

Bridge 1

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		300.00
Width (LF)		100.50
Type		Pedestrian Overpass
Cost Factor		1.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$95.00
Factored Cost per SF		$95.00
Final Cost per SF		**$95.00**
Basic Bridge Cost		**$2,864,250.00**
Description	LANDSCAPE LID 1	

Bridge 1 Total $2,864,250.00

Bridge 2

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		300.00
Width (LF)		100.50
Type		Pedestrian Overpass
Cost Factor		1.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$95.00
Factored Cost per SF		$95.00
Final Cost per SF		**$95.00**
Basic Bridge Cost		**$2,864,250.00**
Description	LANDSCAPE LID 2	

Bridge 2 Total $2,864,250.00

Bridge 3

Description		**Value**
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		300.00
Width (LF)		100.50
Type		Pedestrian Overpass
Cost Factor		1.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$95.00
Factored Cost per SF		$95.00
Final Cost per SF		**$95.00**
Basic Bridge Cost		**$2,864,250.00**
Description	LANDSCAPE LID 3	

Bridge 3 Total	$2,864,250.00
Bridges Component Total	$8,592,750.00
Sequence 7 Total	$8,637,738.00

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 24 Project Grand Total **$804,845,736.04**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 117 - FULLY DEPRESSED, NORTH ALTERNATIVE, WITH RAMPS. 2019 LRE UPDATE.

Project Sequences Subtotal			**$627,171,745.26**
102-1	Maintenance of Traffic	10.00 %	$62,717,174.53
101-1	Mobilization	8.00 %	$55,191,113.58
Project Sequences Total			**$745,080,033.37**
Project Unknowns		0.00 %	$0.00
Design/Build		8.00 %	$59,606,402.67

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	1	DA	$3,300.00	$3,300.00
Project Non-Bid Subtotal					**$159,300.00**
Version 24 Project Grand Total					**$804,845,736.04**

Depressed Westbound Exit Ramp Alternative

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 18 Project Grand Total **$217,737,571.36**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 237 - WB EXIT RAMP DEPRESSED. 2019 LRE UPDATE.

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 0.796 MI
4,200 LF
Description: SW 10th Street from Florida's Turnpike to Independence Drive (Sta. 2008+00 to Sta. 2042+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.796
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.28 AC	$32,034.82	$329,317.95
120-6	EMBANKMENT	13,056.95 CY	$27.17	$354,757.33
	Earthwork Component Total			$684,075.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,551.82 SY	$5.84	$254,342.63
285-709	OPTIONAL BASE,BASE GROUP 09	38,735.55 SY	$23.11	$895,178.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,391.37 TN	$171.48	$1,095,992.13
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,195.68 TN	$139.13	$444,614.96

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	537.00 EA	$4.46	$2,395.02
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.36 GM	$902.22	$5,738.12
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.36 GM	$383.00	$2,435.88

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,400.00 LF	$193.50	$657,900.00

Roadway Component Total $3,358,597.30

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,200.24 LF	$27.17	$114,120.52

522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	2,800.16 SY	$41.10	$115,086.58

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,400.48 LF	$1.89	$15,876.91
104-11	FLOATING TURBIDITY BARRIER	198.88 LF	$12.50	$2,486.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	198.88 LF	$4.09	$813.42
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	41.00 EA	$101.77	$4,172.57
107-1	LITTER REMOVAL	20.25 AC	$49.70	$1,006.42
107-2	MOWING	20.25 AC	$70.39	$1,425.40
	Shoulder Component Total			$257,071.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	8,400.48 LF	$29.08	$244,285.96
570-1-1	PERFORMANCE TURF	4,666.93 SY	$3.13	$14,607.49
	Median Component Total			$258,893.45

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.32 CY	$1,477.99	$21,164.82
425-1-351	INLETS, CURB, TYPE P-5, <10'	29.00 EA	$6,251.47	$181,292.63
425-1-451	INLETS, CURB, TYPE J-5, <10'	8.00 EA	$8,530.50	$68,244.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	$5,116.81	$20,467.24
425-2-41	MANHOLES, P-7, <10'	4.00 EA	$5,619.79	$22,479.16
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,104.00 LF	$180.20	$379,140.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00 LF	$230.43	$44,242.56
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,984.00 LF	$372.58	$1,484,358.72
570-1-1	PERFORMANCE TURF	241.83 SY	$3.13	$756.93
	Drainage Component Total			$2,222,146.86

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Waterways Boulevard

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Independence Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75
	Intersections Component Total				$586,083.04

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	20.00	AS	$351.72	$7,034.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24
	Signing Component Total				$42,125.48

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Waterways Boulevard Intersection

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Independence Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00 AS	$682.09	$1,364.18
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	2.00 EA	$229.72	$459.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalizations Component Total	$903,072.34

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,200.24	LF	$8.45	$35,492.03
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	833.68	LF	$18.66	$15,556.47
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	28.00	EA	$641.65	$17,966.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,340.42	LF	$2.48	$38,044.24
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	28.00	EA	$6,040.34	$169,129.52
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	28.00	EA	$620.69	$17,379.32
	Subcomponent Total				$293,567.78

Lighting Component Total	$293,567.78
Sequence 1 Total	$8,605,632.56

Sequence: 2 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI
2,400 LF

Description: SW 10th Street from Independence Drive to approximately 1000' east of Powerline Road (Sta. 2042+00 to Sta. 2066+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.454
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.86 AC	$32,034.82	$187,724.05
120-6	EMBANKMENT	7,447.05 CY	$27.17	$202,336.35
	Earthwork Component Total			$390,060.40

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,882.84 SY	$5.84	$145,315.79
285-709	OPTIONAL BASE,BASE GROUP 09	22,131.12 SY	$23.11	$511,450.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,651.63 TN	$171.48	$626,181.51
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,825.82 TN	$139.13	$254,026.34

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	307.00	EA	$4.46	$1,369.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.64	GM	$902.22	$3,284.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.64	GM	$383.00	$1,394.12

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,400.00	LF	$193.50	$464,400.00

Roadway Component Total $2,007,421.24

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,399.76	LF	$27.17	$65,201.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,599.84	SY	$41.10	$65,753.42

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,799.52	LF	$1.89	$9,071.09
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	$12.50	$1,420.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	$4.09	$464.71
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	24.00	EA	$101.77	$2,442.48
107-1	LITTER REMOVAL	11.57	AC	$49.70	$575.03
107-2	MOWING	11.57	AC	$70.39	$814.41

	Shoulder Component Total	$147,826.07

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,799.52	LF	$29.08	$139,570.04
570-1-1	PERFORMANCE TURF	2,666.40	SY	$3.13	$8,345.83
	Median Component Total				$147,915.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18	CY	$1,477.99	$12,089.96
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	$6,251.47	$106,274.99
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	$8,530.50	$42,652.50
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	$180.20	$217,681.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$230.43	$25,808.16
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	$372.58	$849,482.40
570-1-1	PERFORMANCE TURF	138.17	SY	$3.13	$432.47
	Drainage Component Total				$1,286,631.88

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	4
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	4
Cross Street No. of Left Turn Lanes	4
Cross Street No. of Right Turn Lanes	2
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	$32,034.82	$88,095.76

120-1	REGULAR EXCAVATION	2,458.78 CY	$21.41	$52,642.48
160-4	TYPE B STABILIZATION	3,032.31 SY	$5.84	$17,708.69
160-4	TYPE B STABILIZATION	5,936.69 SY	$5.84	$34,670.27
285-709	OPTIONAL BASE,BASE GROUP 09	3,032.31 SY	$23.11	$70,076.68
285-709	OPTIONAL BASE,BASE GROUP 09	5,936.69 SY	$23.11	$137,196.91
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.33 TN	$171.48	$85,796.59
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	979.55 TN	$171.48	$167,973.23
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	489.78 TN	$139.13	$68,143.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	250.17 TN	$139.13	$34,806.15
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68 LF	$29.08	$11,797.17
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,058.00 LF	$27.17	$28,745.86
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	570.00 LF	$44.08	$25,125.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	370.00 LF	$44.08	$16,309.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	587.78 SY	$41.10	$24,157.76
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	$52.59	$9,144.88
570-1-1	PERFORMANCE TURF	587.78 SY	$3.13	$1,839.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	0
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Intersection leading into Sirius XM Radio building.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70 AC	$32,034.82	$22,424.37
120-1	REGULAR EXCAVATION	371.15 CY	$21.41	$7,946.32
160-4	TYPE B STABILIZATION	595.53 SY	$5.84	$3,477.90
160-4	TYPE B STABILIZATION	896.13 SY	$5.84	$5,233.40
285-709	OPTIONAL BASE,BASE GROUP 09	595.53 SY	$23.11	$13,762.70
285-709	OPTIONAL BASE,BASE GROUP 09	896.13 SY	$23.11	$20,709.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.26 TN	$171.48	$16,849.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	147.86 TN	$171.48	$25,355.03
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	73.93 TN	$139.13	$10,285.88
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	49.13 TN	$139.13	$6,835.46

520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	249.00 LF	$27.17	$6,765.33
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	138.33 SY	$41.10	$5,685.36
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	138.33 SY	$3.13	$432.97
	Intersections Component Total			$1,027,515.83

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00 AS	$351.72	$3,868.92
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,060.06	$1,060.06
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	$7,377.86	$7,377.86
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	$9,107.62	$9,107.62
	Signing Component Total			$21,414.46

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street and Powerline Road

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$682.09	$5,456.72
660-1-102		20.00 EA	$172.57	$3,451.40

	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2			
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$457,918.84

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,399.76	LF	$8.45	$20,277.97
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.32	LF	$18.66	$8,888.13
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,764.58	LF	$2.48	$21,736.16
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	$6,040.34	$96,645.44
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	$620.69	$9,931.04
	Subcomponent Total				$167,745.14
	Lighting Component Total				$167,745.14

Sequence 2 Total $5,654,449.73

Sequence: 3 NDU - New Construction, Divided, Urban **Net Length:** 1.155 MI
6,100 LF

Description: SW 10th Street from approximately 1000' east of Powerline Road to Military Trail (Sta. 2066+00 to Sta. 2127+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	39.75 / 44.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.155
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.83	AC	$32,034.82	$378,971.92
120-6	EMBANKMENT	20,325.74	CY	$27.17	$552,250.36
	Earthwork Component Total				$931,222.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	48,338.98	SY	$5.84	$282,299.64
285-709	OPTIONAL BASE,BASE GROUP 09	41,344.34	SY	$23.11	$955,467.70
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,821.82	TN	$171.48	$1,169,805.69
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,410.91	TN	$139.13	$474,559.91

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	468.00	EA	$4.46	$2,087.28
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.24	GM	$902.22	$8,336.51
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.62	GM	$383.00	$1,769.46

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,100.00	LF	$193.50	$1,180,350.00

Roadway Component Total $4,074,676.19

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,099.98	LF	$27.17	$165,736.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	6,777.76	SY	$41.10	$278,565.94

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,199.97	LF	$1.89	$23,057.94
104-11	FLOATING TURBIDITY BARRIER	288.82	LF	$12.50	$3,610.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	288.82	LF	$4.09	$1,181.27
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,083.20	$4,166.40
104-18	INLET PROTECTION SYSTEM	59.00	EA	$101.77	$6,004.43
107-1	LITTER REMOVAL	29.40	AC	$49.70	$1,461.18
107-2	MOWING	29.40	AC	$70.39	$2,069.47

	Shoulder Component Total	$485,853.34

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	12,199.97	LF	$29.08	$354,775.13
570-1-1	PERFORMANCE TURF	6,777.76	SY	$3.13	$21,214.39
	Median Component Total				$375,989.52

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.80	CY	$1,477.99	$30,742.19
425-1-351	INLETS, CURB, TYPE P-5, <10'	42.00	EA	$6,251.47	$262,561.74
425-1-451	INLETS, CURB, TYPE J-5, <10'	12.00	EA	$8,530.50	$102,366.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	$5,116.81	$30,700.86
425-2-41	MANHOLES, P-7, <10'	6.00	EA	$5,619.79	$33,718.74
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,056.00	LF	$180.20	$550,691.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	272.00	LF	$230.43	$62,676.96
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,784.00	LF	$372.58	$2,155,002.72
570-1-1	PERFORMANCE TURF	351.21	SY	$3.13	$1,099.29
	Drainage Component Total				$3,229,559.70

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 30th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09

120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7		101.42 LF	$29.08	$2,949.29

	CONCRETE CURB & GUTTER, TYPE E			
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 3

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description SW 24th Avenue	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	772.70	CY	$21.41	$16,543.51
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,865.68	SY	$5.84	$10,895.57
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,865.68	SY	$23.11	$43,115.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	307.84	TN	$171.48	$52,788.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	153.92	TN	$139.13	$21,414.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00	LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78	SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78	SY	$3.13	$822.50
	Intersections Component Total				$892,815.45

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	28.00	AS	$351.72	$9,848.16
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,060.06	$3,180.18
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00	AS	$7,377.86	$22,133.58
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00	AS	$9,107.62	$27,322.86
	Signing Component Total				$62,484.78

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.45	$6,337.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$18.66	$4,665.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.88	$292.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$40,041.33	$160,165.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	$995.45	$11,945.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$682.09	$5,456.72
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$172.57	$2,070.84
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,322.11	$15,865.32
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$259.33	$1,037.32
	Signalizations Component Total				$256,950.10

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value

Spacing MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,099.98	LF	$8.45	$51,544.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,210.75	LF	$18.66	$22,592.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	41.00	EA	$641.65	$26,307.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	22,278.81	LF	$2.48	$55,251.45
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	41.00	EA	$6,040.34	$247,653.94
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	41.00	EA	$620.69	$25,448.29
	Subcomponent Total				$428,798.75
	Lighting Component Total				$428,798.76
Sequence 3 Total					$10,738,350.12

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Powerline Road from West Drive to approximately 1000' south of SW 10th Street.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.16 AC	$32,034.82	$229,369.31
120-6	EMBANKMENT	10,157.16 CY	$27.17	$275,970.04
	Earthwork Component Total			$505,339.35

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	28,099.39 SY	$5.84	$164,100.44
285-709	OPTIONAL BASE,BASE GROUP 09	24,888.75 SY	$23.11	$575,179.01
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64 TN	$171.48	$704,206.63
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,053.32 TN	$139.13	$285,678.41

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00	EA	$4.46	$1,596.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24	GM	$902.22	$3,825.41
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24	GM	$383.00	$1,623.92
	Roadway Component Total				$1,736,210.50

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,733.31	SY	$41.10	$153,439.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97	LF	$1.89	$10,583.94
104-11	FLOATING TURBIDITY BARRIER	132.57	LF	$12.50	$1,657.12
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	132.57	LF	$4.09	$542.21
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	28.00	EA	$101.77	$2,849.56
107-1	LITTER REMOVAL	13.50	AC	$49.70	$670.95
107-2	MOWING	13.50	AC	$70.39	$950.27
	Shoulder Component Total				$324,927.22

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,599.97	LF	$29.08	$162,847.13
570-1-1	PERFORMANCE TURF	3,111.09	SY	$3.13	$9,737.71

	Median Component Total	$172,584.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$1,477.99	$14,114.80
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,251.47	$125,029.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$8,530.50	$51,183.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,408.00	LF	$180.20	$253,721.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	128.00	LF	$230.43	$29,495.04
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,656.00	LF	$372.58	$989,572.48
570-1-1	PERFORMANCE TURF	161.21	SY	$3.13	$504.59

	Drainage Component Total	$1,495,830.71

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00	AS	$351.72	$4,572.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-111	OH STATIC SIGN STR, F&I, C UP TO 20 FT	2.00	EA	$42,470.64	$84,941.28
700-4-121	OH STATIC SIGN STR, F&I, S UP TO 20 FT	2.00	EA	$108,189.34	$216,378.68

	Signing Component Total	$340,983.40

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,799.98	LF	$8.45	$23,659.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	555.75	LF	$18.66	$10,370.30
635-2-11		19.00	EA	$641.65	$12,191.35

	PULL & SPLICE BOX, F&I, 13" x 24"			
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,226.31 LF	$2.48	$25,361.25
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	19.00 EA	$6,040.34	$114,766.46
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00 EA	$620.69	$11,793.11
	Subcomponent Total			$198,142.29
	Lighting Component Total			$198,142.30
Sequence 4 Total				$4,774,018.32

Sequence: 5 NDR - New Construction, Divided, Rural **Net Length:** 2.292 MI
12,100 LF

Description: Express Lane section along SW 10th Street from Florida's Turnpike to Military Trail, at-grade.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	0.00
Top of Structural Course For End Section	0.00
Horizontal Elevation For Begin Section	0.00
Horizontal Elevation For End Section	0.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	28.06	AC	$32,034.82	$898,897.05

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	250,150.00	CY	$27.17	$6,796,575.50

Earthwork Component Total $7,695,472.55

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	0
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	129,068.54	SY	$5.84	$753,760.27
285-709	OPTIONAL BASE,BASE GROUP 09	66,308.96	SY	$23.11	$1,532,400.07
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,581.37	TN	$139.13	$359,146.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	24,200.00	LF	$95.12	$2,301,904.00

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	928.00	EA	$4.46	$4,138.88
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.33	GM	$902.22	$16,537.69
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	9.17	GM	$383.00	$3,512.11
	Roadway Component Total				$4,971,399.03

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	33,154.48	SY	$21.30	$706,190.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,774.69	TN	$171.48	$304,323.84
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,290.69	TN	$262.36	$338,625.43
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	4.58	GM	$1,205.93	$5,523.16

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	31,460.46	LF	$1.89	$59,460.27
104-11	FLOATING TURBIDITY BARRIER	572.93	LF	$12.50	$7,161.62
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	572.93	LF	$4.09	$2,343.28
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,083.20	$6,249.60
104-18	INLET PROTECTION SYSTEM	14.00	EA	$101.77	$1,424.78
107-1	LITTER REMOVAL	55.55	AC	$49.70	$2,760.84
107-2	MOWING	55.55	AC	$70.39	$3,910.16
	Shoulder Component Total				$1,437,973.41

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	33,154.48	SY	$21.30	$706,190.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,774.69	TN	$171.48	$304,323.84
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,290.69	TN	$262.36	$338,625.43
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	12,100.00	LF	$197.19	$2,385,999.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	5.00	GM	$1,205.93	$6,029.65
	Median Component Total				$3,741,168.34

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	110.00	EA	$6,856.78	$754,245.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-791	INLETS, MED BARRIER, TYPE 2, J BOT,<=10'	55.00	EA	$5,600.00	$308,000.00
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	5,560.00	LF	$149.67	$832,165.20
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	12,104.00	LF	$268.84	$3,254,039.36
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	904.00	LF	$521.18	$471,146.72
	Drainage Component Total				$5,619,597.08

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$351.72	$1,758.60
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	56.00	AS	$1,060.06	$59,363.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,857.14	$24,285.70
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	14.00	AS	$7,377.86	$103,290.04

Signing Component Total	$188,697.70

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,667.00	LF	$8.45	$64,786.15
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,556.00	LF	$18.66	$47,694.96
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	4,646.00	LF	$3.79	$17,608.34
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	9,293.00	LF	$4.00	$37,172.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	323.00	EA	$51.31	$16,573.13
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	16.00	EA	$942.34	$15,077.44
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	16.00	EA	$69.21	$1,107.36
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	16.00	EA	$77.50	$1,240.00
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	16.00	EA	$1,793.95	$28,703.20
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	4,740.00	LF	$4.24	$20,097.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$641.65	$12,191.35
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	16.00	EA	$1,280.05	$20,480.80
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$2,651.78	$2,651.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30,666.00	LF	$4.88	$149,650.08
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	4.00	EA	$29,728.00	$118,912.00
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	7.00	EA	$2,250.00	$15,750.00
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	7.00	EA	$13,500.00	$94,500.00
676-2-122	ITS CABINET- F&I, POLE, 336S	8.00	EA	$6,600.00	$52,800.00
676-2-143	ITS CABINET- F&I, BASE, 334	8.00	EA	$10,633.33	$85,066.64
676-2-400	ITS CABINET- RELOCATE	2.00	EA	$2,708.64	$5,417.28
682-1-111	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.	4.00	EA	$7,180.53	$28,722.12
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	17.00	EA	$3,711.50	$63,095.50
684-2-1	DEVICE SERVER, F&I	7.00	EA	$1,500.00	$10,500.00
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	4.00	EA	$2,917.45	$11,669.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR-PERMANENT, UP TO 25 KW	3.00	EA	$39,679.10	$119,037.30

641-2-13	PREST CNC POLE, F&I, TYP P-III	7.00 EA	$9,785.71	$68,499.97
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	3.00 EA	$800,000.00	$2,400,000.00
	Intelligent Traffic System (ITS) Component Total			$3,509,004.80

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,100.00	LF	$8.45	$102,245.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,400.00	LF	$18.66	$44,784.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	81.00	EA	$641.65	$51,973.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	45,000.00	LF	$2.48	$111,600.00
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	81.00	EA	$6,040.34	$489,267.54
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	81.00	EA	$620.69	$50,275.89
	Lighting Component Total				$850,146.08

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
448-73	PUMPING STATION- DRAINAGE	1.00	LS	$400,000.00	$400,000.00
548-12	RET WALL SYSTEM, PERM, EX BARRIER	188,250.00	SF	$27.97	$5,265,352.50
	Miscellaneous Component Total				$5,665,352.50

Sequence 5 Total $33,678,811.49

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: All bridge sections along SW 10th Street.

BRIDGES COMPONENT

Bridge 1

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	265.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$229.56**
Basic Bridge Cost	**$6,022,125.00**
Description	EXPRESS BRIDGE OVER POWERLINE ROAD

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44 CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00 LB	$0.99	$38,884.23
	Bridge 1 Total			$6,144,254.03

Bridge 2

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	51.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.21**
Basic Bridge Cost	**$11,475,000.00**
Description	EB EXPRESS LANES BRAIDED RAMP AT WATERWAYS BOULEVARD.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	113.33 CY	$370.90	$42,034.10
415-1-9	REINF STEEL- APPROACH SLABS	19,832.75 LB	$0.99	$19,634.42
	Bridge 2 Total			$11,536,668.52

Bridge 3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	142.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$233.52**
Basic Bridge Cost	**$3,226,950.00**
Description	EXPRESS LANES BRIDGE OVER FRONTAGE ROAD

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$0.99	$38,884.23
	Bridge 3 Total				$3,349,079.03

Bridge 4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	63.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.21**
Basic Bridge Cost	**$14,175,000.00**
Description	EB EXPRESS LANE BRIDGE OVER WB EXIT RAMP

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	140.00	CY	$370.90	$51,926.00
415-1-9	REINF STEEL- APPROACH SLABS	24,500.00	LB	$0.99	$24,255.00
	Bridge 4 Total				$14,251,181.00

Bridge 5

Description	Value
Estimate Type	SF Estimate

Primary Estimate		YES
Length (LF)		610.00
Width (LF)		30.00
Type		Overpass Bridge
Cost Factor		3.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$75.00
Factored Cost per SF		$225.00
Final Cost per SF		**$226.98**
Basic Bridge Cost		**$4,117,500.00**
Description	RAMP A, EB EXPRESS LANE ON-RAMP.	

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67 CY	$370.90	$24,727.90
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	$0.99	$11,550.58
	Bridge 5 Total			$4,153,778.48
	Bridges Component Total			$39,434,961.06

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	136,000.00 SF	$27.97	$3,803,920.00
	Miscellaneous Component Total			$3,803,920.00

Sequence 6 Total $43,238,881.06

Sequence: 7 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: RAMP A AND B

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	43,335.00	CY	$21.41	$927,802.35
120-6	EMBANKMENT	14,170.00	CY	$27.17	$384,998.90
	Earthwork Component Total				$1,312,801.25

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,530.00	SY	$5.84	$26,455.20
285-709	OPTIONAL BASE,BASE GROUP 09	4,080.00	SY	$23.11	$94,288.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	675.00	TN	$171.48	$115,749.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	335.00	TN	$139.13	$46,608.55

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	7,270.00	LF	$193.50	$1,406,745.00
	Roadway Component Total				$1,689,846.55

BRIDGES COMPONENT

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-3-20	CONC CLASS III, SEAL	13,900.00	CY	$1,368.00	$19,015,200.00
400-4-5	CONC CLASS IV, SUBSTRUCTURE	10,110.00	CY	$1,112.06	$11,242,926.60
415-1-5	REINF STEEL- SUBSTRUCTURE	2,307,510.00	LB	$1.18	$2,722,861.80
451-70	PREST SOIL ANCHORS	910.00	EA	$4,796.99	$4,365,260.90
451-70-1		228.00	EA	$1,267.67	$289,028.76

	PREST SOIL ANCHOR, PERFORMANCE TEST			
451-70-2	PREST SOIL ANCHOR, CREEP TEST	228.00 EA	$1,696.43	$386,786.04
455-87	ANCHOR BAR, STEEL	910.00 EA	$1,041.63	$947,883.30
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	34,125.00 SF	$24.75	$844,593.75

Bridge EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
XXX-XX-XX1	WATERPROOF LINER	68,250.00 SF	$1.00	$68,250.00
XXX-XX-XX2	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00 LS	$4,769,576.70	$4,769,576.70
	Comment: Based on 10% of the cost for the depressed section to account for the construction in water.			
	Bridge Total			$44,652,367.85
	Bridges Component Total			$44,652,367.85

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-11	CONC CLASS IV, RETAINING WALLS	3,160.00 CY	$1,831.31	$5,786,939.60
548-12	RET WALL SYSTEM, PERM, EX BARRIER	25,500.00 SF	$27.97	$713,235.00
	Miscellaneous Component Total			$6,500,174.60

Sequence 7 Total $54,155,190.25

Sequence: 8 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: FRONTAGE ROAD

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,126.00	SY	$5.84	$35,775.84
285-709	OPTIONAL BASE,BASE GROUP 09	5,880.00	SY	$23.11	$135,886.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	970.00	TN	$171.48	$166,335.60
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	485.00	TN	$139.13	$67,478.05

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	1,760.00	LF	$193.50	$340,560.00
	Roadway Component Total				$746,036.29

SHOULDER COMPONENT

User Input Data

Description	Value

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	1,345.00	SY	$52.59	$70,733.55
	Shoulder Component Total				$70,733.55

Sequence 8 Total $816,769.84

Sequence: 9 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: NOISE WALLS

ROADWAY COMPONENT

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	10,700.00
Noise Barrier Wall Begin Height	22.00
Noise Barrier Wall End Height	22.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	235,400.00	SF	$33.60	$7,909,440.00
	Roadway Component Total				$7,909,440.00

Sequence 9 Total $7,909,440.00

Sequence: 10 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Miscellaneous Construction.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	1.00	DA	$3,300.00	$3,300.00
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00
	Roadway Component Total				$11,300.00

Sequence 10 Total $11,300.00

Date: 3/26/2019 12:07:46 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 18 Project Grand Total **$217,737,571.36**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 237 - WB EXIT RAMP DEPRESSED. 2019 LRE UPDATE.

Project Sequences Subtotal			**$169,582,843.37**
102-1	Maintenance of Traffic	10.00 %	$16,958,284.34
101-1	Mobilization	8.00 %	$14,923,290.22
Project Sequences Total			**$201,464,417.93**
Project Unknowns		0.00 %	$0.00
Design/Build		8.00 %	$16,117,153.43

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 18 Project Grand Total					**$217,737,571.36**

Depressed Eastbound Managed Lane Alternative

Date: 3/26/2019 12:08:21 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 19 Project Grand Total **$315,919,220.59**

Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 242 - EB EXPRESS LANES DEPRESSED UNDER WB EXIT RAMP. 2019 LRE UPDATE.

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 0.796 MI
4,200 LF

Description: SW 10th Street from Florida's Turnpike to Independence Drive (Sta. 2008+00 to Sta. 2042+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.796
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.28	AC	$32,034.82	$329,317.95
120-6	EMBANKMENT	13,056.95	CY	$27.17	$354,757.33
	Earthwork Component Total				$684,075.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,551.82	SY	$5.84	$254,342.63
285-709	OPTIONAL BASE,BASE GROUP 09	38,735.55	SY	$23.11	$895,178.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,391.37	TN	$171.48	$1,095,992.13
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,195.68	TN	$139.13	$444,614.96

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	537.00	EA	$4.46	$2,395.02
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.36	GM	$902.22	$5,738.12
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.36	GM	$383.00	$2,435.88

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,400.00	LF	$193.50	$657,900.00

Roadway Component Total $3,358,597.30

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,200.24 LF	$27.17	$114,120.52
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	2,800.16 SY	$41.10	$115,086.58

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,400.48 LF	$1.89	$15,876.91
104-11	FLOATING TURBIDITY BARRIER	198.88 LF	$12.50	$2,486.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	198.88 LF	$4.09	$813.42
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	41.00 EA	$101.77	$4,172.57
107-1	LITTER REMOVAL	20.25 AC	$49.70	$1,006.42
107-2	MOWING	20.25 AC	$70.39	$1,425.40
	Shoulder Component Total			$257,071.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	8,400.48 LF	$29.08	$244,285.96
570-1-1	PERFORMANCE TURF	4,666.93 SY	$3.13	$14,607.49
	Median Component Total			$258,893.45

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.32 CY	$1,477.99	$21,164.82
425-1-351	INLETS, CURB, TYPE P-5, <10'	29.00 EA	$6,251.47	$181,292.63
425-1-451	INLETS, CURB, TYPE J-5, <10'	8.00 EA	$8,530.50	$68,244.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	$5,116.81	$20,467.24
425-2-41	MANHOLES, P-7, <10'	4.00 EA	$5,619.79	$22,479.16
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,104.00 LF	$180.20	$379,140.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00 LF	$230.43	$44,242.56
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,984.00 LF	$372.58	$1,484,358.72
570-1-1	PERFORMANCE TURF	241.83 SY	$3.13	$756.93
	Drainage Component Total			$2,222,146.86

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Waterways Boulevard

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Independence Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75
	Intersections Component Total				$586,083.04

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	20.00	AS	$351.72	$7,034.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24
	Signing Component Total				$42,125.48

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Waterways Boulevard Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Independence Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00 AS	$682.09	$1,364.18
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	2.00 EA	$229.72	$459.44
670-5-111		1.00 AS	$28,696.06	$28,696.06

	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT			
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$903,072.34

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,200.24	LF	$8.45	$35,492.03
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	833.68	LF	$18.66	$15,556.47
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	28.00	EA	$641.65	$17,966.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,340.42	LF	$2.48	$38,044.24
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	28.00	EA	$6,040.34	$169,129.52
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	28.00	EA	$620.69	$17,379.32
	Subcomponent Total				$293,567.78
	Lighting Component Total				$293,567.78
Sequence 1 Total					$8,605,632.56

Sequence: 2 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI
2,400 LF

Description: SW 10th Street from Independence Drive to approximately 1000' east of Powerline Road (Sta. 2042+00 to Sta. 2066+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.454
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.86 AC	$32,034.82	$187,724.05
120-6	EMBANKMENT	7,447.05 CY	$27.17	$202,336.35
	Earthwork Component Total			$390,060.40

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,882.84 SY	$5.84	$145,315.79
285-709	OPTIONAL BASE,BASE GROUP 09	22,131.12 SY	$23.11	$511,450.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,651.63 TN	$171.48	$626,181.51
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,825.82 TN	$139.13	$254,026.34

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	307.00	EA	$4.46	$1,369.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.64	GM	$902.22	$3,284.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.64	GM	$383.00	$1,394.12

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,400.00	LF	$193.50	$464,400.00

Roadway Component Total $2,007,421.24

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,399.76	LF	$27.17	$65,201.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,599.84	SY	$41.10	$65,753.42

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,799.52	LF	$1.89	$9,071.09
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	$12.50	$1,420.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	$4.09	$464.71
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	24.00	EA	$101.77	$2,442.48
107-1	LITTER REMOVAL	11.57	AC	$49.70	$575.03
107-2	MOWING	11.57	AC	$70.39	$814.41

	Shoulder Component Total	$147,826.07

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,799.52	LF	$29.08	$139,570.04
570-1-1	PERFORMANCE TURF	2,666.40	SY	$3.13	$8,345.83
	Median Component Total				$147,915.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18	CY	$1,477.99	$12,089.96
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	$6,251.47	$106,274.99
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	$8,530.50	$42,652.50
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	$180.20	$217,681.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$230.43	$25,808.16
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	$372.58	$849,482.40
570-1-1	PERFORMANCE TURF	138.17	SY	$3.13	$432.47
	Drainage Component Total				$1,286,631.88

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	4
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	4
Cross Street No. of Left Turn Lanes	4
Cross Street No. of Right Turn Lanes	2
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	$32,034.82	$88,095.76

120-1	REGULAR EXCAVATION	2,458.78 CY	$21.41	$52,642.48
160-4	TYPE B STABILIZATION	3,032.31 SY	$5.84	$17,708.69
160-4	TYPE B STABILIZATION	5,936.69 SY	$5.84	$34,670.27
285-709	OPTIONAL BASE,BASE GROUP 09	3,032.31 SY	$23.11	$70,076.68
285-709	OPTIONAL BASE,BASE GROUP 09	5,936.69 SY	$23.11	$137,196.91
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.33 TN	$171.48	$85,796.59
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	979.55 TN	$171.48	$167,973.23
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	489.78 TN	$139.13	$68,143.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	250.17 TN	$139.13	$34,806.15
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68 LF	$29.08	$11,797.17
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,058.00 LF	$27.17	$28,745.86
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	570.00 LF	$44.08	$25,125.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	370.00 LF	$44.08	$16,309.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	587.78 SY	$41.10	$24,157.76
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	$52.59	$9,144.88
570-1-1	PERFORMANCE TURF	587.78 SY	$3.13	$1,839.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	0
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Intersection leading into Sirius XM Radio building.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70 AC	$32,034.82	$22,424.37
120-1	REGULAR EXCAVATION	371.15 CY	$21.41	$7,946.32
160-4	TYPE B STABILIZATION	595.53 SY	$5.84	$3,477.90
160-4	TYPE B STABILIZATION	896.13 SY	$5.84	$5,233.40
285-709	OPTIONAL BASE,BASE GROUP 09	595.53 SY	$23.11	$13,762.70
285-709	OPTIONAL BASE,BASE GROUP 09	896.13 SY	$23.11	$20,709.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.26 TN	$171.48	$16,849.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	147.86 TN	$171.48	$25,355.03
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	73.93 TN	$139.13	$10,285.88
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	49.13 TN	$139.13	$6,835.46

520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	249.00 LF	$27.17	$6,765.33
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	138.33 SY	$41.10	$5,685.36
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	138.33 SY	$3.13	$432.97
	Intersections Component Total			$1,027,515.83

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00 AS	$351.72	$3,868.92
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,060.06	$1,060.06
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	$7,377.86	$7,377.86
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	$9,107.62	$9,107.62
	Signing Component Total			$21,414.46

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street and Powerline Road

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$682.09	$5,456.72
660-1-102		20.00 EA	$172.57	$3,451.40

	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2			
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$457,918.84

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,399.76	LF	$8.45	$20,277.97
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.32	LF	$18.66	$8,888.13
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,764.58	LF	$2.48	$21,736.16
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	$6,040.34	$96,645.44
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	$620.69	$9,931.04
	Subcomponent Total				$167,745.14
	Lighting Component Total				$167,745.14

Sequence 2 Total $5,654,449.73

Sequence: 3 NDU - New Construction, Divided, Urban **Net Length:** 1.155 MI
6,100 LF

Description: SW 10th Street from approximately 1000' east of Powerline Road to Military Trail (Sta. 2066+00 to Sta. 2127+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	39.75 / 44.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.155
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.83	AC	$32,034.82	$378,971.92
120-6	EMBANKMENT	20,325.74	CY	$27.17	$552,250.36
	Earthwork Component Total				$931,222.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	48,338.98	SY	$5.84	$282,299.64
285-709	OPTIONAL BASE,BASE GROUP 09	41,344.34	SY	$23.11	$955,467.70
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,821.82	TN	$171.48	$1,169,805.69
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,410.91	TN	$139.13	$474,559.91

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	468.00	EA	$4.46	$2,087.28
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.24	GM	$902.22	$8,336.51
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.62	GM	$383.00	$1,769.46

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,100.00	LF	$193.50	$1,180,350.00

Roadway Component Total $4,074,676.19

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,099.98	LF	$27.17	$165,736.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	6,777.76	SY	$41.10	$278,565.94

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,199.97	LF	$1.89	$23,057.94
104-11	FLOATING TURBIDITY BARRIER	288.82	LF	$12.50	$3,610.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	288.82	LF	$4.09	$1,181.27
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,083.20	$4,166.40
104-18	INLET PROTECTION SYSTEM	59.00	EA	$101.77	$6,004.43
107-1	LITTER REMOVAL	29.40	AC	$49.70	$1,461.18
107-2	MOWING	29.40	AC	$70.39	$2,069.47

	Shoulder Component Total	$485,853.34

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	12,199.97	LF	$29.08	$354,775.13
570-1-1	PERFORMANCE TURF	6,777.76	SY	$3.13	$21,214.39
	Median Component Total				$375,989.52

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.80	CY	$1,477.99	$30,742.19
425-1-351	INLETS, CURB, TYPE P-5, <10'	42.00	EA	$6,251.47	$262,561.74
425-1-451	INLETS, CURB, TYPE J-5, <10'	12.00	EA	$8,530.50	$102,366.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	$5,116.81	$30,700.86
425-2-41	MANHOLES, P-7, <10'	6.00	EA	$5,619.79	$33,718.74
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,056.00	LF	$180.20	$550,691.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	272.00	LF	$230.43	$62,676.96
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,784.00	LF	$372.58	$2,155,002.72
570-1-1	PERFORMANCE TURF	351.21	SY	$3.13	$1,099.29
	Drainage Component Total				$3,229,559.70

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 30th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09

120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7		101.42 LF	$29.08	$2,949.29

	CONCRETE CURB & GUTTER, TYPE E			
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 3

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description SW 24th Avenue	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	772.70	CY	$21.41	$16,543.51
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,865.68	SY	$5.84	$10,895.57
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,865.68	SY	$23.11	$43,115.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	307.84	TN	$171.48	$52,788.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	153.92	TN	$139.13	$21,414.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00	LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78	SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78	SY	$3.13	$822.50
	Intersections Component Total				$892,815.45

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	28.00	AS	$351.72	$9,848.16
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,060.06	$3,180.18
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00	AS	$7,377.86	$22,133.58
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00	AS	$9,107.62	$27,322.86
	Signing Component Total				$62,484.78

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.45	$6,337.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$18.66	$4,665.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.88	$292.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$40,041.33	$160,165.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	$995.45	$11,945.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$682.09	$5,456.72
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$172.57	$2,070.84
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,322.11	$15,865.32
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$259.33	$1,037.32
	Signalizations Component Total				$256,950.10

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value

Spacing MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,099.98	LF	$8.45	$51,544.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,210.75	LF	$18.66	$22,592.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	41.00	EA	$641.65	$26,307.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	22,278.81	LF	$2.48	$55,251.45
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	41.00	EA	$6,040.34	$247,653.94
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	41.00	EA	$620.69	$25,448.29
	Subcomponent Total				$428,798.75
	Lighting Component Total				$428,798.76
Sequence 3 Total					$10,738,350.12

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Powerline Road from West Drive to approximately 1000' south of SW 10th Street.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.16 AC	$32,034.82	$229,369.31
120-6	EMBANKMENT	10,157.16 CY	$27.17	$275,970.04
	Earthwork Component Total			$505,339.35

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	28,099.39 SY	$5.84	$164,100.44
285-709	OPTIONAL BASE,BASE GROUP 09	24,888.75 SY	$23.11	$575,179.01
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64 TN	$171.48	$704,206.63
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,053.32 TN	$139.13	$285,678.41

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00	EA	$4.46	$1,596.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24	GM	$902.22	$3,825.41
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24	GM	$383.00	$1,623.92
	Roadway Component Total				$1,736,210.50

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,733.31	SY	$41.10	$153,439.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97	LF	$1.89	$10,583.94
104-11	FLOATING TURBIDITY BARRIER	132.57	LF	$12.50	$1,657.12
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	132.57	LF	$4.09	$542.21
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	28.00	EA	$101.77	$2,849.56
107-1	LITTER REMOVAL	13.50	AC	$49.70	$670.95
107-2	MOWING	13.50	AC	$70.39	$950.27
	Shoulder Component Total				$324,927.22

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,599.97	LF	$29.08	$162,847.13
570-1-1	PERFORMANCE TURF	3,111.09	SY	$3.13	$9,737.71

	Median Component Total	$172,584.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$1,477.99	$14,114.80
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,251.47	$125,029.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$8,530.50	$51,183.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,408.00	LF	$180.20	$253,721.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	128.00	LF	$230.43	$29,495.04
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,656.00	LF	$372.58	$989,572.48
570-1-1	PERFORMANCE TURF	161.21	SY	$3.13	$504.59

	Drainage Component Total	$1,495,830.71

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00	AS	$351.72	$4,572.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-111	OH STATIC SIGN STR, F&I, C UP TO 20 FT	2.00	EA	$42,470.64	$84,941.28
700-4-121	OH STATIC SIGN STR, F&I, S UP TO 20 FT	2.00	EA	$108,189.34	$216,378.68

	Signing Component Total	$340,983.40

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,799.98	LF	$8.45	$23,659.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	555.75	LF	$18.66	$10,370.30
635-2-11		19.00	EA	$641.65	$12,191.35

	PULL & SPLICE BOX, F&I, 13" x 24"			
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,226.31 LF	$2.48	$25,361.25
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	19.00 EA	$6,040.34	$114,766.46
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00 EA	$620.69	$11,793.11
	Subcomponent Total			$198,142.29
	Lighting Component Total			$198,142.30
Sequence 4 Total				$4,774,018.32

Sequence: 5 NDR - New Construction, Divided, Rural **Net Length:** 1.458 MI
7,700 LF

Description: Express Lane section along SW 10th Street from Florida's Turnpike the depressed section, at-grade.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	0.00
Top of Structural Course For End Section	0.00
Horizontal Elevation For Begin Section	0.00
Horizontal Elevation For End Section	0.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	17.85	AC	$32,034.82	$571,821.54

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	214,735.00	CY	$27.17	$5,834,349.95

Earthwork Component Total $6,406,171.49

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	0
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	82,131.46	SY	$5.84	$479,647.73
285-709	OPTIONAL BASE,BASE GROUP 09	42,195.04	SY	$23.11	$975,127.37
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,642.63	TN	$139.13	$228,539.11

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	15,400.00	LF	$95.12	$1,464,848.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	591.00	EA	$4.46	$2,635.86
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	11.67	GM	$902.22	$10,528.91
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	5.83	GM	$383.00	$2,232.89
	Roadway Component Total				$3,163,559.87

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	21,097.52	SY	$21.30	$449,377.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,129.31	TN	$171.48	$193,654.08
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	821.31	TN	$262.36	$215,478.89
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	2.92	GM	$1,205.93	$3,521.32

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	20,019.54	LF	$1.89	$37,836.93
104-11	FLOATING TURBIDITY BARRIER	364.58	LF	$12.50	$4,557.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	364.58	LF	$4.09	$1,491.13
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,083.20	$4,166.40
104-18	INLET PROTECTION SYSTEM	9.00	EA	$101.77	$915.93
107-1	LITTER REMOVAL	35.35	AC	$49.70	$1,756.90
107-2	MOWING	35.35	AC	$70.39	$2,488.29
	Shoulder Component Total				$915,244.30

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	21,097.52	SY	$21.30	$449,377.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,129.31	TN	$171.48	$193,654.08
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	821.31	TN	$262.36	$215,478.89
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	7,700.00	LF	$197.19	$1,518,363.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	3.00	GM	$1,205.93	$3,617.79
	Median Component Total				$2,380,490.94

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	110.00	EA	$6,856.78	$754,245.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	5,560.00	LF	$149.67	$832,165.20
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	12,104.00	LF	$268.84	$3,254,039.36
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	904.00	LF	$521.18	$471,146.72
	Drainage Component Total				$5,311,597.08

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	$351.72	$1,055.16
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	35.00	AS	$1,060.06	$37,102.10
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	$4,857.14	$14,571.42
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	9.00	AS	$7,377.86	$66,400.74

Signing Component Total	$119,129.42

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,667.00	LF	$8.45	$64,786.15
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,556.00	LF	$18.66	$47,694.96
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	4,646.00	LF	$3.79	$17,608.34
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	9,293.00	LF	$4.00	$37,172.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	323.00	EA	$51.31	$16,573.13
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	16.00	EA	$942.34	$15,077.44
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	16.00	EA	$69.21	$1,107.36
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	16.00	EA	$77.50	$1,240.00
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	16.00	EA	$1,793.95	$28,703.20
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	4,740.00	LF	$4.24	$20,097.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$641.65	$12,191.35
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	16.00	EA	$1,280.05	$20,480.80
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$2,651.78	$2,651.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30,666.00	LF	$4.88	$149,650.08
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	4.00	EA	$29,728.00	$118,912.00
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	7.00	EA	$2,250.00	$15,750.00
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	7.00	EA	$13,500.00	$94,500.00
676-2-122	ITS CABINET- F&I, POLE, 336S	8.00	EA	$6,600.00	$52,800.00
676-2-143	ITS CABINET- F&I, BASE, 334	8.00	EA	$10,633.33	$85,066.64
676-2-400	ITS CABINET- RELOCATE	2.00	EA	$2,708.64	$5,417.28
682-1-111	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.	4.00	EA	$7,180.53	$28,722.12
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	17.00	EA	$3,711.50	$63,095.50
684-2-1	DEVICE SERVER, F&I	7.00	EA	$1,500.00	$10,500.00
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	4.00	EA	$2,917.45	$11,669.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR-PERMANENT, UP TO 25 KW	3.00	EA	$39,679.10	$119,037.30

641-2-13	PREST CNC POLE, F&I, TYP P-III	7.00 EA	$9,785.71	$68,499.97
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	3.00 EA	$800,000.00	$2,400,000.00
	Intelligent Traffic System (ITS) Component Total			$3,509,004.80

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,100.00	LF	$8.45	$102,245.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,400.00	LF	$18.66	$44,784.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	81.00	EA	$641.65	$51,973.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	45,000.00	LF	$2.48	$111,600.00
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	81.00	EA	$6,040.34	$489,267.54
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	81.00	EA	$620.69	$50,275.89
	Lighting Component Total				$850,146.08

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
448-73	PUMPING STATION- DRAINAGE	1.00	LS	$400,000.00	$400,000.00
548-12	RET WALL SYSTEM, PERM, EX BARRIER	150,750.00	SF	$27.97	$4,216,477.50
	Miscellaneous Component Total				$4,616,477.50

Sequence 5 Total $27,271,821.48

Sequence: 6 NDR - New Construction, Divided, Rural **Net Length:** 0.568 MI
3,000 LF

Description: WB Express Lanes through EB Depressed section.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.48 AC	$32,034.82	$111,481.17
	Earthwork Component Total			$111,481.17

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	24.00 / 0.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	16,000.51 SY	$5.84	$93,442.98
285-709	OPTIONAL BASE,BASE GROUP 09	8,220.26 SY	$23.11	$189,970.21
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,320.04 TN	$171.48	$226,360.46
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	320.01 TN	$262.36	$83,957.82

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	77.00 EA	$4.46	$343.42
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.27 GM	$902.22	$2,048.04

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,000.00 LF	$193.50	$1,161,000.00

Roadway Component Total $1,757,122.93

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,110.13 SY	$21.30	$87,545.77
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	220.01 TN	$171.48	$37,727.31
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	160.01 TN	$262.36	$41,980.22
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	1.14 GM	$1,205.93	$1,374.76

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,800.25 LF	$1.89	$14,742.47
104-11	FLOATING TURBIDITY BARRIER	142.05 LF	$12.50	$1,775.62
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	142.05 LF	$4.09	$580.98
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	4.00 EA	$101.77	$407.08

107-1	LITTER REMOVAL	13.77 AC	$49.70	$684.37
107-2	MOWING	13.77 AC	$70.39	$969.27
	Shoulder Component Total			$189,871.06

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	12.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 12.00
Paved Median Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	4,110.13	SY	$21.30	$87,545.77
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	220.01	TN	$171.48	$37,727.31
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	160.01	TN	$262.36	$41,980.22
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	7,700.00	LF	$197.19	$1,518,363.00
	Median Component Total				$1,685,616.30

Sequence 6 Total $3,744,091.46

Sequence: 7 NDR - New Construction, Divided, Rural **Net Length:** 0.568 MI
3,000 LF

Description: EB Express Lanes (Depressed Section).

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.48	AC	$32,034.82	$111,481.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	105,000.00	CY	$21.41	$2,248,050.00

Earthwork Component Total $2,359,531.17

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	330
Friction Course Spread Rate	110

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	77.00	EA	$4.46	$343.42
710-11-101		2.27	GM	$902.22	$2,048.04

PAINTED PAVT
MARK,STD,WHITE,SOLID,6"

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,000.00	LF	$193.50	$1,161,000.00

Roadway Component Total $1,163,391.46

BRIDGES COMPONENT

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-3-20	CONC CLASS III, SEAL	38,500.00	CY	$1,368.00	$52,668,000.00
400-4-5	CONC CLASS IV, SUBSTRUCTURE	28,000.00	CY	$1,112.06	$31,137,680.00
415-1-5	REINF STEEL- SUBSTRUCTURE	6,390,040.00	LB	$1.18	$7,540,247.20
451-70	PREST SOIL ANCHORS	1,800.00	EA	$4,796.99	$8,634,582.00
451-70-1	PREST SOIL ANCHOR, PERFORMANCE TEST	450.00	EA	$1,267.67	$570,451.50
451-70-2	PREST SOIL ANCHOR, CREEP TEST	450.00	EA	$1,696.43	$763,393.50
455-87	ANCHOR BAR, STEEL	1,800.00	EA	$1,041.63	$1,874,934.00
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	450,000.00	SF	$24.75	$11,137,500.00

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
XXX-XX-XX1	WATERPROOF LINER	189,000.00	SF	$1.00	$189,000.00
XXX-XX-XX2	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00	LS	$12,440,040.09	$12,440,040.09
	Comment: Based on 10% of the cost for the depressed section to account for construction in water.				

Bridge Total $126,955,828.29

Bridges Component Total $126,955,828.29

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-11	CONC CLASS IV, RETAINING WALLS	4,170.00	CY	$1,831.31	$7,636,562.70

Miscellaneous Component Total	$7,636,562.70
Sequence 7 Total	$138,115,313.62

Sequence: 8 NDR - New Construction, Divided, Rural **Net Length:** 0.265 MI
1,400 LF

Description: Express Lanes (EB and WB) from depressed section to Military Trail.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.24 AC	$32,034.82	$103,792.82

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	37,500.00 CY	$27.17	$1,018,875.00

Earthwork Component Total $1,122,667.82

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	330
Friction Course Spread Rate	110

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,936.06 SY	$5.84	$87,226.59
285-709	OPTIONAL BASE,BASE GROUP 09	7,673.40 SY	$23.11	$177,332.27
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,232.23 TN	$171.48	$211,302.80
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	410.74 TN	$262.36	$107,761.75

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2

Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	107.00 EA	$4.46	$477.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.12 GM	$902.22	$1,912.71
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.06 GM	$383.00	$405.98

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,800.00 LF	$193.50	$541,800.00

Roadway Component Total $1,128,219.32

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,836.70 SY	$21.30	$81,721.71
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	205.37 TN	$171.48	$35,216.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	149.36 TN	$262.36	$39,186.09
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	0.53 GM	$1,205.93	$639.14

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,640.67 LF	$1.89	$6,880.87

104-11	FLOATING TURBIDITY BARRIER	66.30 LF	$12.50	$828.75
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	66.30 LF	$4.09	$271.17
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	2.00 EA	$101.77	$203.54
107-1	LITTER REMOVAL	6.43 AC	$49.70	$319.57
107-2	MOWING	6.43 AC	$70.39	$452.61
	Shoulder Component Total			$167,803.50

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	24.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,836.70 SY	$21.30	$81,721.71
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	205.37 TN	$171.48	$35,216.85
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	149.36 TN	$262.36	$39,186.09
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	1.00 GM	$1,205.93	$1,205.93
	Median Component Total			$157,330.58

Sequence 8 Total $2,576,021.22

Sequence: 9 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: All bridge sections along SW 10th Street.

BRIDGES COMPONENT

Bridge 1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	265.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$229.56**
Basic Bridge Cost	**$6,022,125.00**
Description	EXPRESS BRIDGE OVER POWERLINE ROAD

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44 CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00 LB	$0.99	$38,884.23
	Bridge 1 Total			$6,144,254.03

Bridge 2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	51.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.21**
Basic Bridge Cost	**$11,475,000.00**
Description	EB EXPRESS LANES BRAIDED RAMP AT WATERWAYS BOULEVARD.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	113.33 CY	$370.90	$42,034.10
415-1-9	REINF STEEL- APPROACH SLABS	19,832.75 LB	$0.99	$19,634.42
	Bridge 2 Total			$11,536,668.52

Bridge 3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	142.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$233.52**
Basic Bridge Cost	**$3,226,950.00**
Description	EXPRESS LANES BRIDGE OVER FRONTAGE ROAD

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$0.99	$38,884.23
	Bridge 3 Total				$3,349,079.03

Bridge 4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	700.00
Width (LF)	30.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.73**
Basic Bridge Cost	**$4,725,000.00**
Description	WB EXPRESS LANE EXIT RAMP BRIDGE OVER EB EXPRESS LANES.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	$370.90	$24,727.90
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	$0.99	$11,550.58
	Bridge 4 Total				$4,761,278.48

Bridge 5

Description	Value
Estimate Type	SF Estimate

Primary Estimate		YES
Length (LF)		610.00
Width (LF)		30.00
Type		Overpass Bridge
Cost Factor		3.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$75.00
Factored Cost per SF		$225.00
Final Cost per SF		**$226.98**
Basic Bridge Cost		**$4,117,500.00**
Description	RAMP A, EB EXPRESS LANE ON-RAMP.	

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67 CY	$370.90	$24,727.90
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	$0.99	$11,550.58
	Bridge 5 Total			$4,153,778.48
	Bridges Component Total			$29,945,058.54

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	136,000.00 SF	$27.97	$3,803,920.00
	Miscellaneous Component Total			$3,803,920.00

Sequence 9 Total $33,748,978.54

Sequence: 10 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: RAMP A AND B

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	14,170.00	CY	$27.17	$384,998.90
	Earthwork Component Total				$384,998.90

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,865.00	SY	$5.84	$40,091.60
285-709	OPTIONAL BASE,BASE GROUP 09	6,180.00	SY	$23.11	$142,819.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,025.00	TN	$171.48	$175,767.00
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	510.00	TN	$139.13	$70,956.30

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,160.00	LF	$193.50	$611,460.00
	Roadway Component Total				$1,041,094.70

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	25,500.00	SF	$27.97	$713,235.00
	Miscellaneous Component Total				$713,235.00

Sequence 10 Total	$2,139,328.60

Sequence: 11 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: FRONTAGE ROAD

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,126.00	SY	$5.84	$35,775.84
285-709	OPTIONAL BASE,BASE GROUP 09	5,880.00	SY	$23.11	$135,886.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	970.00	TN	$171.48	$166,335.60
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	485.00	TN	$139.13	$67,478.05

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	1,760.00	LF	$193.50	$340,560.00
	Roadway Component Total				$746,036.29

SHOULDER COMPONENT

User Input Data

Description	Value

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	1,345.00	SY	$52.59	$70,733.55
	Shoulder Component Total				$70,733.55

Sequence 11 Total $816,769.84

Sequence: 12 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: NOISE WALLS

ROADWAY COMPONENT

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	10,700.00
Noise Barrier Wall Begin Height	22.00
Noise Barrier Wall End Height	22.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	235,400.00	SF	$33.60	$7,909,440.00
	Roadway Component Total				$7,909,440.00

Sequence 12 Total $7,909,440.00

Sequence: 13 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Miscellaneous Construction.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	1.00	DA	$3,300.00	$3,300.00
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00
	Roadway Component Total				$11,300.00

Sequence 13 Total $11,300.00

Date: 3/26/2019 12:08:24 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 19 Project Grand Total **$315,919,220.59**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 242 - EB EXPRESS LANES DEPRESSED UNDER WB EXIT RAMP. 2019 LRE UPDATE.

Project Sequences Subtotal			**$246,105,515.49**
102-1	Maintenance of Traffic	10.00 %	$24,610,551.55
101-1	Mobilization	8.00 %	$21,657,285.36
Project Sequences Total			**$292,373,352.40**
Project Unknowns		0.00 %	$0.00
Design/Build		8.00 %	$23,389,868.19

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 19 Project Grand Total					**$315,919,220.59**

Depressed Eastbound & Westbound Managed Lanes Alternative

Date: 3/26/2019 12:12:51 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 20 Project Grand Total **$401,319,303.21**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 245 - PARTIALLY DEPRESSED. 2019 LRE UPDATE.

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 0.796 MI
4,200 LF
Description: SW 10th Street from Florida's Turnpike to Independence Drive (Sta. 2008+00 to Sta. 2042+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.796
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.28 AC	$32,034.82	$329,317.95
120-6	EMBANKMENT	13,056.95 CY	$27.17	$354,757.33
	Earthwork Component Total			$684,075.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,551.82 SY	$5.84	$254,342.63
285-709	OPTIONAL BASE,BASE GROUP 09	38,735.55 SY	$23.11	$895,178.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,391.37 TN	$171.48	$1,095,992.13
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,195.68 TN	$139.13	$444,614.96

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	537.00 EA	$4.46	$2,395.02
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.36 GM	$902.22	$5,738.12
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.36 GM	$383.00	$2,435.88

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,400.00 LF	$193.50	$657,900.00

Roadway Component Total $3,358,597.30

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,200.24 LF	$27.17	$114,120.52

522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	2,800.16 SY	$41.10	$115,086.58

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,400.48 LF	$1.89	$15,876.91
104-11	FLOATING TURBIDITY BARRIER	198.88 LF	$12.50	$2,486.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	198.88 LF	$4.09	$813.42
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	41.00 EA	$101.77	$4,172.57
107-1	LITTER REMOVAL	20.25 AC	$49.70	$1,006.42
107-2	MOWING	20.25 AC	$70.39	$1,425.40
	Shoulder Component Total			$257,071.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	8,400.48 LF	$29.08	$244,285.96
570-1-1	PERFORMANCE TURF	4,666.93 SY	$3.13	$14,607.49
	Median Component Total			$258,893.45

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.32 CY	$1,477.99	$21,164.82
425-1-351	INLETS, CURB, TYPE P-5, <10'	29.00 EA	$6,251.47	$181,292.63
425-1-451	INLETS, CURB, TYPE J-5, <10'	8.00 EA	$8,530.50	$68,244.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	$5,116.81	$20,467.24
425-2-41	MANHOLES, P-7, <10'	4.00 EA	$5,619.79	$22,479.16
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,104.00 LF	$180.20	$379,140.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00 LF	$230.43	$44,242.56
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,984.00 LF	$372.58	$1,484,358.72
570-1-1	PERFORMANCE TURF	241.83 SY	$3.13	$756.93
	Drainage Component Total			$2,222,146.86

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Waterways Boulevard

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Independence Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75
	Intersections Component Total				$586,083.04

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	20.00	AS	$351.72	$7,034.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24
	Signing Component Total				$42,125.48

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Waterways Boulevard Intersection

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Independence Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00 AS	$682.09	$1,364.18
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	2.00 EA	$229.72	$459.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalizations Component Total	$903,072.34

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,200.24	LF	$8.45	$35,492.03
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	833.68	LF	$18.66	$15,556.47
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	28.00	EA	$641.65	$17,966.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,340.42	LF	$2.48	$38,044.24
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	28.00	EA	$6,040.34	$169,129.52
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	28.00	EA	$620.69	$17,379.32
	Subcomponent Total				$293,567.78

Lighting Component Total	$293,567.78
Sequence 1 Total	$8,605,632.56

Sequence: 2 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI
2,400 LF

Description: SW 10th Street from Independence Drive to approximately 1000' east of Powerline Road (Sta. 2042+00 to Sta. 2066+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.454
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.86 AC	$32,034.82	$187,724.05
120-6	EMBANKMENT	7,447.05 CY	$27.17	$202,336.35
	Earthwork Component Total			$390,060.40

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,882.84 SY	$5.84	$145,315.79
285-709	OPTIONAL BASE,BASE GROUP 09	22,131.12 SY	$23.11	$511,450.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,651.63 TN	$171.48	$626,181.51
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,825.82 TN	$139.13	$254,026.34

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	307.00	EA	$4.46	$1,369.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.64	GM	$902.22	$3,284.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.64	GM	$383.00	$1,394.12

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,400.00	LF	$193.50	$464,400.00

Roadway Component Total $2,007,421.24

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,399.76	LF	$27.17	$65,201.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,599.84	SY	$41.10	$65,753.42

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,799.52	LF	$1.89	$9,071.09
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	$12.50	$1,420.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	$4.09	$464.71
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	24.00	EA	$101.77	$2,442.48
107-1	LITTER REMOVAL	11.57	AC	$49.70	$575.03
107-2	MOWING	11.57	AC	$70.39	$814.41

	Shoulder Component Total	$147,826.07

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,799.52	LF	$29.08	$139,570.04
570-1-1	PERFORMANCE TURF	2,666.40	SY	$3.13	$8,345.83
	Median Component Total				$147,915.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18	CY	$1,477.99	$12,089.96
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	$6,251.47	$106,274.99
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	$8,530.50	$42,652.50
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	$180.20	$217,681.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$230.43	$25,808.16
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	$372.58	$849,482.40
570-1-1	PERFORMANCE TURF	138.17	SY	$3.13	$432.47
	Drainage Component Total				$1,286,631.88

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	4
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	4
Cross Street No. of Left Turn Lanes	4
Cross Street No. of Right Turn Lanes	2
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	$32,034.82	$88,095.76

120-1	REGULAR EXCAVATION	2,458.78 CY	$21.41	$52,642.48
160-4	TYPE B STABILIZATION	3,032.31 SY	$5.84	$17,708.69
160-4	TYPE B STABILIZATION	5,936.69 SY	$5.84	$34,670.27
285-709	OPTIONAL BASE,BASE GROUP 09	3,032.31 SY	$23.11	$70,076.68
285-709	OPTIONAL BASE,BASE GROUP 09	5,936.69 SY	$23.11	$137,196.91
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.33 TN	$171.48	$85,796.59
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	979.55 TN	$171.48	$167,973.23
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	489.78 TN	$139.13	$68,143.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	250.17 TN	$139.13	$34,806.15
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68 LF	$29.08	$11,797.17
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,058.00 LF	$27.17	$28,745.86
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	570.00 LF	$44.08	$25,125.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	370.00 LF	$44.08	$16,309.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	587.78 SY	$41.10	$24,157.76
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	$52.59	$9,144.88
570-1-1	PERFORMANCE TURF	587.78 SY	$3.13	$1,839.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	0
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Intersection leading into Sirius XM Radio building.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70 AC	$32,034.82	$22,424.37
120-1	REGULAR EXCAVATION	371.15 CY	$21.41	$7,946.32
160-4	TYPE B STABILIZATION	595.53 SY	$5.84	$3,477.90
160-4	TYPE B STABILIZATION	896.13 SY	$5.84	$5,233.40
285-709	OPTIONAL BASE,BASE GROUP 09	595.53 SY	$23.11	$13,762.70
285-709	OPTIONAL BASE,BASE GROUP 09	896.13 SY	$23.11	$20,709.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.26 TN	$171.48	$16,849.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	147.86 TN	$171.48	$25,355.03
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	73.93 TN	$139.13	$10,285.88
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	49.13 TN	$139.13	$6,835.46

520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	249.00 LF	$27.17	$6,765.33
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	138.33 SY	$41.10	$5,685.36
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	138.33 SY	$3.13	$432.97
	Intersections Component Total			$1,027,515.83

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00 AS	$351.72	$3,868.92
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,060.06	$1,060.06
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	$7,377.86	$7,377.86
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	$9,107.62	$9,107.62
	Signing Component Total			$21,414.46

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street and Powerline Road

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.45	$5,915.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.66	$5,598.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$682.09	$5,456.72
660-1-102		20.00 EA	$172.57	$3,451.40

	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2			
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32
	Signalizations Component Total			$457,918.84

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,399.76	LF	$8.45	$20,277.97
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.32	LF	$18.66	$8,888.13
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,764.58	LF	$2.48	$21,736.16
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	$6,040.34	$96,645.44
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	$620.69	$9,931.04
	Subcomponent Total				$167,745.14
	Lighting Component Total				$167,745.14

Sequence 2 Total $5,654,449.73

Sequence: 3 NDU - New Construction, Divided, Urban **Net Length:** 1.155 MI
6,100 LF

Description: SW 10th Street from approximately 1000' east of Powerline Road to Military Trail (Sta. 2066+00 to Sta. 2127+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	39.75 / 44.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.155
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.83	AC	$32,034.82	$378,971.92
120-6	EMBANKMENT	20,325.74	CY	$27.17	$552,250.36
	Earthwork Component Total				$931,222.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	48,338.98	SY	$5.84	$282,299.64
285-709	OPTIONAL BASE,BASE GROUP 09	41,344.34	SY	$23.11	$955,467.70
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,821.82	TN	$171.48	$1,169,805.69
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,410.91	TN	$139.13	$474,559.91

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	468.00	EA	$4.46	$2,087.28
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.24	GM	$902.22	$8,336.51
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.62	GM	$383.00	$1,769.46

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,100.00	LF	$193.50	$1,180,350.00

Roadway Component Total $4,074,676.19

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,099.98	LF	$27.17	$165,736.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	6,777.76	SY	$41.10	$278,565.94

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,199.97	LF	$1.89	$23,057.94
104-11	FLOATING TURBIDITY BARRIER	288.82	LF	$12.50	$3,610.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	288.82	LF	$4.09	$1,181.27
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,083.20	$4,166.40
104-18	INLET PROTECTION SYSTEM	59.00	EA	$101.77	$6,004.43
107-1	LITTER REMOVAL	29.40	AC	$49.70	$1,461.18
107-2	MOWING	29.40	AC	$70.39	$2,069.47

	Shoulder Component Total	$485,853.34

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	12,199.97	LF	$29.08	$354,775.13
570-1-1	PERFORMANCE TURF	6,777.76	SY	$3.13	$21,214.39
	Median Component Total				$375,989.52

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.80	CY	$1,477.99	$30,742.19
425-1-351	INLETS, CURB, TYPE P-5, <10'	42.00	EA	$6,251.47	$262,561.74
425-1-451	INLETS, CURB, TYPE J-5, <10'	12.00	EA	$8,530.50	$102,366.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	$5,116.81	$30,700.86
425-2-41	MANHOLES, P-7, <10'	6.00	EA	$5,619.79	$33,718.74
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,056.00	LF	$180.20	$550,691.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	272.00	LF	$230.43	$62,676.96
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,784.00	LF	$372.58	$2,155,002.72
570-1-1	PERFORMANCE TURF	351.21	SY	$3.13	$1,099.29
	Drainage Component Total				$3,229,559.70

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 30th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09

120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	628.29	CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01	SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01	SY	$23.11	$35,058.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31	TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15	TN	$139.13	$17,412.12
520-1-7		101.42	LF	$29.08	$2,949.29

	CONCRETE CURB & GUTTER, TYPE E			
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 3

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description SW 24th Avenue	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	772.70	CY	$21.41	$16,543.51
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,865.68	SY	$5.84	$10,895.57
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,865.68	SY	$23.11	$43,115.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	307.84	TN	$171.48	$52,788.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	153.92	TN	$139.13	$21,414.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00	LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78	SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78	SY	$3.13	$822.50
	Intersections Component Total				$892,815.45

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	28.00	AS	$351.72	$9,848.16
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,060.06	$3,180.18
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00	AS	$7,377.86	$22,133.58
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00	AS	$9,107.62	$27,322.86
	Signing Component Total				$62,484.78

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.45	$6,337.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$18.66	$4,665.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.88	$292.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$40,041.33	$160,165.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	$995.45	$11,945.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$682.09	$5,456.72
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$172.57	$2,070.84
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,322.11	$15,865.32
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$259.33	$1,037.32
	Signalizations Component Total				$256,950.10

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value

Spacing MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,099.98	LF	$8.45	$51,544.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,210.75	LF	$18.66	$22,592.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	41.00	EA	$641.65	$26,307.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	22,278.81	LF	$2.48	$55,251.45
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	41.00	EA	$6,040.34	$247,653.94
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	41.00	EA	$620.69	$25,448.29
	Subcomponent Total				$428,798.75
	Lighting Component Total				$428,798.76
Sequence 3 Total					$10,738,350.12

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Powerline Road from West Drive to approximately 1000' south of SW 10th Street.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.16 AC	$32,034.82	$229,369.31
120-6	EMBANKMENT	10,157.16 CY	$27.17	$275,970.04
	Earthwork Component Total			$505,339.35

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	28,099.39 SY	$5.84	$164,100.44
285-709	OPTIONAL BASE,BASE GROUP 09	24,888.75 SY	$23.11	$575,179.01
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64 TN	$171.48	$704,206.63
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,053.32 TN	$139.13	$285,678.41

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00	EA	$4.46	$1,596.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24	GM	$902.22	$3,825.41
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24	GM	$383.00	$1,623.92
	Roadway Component Total				$1,736,210.50

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,733.31	SY	$41.10	$153,439.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97	LF	$1.89	$10,583.94
104-11	FLOATING TURBIDITY BARRIER	132.57	LF	$12.50	$1,657.12
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	132.57	LF	$4.09	$542.21
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	28.00	EA	$101.77	$2,849.56
107-1	LITTER REMOVAL	13.50	AC	$49.70	$670.95
107-2	MOWING	13.50	AC	$70.39	$950.27
	Shoulder Component Total				$324,927.22

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,599.97	LF	$29.08	$162,847.13
570-1-1	PERFORMANCE TURF	3,111.09	SY	$3.13	$9,737.71

	Median Component Total	$172,584.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$1,477.99	$14,114.80
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,251.47	$125,029.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$8,530.50	$51,183.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,408.00	LF	$180.20	$253,721.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	128.00	LF	$230.43	$29,495.04
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,656.00	LF	$372.58	$989,572.48
570-1-1	PERFORMANCE TURF	161.21	SY	$3.13	$504.59

	Drainage Component Total	$1,495,830.71

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00	AS	$351.72	$4,572.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-111	OH STATIC SIGN STR, F&I, C UP TO 20 FT	2.00	EA	$42,470.64	$84,941.28
700-4-121	OH STATIC SIGN STR, F&I, S UP TO 20 FT	2.00	EA	$108,189.34	$216,378.68

	Signing Component Total	$340,983.40

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,799.98	LF	$8.45	$23,659.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	555.75	LF	$18.66	$10,370.30
635-2-11		19.00	EA	$641.65	$12,191.35

	PULL & SPLICE BOX, F&I, 13" x 24"				
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,226.31	LF	$2.48	$25,361.25
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	19.00	EA	$6,040.34	$114,766.46
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00	EA	$620.69	$11,793.11
	Subcomponent Total				$198,142.29
	Lighting Component Total				$198,142.30
Sequence 4 Total					$4,774,018.32

Sequence: 5 NDR - New Construction, Divided, Rural **Net Length:** 0.617 MI
3,260 LF

Description: Express Lane (concrete) section along SW 10th Street from Florida's Turnpike to Military Trail w/ 1200' of Fully Depressed Section (35' below grade) w/ 980' transition on each side.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	0.00
Top of Structural Course For End Section	0.00
Horizontal Elevation For Begin Section	0.00
Horizontal Elevation For End Section	0.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.55	AC	$32,034.82	$241,862.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	285,419.00	CY	$21.41	$6,110,820.79

Earthwork Component Total $6,352,683.68

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	0
Roadway Pavement Width L/R	0.00 / 0.00
Structural Spread Rate	0
Friction Course Spread Rate	80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	6,520.00	LF	$95.12	$620,182.40

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
XX-XXX-XX1	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00	EA	$11,612,076.63	$11,612,076.63

Comment: Based on 10% of the cost for the depressed section to account for the construction in water.

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.94	GM	$902.22	$4,456.97

Roadway Component Total $12,236,716.00

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	31,460.46	LF	$1.89	$59,460.27
104-11	FLOATING TURBIDITY BARRIER	572.93	LF	$12.50	$7,161.62
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	572.93	LF	$4.09	$2,343.28
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,083.20	$6,249.60
104-18	INLET PROTECTION SYSTEM	14.00	EA	$101.77	$1,424.78
107-1	LITTER REMOVAL	55.55	AC	$49.70	$2,760.84
107-2	MOWING	55.55	AC	$70.39	$3,910.16

Shoulder Component Total $83,310.56

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	3,060.00	LF	$197.19	$603,401.40
	Median Component Total				$603,401.40

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	110.00	EA	$6,856.78	$754,245.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-791	INLETS, MED BARRIER, TYPE 2, J BOT,<=10'	55.00	EA	$5,600.00	$308,000.00
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	5,504.00	LF	$149.67	$823,783.68
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	12,104.00	LF	$372.58	$4,509,708.32
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	904.00	LF	$521.18	$471,146.72
	Comment: 3-72" box culverts at canal crossing.				
	Drainage Component Total				$6,866,884.52

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$351.72	$1,758.60
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	56.00	AS	$1,060.06	$59,363.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,857.14	$24,285.70
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	14.00	AS	$7,377.86	$103,290.04

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-207	SIGN PANEL, F&I OM, 201-300 SF	7.00	EA	$5,879.77	$41,158.39
	Comment: Local exits panels.				
700-3-208	SIGN PANEL, F&I OM, 301-400 SF	1.00	EA	$9,137.52	$9,137.52
	Comment: I-95 direct connect panel.				
700-4-112	OH STATIC SIGN STR, F&I, C 21-30 FT	7.00	EA	$55,933.60	$391,535.20
	Comment: Structure for local exits panels.				
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	3.00	EA	$42,409.29	$127,227.87
	Comment: Structure for EL DMS and I-95 Direct connect panels.				
700-4-125		5.00	EA	$197,000.00	$985,000.00

	OH STATIC SIGN STR, F&I, S 51-100 FT			
	Comment: Structures for Express Lanes and Toll Amounts panels.			
700-7-132	EMBED DYNAMIC MESS SIGN, F&I, FULL,12-20	4.00 EA	$27,589.55	$110,358.20
	Comment: T-DMS bricks			
700-8-135	FRONT ACC DYN MESS SIGN, F&I, FUL,51-100	3.00 EA	$73,326.96	$219,980.88
	Comment: Lane Status DMS			
700-8-136	FRONT ACC DYN MESS SIGN, F&I, FULL,101-	1.00 EA	$104,433.33	$104,433.33
	Comment: Express Lanes DMS			
700-9-117	WALK-IN DYN MESS SIGN,F&I, MONO,201-	1.00 EA	$75,000.00	$75,000.00
	Comment: GP Lanes DMS			
	Signing Component Total			$2,252,529.09

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,667.00	LF	$8.45	$64,786.15
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,556.00	LF	$18.66	$47,694.96
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	4,646.00	LF	$3.79	$17,608.34
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	9,293.00	LF	$4.00	$37,172.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	323.00	EA	$51.31	$16,573.13
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	16.00	EA	$942.34	$15,077.44
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	16.00	EA	$69.21	$1,107.36
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	16.00	EA	$77.50	$1,240.00
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	16.00	EA	$1,793.95	$28,703.20
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	4,740.00	LF	$4.24	$20,097.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$641.65	$12,191.35
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	16.00	EA	$1,280.05	$20,480.80
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$2,651.78	$2,651.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30,666.00	LF	$4.88	$149,650.08
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	4.00	EA	$29,728.00	$118,912.00
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	7.00	EA	$2,250.00	$15,750.00
660-3-12		7.00	EA	$13,500.00	$94,500.00

	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO			
676-2-122	ITS CABINET- F&I, POLE, 336S	8.00 EA	$6,600.00	$52,800.00
676-2-143	ITS CABINET- F&I, BASE, 334	8.00 EA	$10,633.33	$85,066.64
676-2-400	ITS CABINET- RELOCATE	2.00 EA	$2,708.64	$5,417.28
682-1-111	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.	4.00 EA	$7,180.53	$28,722.12
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	17.00 EA	$3,711.50	$63,095.50
684-2-1	DEVICE SERVER, F&I	7.00 EA	$1,500.00	$10,500.00
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	4.00 EA	$2,917.45	$11,669.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR-PERMANENT, UP TO 25 KW	3.00	EA	$39,679.10	$119,037.30
641-2-13	PREST CNC POLE, F&I, TYP P-III	7.00	EA	$9,785.71	$68,499.97
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	3.00	EA	$800,000.00	$2,400,000.00
	Intelligent Traffic System (ITS) Component Total				$3,509,004.80

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,100.00	LF	$8.45	$102,245.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,400.00	LF	$18.66	$44,784.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	81.00	EA	$641.65	$51,973.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	45,000.00	LF	$2.48	$111,600.00
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	81.00	EA	$6,040.34	$489,267.54
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	81.00	EA	$620.69	$50,275.89
	Lighting Component Total				$850,146.08

BRIDGES COMPONENT

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-3-20	CONC CLASS III, SEAL	51,771.00	CY	$1,368.00	$70,822,728.00
	Comment: 5.5' depth of concrete for tremie slab for depressed section.				
400-4-5	CONC CLASS IV, SUBSTRUCTURE	48,289.00	CY	$1,112.06	$53,700,265.34
	Comment: 4' depth of concrete for depressed section.				
415-1-5	REINF STEEL- SUBSTRUCTURE	5,395,349.50	LB	$1.18	$6,366,512.41
	Comment: Actual quantity of reinforcing steel is 10,790,699 lbs. LRE will not allow a value over 10,000,000 lbs. Multiplied cost by 2 to account for entire reinforcing steel.				

451-70	PREST SOIL ANCHORS	1,491.00	EA	$4,796.99	$7,152,312.09
	Comment: For depressed section.				
451-70-1	PREST SOIL ANCHOR, PERFORMANCE TEST	373.00	EA	$1,267.67	$472,840.91
	Comment: For depressed section.				
451-70-2	PREST SOIL ANCHOR, CREEP TEST	373.00	EA	$1,696.43	$632,768.39
	Comment: For depressed section.				
455-87	ANCHOR BAR, STEEL	1,430.00	EA	$1,041.63	$1,489,530.90
455-133-2	SHEET PILING STEEL, TEMPORARY-CRITICAL	399,594.00	SF	$24.75	$9,889,951.50
	Comment: For depressed section.				

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
XXX-XX-XX1	WATERPROOF LINER	487,880.00	SF	$1.00	$487,880.00
	Comment: For depressed section.				
XXX-XX-XX2	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00	LS	$16,594,857.94	$16,594,857.94
	Comment: Based on 10% of the cost for the depressed section to account for the construction in water.				
	Bridge Total				$167,609,647.48
	Bridges Component Total				$167,609,647.48

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-11	CONC CLASS IV, RETAINING WALLS	4,381.00	CY	$1,831.31	$8,022,969.11
448-73	PUMPING STATION- DRAINAGE	2.00	LS	$400,000.00	$800,000.00
	Miscellaneous Component Total				$8,822,969.11

Sequence 5 Total $209,187,292.72

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: All bridge sections along SW 10th Street.

BRIDGES COMPONENT

Bridge 1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,400.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$225.86**
Basic Bridge Cost	**$31,815,000.00**
Description	EXPRESS BRIDGE OVER POWERLINE ROAD

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44 CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00 LB	$0.99	$38,884.23
	Bridge 1 Total			$31,937,129.03

Bridge 2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	800.00
Width (LF)	30.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.51**
Basic Bridge Cost	**$5,400,000.00**
Description	BRIDGE OVER DEPRESSED SECTION (RAMP B).

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67 CY	$370.90	$24,727.90
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	$0.99	$11,550.58
	Bridge 2 Total			$5,436,278.48

Bridge 3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	650.00
Width (LF)	51.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.86**
Basic Bridge Cost	**$7,458,750.00**
Description	EB EXPRESS LANES BRAIDED RAMP AT WATERWAYS BOULEVARD.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	113.33	CY	$370.90	$42,034.10
415-1-9	REINF STEEL- APPROACH SLABS	19,832.75	LB	$0.99	$19,634.42
	Bridge 3 Total				$7,520,418.52

Bridge 4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	750.00
Width (LF)	30.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.61**
Basic Bridge Cost	**$5,062,500.00**
Description	RAMP A - ON RAMP TO EB EXPRESS LANES FROM POWERLINE ROAD.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67	CY	$370.90	$24,727.90
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25	LB	$0.99	$11,550.58
	Bridge 4 Total				$5,098,778.48
	Bridges Component Total				$49,992,604.51

Sequence 6 Total $49,992,604.51

Sequence: 7 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Express Lanes (Asphalt)

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.90	AC	$32,034.82	$381,214.36
120-6	EMBANKMENT	199,613.00	CY	$27.17	$5,423,485.21
	Earthwork Component Total				$5,804,699.57

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	75,556.00	SY	$5.84	$441,247.04
285-709	OPTIONAL BASE,BASE GROUP 09	71,822.00	SY	$23.11	$1,659,806.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	11,851.00	TN	$171.48	$2,032,209.48
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	5,925.00	TN	$139.13	$824,345.25
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	3,100.00	LF	$197.19	$611,289.00

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	183.33	TN	$232.34	$42,594.89
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	7,500.00	LF	$193.50	$1,451,250.00
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	5,500.00	LF	$20.34	$111,870.00
	Roadway Component Total				$7,174,612.08

Sequence 7 Total $12,979,311.65

Sequence: 8 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: Non-Traffic Bridges

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	400.00	CY	$27.17	$10,868.00
570-1-2	PERFORMANCE TURF, SOD	1,200.00	SY	$3.90	$4,680.00
	Roadway Component Total				$15,548.00

BRIDGES COMPONENT

Bridge 1

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		107.00
Width (LF)		100.00
Type		Pedestrian Overpass
Cost Factor		1.00
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$95.00
Factored Cost per SF		$95.00
Final Cost per SF		**$95.00**
Basic Bridge Cost		**$1,016,500.00**
Description	NON-TRAFFIC BRIDGE 1	

Bridge 1 Total $1,016,500.00

Bridges Component Total $1,016,500.00

Sequence 8 Total $1,032,048.00

Sequence: 9 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: NOISE WALLS

ROADWAY COMPONENT

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	10,700.00
Noise Barrier Wall Begin Height	22.00
Noise Barrier Wall End Height	22.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	235,400.00	SF	$33.60	$7,909,440.00
	Roadway Component Total				$7,909,440.00

Sequence 9 Total $7,909,440.00

Sequence: 10 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Ramp A and Ramp B (EL connects to SW 10th Street)

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.98	AC	$32,034.82	$63,428.94
120-1	REGULAR EXCAVATION	2,389.00	CY	$21.41	$51,148.49
120-6	EMBANKMENT	9,498.00	CY	$27.17	$258,060.66
	Earthwork Component Total				$372,638.09

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,553.00	SY	$5.84	$55,789.52
285-709	OPTIONAL BASE,BASE GROUP 09	8,598.00	SY	$23.11	$198,699.78
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,419.00	TN	$171.48	$243,330.12
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	709.00	TN	$139.13	$98,643.17

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	4,200.00	LF	$193.50	$812,700.00
	Roadway Component Total				$1,409,162.59

Sequence 10 Total $1,781,800.68

Sequence: 11 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Miscellaneous

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	1.00	DA	$3,300.00	$3,300.00
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00
	Roadway Component Total				$11,300.00

Sequence 11 Total $11,300.00

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 20 Project Grand Total **$401,319,303.21**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 245 - PARTIALLY DEPRESSED. 2019 LRE UPDATE.

Project Sequences Subtotal			**$312,666,248.29**
102-1	Maintenance of Traffic	10.00 %	$31,266,624.83
101-1	Mobilization	8.00 %	$27,514,629.85
Project Sequences Total			**$371,447,502.97**
Project Unknowns		0.00 %	$0.00
Design/Build		8.00 %	$29,715,800.24

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 20 Project Grand Total					**$401,319,303.21**

Non-Depressed / No Managed Lane Access with Westbound Exit Ramp Alternative

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 21 Project Grand Total **$125,577,488.63**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 246 - NO DEPRESSED, NO RAMPS. 2019 LRE UPDATE.

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 0.796 MI
4,200 LF
Description: SW 10th Street from Florida's Turnpike to Independence Drive (Sta. 2008+00 to Sta. 2042+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.796
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.28 AC	$32,034.82	$329,317.95
120-6	EMBANKMENT	13,056.95 CY	$27.17	$354,757.33
	Earthwork Component Total			$684,075.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	43,551.82 SY	$5.84	$254,342.63
285-709	OPTIONAL BASE,BASE GROUP 09	38,735.55 SY	$23.11	$895,178.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,391.37 TN	$171.48	$1,095,992.13
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,195.68 TN	$139.13	$444,614.96

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	537.00 EA	$4.46	$2,395.02
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.36 GM	$902.22	$5,738.12
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	6.36 GM	$383.00	$2,435.88

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	3,400.00 LF	$193.50	$657,900.00

Roadway Component Total $3,358,597.30

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,200.24 LF	$27.17	$114,120.52

522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	2,800.16 SY	$41.10	$115,086.58

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,400.48 LF	$1.89	$15,876.91
104-11	FLOATING TURBIDITY BARRIER	198.88 LF	$12.50	$2,486.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	198.88 LF	$4.09	$813.42
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	41.00 EA	$101.77	$4,172.57
107-1	LITTER REMOVAL	20.25 AC	$49.70	$1,006.42
107-2	MOWING	20.25 AC	$70.39	$1,425.40
	Shoulder Component Total			$257,071.03

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	8,400.48 LF	$29.08	$244,285.96
570-1-1	PERFORMANCE TURF	4,666.93 SY	$3.13	$14,607.49
	Median Component Total			$258,893.45

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.32 CY	$1,477.99	$21,164.82
425-1-351	INLETS, CURB, TYPE P-5, <10'	29.00 EA	$6,251.47	$181,292.63
425-1-451	INLETS, CURB, TYPE J-5, <10'	8.00 EA	$8,530.50	$68,244.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	$5,116.81	$20,467.24
425-2-41	MANHOLES, P-7, <10'	4.00 EA	$5,619.79	$22,479.16
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,104.00 LF	$180.20	$379,140.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00 LF	$230.43	$44,242.56
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,984.00 LF	$372.58	$1,484,358.72
570-1-1	PERFORMANCE TURF	241.83 SY	$3.13	$756.93
	Drainage Component Total			$2,222,146.86

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Waterways Boulevard

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Independence Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	738.74	CY	$21.41	$15,816.42
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,783.68	SY	$5.84	$10,416.69
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,783.68	SY	$23.11	$41,220.84
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.41	TN	$171.48	$21,333.83
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	294.31	TN	$171.48	$50,468.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	62.20	TN	$139.13	$8,653.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	147.15	TN	$139.13	$20,472.98
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	449.00	LF	$27.17	$12,199.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	249.44	SY	$41.10	$10,251.98
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	249.44	SY	$3.13	$780.75
	Intersections Component Total				$586,083.04

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	20.00	AS	$351.72	$7,034.40
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24
	Signing Component Total				$42,125.48

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Waterways Boulevard Intersection

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.32	$5,824.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.35	$5,505.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Independence Drive Intersection

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.32	$5,824.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.35	$5,505.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	2.00 AS	$682.09	$1,364.18
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00 EA	$172.57	$3,451.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	2.00 EA	$229.72	$459.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

Signalizations Component Total	$902,704.34

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	**Value**
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,200.24	LF	$8.32	$34,946.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	833.68	LF	$18.35	$15,298.03
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	28.00	EA	$641.65	$17,966.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	15,340.42	LF	$2.48	$38,044.24
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	28.00	EA	$6,040.34	$169,129.52
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	28.00	EA	$620.69	$17,379.32
	Subcomponent Total				$292,763.31

Lighting Component Total	$292,763.31
Sequence 1 Total	$8,604,460.09

Sequence: 2 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI
2,400 LF

Description: SW 10th Street from Independence Drive to approximately 1000' east of Powerline Road (Sta. 2042+00 to Sta. 2066+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.454
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.86 AC	$32,034.82	$187,724.05
120-6	EMBANKMENT	7,447.05 CY	$27.17	$202,336.35
	Earthwork Component Total			$390,060.40

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	43.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,882.84 SY	$5.84	$145,315.79
285-709	OPTIONAL BASE,BASE GROUP 09	22,131.12 SY	$23.11	$511,450.18
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,651.63 TN	$171.48	$626,181.51
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	1,825.82 TN	$139.13	$254,026.34

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	307.00	EA	$4.46	$1,369.22
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.64	GM	$902.22	$3,284.08
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.64	GM	$383.00	$1,394.12

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,400.00	LF	$193.50	$464,400.00

Roadway Component Total $2,007,421.24

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,399.76	LF	$27.17	$65,201.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,599.84	SY	$41.10	$65,753.42

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,799.52	LF	$1.89	$9,071.09
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	$12.50	$1,420.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	$4.09	$464.71
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	24.00	EA	$101.77	$2,442.48
107-1	LITTER REMOVAL	11.57	AC	$49.70	$575.03
107-2	MOWING	11.57	AC	$70.39	$814.41

	Shoulder Component Total	$147,826.07

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,799.52	LF	$29.08	$139,570.04
570-1-1	PERFORMANCE TURF	2,666.40	SY	$3.13	$8,345.83
	Median Component Total				$147,915.87

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18	CY	$1,477.99	$12,089.96
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	$6,251.47	$106,274.99
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	$8,530.50	$42,652.50
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	$180.20	$217,681.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$230.43	$25,808.16
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	$372.58	$849,482.40
570-1-1	PERFORMANCE TURF	138.17	SY	$3.13	$432.47
	Drainage Component Total				$1,286,631.88

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	4
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	4
Cross Street No. of Left Turn Lanes	4
Cross Street No. of Right Turn Lanes	2
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	$32,034.82	$88,095.76

120-1	REGULAR EXCAVATION	2,458.78 CY	$21.41	$52,642.48
160-4	TYPE B STABILIZATION	3,032.31 SY	$5.84	$17,708.69
160-4	TYPE B STABILIZATION	5,936.69 SY	$5.84	$34,670.27
285-709	OPTIONAL BASE,BASE GROUP 09	3,032.31 SY	$23.11	$70,076.68
285-709	OPTIONAL BASE,BASE GROUP 09	5,936.69 SY	$23.11	$137,196.91
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.33 TN	$171.48	$85,796.59
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	979.55 TN	$171.48	$167,973.23
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	489.78 TN	$139.13	$68,143.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	250.17 TN	$139.13	$34,806.15
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68 LF	$29.08	$11,797.17
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,058.00 LF	$27.17	$28,745.86
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	570.00 LF	$44.08	$25,125.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	370.00 LF	$44.08	$16,309.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	587.78 SY	$41.10	$24,157.76
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	$52.59	$9,144.88
570-1-1	PERFORMANCE TURF	587.78 SY	$3.13	$1,839.75

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	0
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Intersection leading into Sirius XM Radio building.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70 AC	$32,034.82	$22,424.37
120-1	REGULAR EXCAVATION	371.15 CY	$21.41	$7,946.32
160-4	TYPE B STABILIZATION	595.53 SY	$5.84	$3,477.90
160-4	TYPE B STABILIZATION	896.13 SY	$5.84	$5,233.40
285-709	OPTIONAL BASE,BASE GROUP 09	595.53 SY	$23.11	$13,762.70
285-709	OPTIONAL BASE,BASE GROUP 09	896.13 SY	$23.11	$20,709.56
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.26 TN	$171.48	$16,849.62
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	147.86 TN	$171.48	$25,355.03
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	73.93 TN	$139.13	$10,285.88
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	49.13 TN	$139.13	$6,835.46

520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	249.00 LF	$27.17	$6,765.33
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	138.33 SY	$41.10	$5,685.36
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	138.33 SY	$3.13	$432.97
	Intersections Component Total			$1,027,515.83

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00 AS	$351.72	$3,868.92
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	$1,060.06	$1,060.06
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	$7,377.86	$7,377.86
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	1.00 AS	$9,107.62	$9,107.62
	Signing Component Total			$21,414.46

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SW 10th Street and Powerline Road

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00 LF	$8.32	$5,824.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00 LF	$18.35	$5,505.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00 EA	$641.65	$14,116.30
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	$4.88	$292.80
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00 EA	$1,106.90	$1,106.90
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00 EA	$55,957.62	$335,745.72
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00 AS	$995.45	$19,909.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	$682.09	$5,456.72
660-1-102		20.00 EA	$172.57	$3,451.40

	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2			
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00 AS	$1,322.11	$26,442.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$259.33	$1,037.32

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-1-11	STEEL STRAIN POLE, F&I, TYPE PS- IV	1.00	EA	$27,407.86	$27,407.86

Signalizations Component Total $485,142.70

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,399.76	LF	$8.32	$19,966.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.32	LF	$18.35	$8,740.47
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,764.58	LF	$2.48	$21,736.16
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	$6,040.34	$96,645.44
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	$620.69	$9,931.04
	Subcomponent Total				$167,285.51

Lighting Component Total $167,285.51

Sequence 2 Total $5,681,213.96

Sequence: 3 NDU - New Construction, Divided, Urban **Net Length:** 1.155 MI
6,100 LF

Description: SW 10th Street from approximately 1000' east of Powerline Road to Military Trail (Sta. 2066+00 to Sta. 2127+00) at-grade roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	39.75 / 44.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.155
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.83	AC	$32,034.82	$378,971.92
120-6	EMBANKMENT	20,325.74	CY	$27.17	$552,250.36
	Earthwork Component Total				$931,222.28

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	48,338.98	SY	$5.84	$282,299.64
285-709	OPTIONAL BASE,BASE GROUP 09	41,344.34	SY	$23.11	$955,467.70
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	6,821.82	TN	$171.48	$1,169,805.69
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	3,410.91	TN	$139.13	$474,559.91

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	468.00	EA	$4.46	$2,087.28
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	9.24	GM	$902.22	$8,336.51
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.62	GM	$383.00	$1,769.46

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	6,100.00	LF	$193.50	$1,180,350.00

Roadway Component Total $4,074,676.19

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	0.00 / 10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,099.98	LF	$27.17	$165,736.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	6,777.76	SY	$41.10	$278,565.94

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,199.97	LF	$1.89	$23,057.94
104-11	FLOATING TURBIDITY BARRIER	288.82	LF	$12.50	$3,610.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	288.82	LF	$4.09	$1,181.27
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,083.20	$4,166.40
104-18	INLET PROTECTION SYSTEM	59.00	EA	$101.77	$6,004.43
107-1	LITTER REMOVAL	29.40	AC	$49.70	$1,461.18
107-2	MOWING	29.40	AC	$70.39	$2,069.47

	Shoulder Component Total	$485,853.34

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	12,199.97	LF	$29.08	$354,775.13
570-1-1	PERFORMANCE TURF	6,777.76	SY	$3.13	$21,214.39
	Median Component Total				$375,989.52

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.80	CY	$1,477.99	$30,742.19
425-1-351	INLETS, CURB, TYPE P-5, <10'	42.00	EA	$6,251.47	$262,561.74
425-1-451	INLETS, CURB, TYPE J-5, <10'	12.00	EA	$8,530.50	$102,366.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	$5,116.81	$30,700.86
425-2-41	MANHOLES, P-7, <10'	6.00	EA	$5,619.79	$33,718.74
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,056.00	LF	$180.20	$550,691.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	272.00	LF	$230.43	$62,676.96
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,784.00	LF	$372.58	$2,155,002.72
570-1-1	PERFORMANCE TURF	351.21	SY	$3.13	$1,099.29
	Drainage Component Total				$3,229,559.70

INTERSECTIONS COMPONENT

Intersection 1

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 30th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09

120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 2

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	628.29 CY	$21.41	$13,451.69
160-4	TYPE B STABILIZATION	1,130.97 SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,517.01 SY	$5.84	$8,859.34
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97 SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,517.01 SY	$23.11	$35,058.10
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61 TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	250.31 TN	$171.48	$42,923.16
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31 TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	125.15 TN	$139.13	$17,412.12
520-1-7		101.42 LF	$29.08	$2,949.29

	CONCRETE CURB & GUTTER, TYPE E			
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78 SY	$3.13	$822.50

Intersection 3

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description SW 24th Avenue	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	$32,034.82	$37,801.09
120-1	REGULAR EXCAVATION	772.70	CY	$21.41	$16,543.51
160-4	TYPE B STABILIZATION	1,130.97	SY	$5.84	$6,604.86
160-4	TYPE B STABILIZATION	1,865.68	SY	$5.84	$10,895.57
285-709	OPTIONAL BASE,BASE GROUP 09	1,130.97	SY	$23.11	$26,136.72
285-709	OPTIONAL BASE,BASE GROUP 09	1,865.68	SY	$23.11	$43,115.86
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	186.61	TN	$171.48	$31,999.88
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	307.84	TN	$171.48	$52,788.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	93.31	TN	$139.13	$12,982.22
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	153.92	TN	$139.13	$21,414.89
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	$29.08	$2,949.29
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00	LF	$27.17	$12,851.41
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	$44.08	$14,766.80
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	$44.08	$8,595.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78	SY	$41.10	$10,800.26
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	$52.59	$4,572.17
570-1-1	PERFORMANCE TURF	262.78	SY	$3.13	$822.50
	Intersections Component Total				$892,815.45

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	28.00	AS	$351.72	$9,848.16
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	$1,060.06	$3,180.18
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00	AS	$7,377.86	$22,133.58
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00	AS	$9,107.62	$27,322.86
	Signing Component Total				$62,484.78

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Avenue

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$8.32	$6,240.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$18.35	$4,587.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,636.15	$5,636.15
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$641.65	$10,266.40
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,677.51	$2,677.51
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$4.88	$292.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$40,041.33	$160,165.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	$995.45	$11,945.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$682.09	$5,456.72
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$172.57	$2,070.84
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,322.11	$15,865.32
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$229.72	$1,837.76
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,696.06	$28,696.06
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$259.33	$1,037.32
	Signalizations Component Total				$256,775.10

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value

Spacing MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,099.98	LF	$8.32	$50,751.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,210.75	LF	$18.35	$22,217.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	41.00	EA	$641.65	$26,307.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	22,278.81	LF	$2.48	$55,251.45
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	41.00	EA	$6,040.34	$247,653.94
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	41.00	EA	$620.69	$25,448.29
	Subcomponent Total				$427,630.42
	Lighting Component Total				$427,630.42
Sequence 3 Total					$10,737,006.78

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Powerline Road from West Drive to approximately 1000' south of SW 10th Street.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	55.75 / 55.75
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	7.16	AC	$32,034.82	$229,369.31
120-6	EMBANKMENT	10,157.16	CY	$27.17	$275,970.04
	Earthwork Component Total				$505,339.35

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	28,099.39	SY	$5.84	$164,100.44
285-709	OPTIONAL BASE,BASE GROUP 09	24,888.75	SY	$23.11	$575,179.01
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64	TN	$171.48	$704,206.63
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,053.32	TN	$139.13	$285,678.41

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00	EA	$4.46	$1,596.68
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24	GM	$902.22	$3,825.41
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24	GM	$383.00	$1,623.92
	Roadway Component Total				$1,736,210.50

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.25 / 8.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	6.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$27.17	$76,075.46
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,733.31	SY	$41.10	$153,439.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97	LF	$1.89	$10,583.94
104-11	FLOATING TURBIDITY BARRIER	132.57	LF	$12.50	$1,657.12
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	132.57	LF	$4.09	$542.21
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,083.20	$2,083.20
104-18	INLET PROTECTION SYSTEM	28.00	EA	$101.77	$2,849.56
107-1	LITTER REMOVAL	13.50	AC	$49.70	$670.95
107-2	MOWING	13.50	AC	$70.39	$950.27
	Shoulder Component Total				$324,927.22

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	15.50
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	5,599.97	LF	$29.08	$162,847.13
570-1-1	PERFORMANCE TURF	3,111.09	SY	$3.13	$9,737.71

	Median Component Total	$172,584.84

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$1,477.99	$14,114.80
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,251.47	$125,029.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$8,530.50	$51,183.00
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	$5,116.81	$15,350.43
425-2-41	MANHOLES, P-7, <10'	3.00	EA	$5,619.79	$16,859.37
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,408.00	LF	$180.20	$253,721.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	128.00	LF	$230.43	$29,495.04
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,656.00	LF	$372.58	$989,572.48
570-1-1	PERFORMANCE TURF	161.21	SY	$3.13	$504.59

	Drainage Component Total	$1,495,830.71

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00	AS	$351.72	$4,572.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,060.06	$2,120.12
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$7,377.86	$14,755.72
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$9,107.62	$18,215.24

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-4-111	OH STATIC SIGN STR, F&I, C UP TO 20 FT	2.00	EA	$42,470.64	$84,941.28
700-4-121	OH STATIC SIGN STR, F&I, S UP TO 20 FT	2.00	EA	$108,189.34	$216,378.68

	Signing Component Total	$340,983.40

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,799.98	LF	$8.32	$23,295.83
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	555.75	LF	$18.35	$10,198.01
635-2-11		19.00	EA	$641.65	$12,191.35

	PULL & SPLICE BOX, F&I, 13" x 24"				
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,226.31	LF	$2.48	$25,361.25
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	19.00	EA	$6,040.34	$114,766.46
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	19.00	EA	$620.69	$11,793.11
	Subcomponent Total				$197,606.01
	Lighting Component Total				$197,606.01
Sequence 4 Total					$4,773,482.03

Sequence: 5 NDR - New Construction, Divided, Rural **Net Length:** 2.292 MI
12,100 LF

Description: Express Lane section along SW 10th Street from Florida's Turnpike to Military Trail, at-grade.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.50 / 50.50
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	0.00
Top of Structural Course For End Section	0.00
Horizontal Elevation For Begin Section	0.00
Horizontal Elevation For End Section	0.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	28.06	AC	$32,034.82	$898,897.05

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	196,500.00	CY	$27.17	$5,338,905.00

Earthwork Component Total $6,237,802.05

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	0
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	129,068.54	SY	$5.84	$753,760.27
285-709	OPTIONAL BASE,BASE GROUP 09	66,308.96	SY	$23.11	$1,532,400.07
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	2,581.37	TN	$139.13	$359,146.01

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	24,200.00	LF	$95.12	$2,301,904.00

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	928.00	EA	$4.46	$4,138.88
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.33	GM	$902.22	$16,537.69
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	9.17	GM	$383.00	$3,512.11
	Roadway Component Total				$4,971,399.03

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	33,154.48	SY	$21.30	$706,190.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,774.69	TN	$171.48	$304,323.84
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,290.69	TN	$262.36	$338,625.43
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	4.58	GM	$1,205.93	$5,523.16

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	31,460.46	LF	$1.89	$59,460.27
104-11	FLOATING TURBIDITY BARRIER	572.93	LF	$12.50	$7,161.62
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	572.93	LF	$4.09	$2,343.28
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,083.20	$6,249.60
104-18	INLET PROTECTION SYSTEM	14.00	EA	$101.77	$1,424.78
107-1	LITTER REMOVAL	55.55	AC	$49.70	$2,760.84
107-2	MOWING	55.55	AC	$70.39	$3,910.16
	Shoulder Component Total				$1,437,973.41

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	33,154.48	SY	$21.30	$706,190.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,774.69	TN	$171.48	$304,323.84
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,290.69	TN	$262.36	$338,625.43
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	12,100.00	LF	$197.19	$2,385,999.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	5.00	GM	$1,205.93	$6,029.65
	Median Component Total				$3,741,168.34

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	110.00	EA	$6,856.78	$754,245.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-791	INLETS, MED BARRIER, TYPE 2, J BOT,<=10'	55.00	EA	$5,600.00	$308,000.00
430-175-118	PIPE CULV, OPT MATL, ROUND, 18"S/CD	5,560.00	LF	$149.67	$832,165.20
430-175-130	PIPE CULV, OPT MATL, ROUND, 30"S/CD	12,104.00	LF	$268.84	$3,254,039.36
430-175-172	PIPE CULV, OPT MATL, ROUND, 72"S/CD	904.00	LF	$521.18	$471,146.72
	Drainage Component Total				$5,619,597.08

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$351.72	$1,758.60
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	56.00	AS	$1,060.06	$59,363.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00	AS	$4,857.14	$24,285.70
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	14.00	AS	$7,377.86	$103,290.04

Signing Component Total	$188,697.70

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	7,667.00	LF	$8.32	$63,789.44
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,556.00	LF	$18.35	$46,902.60
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	4,646.00	LF	$3.79	$17,608.34
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	9,293.00	LF	$4.00	$37,172.00
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	323.00	EA	$51.31	$16,573.13
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	16.00	EA	$942.34	$15,077.44
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	16.00	EA	$69.21	$1,107.36
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	16.00	EA	$77.50	$1,240.00
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	16.00	EA	$1,793.95	$28,703.20
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	4,740.00	LF	$4.24	$20,097.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	19.00	EA	$641.65	$12,191.35
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	16.00	EA	$1,280.05	$20,480.80
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	1.00	AS	$2,651.78	$2,651.78
639-2-1	ELECTRICAL SERVICE WIRE, F&I	30,666.00	LF	$4.88	$149,650.08
641-3-169	CONCRETE CCTV POLE, FUR & INS W/LOW	4.00	EA	$29,728.00	$118,912.00
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	7.00	EA	$2,250.00	$15,750.00
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	7.00	EA	$13,500.00	$94,500.00
676-2-122	ITS CABINET- F&I, POLE, 336S	8.00	EA	$6,600.00	$52,800.00
676-2-143	ITS CABINET- F&I, BASE, 334	8.00	EA	$10,633.33	$85,066.64
676-2-400	ITS CABINET- RELOCATE	2.00	EA	$2,708.64	$5,417.28
682-1-111	ITS CCTV CAMERA, F&I, DOME ENCL-PRES.	4.00	EA	$7,180.53	$28,722.12
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	17.00	EA	$3,711.50	$63,095.50
684-2-1	DEVICE SERVER, F&I	7.00	EA	$1,500.00	$10,500.00
684-3-11	DIGITAL VIDEO ENC W SO, F&I HARD ENCODER	4.00	EA	$2,917.45	$11,669.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
639-5-1	EMERGENCY GENERATOR-PERMANENT, UP TO 25 KW	2.00	EA	$39,679.10	$79,358.20

641-2-13	PREST CNC POLE, F&I, TYP P-III	7.00 EA	$9,785.71	$68,499.97
78X-XX-XXX	TOLL GANTRY SYSTEM, 2 LANE	2.00 EA	$800,000.00	$1,600,000.00
	Intelligent Traffic System (ITS) Component Total			$2,667,536.63

LIGHTING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,100.00	LF	$8.32	$100,672.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,400.00	LF	$18.35	$44,040.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	81.00	EA	$641.65	$51,973.65
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	45,000.00	LF	$2.48	$111,600.00
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	81.00	EA	$6,040.34	$489,267.54
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	81.00	EA	$620.69	$50,275.89
	Lighting Component Total				$847,829.08

Sequence 5 Total $25,712,003.32

Sequence: 6 MIS - Miscellaneous Construction **Net Length:** 2.292 MI
12,100 LF

Description: All bridge sections along SW 10th Street.

BRIDGES COMPONENT

Bridge 1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	830.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.46**
Basic Bridge Cost	**$18,861,750.00**
Description	EXPRESS BRIDGE OVER POWERLINE ROAD

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44 CY	$370.90	$83,244.80
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00 LB	$0.99	$38,884.23
	Bridge 1 Total			$18,983,879.03

Bridge 2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	51.00
Type	Overpass Bridge
Cost Factor	3.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$225.00
Final Cost per SF	**$226.21**
Basic Bridge Cost	**$11,475,000.00**
Description	EB EXPRESS LANES BRAIDED RAMP AT WATERWAYS BOULEVARD.

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	113.33 CY	$370.90	$42,034.10
415-1-9	REINF STEEL- APPROACH SLABS	19,832.75 LB	$0.99	$19,634.42
	Bridge 2 Total			$11,536,668.52

	Bridges Component Total	$30,520,547.55

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	136,000.00 SF	$27.97	$3,803,920.00
	Miscellaneous Component Total			$3,803,920.00
Sequence 6 Total				$34,324,467.55

Sequence: 7 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: NOISE WALLS

ROADWAY COMPONENT

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	10,700.00
Noise Barrier Wall Begin Height	22.00
Noise Barrier Wall End Height	22.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	235,400.00	SF	$33.60	$7,909,440.00
	Roadway Component Total				$7,909,440.00

Sequence 7 Total $7,909,440.00

Sequence: 8 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Miscellaneous Construction.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	1.00	DA	$3,300.00	$3,300.00
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00
	Roadway Component Total				$11,300.00

Sequence 8 Total $11,300.00

Date: 3/26/2019 12:10:30 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2023

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English

Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 21 Project Grand Total **$125,577,488.63**

Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. ALTERNATIVE 246 - NO DEPRESSED, NO RAMPS. 2019 LRE UPDATE.

Project Sequences Subtotal					**$97,753,373.73**
102-1	Maintenance of Traffic	10.00 %			$9,775,337.37
101-1	Mobilization	8.00 %			$8,602,296.89
Project Sequences Total					**$116,131,007.99**
Project Unknowns		0.00 %			$0.00
Design/Build		8.00 %			$9,290,480.64

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 21 Project Grand Total					**$125,577,488.63**

With Powerline Road Ramps Alternative

(Used at Public Hearing)

Date: 6/8/2020 5:24:15 PM

FDOT Long Range Estimating System - Production

R1: Project Summary without Components Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD

Project Manager: BOSTIAN

Version 31 Project Grand Total **$265,021,318.16**

Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. With Powerline Road access ramps and HDR quantities for Signing and ITS.

Sequence 1 NDR Total $55,820,521.31

Description: Managed Lanes, 4 lanes with full shoulders and barrier walls.

Sequence 2 NUR Total $5,831,088.66

Description: Covers the local EB access to the connector road which includes a bridge over the WB local lanes and wall approaches.

Sequence 3 NUR Total $2,314,135.19

Description: Covers the rigid roadway pavement portion of the depressed WB Exit ramp.

Sequence 4 NDU Total $34,530,440.60

Description: 6 lane local section to cover turn lanes, shldr WB.

Sequence 5 NUR Total $8,266,481.25

Description: Temporary roadway to maintain traffic for the local lanes as it is unclear whether the permanent can be put into place first due to utility relocations and critical path of the projects.

Sequence 6 WDU Total $2,386,874.07

Description: Handles work along Powerline Road.

Sequence 7 NUU Total $1,516,615.16

Description: Street extension/relocation at Quiet Waters Business Park.

Sequence 8 MIS Total $52,156,202.22

Description: depressed section construction, temp critical sheet piles, one row soil anchors and 10' grid of ground anchors. Also includes all ground mount walls.

Sequence 9 MIS Total $12,424,987.30

Description: Ground mount sound walls.

Sequence 10 WDR Total			$1,000,037.24
Description: Covers the widen, mill and resurfacing along the connector road west of Seq. 1 at the turnpike as well as the reconstruction of the NB to WB loop ramp.			
Sequence 11 RSD Total			$4,749,314.24
Description: Construct Water Feature Enhancement ponds and resurface Century Blvd. from Ellesmere Dr. to Hillsboro Blvd due to pond construction.			
Sequence 12 MIS Total			$9,745,141.76
Description: This sequence is for the corridor signing and ITS quantities developed by HDR.			
Sequence 13 MIS Total			$13,800,000.00
Description: Sequence for Risk Based Contingency			
Project Sequences Subtotal			**$204,541,839.00**
	Maintenance of Traffic	10.00 %	$20,454,183.90
	Mobilization	8.00 %	$17,999,681.83
Project Sequences Total			**$242,995,704.73**
	Project Unknowns	0.00 %	$0.00
	Design/Build	9.00 %	$21,869,613.43
	Project Non-Bid Subtotal		$156,000.00
Version 31 Project Grand Total			**$265,021,318.16**

Date: 6/8/2020 5:24:39 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 31 Project Grand Total **$265,021,318.16**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. With Powerline Road access ramps and HDR quantities for Signing and ITS.

Sequence: 1 NDR - New Construction, Divided, Rural **Net Length:** 2.462 MI
13,000 LF

Description: Managed Lanes, 4 lanes with full shoulders and barrier walls.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.462
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	35.81	AC	$33,571.83	$1,202,207.23
120-6	EMBANKMENT	38,208.49	CY	$27.91	$1,066,398.96

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	312,952.00	CY	$27.91	$8,734,490.32
	Comment: EMBANKMENT FOR RETAINING WALLS - SEE CADD				
	Earthwork Component Total				$11,003,096.51

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	440
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	138,665.47	SY	$7.65	$1,060,790.85
285-709	OPTIONAL BASE,BASE GROUP 09	71,239.39	SY	$26.54	$1,890,693.41
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	15,253.20	TN	$165.90	$2,530,505.88
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,773.31	TN	$183.10	$507,793.06

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-0-11	CONC CLASS NS, GRAVITY WALL	1,500.00	CY	$623.90	$935,850.00
	Comment: Superelevated section on 2500' Scheme 3 gravity wall at Quiet Waters Park				
415-1-1	REINF STEEL- ROADWAY	20,000.00	LB	$1.02	$20,400.00
	Comment: Superelevated section on 2500' Scheme 3 gravity wall at Quiet Waters Park				
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	1,187.00	LF	$486.94	$577,997.78
	Comment: NOISE WALL FOR RETAINING WALL ID 10				
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	5,979.00	LF	$193.50	$1,156,936.50
	Comment: SHOULDER BARRIER FOR LENGFTH OF SEQUENCE, LEFT AND RIGHT SHOULDERS				
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	48.00	DA	$3,300.00	$158,400.00
	Comment: 1 meeting per month for 48 months.				
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	997.00	EA	$4.25	$4,237.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	19.70	GM	$863.58	$17,012.53
710-11-131	PAINTED PAVT	9.85	GM	$372.47	$3,668.83

MARK,STD,WHITE,SKIP, 6"

Roadway Component Total $8,872,286.09

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	35,619.69	SY	$18.90	$673,212.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,906.65	TN	$165.90	$316,313.24
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	76.27	TN	$183.10	$13,965.04

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	2,500.00	LF	$268.21	$670,525.00
	Comment: Superelevated section on Scheme 3 gravity wall at Quiet Waters Park				

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	33,799.71	LF	$1.87	$63,205.46
104-11	FLOATING TURBIDITY BARRIER	615.52	LF	$17.27	$10,630.03
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	615.52	LF	$9.50	$5,847.44
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18
104-18	INLET PROTECTION SYSTEM	15.00	EA	$121.94	$1,829.10
107-1	LITTER REMOVAL	59.68	AC	$44.12	$2,633.08
107-2	MOWING	59.68	AC	$80.90	$4,828.11

Shoulder Component Total $1,766,582.82

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00

Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	35,619.69	SY	$18.90	$673,212.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,906.65	TN	$165.90	$316,313.24
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	76.27	TN	$183.10	$13,965.04
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	10,500.00	LF	$177.02	$1,858,710.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-13	MEDIAN CONC BARRIER, TALL GRADE SEP	8,479.00	LF	$322.00	$2,730,238.00
	Comment: VARIABLE GRADE WALL FOR SOUTH SIDE SHOULDER TO ACCOUNT FOR POSSIBLE ELEVATION DIFFERENCES IN LIEU OF RETAINING WALL and 2500' of variable profile wall along the superelevated section (Quiet Waters)				
	Median Component Total				$5,592,438.42

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	44.32	CY	$2,500.00	$110,800.00
425-1-551	INLETS, DT BOT, TYPE E, <10'	15.00	EA	$7,279.51	$109,192.65
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	1,976.00	LF	$463.20	$915,283.20
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	848.00	LF	$195.09	$165,436.32
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	728.00	LF	$314.55	$228,992.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	99.00	EA	$3,868.31	$382,962.69
570-1-1	PERFORMANCE TURF	1,733.32	SY	$2.39	$4,142.63
	Drainage Component Total				$1,916,809.89

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$356.03	$1,780.15

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	60.00 AS	$1,111.25	$66,675.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	$4,644.86	$23,224.30
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	15.00 AS	$6,766.35	$101,495.25
	Signing Component Total			$193,174.70

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	90

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	18,000.00	LF	$10.33	$185,940.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	90.00	EA	$676.97	$60,927.30
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	54,000.00	LF	$2.60	$140,400.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	90.00	EA	$7,290.02	$656,101.80
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	90.00	EA	$572.79	$51,551.10
	Subcomponent Total				$1,094,920.20
	Lighting Component Total				$1,094,920.20

BRIDGES COMPONENT

Bridge ML1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	261.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$155.83**
Basic Bridge Cost	**$3,954,150.00**
Description	MANAGED LANES OVER POWERLINE

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$505.07	$113,357.91
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$1.03	$40,455.31

Bridge ML1 Total $4,107,963.22

Bridge ML2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	142.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$160.72**
Basic Bridge Cost	**$2,151,300.00**
Description	MANAGED LANES OVER QUIET WATERS BUSINESS PARK ACCESS

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$505.07	$113,357.91
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$1.03	$40,455.31

Bridge ML2 Total $2,305,113.22

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	2,806.00	LF	$150.01	$420,928.06
	Comment: TRAFFIC RAILINGS FOR BRIDGES ML1, ML2 AND ML4				

Bridge Total $420,928.06

Bridge ML4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	62.50
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$151.52**
Basic Bridge Cost	**$9,375,000.00**
Description	BRIDGE OVER DEPRESSED SECTION

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

400-2-10	CONC CLASS II, APPROACH SLABS	138.89 CY	$505.07	$70,149.17
415-1-9	REINF STEEL- APPROACH SLABS	24,305.75 LB	$1.03	$25,034.92
	Bridge ML4 Total			$9,470,184.09
	Bridges Component Total			$16,304,188.59

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	11,236.00	LF	$293.03	$3,292,485.08
	Comment: RAILING FOR RETAINING WALLS				

Retaining Wall 1

Description	Value
Length	1,433.00
Begin height	4.00
End Height	28.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	46,572.50	SF	$29.37	$1,367,834.32

Retaining Wall 2

Description	Value
Length	101.00
Begin height	28.50
End Height	28.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,878.50	SF	$29.37	$84,541.54

Retaining Wall 3

Description	Value
Length	365.00
Begin height	31.70
End Height	29.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	22,338.00	SF	$29.37	$656,067.06

Retaining Wall 4

Description	Value
Length	101.00
Begin height	31.70
End Height	31.70
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,201.70	SF	$29.37	$94,033.93

Retaining Wall 5

Description	Value
Length	101.00
Begin height	29.50
End Height	29.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,979.50	SF	$29.37	$87,507.92

Retaining Wall 6

Description	Value
Length	970.00
Begin height	24.50
End Height	4.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	27,645.00	SF	$29.37	$811,933.65

Retaining Wall 7

Description	Value
Length	101.00
Begin height	24.50
End Height	24.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,474.50	SF	$29.37	$72,676.06

Retaining Wall 8

Description	Value
Length	1,663.00
Begin height	5.00
End Height	25.50

Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	50,721.50	SF	$29.37	$1,489,690.46

Retaining Wall 9

Description	Value
Length	61.30
Begin height	25.50
End Height	25.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.15	SF	$29.37	$45,909.72

Retaining Wall 10

Description	Value
Length	1,187.00
Begin height	4.00
End Height	25.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	35,016.50	SF	$29.37	$1,028,434.60

Retaining Wall 11

Description	Value
Length	61.30
Begin height	25.50
End Height	25.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.15	SF	$29.37	$45,909.72

Retaining Walls Component Total $9,077,024.09

Sequence 1 Total $55,820,521.31

Sequence: 2 NUR - New Construction, Undivided, Rural **Net Length:** 0.214 MI
1,130 LF

Description: Covers the local EB access to the connector road which includes a bridge over the WB local lanes and wall approaches.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.214
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.04	AC	$33,571.83	$34,914.70
120-6	EMBANKMENT	978.85	CY	$27.91	$27,319.70

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	11,026.00	CY	$27.91	$307,735.66
	Comment: EMBANKMENT FOR RETAINING WALLS - SEE CADD				
	Earthwork Component Total				$369,970.06

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	15.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,389.76	SY	$7.65	$25,931.66
285-709	OPTIONAL BASE,BASE GROUP 09	1,924.63	SY	$26.54	$51,079.68
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	258.94	TN	$165.90	$42,958.15
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	155.36	TN	$149.07	$23,159.52

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	2,600.00	LF	$193.50	$503,100.00
	Comment: SHOULDER BARRIER BOTH SIDES				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.86	GM	$863.58	$742.68
	Roadway Component Total				$646,971.69

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,589.42	SY	$18.90	$30,040.04
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	82.86	TN	$165.90	$13,746.47
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	13.67	TN	$149.07	$2,037.79

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,937.79	LF	$1.87	$5,493.67
104-11	FLOATING TURBIDITY BARRIER	53.50	LF	$17.27	$923.94
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	53.50	LF	$9.50	$508.25
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
107-1	LITTER REMOVAL	2.59	AC	$44.12	$114.27
107-2	MOWING	2.59	AC	$80.90	$209.53

	Shoulder Component Total	$54,272.03

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.85 CY	$2,500.00	$9,625.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	176.00 LF	$463.20	$81,523.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00 LF	$314.55	$12,582.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	9.00 EA	$3,868.31	$34,814.79
570-1-1	PERFORMANCE TURF	150.66 SY	$2.39	$360.08
	Drainage Component Total			$138,905.07

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	$356.03	$356.03
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00 AS	$1,111.25	$5,556.25
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	$4,644.86	$4,644.86
	Signing Component Total			$10,557.14

BRIDGES COMPONENT

Bridge ML3

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	607.00
Width (LF)	30.00
Type	Overpass Bridge
Cost Factor	2.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$180.00
Final Cost per SF	**$192.51**
Basic Bridge Cost	**$3,277,800.00**
Description	MANAGED LANES RAMP OVER GP LANES

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	66.67 CY	$505.07	$33,673.02
415-1-9	REINF STEEL- APPROACH SLABS	11,667.25 LB	$1.03	$12,017.27

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE **Comment:** 607' x 2	1,214.00	LF	$150.01	$182,112.14
	Bridge ML3 Total				$3,505,602.43
	Bridges Component Total				$3,505,602.43

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP **Comment:** TRAFIC RAILING FOR RETAINING WALLS 320'x2 + 426'x2	1,492.00	LF	$293.03	$437,200.76

Retaining Wall 1

Description	Value
Length	320.00
Begin height	4.00
End Height	24.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	9,120.00	SF	$29.37	$267,854.40

Retaining Wall 2

Description	Value
Length	426.00
Begin height	24.50
End Height	4.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	12,141.00	SF	$29.37	$356,581.17

Retaining Wall 3

Description	Value
Length	30.00
Begin height	24.50
End Height	24.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,470.00	SF	$29.37	$43,173.90
	Retaining Walls Component Total				$1,104,810.24
Sequence 2 Total					$5,831,088.66

Sequence: 3 NUR - New Construction, Undivided, Rural **Net Length:** 0.252 MI
1,330 LF

Description: Covers the rigid roadway pavement portion of the depressed WB Exit ramp.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	20.00 / 20.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.252
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.22	AC	$33,571.83	$40,957.63
120-6	EMBANKMENT	1,180.75	CY	$27.91	$32,954.73

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	27,832.00	CY	$19.67	$547,455.44
	Comment: EXCAVATION FOR DEPRESSED SECTION - SEE CADD				
	Earthwork Component Total				$621,367.80

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	27.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-709	OPTIONAL BASE,BASE GROUP 09	4,038.86	SY	$26.54	$107,191.34
350-3-9	PLAIN CEMENT CONC PAVT, 10"	3,990.10	SY	$74.32	$296,544.23

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	5,690.00	LF	$193.50	$1,101,015.00
	Comment: SHOULDER BARRIER BOTH SIDES				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.01	GM	$863.58	$872.22
	Roadway Component Total				$1,505,622.79

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,458.08	LF	$1.87	$6,466.61
104-11	FLOATING TURBIDITY BARRIER	62.98	LF	$17.27	$1,087.66
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	62.98	LF	$9.50	$598.31
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
107-1	LITTER REMOVAL	3.05	AC	$44.12	$134.57
107-2	MOWING	3.05	AC	$80.90	$246.74
	Shoulder Component Total				$9,731.96

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.53	CY	$2,500.00	$11,325.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	208.00	LF	$463.20	$96,345.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00	LF	$314.55	$15,098.40

430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	11.00 EA	$3,868.31	$42,551.41
570-1-1	PERFORMANCE TURF	177.34 SY	$2.39	$423.84
	Drainage Component Total			$165,744.25

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	$356.03	$356.03
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	6.00 AS	$1,111.25	$6,667.50
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	$4,644.86	$4,644.86
	Signing Component Total			$11,668.39

Sequence 3 Total $2,314,135.19

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 2.248 MI
11,870 LF

Description: 6 lane local section to cover turn lanes, shldr WB.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.248
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	32.70	AC	$33,571.83	$1,097,798.84
120-6	EMBANKMENT	74,311.49	CY	$27.91	$2,074,033.69

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	27,239.00	CY	$27.91	$760,240.49
	Comment: EMBANKMENT FOR RETAINING WALL SECTION FOR BRIDGE GP1				
	Earthwork Component Total				$3,932,073.02

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	33.00 / 33.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	100,657.33	SY	$7.65	$770,028.57
285-709	OPTIONAL BASE,BASE GROUP 09	87,046.43	SY	$26.54	$2,310,212.25
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	14,362.66	TN	$165.90	$2,382,765.29
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	7,181.33	TN	$149.07	$1,070,520.86

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	4,000.00	LF	$193.50	$774,000.00
	Comment: barrier wall along the northern edge east of Powerline Road.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	1,517.00	EA	$4.25	$6,447.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	17.98	GM	$863.58	$15,527.17
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	17.98	GM	$372.47	$6,697.01
	Roadway Component Total				$7,336,198.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.25 / 19.25
Total Outside Shoulder Perf. Turf Width L/R	10.00 / 5.00
Sidewalk Width L/R	0.00 / 12.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	11,869.97	LF	$28.39	$336,988.45
520-1-10	CONCRETE CURB & GUTTER, TYPE F	11,869.97	LF	$28.39	$336,988.45
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	15,826.62	SY	$40.91	$647,467.02
570-1-1	PERFORMANCE TURF	19,783.28	SY	$2.39	$47,282.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	23,739.94	LF	$1.87	$44,393.69
104-11	FLOATING TURBIDITY BARRIER	562.02	LF	$17.27	$9,706.09
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	562.02	LF	$9.50	$5,339.19
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18

104-18	INLET PROTECTION SYSTEM	115.00	EA	$121.94	$14,023.10
107-1	LITTER REMOVAL	57.21	AC	$44.12	$2,524.11
107-2	MOWING	57.21	AC	$80.90	$4,628.29
	Shoulder Component Total				$1,452,934.61

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	20.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	23,739.94	LF	$25.89	$614,627.05
570-1-1	PERFORMANCE TURF	23,739.94	SY	$2.39	$56,738.46
	Median Component Total				$671,365.51

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	40.47	CY	$2,500.00	$101,175.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	81.00	EA	$6,694.62	$542,264.22
425-1-451	INLETS, CURB, TYPE J-5, <10'	23.00	EA	$7,862.30	$180,832.90
425-1-521	INLETS, DT BOT, TYPE C, <10'	12.00	EA	$4,932.44	$59,189.28
425-2-41	MANHOLES, P-7, <10'	12.00	EA	$6,016.13	$72,193.56
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	5,952.00	LF	$195.09	$1,161,175.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	536.00	LF	$314.55	$168,598.80
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	11,248.00	LF	$389.84	$4,384,920.32
570-1-1	PERFORMANCE TURF	683.42	SY	$2.39	$1,633.37

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	28.20	CY	$2,500.00	$70,500.00
	Comment: End walls for C-2 and C-3 Canals double 72" RCP and double 60" CMP, 14.4+ 13.8				
415-1-6	REINF STEEL- MISCELLANEOUS	2,073.00	LB	$1.89	$3,917.97
	Comment: End walls for C-2 and C-3 Canals double 72" RCP and double 60" CMP, 1249 + 824				

Box Culvert 1

Description	Value
Size	7 x 4
Length	20.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	28.00	CY	$1,212.90	$33,961.20
415-1-1	REINF STEEL- ROADWAY	2,900.00	LB	$1.02	$2,958.00

Box Culvert 2

Description	Value
Size	5 x 4
Length	100.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	63.20	CY	$1,212.90	$76,655.28
415-1-1	REINF STEEL- ROADWAY	7,216.00	LB	$1.02	$7,360.32

Drainage Component Total $6,867,335.90

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	54.00	AS	$356.03	$19,225.62
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,111.25	$5,556.25
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	$6,766.35	$33,831.75
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	5.00	AS	$9,197.10	$45,985.50

Signing Component Total $104,599.12

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	2
Description	Waterways Blvd. and Independence Dr.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,500.00	LF	$10.33	$15,495.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	500.00	LF	$19.82	$9,910.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	2.00	PI	$5,889.59	$11,779.18
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	32.00	EA	$676.97	$21,663.04
639-1-112	ELECTRICAL POWER	2.00	AS	$2,791.46	$5,582.92

	SRV,F&I,OH,M,PUR BY CON				
639-2-1	ELECTRICAL SERVICE WIRE, F&I	120.00	LF	$5.09	$610.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$47,776.11	$191,104.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	18.00	AS	$996.87	$17,943.66
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	16.00	AS	$675.47	$10,807.52
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	24.00	EA	$321.17	$7,708.08
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	24.00	AS	$1,246.64	$29,919.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	16.00	EA	$247.92	$3,966.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	2.00	AS	$28,741.00	$57,482.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	8.00	EA	$277.00	$2,216.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-1	STEEL MAST ARM ASSEMBLY, F&I, 30'	2.00	EA	$29,831.23	$59,662.46

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	$10.33	$7,231.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	$19.82	$5,946.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	$676.97	$14,893.34
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	$1,676.50	$1,676.50
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00	EA	$55,395.71	$332,374.26
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00	AS	$996.87	$19,937.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	$321.17	$6,423.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	$1,246.64	$24,932.80
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00

700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

Signalization 3

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Ave

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-6	STEEL MAST ARM ASSEMBLY, F&I, 50'	1.00	EA	$43,669.57	$43,669.57
649-21-8	STEEL MAST ARM ASSEMBLY, F&I, 50'- 40'	1.00	EA	$45,023.87	$45,023.87
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00	AS	$996.87	$5,981.22
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00
	Signalizations Component Total				$1,088,733.42

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	11,869.97	LF	$10.33	$122,616.79
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,356.01	LF	$19.82	$46,696.12
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	79.00	EA	$676.97	$53,480.63
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	43,352.36	LF	$2.60	$112,716.14

715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	79.00 EA	$5,943.21	$469,513.59
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	79.00 EA	$572.79	$45,250.41
	Subcomponent Total			$850,273.67
	Lighting Component Total			$850,273.68

BRIDGES COMPONENT

Bridge GP1

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	990.00
Width (LF)	59.00
Type	Overpass Bridge
Cost Factor	2.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$180.00
Final Cost per SF	**$188.06**
Basic Bridge Cost	**$10,513,800.00**
Description	WEST END BRIDGE OVER MANAGED LANES

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	131.11	CY	$505.07	$66,219.73
415-1-9	REINF STEEL- APPROACH SLABS	22,944.25	LB	$1.03	$23,632.58

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	2,540.00	LF	$150.01	$381,025.40
	Comment: BRIDGE GP1 TRAFFIC RAILING				
	Bridge GP1 Total				$10,984,677.71
	Bridges Component Total				$10,984,677.71

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	1,730.00	LF	$293.03	$506,941.90
	Comment: TRAFFIC RAILING FOR WALLS				

Retaining Wall 1

Description	**Value**

Length	535.00
Begin height	4.00
End Height	26.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	16,317.50	SF	$29.37	$479,244.98

Retaining Wall 2

Description	Value
Length	59.00
Begin height	26.50
End Height	26.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.50	SF	$29.37	$45,920.00

Retaining Wall 3

Description	Value
Length	330.00
Begin height	15.00
End Height	4.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,270.00	SF	$29.37	$184,149.90

Retaining Wall 4

Description	Value
Length	59.00
Begin height	15.00
End Height	15.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	885.00	SF	$29.37	$25,992.45

Retaining Walls Component Total $1,242,249.23

Sequence 4 Total $34,530,440.60

Sequence: 5 NUR - New Construction, Undivided, Rural **Net Length:** 2.248 MI
11,870 LF

Description: Temporary roadway to maintain traffic for the local lanes as it is unclear whether the permanent can be put into place first due to utility relocations and critical path of the projects.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.248
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	19.07	AC	$33,571.83	$640,214.80
120-1	REGULAR EXCAVATION	173,065.23	CY	$19.67	$3,404,193.07
	Earthwork Component Total				$4,044,407.87

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	5
Roadway Pavement Width L/R	34.50 / 34.50
Structural Spread Rate	220
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	96,278.63	SY	$7.65	$736,531.52
285-706	OPTIONAL BASE,BASE GROUP 06	91,873.55	SY	$18.72	$1,719,872.86
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	10,010.34	TN	$114.87	$1,149,887.76

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-13	TEMPORARY BARRIER, F&I,LOW PROFILE,CONC	11,870.00	LF	$35.87	$425,776.90

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt

Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	1,821.00	EA	$4.25	$7,739.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	8.99	GM	$863.58	$7,763.58
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	17.98	GM	$396.23	$7,124.22
	Roadway Component Total				$4,054,696.09

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	2.00 / 2.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	5,275.54	SY	$2.39	$12,608.54

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	30,861.92	LF	$1.87	$57,711.79
104-11	FLOATING TURBIDITY BARRIER	562.02	LF	$17.27	$9,706.09
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	562.02	LF	$9.50	$5,339.19
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18
107-1	LITTER REMOVAL	27.25	AC	$44.12	$1,202.27
107-2	MOWING	27.25	AC	$80.90	$2,204.52
	Shoulder Component Total				$92,366.59

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$356.03	$1,780.15

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	45.00 AS	$1,111.25	$50,006.25
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	$4,644.86	$23,224.30
	Signing Component Total			$75,010.70

Sequence 5 Total $8,266,481.25

Sequence: 6 WDU - Widen/Resurface, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Handles work along Powerline Road.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 25.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Existing Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.61	AC	$33,571.83	$54,050.65
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	1,100.70	CY	$25.26	$27,803.68
	Earthwork Component Total				$81,854.33

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 12.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,535.97	SY	$7.65	$34,700.17
285-709	OPTIONAL BASE,BASE GROUP 09	3,835.98	SY	$26.54	$101,806.91
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	24,888.75	SY	$4.59	$114,239.36
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64	TN	$165.90	$681,291.58

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	616.00 TN	$165.90	$102,194.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	995.55 TN	$149.07	$148,406.64
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	308.00 TN	$149.07	$45,913.56

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00 EA	$4.25	$1,521.50
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24 GM	$863.58	$3,661.58
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24 GM	$372.47	$1,579.27
	Roadway Component Total			$1,235,314.97

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	7.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98 LF	$28.39	$79,491.43
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,866.66 SY	$40.91	$76,365.06
570-1-1	PERFORMANCE TURF	3,111.09 SY	$2.39	$7,435.51

Erosion Control

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97 LF	$1.87	$10,471.94
104-11	FLOATING TURBIDITY BARRIER	53.03 LF	$17.27	$915.83
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	53.03 LF	$9.50	$503.78
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$1,198.06	$1,198.06

104-18	INLET PROTECTION SYSTEM	25.00 EA	$121.94	$3,048.50
107-1	LITTER REMOVAL	4.62 AC	$44.12	$203.83
107-2	MOWING	4.62 AC	$80.90	$373.76
	Shoulder Component Total			$180,007.71

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	11.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	3,577.76	SY	$2.39	$8,550.85

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	3,600.00	LF	$25.89	$93,204.00
	Median Component Total				$101,754.85

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$2,500.00	$23,875.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,694.62	$133,892.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$7,862.30	$47,173.80
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	296.00	LF	$195.09	$57,746.64
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	88.00	LF	$314.55	$27,680.40
570-1-1	PERFORMANCE TURF	161.21	SY	$2.39	$385.29
	Drainage Component Total				$290,753.53

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	12.00	AS	$356.03	$4,272.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,111.25	$2,222.50
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$281.30	$562.60
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$29.03	$348.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,644.86	$9,289.72

700-2-60	MULTI- POST SIGN, REMOVE	2.00 AS	$666.24	$1,332.48
	Signing Component Total			$18,028.02

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Signal for Quiet Waters Business Park at Powerline Road.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	1.00	EA	$47,776.11	$47,776.11
649-21-11	STEEL MAST ARM ASSEMBLY, F&I, 60'- 30'	1.00	EA	$50,189.13	$50,189.13
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	7.00	AS	$996.87	$6,978.09
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

Signalization 2

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Signals for Powerline Road and West Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00

632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	2.00	EA	$47,776.11	$95,552.22
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	9.00	AS	$996.87	$8,971.83
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-1	STEEL MAST ARM ASSEMBLY, F&I, 30'	2.00	EA	$29,831.23	$59,662.46
	Comment: Signals for West Drive Traffic				

Signalizations Component Total $446,270.46

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-21-2	LIGHTING REPAIRS AND RETROFITS, LED RETR	30.00	EA	$1,096.34	$32,890.20
	Comment: retrofit existing lighting with LED's				

Lighting Component Total $32,890.20

Sequence 6 Total $2,386,874.07

Sequence: 7 NUU - New Construction, Undivided, Urban **Net Length:** 0.275 MI
1,450 LF

Description: Street extension/relocation at Quiet Waters Business Park.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	30.00 / 30.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.275
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$33,571.83	$67,143.66
120-6	EMBANKMENT	5,538.04	CY	$27.91	$154,566.70
	Earthwork Component Total				$221,710.36

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	11.00 / 11.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,375.44	SY	$7.65	$33,472.12
285-709	OPTIONAL BASE,BASE GROUP 09	3,544.17	SY	$26.54	$94,062.27
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	487.32	TN	$165.90	$80,846.39
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	292.39	TN	$149.07	$43,586.58

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	37.00	EA	$4.25	$157.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.20	GM	$863.58	$1,899.88
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.55	GM	$372.47	$204.86
	Roadway Component Total				$254,229.35

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	7.25 / 15.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	0.00 / 8.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,449.89	LF	$28.39	$41,162.38
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,449.89	LF	$28.39	$41,162.38
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,288.79	SY	$40.91	$52,724.40
570-1-1	PERFORMANCE TURF	1,610.99	SY	$2.39	$3,850.27

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,899.78	LF	$1.87	$5,422.59
104-11	FLOATING TURBIDITY BARRIER	68.65	LF	$17.27	$1,185.59
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	68.65	LF	$9.50	$652.18
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
104-18	INLET PROTECTION SYSTEM	15.00	EA	$121.94	$1,829.10
107-1	LITTER REMOVAL	3.33	AC	$44.12	$146.92
107-2	MOWING	3.33	AC	$80.90	$269.40
	Shoulder Component Total				$149,603.27

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.94	CY	$2,500.00	$12,350.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	10.00	EA	$6,694.62	$66,946.20
425-1-451	INLETS, CURB, TYPE J-5, <10'	3.00	EA	$7,862.30	$23,586.90

425-1-521	INLETS, DT BOT, TYPE C, <10'	2.00 EA	$4,932.44	$9,864.88
425-2-41	MANHOLES, P-7, <10'	2.00 EA	$6,016.13	$12,032.26
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	640.00 LF	$195.09	$124,857.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	64.00 LF	$314.55	$20,131.20
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	1,376.00 LF	$389.84	$536,419.84
570-1-1	PERFORMANCE TURF	83.48 SY	$2.39	$199.52
	Drainage Component Total			$806,388.40

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	6.00	AS	$356.03	$2,136.18
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,111.25	$1,111.25
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	$6,766.35	$6,766.35
	Signing Component Total				$10,013.78

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,449.89	LF	$10.33	$14,977.36
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	189.20	LF	$19.82	$3,749.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$676.97	$4,061.82
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	4,917.26	LF	$2.60	$12,784.88
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	6.00	EA	$5,943.21	$35,659.26
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$572.79	$3,436.74
	Subcomponent Total				$74,670.00
	Lighting Component Total				$74,670.00

Sequence 7 Total $1,516,615.16

Sequence: 8 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: depressed section construction, temp critical sheet piles, one row soil anchors and 10' grid of ground anchors. Also includes all ground mount walls.

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
436-1-1	TRENCH DRAIN, STANDARD	1,900.00	LF	$266.60	$506,540.00
	Drainage Component Total				$506,540.00

BRIDGES COMPONENT

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-3-20	CONC CLASS III, SEAL	15,834.00	CY	$531.73	$8,419,412.82
	Comment: L=1900' W=45' D=5'				
400-4-5	CONC CLASS IV, SUBSTRUCTURE	11,875.00	CY	$1,228.18	$14,584,637.50
	Comment: L=1900' W=37.5' D=4.5				
415-1-4	REINF STEEL-SUPERSTRUCTURE	3,859,400.00	LB	$1.07	$4,129,558.00
	Comment: Class IV concrete cubic yards for substructure and retaining walls x 200lbs/cy (SDG Section 9.2.3)				
451-70	PREST SOIL ANCHORS	950.00	EA	$6,363.77	$6,045,581.50
	Comment: 5 * 1900'/10				
451-70-1	PREST SOIL ANCHOR, PERFORMANCE TEST	190.00	EA	$3,865.83	$734,507.70
	Comment: SOIL ANCHORS / 4				
451-70-2	PREST SOIL ANCHOR, CREEP TEST	190.00	EA	$2,108.87	$400,685.30
	Comment: SOIL ANCHORS / 4				
455-87	ANCHOR BAR, STEEL	380.00	EA	$2,279.93	$866,373.40
	Comment: L=1900' @ 10' SPACING x 2				
455-133-3	SHEET PILING STEEL, F&I PERMANENT	171,000.00	SF	$42.51	$7,269,210.00
	Comment: L=1900', DEPTHS RANGE 40'-50'-USE 45' AVG. 1900x45x2				

Bridge EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	WATERPROOF LINER	190,450.00	SF	$1.00	$190,450.00
	Comment: Assume a complete wrap of the tremie seal. Dimensions are 1900'x45'x5'				
2	ADJUSTMENT FOR CONSTRUCTION IN WATER	1.00	LS	$4,812,893.00	$4,812,893.00
	Comment: Based on 10% of the cost for the depressed section to account for the construction in water. Sequence total minus noise walls and pump station.				
	Bridge Total				$47,453,309.22

	Bridges Component Total	$47,453,309.22

MISCELLANEOUS COMPONENT

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-11	CONC CLASS IV, RETAINING WALLS	7,422.00 CY	$511.50	$3,796,353.00
	Comment: 25048 SF x 4'thicknes x 2 walls			
448-73	PUMPING STATION- DRAINAGE	1.00 LS	$400,000.00	$400,000.00
	Miscellaneous Component Total			$4,196,353.00

Sequence 8 Total	$52,156,202.22

Sequence: 9 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: Ground mount sound walls.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	223,190.00	SF	$55.67	$12,424,987.30
	Comment: SEE CADD FILE - 5,920' SOUTH SIDE OF CORRIDOR; 4,225' NORTH SIDE OF CORRIDOR				
	Roadway Component Total				$12,424,987.30

Sequence 9 Total $12,424,987.30

Sequence: 10 WDR - Widen/Resurface, Divided, Rural

Net Length: 0.474 MI / 2,500 LF

Description: Covers the widen, mill and resurfacing along the connector road west of Seq. 1 at the turnpike as well as the reconstruction of the NB to WB loop ramp.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.284
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.72	AC	$33,571.83	$57,743.55
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	357.66	CY	$25.26	$9,034.49
	Earthwork Component Total				$66,778.04

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	24.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	15.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,278.11	SY	$7.65	$78,627.54
285-709	OPTIONAL BASE,BASE GROUP 09	4,258.47	SY	$26.54	$113,019.79
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	6,666.88	SY	$4.59	$30,600.98

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	733.36 TN	$165.90	$121,664.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	687.52 TN	$165.90	$114,059.57
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	266.68 TN	$183.10	$48,829.11
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	166.67 TN	$183.10	$30,517.28

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	64.00	EA	$4.78	$305.92
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.79	GM	$863.58	$3,272.97
	Roadway Component Total				$540,897.58

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	6.00 / 6.00
New Total Outside Shoulder Width L/R	6.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 0.00
Existing Paved Outside Shoulder Width L/R	2.00 / 4.00
New Paved Outside Shoulder Width L/R	2.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	647.24	SY	$18.90	$12,232.84
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	1,666.72	SY	$2.64	$4,400.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	30.56	TN	$165.90	$5,069.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	7.33	TN	$183.10	$1,342.12
570-1-1	PERFORMANCE TURF	555.57	SY	$2.39	$1,327.81

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,750.18	LF	$1.87	$10,752.84
104-11	FLOATING TURBIDITY BARRIER	47.35	LF	$17.27	$817.73
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	47.35	LF	$9.50	$449.83
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
107-1	LITTER REMOVAL	3.44	AC	$44.12	$151.77
107-2	MOWING	3.44	AC	$80.90	$278.30
	Shoulder Component Total				$38,021.34

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.52	CY	$2,500.00	$21,300.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	384.00	LF	$463.20	$177,868.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	$314.55	$12,582.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	19.00	EA	$3,868.31	$73,497.89
570-1-1	PERFORMANCE TURF	333.34	SY	$2.39	$796.68
	Drainage Component Total				$286,045.37

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$356.03	$356.03
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,111.25	$13,335.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$281.30	$281.30
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$29.03	$348.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,644.86	$4,644.86
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$666.24	$666.24
	Signing Component Total				$19,631.79

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$10.33	$8,264.00

635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	4.00 EA	$676.97	$2,707.88
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	2,400.00 LF	$2.60	$6,240.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	4.00 EA	$7,290.02	$29,160.08
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	4.00 EA	$572.79	$2,291.16
	Subcomponent Total			$48,663.12
	Lighting Component Total			$48,663.12
Sequence 10 Total				$1,000,037.24

Sequence: 11 RSD - Resurfacing, Divided **Net Length:** 1.000 MI 5,280 LF

Description: Construct Water Feature Enhancement ponds and resurface Century Blvd. from Ellesmere Dr. to Hillsboro Blvd due to pond construction.

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	28,160.00	SY	$4.59	$129,254.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,548.80	TN	$165.90	$256,945.92

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	405.00	EA	$4.78	$1,935.90
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	8.00	GM	$863.58	$6,908.64
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.00	GM	$372.47	$1,489.88
	Roadway Component Total				$396,534.74

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,520.00	SY	$40.91	$144,003.20
	Comment: 12' WIDE SHARED USE PATH. 0.5 miles per pond, 3 ponds.				
	Shoulder Component Total				$144,003.20

DRAINAGE COMPONENT

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Three new ponds incorporating 11.18 acres. For depth, assume an average of 10 feet. The input parameters have been overridden by X-item quantities.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.18	AC	$33,571.83	$375,333.06
400-2-2	CONC CLASS II, ENDWALLS	48.90	CY	$2,500.00	$122,250.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	180,371.00	CY	$10.00	$1,803,710.00
	Comment: 11.18 AC (487,000.8 SF)x 10' depth / 27				
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	1,256.00	LF	$389.84	$489,639.04
	Comment: 300 LF + 750 LF + 200 LF = 1250				
570-1-1	PERFORMANCE TURF	182,780.00	SY	$2.39	$436,844.20
	Comment: Area of restored sod outside of the ponds due to construction, CADD file quant. - 11.18 AC				
	Drainage Component Total				$3,227,776.30

LANDSCAPING COMPONENT

User Input Data

Description	Value
Lump Sum	981,000.00
Cost %	0.00
Component Detail	N

	Landscaping Component Total	$981,000.00

Sequence 11 Total	$4,749,314.24

Sequence: 12 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: This sequence is for the corridor signing and ITS quantities developed by HDR.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	28.00	EA	$243.79	$6,826.12
711-14-660	THERMOPLASTIC, PREFORMED, MULTI, ROUTE S	2.00	EA	$2,909.43	$5,818.86
	Roadway Component Total				$12,644.98

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-204	SIGN PANEL, F&I OM, 31-50 SF	1.00	EA	$1,375.56	$1,375.56
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	3.00	EA	$2,998.52	$8,995.56
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	8.00	EA	$5,048.64	$40,389.12
700-3-207	SIGN PANEL, F&I OM, 201-300 SF	9.00	EA	$8,096.72	$72,870.48
700-3-208	SIGN PANEL, F&I OM, 301-400 SF	6.00	EA	$9,371.03	$56,226.18
700-3-211	SIGN PANEL, F&I OM, 601 SF AND GREATER	2.00	EA	$22,947.38	$45,894.76
700-4-112	OH STATIC SIGN STR, F&I, C 21-30 FT	3.00	EA	$61,935.33	$185,805.99
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	8.00	EA	$60,433.33	$483,466.64
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	2.00	EA	$69,967.17	$139,934.34
700-4-125	OH STATIC SIGN STR, F&I, S 51-100 FT	9.00	EA	$197,000.00	$1,773,000.00
700-7-132	EMBED DYNAMIC MESS SIGN, F&I, FULL,12-20	4.00	EA	$30,643.90	$122,575.60
700-8-134	FRONT ACC DYN MESS SIGN, F&I, FULL,31-50	7.00	EA	$52,722.82	$369,059.74
700-8-136	FRONT ACC DYN MESS SIGN, F&I, FULL,101-	1.00	EA	$104,433.33	$104,433.33
700-9-137	WALK-IN DYN MESS SIGN,F&I, FULL,201-	1.00	EA	$139,519.81	$139,519.81
700-10-115	DMS SUPPORT STRUCTURE, SPAN, 51-100 FT	1.00	EA	$131,989.97	$131,989.97
	Signing Component Total				$3,675,537.08

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1

Description

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	21.00	EA	$1,676.50	$35,206.50
641-2-13	PREST CNC POLE,F&I,TYP P-III	11.00	EA	$5,592.94	$61,522.34
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	43.00	EA	$3,784.98	$162,754.14
685-1-11	UPS POWER SUPPLY, F&I, LINE INTERACTIVE	43.00	EA	$3,689.23	$158,636.89
	Signalizations Component Total				$418,119.87

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	11,524.00	LF	$10.33	$119,042.92
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	5,762.00	LF	$19.82	$114,202.84
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	2,593.00	LF	$21.63	$56,086.59
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	5,762.00	LF	$3.33	$19,187.46
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	28,808.00	LF	$3.51	$101,116.08
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	477.00	EA	$46.41	$22,137.57
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERM	1,030.00	EA	$98.24	$101,187.20
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	43.00	EA	$885.58	$38,079.94
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	43.00	EA	$68.68	$2,953.24
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	43.00	EA	$56.58	$2,432.94
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	43.00	EA	$1,848.01	$79,464.43
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	12,870.00	LF	$7.48	$96,267.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	57.00	EA	$676.97	$38,587.29
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	52.00	EA	$1,353.72	$70,393.44
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" OR 36"	48.00	EA	$2,643.27	$126,876.96
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	3.00	AS	$2,939.57	$8,818.71
639-2-1	ELECTRICAL SERVICE WIRE, F&I	17,719.00	LF	$5.09	$90,189.71
639-3-12	ELEC SERV DISCON, F&I,	43.00	EA	$665.48	$28,615.64

	CABINET			
641-3-163	CONCRETE CCTV POLE, FUR & INS W/LOW	17.00 EA	$22,079.77	$375,356.09
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	22.00 EA	$774.22	$17,032.84
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	22.00 EA	$9,030.42	$198,669.24
660-6-121	VEHICLE DETECTION SYSTEM-AVI B,F&I, CAB	2.00 EA	$2,198.98	$4,397.96
660-6-122	VEHICLE DETECTION SYSTEM-AVI B,F&I, ABO	2.00 EA	$7,699.27	$15,398.54
676-2-122	ITS CABINET- F&I, POLE, 336S	21.00 EA	$8,523.42	$178,991.82
676-2-143	ITS CABINET- F&I, BASE, 334	21.00 EA	$8,723.50	$183,193.50
682-1-113	ITS CCTV CAMERA, F&I, DOME ENCL-PRESS	17.00 EA	$7,546.08	$128,283.36
684-2-1	DEVICE SERVER, F&I	22.00 EA	$994.36	$21,875.92

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	TOLLING GANTRY	2.00	LS	$1,700,000.00	$3,400,000.00
	Comment: Price is from I-95 PHASE 3B-1 EXPRESS LANES (8/15/2016)				
	Intelligent Traffic System (ITS) Component Total				$5,638,839.83

Sequence 12 Total $9,745,141.76

Sequence: 13 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: Sequence for Risk Based Contingency

MISCELLANEOUS COMPONENT

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	RISK BASED CONTINGENCY	1.00	LS	$13,800,000.00	$13,800,000.00
	Miscellaneous Component Total				$13,800,000.00

Sequence 13 Total $13,800,000.00

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 31 Project Grand Total **$265,021,318.16**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. With Powerline Road access ramps and HDR quantities for Signing and ITS.

Project Sequences Subtotal			**$204,541,839.00**
102-1	Maintenance of Traffic	10.00 %	$20,454,183.90
101-1	Mobilization	8.00 %	$17,999,681.83
Project Sequences Total			**$242,995,704.73**
Project Unknowns		0.00 %	$0.00
Design/Build		9.00 %	$21,869,613.43

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 31 Project Grand Total					**$265,021,318.16**

Without Powerline Road Ramps Alternative

(Used for Public Hearing)

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FDOT Long Range Estimating System - Production

R1: Project Summary without Components Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD

Project Manager: BOSTIAN

Version 30 Project Grand Total **$183,698,495.51**

Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. Without Powerline Road access ramps and HDR quantities for Signing and ITS.

Sequence 1 NDR Total $55,820,521.31

Description: Managed Lanes, 4 lanes with full shoulders and barrier walls.

Sequence 4 NDU Total $34,530,440.60

Description: 6 lane local section to cover turn lanes, shldr WB.

Sequence 5 NUR Total $8,266,481.25

Description: Temporary roadway to maintain traffic for the local lanes as it is unclear whether the permanent can be put into place first due to utility relocations and critical path of the projects.

Sequence 6 WDU Total $2,386,874.07

Description: Handles work along Powerline Road.

Sequence 7 NUU Total $1,516,615.16

Description: Street extension/relocation at Quiet Waters Business Park.

Sequence 9 MIS Total $12,424,987.30

Description: Ground mount sound walls.

Sequence 10 WDR Total $1,000,037.24

Description: Covers the widen, mill and resurfacing along the connector road west of Seq. 1 at the turnpike as well as the reconstruction of the NB to WB loop ramp.

Sequence 11 RSD Total $4,749,314.24

Description: Construct Water Feature Enhancement ponds and resurface Century Blvd. from Ellesmere Dr. to Hillsboro Blvd due to pond construction.

Sequence 12 MIS Total $9,745,141.76

Description: This sequence is for the corridor signing and ITS quantities developed by HDR.

Sequence 13 MIS Total		$11,300,000.00
Description: Sequence for Risk Based Contingency		
Project Sequences Subtotal		**$141,740,412.93**
Maintenance of Traffic	10.00 %	$14,174,041.29
Mobilization	8.00 %	$12,473,156.34
Project Sequences Total		**$168,387,610.56**
Project Unknowns	0.00 %	$0.00
Design/Build	9.00 %	$15,154,884.95
Project Non-Bid Subtotal		$156,000.00
Version 30 Project Grand Total		**$183,698,495.51**

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FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 30 Project Grand Total **$183,698,495.51**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. Without Powerline Road access ramps and HDR quantities for Signing and ITS.

Sequence: 1 NDR - New Construction, Divided, Rural **Net Length:** 2.462 MI
13,000 LF

Description: Managed Lanes, 4 lanes with full shoulders and barrier walls.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.462
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	35.81	AC	$33,571.83	$1,202,207.23
120-6	EMBANKMENT	38,208.49	CY	$27.91	$1,066,398.96

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	312,952.00	CY	$27.91	$8,734,490.32
	Comment: EMBANKMENT FOR RETAINING WALLS - SEE CADD				
	Earthwork Component Total				$11,003,096.51

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	440
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	138,665.47	SY	$7.65	$1,060,790.85
285-709	OPTIONAL BASE,BASE GROUP 09	71,239.39	SY	$26.54	$1,890,693.41
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	15,253.20	TN	$165.90	$2,530,505.88
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,773.31	TN	$183.10	$507,793.06

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-0-11	CONC CLASS NS, GRAVITY WALL	1,500.00	CY	$623.90	$935,850.00
	Comment: Superelevated section on 2500' Scheme 3 gravity wall at Quiet Water Park				
415-1-1	REINF STEEL- ROADWAY	20,000.00	LB	$1.02	$20,400.00
	Comment: Superelevated section on 2500' Scheme 3 gravity wall at Quiet Water Park				
521-72-27	SHLDR CONC BAR WALL, 14' NOISE WALL	1,187.00	LF	$486.94	$577,997.78
	Comment: NOISE WALL FOR RETAINING WALL ID 10				
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	5,979.00	LF	$193.50	$1,156,936.50
	Comment: SHOULDER BARRIER FOR LENGFTH OF SEQUENCE, LEFT AND RIGHT SHOULDERS				
999-20-1	DISPUTES REVIEW BD, MEETING-DO NOT BID	48.00	DA	$3,300.00	$158,400.00
	Comment: 1 meeting per month for 48 months.				
999-20-2	DISPUTES REVIEW BD, HEARING-DO NOT BID	2.00	EA	$4,000.00	$8,000.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	997.00	EA	$4.25	$4,237.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	19.70	GM	$863.58	$17,012.53
710-11-131	PAINTED PAVT	9.85	GM	$372.47	$3,668.83

MARK,STD,WHITE,SKIP, 6"

Roadway Component Total $8,872,286.09

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	35,619.69	SY	$18.90	$673,212.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,906.65	TN	$165.90	$316,313.24
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	76.27	TN	$183.10	$13,965.04

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-7	CONC BARRIER, W/JUNCT SL, 36 SS	2,500.00	LF	$268.21	$670,525.00
	Comment: Superelevated section on Scheme 3 gravity wall at Quiet Waters Park				

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	33,799.71	LF	$1.87	$63,205.46
104-11	FLOATING TURBIDITY BARRIER	615.52	LF	$17.27	$10,630.03
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	615.52	LF	$9.50	$5,847.44
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18
104-18	INLET PROTECTION SYSTEM	15.00	EA	$121.94	$1,829.10
107-1	LITTER REMOVAL	59.68	AC	$44.12	$2,633.08
107-2	MOWING	59.68	AC	$80.90	$4,828.11

Shoulder Component Total $1,766,582.82

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00

Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	35,619.69	SY	$18.90	$673,212.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,906.65	TN	$165.90	$316,313.24
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	76.27	TN	$183.10	$13,965.04
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	10,500.00	LF	$177.02	$1,858,710.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-1-13	MEDIAN CONC BARRIER, TALL GRADE SEP	8,479.00	LF	$322.00	$2,730,238.00
	Comment: VARIABLE GRADE WALL FOR SOUTH SIDE SHOULDER TO ACCOUNT FOR POSSIBLE ELEVATION DIFFERENCES IN LIEU OF RETAINING WALL and 2500' of variable profile wall along the superelevated section (Quiet Waters)				
	Median Component Total				$5,592,438.42

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	44.32	CY	$2,500.00	$110,800.00
425-1-551	INLETS, DT BOT, TYPE E, <10'	15.00	EA	$7,279.51	$109,192.65
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	1,976.00	LF	$463.20	$915,283.20
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	848.00	LF	$195.09	$165,436.32
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	728.00	LF	$314.55	$228,992.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	99.00	EA	$3,868.31	$382,962.69
570-1-1	PERFORMANCE TURF	1,733.32	SY	$2.39	$4,142.63
	Drainage Component Total				$1,916,809.89

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$356.03	$1,780.15

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	60.00 AS	$1,111.25	$66,675.00
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	$4,644.86	$23,224.30
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	15.00 AS	$6,766.35	$101,495.25
	Signing Component Total			$193,174.70

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	90

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	18,000.00	LF	$10.33	$185,940.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	90.00	EA	$676.97	$60,927.30
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	54,000.00	LF	$2.60	$140,400.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	90.00	EA	$7,290.02	$656,101.80
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	90.00	EA	$572.79	$51,551.10
	Subcomponent Total				$1,094,920.20
	Lighting Component Total				$1,094,920.20

BRIDGES COMPONENT

Bridge ML1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	261.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$155.83**
Basic Bridge Cost	**$3,954,150.00**
Description	MANAGED LANES OVER POWERLINE

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$505.07	$113,357.91
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$1.03	$40,455.31

Bridge ML1 Total $4,107,963.22

Bridge ML2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	142.00
Width (LF)	101.00
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$160.72**
Basic Bridge Cost	**$2,151,300.00**
Description	MANAGED LANES OVER QUIET WATERS BUSINESS PARK ACCESS

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	224.44	CY	$505.07	$113,357.91
415-1-9	REINF STEEL- APPROACH SLABS	39,277.00	LB	$1.03	$40,455.31

Bridge ML2 Total $2,305,113.22

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	2,806.00	LF	$150.01	$420,928.06
	Comment: TRAFFIC RAILINGS FOR BRIDGES ML1, ML2 AND ML4				

Bridge Total $420,928.06

Bridge ML4

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,000.00
Width (LF)	62.50
Type	Overpass Bridge
Cost Factor	2.00
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$150.00
Final Cost per SF	**$151.52**
Basic Bridge Cost	**$9,375,000.00**
Description	BRIDGE OVER DEPRESSED SECTION

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

400-2-10	CONC CLASS II, APPROACH SLABS	138.89 CY	$505.07	$70,149.17
415-1-9	REINF STEEL- APPROACH SLABS	24,305.75 LB	$1.03	$25,034.92
	Bridge ML4 Total			$9,470,184.09
	Bridges Component Total			$16,304,188.59

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	11,236.00	LF	$293.03	$3,292,485.08
	Comment: RAILING FOR RETAINING WALLS				

Retaining Wall 1

Description	Value
Length	1,433.00
Begin height	4.00
End Height	28.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	46,572.50	SF	$29.37	$1,367,834.32

Retaining Wall 2

Description	Value
Length	101.00
Begin height	28.50
End Height	28.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,878.50	SF	$29.37	$84,541.54

Retaining Wall 3

Description	Value
Length	365.00
Begin height	31.70
End Height	29.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	22,338.00	SF	$29.37	$656,067.06

Retaining Wall 4

Description	Value
Length	101.00
Begin height	31.70
End Height	31.70
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	3,201.70	SF	$29.37	$94,033.93

Retaining Wall 5

Description	Value
Length	101.00
Begin height	29.50
End Height	29.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,979.50	SF	$29.37	$87,507.92

Retaining Wall 6

Description	Value
Length	970.00
Begin height	24.50
End Height	4.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	27,645.00	SF	$29.37	$811,933.65

Retaining Wall 7

Description	Value
Length	101.00
Begin height	24.50
End Height	24.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	2,474.50	SF	$29.37	$72,676.06

Retaining Wall 8

Description	Value
Length	1,663.00
Begin height	5.00
End Height	25.50

Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	50,721.50	SF	$29.37	$1,489,690.46

Retaining Wall 9

Description	Value
Length	61.30
Begin height	25.50
End Height	25.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.15	SF	$29.37	$45,909.72

Retaining Wall 10

Description	Value
Length	1,187.00
Begin height	4.00
End Height	25.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	35,016.50	SF	$29.37	$1,028,434.60

Retaining Wall 11

Description	Value
Length	61.30
Begin height	25.50
End Height	25.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.15	SF	$29.37	$45,909.72

Retaining Walls Component Total $9,077,024.09

Sequence 1 Total $55,820,521.31

Sequence: 4 NDU - New Construction, Divided, Urban **Net Length:** 2.248 MI
11,870 LF

Description: 6 lane local section to cover turn lanes, shldr WB.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	60.00 / 60.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.248
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	32.70	AC	$33,571.83	$1,097,798.84
120-6	EMBANKMENT	74,311.49	CY	$27.91	$2,074,033.69

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	27,239.00	CY	$27.91	$760,240.49
	Comment: EMBANKMENT FOR RETAINING WALL SECTION FOR BRIDGE GP1				
	Earthwork Component Total				$3,932,073.02

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	33.00 / 33.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	100,657.33	SY	$7.65	$770,028.57
285-709	OPTIONAL BASE,BASE GROUP 09	87,046.43	SY	$26.54	$2,310,212.25
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	14,362.66	TN	$165.90	$2,382,765.29
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	7,181.33	TN	$149.07	$1,070,520.86

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-40	SHLDR CONC BARRIER,38" OR 44" HEIGHT	4,000.00	LF	$193.50	$774,000.00
	Comment: barrier wall along the northern edge east of Powerline Road.				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	1,517.00	EA	$4.25	$6,447.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	17.98	GM	$863.58	$15,527.17
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	17.98	GM	$372.47	$6,697.01
	Roadway Component Total				$7,336,198.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.25 / 19.25
Total Outside Shoulder Perf. Turf Width L/R	10.00 / 5.00
Sidewalk Width L/R	0.00 / 12.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	11,869.97	LF	$28.39	$336,988.45
520-1-10	CONCRETE CURB & GUTTER, TYPE F	11,869.97	LF	$28.39	$336,988.45
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	15,826.62	SY	$40.91	$647,467.02
570-1-1	PERFORMANCE TURF	19,783.28	SY	$2.39	$47,282.04

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	23,739.94	LF	$1.87	$44,393.69
104-11	FLOATING TURBIDITY BARRIER	562.02	LF	$17.27	$9,706.09
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	562.02	LF	$9.50	$5,339.19
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18

104-18	INLET PROTECTION SYSTEM	115.00 EA	$121.94	$14,023.10
107-1	LITTER REMOVAL	57.21 AC	$44.12	$2,524.11
107-2	MOWING	57.21 AC	$80.90	$4,628.29
	Shoulder Component Total			$1,452,934.61

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	20.00
Performance Turf Width	18.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	23,739.94	LF	$25.89	$614,627.05
570-1-1	PERFORMANCE TURF	23,739.94	SY	$2.39	$56,738.46
	Median Component Total				$671,365.51

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	40.47	CY	$2,500.00	$101,175.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	81.00	EA	$6,694.62	$542,264.22
425-1-451	INLETS, CURB, TYPE J-5, <10'	23.00	EA	$7,862.30	$180,832.90
425-1-521	INLETS, DT BOT, TYPE C, <10'	12.00	EA	$4,932.44	$59,189.28
425-2-41	MANHOLES, P-7, <10'	12.00	EA	$6,016.13	$72,193.56
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	5,952.00	LF	$195.09	$1,161,175.68
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	536.00	LF	$314.55	$168,598.80
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	11,248.00	LF	$389.84	$4,384,920.32
570-1-1	PERFORMANCE TURF	683.42	SY	$2.39	$1,633.37

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	28.20	CY	$2,500.00	$70,500.00
	Comment: End walls for C-2 and C-3 Canals double 72" RCP and double 60" CMP, 14.4+ 13.8				
415-1-6	REINF STEEL- MISCELLANEOUS	2,073.00	LB	$1.89	$3,917.97
	Comment: End walls for C-2 and C-3 Canals double 72" RCP and double 60" CMP, 1249 + 824				

Box Culvert 1

Description	Value
Size	7 x 4
Length	20.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	28.00	CY	$1,212.90	$33,961.20
415-1-1	REINF STEEL- ROADWAY	2,900.00	LB	$1.02	$2,958.00

Box Culvert 2

Description	Value
Size	5 x 4
Length	100.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	63.20	CY	$1,212.90	$76,655.28
415-1-1	REINF STEEL- ROADWAY	7,216.00	LB	$1.02	$7,360.32

Drainage Component Total $6,867,335.90

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	54.00	AS	$356.03	$19,225.62
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,111.25	$5,556.25
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	$6,766.35	$33,831.75
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	5.00	AS	$9,197.10	$45,985.50

Signing Component Total $104,599.12

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	2
Description	Waterways Blvd. and Independence Dr.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,500.00	LF	$10.33	$15,495.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	500.00	LF	$19.82	$9,910.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	2.00	PI	$5,889.59	$11,779.18
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	32.00	EA	$676.97	$21,663.04
639-1-112	ELECTRICAL POWER	2.00	AS	$2,791.46	$5,582.92

	SRV,F&I,OH,M,PUR BY CON				
639-2-1	ELECTRICAL SERVICE WIRE, F&I	120.00	LF	$5.09	$610.80
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	$47,776.11	$191,104.44
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	18.00	AS	$996.87	$17,943.66
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	16.00	AS	$675.47	$10,807.52
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	24.00	EA	$321.17	$7,708.08
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	24.00	AS	$1,246.64	$29,919.36
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	16.00	EA	$247.92	$3,966.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	2.00	AS	$28,741.00	$57,482.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	8.00	EA	$277.00	$2,216.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-1	STEEL MAST ARM ASSEMBLY, F&I, 30'	2.00	EA	$29,831.23	$59,662.46

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	Powerline Road

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	$10.33	$7,231.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	$19.82	$5,946.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	$676.97	$14,893.34
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	$1,676.50	$1,676.50
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00	EA	$55,395.71	$332,374.26
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00	AS	$996.87	$19,937.40
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	$321.17	$6,423.40
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	$1,246.64	$24,932.80
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00

700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

Signalization 3

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	SW 28th Ave

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-6	STEEL MAST ARM ASSEMBLY, F&I, 50'	1.00	EA	$43,669.57	$43,669.57
649-21-8	STEEL MAST ARM ASSEMBLY, F&I, 50'- 40'	1.00	EA	$45,023.87	$45,023.87
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	6.00	AS	$996.87	$5,981.22
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00
	Signalizations Component Total				$1,088,733.42

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	11,869.97	LF	$10.33	$122,616.79
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,356.01	LF	$19.82	$46,696.12
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	79.00	EA	$676.97	$53,480.63
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	43,352.36	LF	$2.60	$112,716.14

715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	79.00 EA	$5,943.21	$469,513.59
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	79.00 EA	$572.79	$45,250.41
	Subcomponent Total			$850,273.67
	Lighting Component Total			$850,273.68

BRIDGES COMPONENT

Bridge GP1

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	990.00
Width (LF)	59.00
Type	Overpass Bridge
Cost Factor	2.40
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$75.00
Factored Cost per SF	$180.00
Final Cost per SF	**$188.06**
Basic Bridge Cost	**$10,513,800.00**
Description	WEST END BRIDGE OVER MANAGED LANES

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	131.11	CY	$505.07	$66,219.73
415-1-9	REINF STEEL- APPROACH SLABS	22,944.25	LB	$1.03	$23,632.58

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-5-13	CONC TRAF RAIL- BRIDGE, 36" SING SLOPE	2,540.00	LF	$150.01	$381,025.40
	Comment: BRIDGE GP1 TRAFFIC RAILING				
	Bridge GP1 Total				$10,984,677.71
	Bridges Component Total				$10,984,677.71

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-3	CONC TRAF RAIL BAR,JCT SLAB,32"V SHP	1,730.00	LF	$293.03	$506,941.90
	Comment: TRAFFIC RAILING FOR WALLS				

Retaining Wall 1

Description	**Value**

Length	535.00
Begin height	4.00
End Height	26.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	16,317.50	SF	$29.37	$479,244.98

Retaining Wall 2

Description	Value
Length	59.00
Begin height	26.50
End Height	26.50
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,563.50	SF	$29.37	$45,920.00

Retaining Wall 3

Description	Value
Length	330.00
Begin height	15.00
End Height	4.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,270.00	SF	$29.37	$184,149.90

Retaining Wall 4

Description	Value
Length	59.00
Begin height	15.00
End Height	15.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	885.00	SF	$29.37	$25,992.45

Retaining Walls Component Total $1,242,249.23

Sequence 4 Total $34,530,440.60

Sequence: 5 NUR - New Construction, Undivided, Rural **Net Length:** 2.248 MI
11,870 LF

Description: Temporary roadway to maintain traffic for the local lanes as it is unclear whether the permanent can be put into place first due to utility relocations and critical path of the projects.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	35.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.248
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	19.07	AC	$33,571.83	$640,214.80
120-1	REGULAR EXCAVATION	173,065.23	CY	$19.67	$3,404,193.07
	Earthwork Component Total				$4,044,407.87

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	5
Roadway Pavement Width L/R	34.50 / 34.50
Structural Spread Rate	220
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	96,278.63	SY	$7.65	$736,531.52
285-706	OPTIONAL BASE,BASE GROUP 06	91,873.55	SY	$18.72	$1,719,872.86
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	10,010.34	TN	$114.87	$1,149,887.76

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
102-71-13	TEMPORARY BARRIER, F&I,LOW PROFILE,CONC	11,870.00	LF	$35.87	$425,776.90

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt

Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	1,821.00	EA	$4.25	$7,739.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	8.99	GM	$863.58	$7,763.58
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	17.98	GM	$396.23	$7,124.22
	Roadway Component Total				$4,054,696.09

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	2.00 / 2.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	5,275.54	SY	$2.39	$12,608.54

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	30,861.92	LF	$1.87	$57,711.79
104-11	FLOATING TURBIDITY BARRIER	562.02	LF	$17.27	$9,706.09
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	562.02	LF	$9.50	$5,339.19
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$1,198.06	$3,594.18
107-1	LITTER REMOVAL	27.25	AC	$44.12	$1,202.27
107-2	MOWING	27.25	AC	$80.90	$2,204.52
	Shoulder Component Total				$92,366.59

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	5.00	AS	$356.03	$1,780.15

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	45.00 AS	$1,111.25	$50,006.25
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	$4,644.86	$23,224.30
	Signing Component Total			$75,010.70

Sequence 5 Total $8,266,481.25

Sequence: 6 WDU - Widen/Resurface, Divided, Urban **Net Length:** 0.530 MI
2,800 LF

Description: Handles work along Powerline Road.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 25.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.530
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Existing Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.61	AC	$33,571.83	$54,050.65
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	1,100.70	CY	$25.26	$27,803.68
	Earthwork Component Total				$81,854.33

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	40.00 / 40.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	0.00 / 12.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,535.97	SY	$7.65	$34,700.17
285-709	OPTIONAL BASE,BASE GROUP 09	3,835.98	SY	$26.54	$101,806.91
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	24,888.75	SY	$4.59	$114,239.36
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	4,106.64	TN	$165.90	$681,291.58

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	616.00 TN	$165.90	$102,194.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	995.55 TN	$149.07	$148,406.64
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	308.00 TN	$149.07	$45,913.56

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	358.00	EA	$4.25	$1,521.50
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.24	GM	$863.58	$3,661.58
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.24	GM	$372.47	$1,579.27
	Roadway Component Total				$1,235,314.97

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	12.25 / 12.25
New Total Outside Shoulder Width L/R	7.25 / 13.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	0.00 / 6.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,799.98	LF	$28.39	$79,491.43
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,866.66	SY	$40.91	$76,365.06
570-1-1	PERFORMANCE TURF	3,111.09	SY	$2.39	$7,435.51

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,599.97	LF	$1.87	$10,471.94
104-11	FLOATING TURBIDITY BARRIER	53.03	LF	$17.27	$915.83
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	53.03	LF	$9.50	$503.78
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06

104-18	INLET PROTECTION SYSTEM	25.00 EA	$121.94	$3,048.50
107-1	LITTER REMOVAL	4.62 AC	$44.12	$203.83
107-2	MOWING	4.62 AC	$80.90	$373.76
	Shoulder Component Total			$180,007.71

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	11.50

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	3,577.76	SY	$2.39	$8,550.85

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	3,600.00	LF	$25.89	$93,204.00
	Median Component Total				$101,754.85

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.55	CY	$2,500.00	$23,875.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	20.00	EA	$6,694.62	$133,892.40
425-1-451	INLETS, CURB, TYPE J-5, <10'	6.00	EA	$7,862.30	$47,173.80
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	296.00	LF	$195.09	$57,746.64
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	88.00	LF	$314.55	$27,680.40
570-1-1	PERFORMANCE TURF	161.21	SY	$2.39	$385.29
	Drainage Component Total				$290,753.53

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	12.00	AS	$356.03	$4,272.36
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,111.25	$2,222.50
700-1-50	SINGLE POST SIGN, RELOCATE	2.00	AS	$281.30	$562.60
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$29.03	$348.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,644.86	$9,289.72

700-2-60	MULTI- POST SIGN, REMOVE	2.00 AS	$666.24	$1,332.48
	Signing Component Total			$18,028.02

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Signal for Quiet Waters Business Park at Powerline Road.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	1.00	EA	$47,776.11	$47,776.11
649-21-11	STEEL MAST ARM ASSEMBLY, F&I, 60'- 30'	1.00	EA	$50,189.13	$50,189.13
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	7.00	AS	$996.87	$6,978.09
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

Signalization 2

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Signals for Powerline Road and West Drive

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$10.33	$7,747.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$19.82	$4,955.00

632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$5,889.59	$5,889.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$676.97	$10,831.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$2,791.46	$2,791.46
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$5.09	$305.40
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	2.00	EA	$47,776.11	$95,552.22
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	9.00	AS	$996.87	$8,971.83
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	$675.47	$5,403.76
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$321.17	$3,854.04
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$1,246.64	$14,959.68
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$247.92	$1,983.36
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$28,741.00	$28,741.00
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$277.00	$1,108.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
649-21-1	STEEL MAST ARM ASSEMBLY, F&I, 30'	2.00	EA	$29,831.23	$59,662.46
	Comment: Signals for West Drive Traffic				

Signalizations Component Total $446,270.46

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-21-2	LIGHTING REPAIRS AND RETROFITS, LED RETR	30.00	EA	$1,096.34	$32,890.20
	Comment: retrofit existing lighting with LED's				

Lighting Component Total $32,890.20

Sequence 6 Total $2,386,874.07

Sequence: 7 NUU - New Construction, Undivided, Urban **Net Length:** 0.275 MI
1,450 LF

Description: Street extension/relocation at Quiet Waters Business Park.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	30.00 / 30.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.275
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$33,571.83	$67,143.66
120-6	EMBANKMENT	5,538.04	CY	$27.91	$154,566.70
	Earthwork Component Total				$221,710.36

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	11.00 / 11.00
Structural Spread Rate	275
Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,375.44	SY	$7.65	$33,472.12
285-709	OPTIONAL BASE,BASE GROUP 09	3,544.17	SY	$26.54	$94,062.27
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	487.32	TN	$165.90	$80,846.39
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	292.39	TN	$149.07	$43,586.58

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	37.00	EA	$4.25	$157.25
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.20	GM	$863.58	$1,899.88
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.55	GM	$372.47	$204.86
	Roadway Component Total				$254,229.35

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	7.25 / 15.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	0.00 / 8.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,449.89	LF	$28.39	$41,162.38
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,449.89	LF	$28.39	$41,162.38
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,288.79	SY	$40.91	$52,724.40
570-1-1	PERFORMANCE TURF	1,610.99	SY	$2.39	$3,850.27

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,899.78	LF	$1.87	$5,422.59
104-11	FLOATING TURBIDITY BARRIER	68.65	LF	$17.27	$1,185.59
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	68.65	LF	$9.50	$652.18
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
104-18	INLET PROTECTION SYSTEM	15.00	EA	$121.94	$1,829.10
107-1	LITTER REMOVAL	3.33	AC	$44.12	$146.92
107-2	MOWING	3.33	AC	$80.90	$269.40
	Shoulder Component Total				$149,603.27

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.94	CY	$2,500.00	$12,350.00
425-1-351	INLETS, CURB, TYPE P-5, <10'	10.00	EA	$6,694.62	$66,946.20
425-1-451	INLETS, CURB, TYPE J-5, <10'	3.00	EA	$7,862.30	$23,586.90

425-1-521	INLETS, DT BOT, TYPE C, <10'	2.00 EA	$4,932.44	$9,864.88
425-2-41	MANHOLES, P-7, <10'	2.00 EA	$6,016.13	$12,032.26
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	640.00 LF	$195.09	$124,857.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	64.00 LF	$314.55	$20,131.20
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	1,376.00 LF	$389.84	$536,419.84
570-1-1	PERFORMANCE TURF	83.48 SY	$2.39	$199.52
	Drainage Component Total			$806,388.40

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	6.00	AS	$356.03	$2,136.18
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	$1,111.25	$1,111.25
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00	AS	$6,766.35	$6,766.35
	Signing Component Total				$10,013.78

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MAX

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,449.89	LF	$10.33	$14,977.36
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	189.20	LF	$19.82	$3,749.94
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	6.00	EA	$676.97	$4,061.82
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	4,917.26	LF	$2.60	$12,784.88
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	6.00	EA	$5,943.21	$35,659.26
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	6.00	EA	$572.79	$3,436.74
	Subcomponent Total				$74,670.00
	Lighting Component Total				$74,670.00

Sequence 7 Total $1,516,615.16

Sequence: 9 MIS - Miscellaneous Construction **Net Length:** 0.000 MI
0 LF

Description: Ground mount sound walls.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	223,190.00	SF	$55.67	$12,424,987.30
	Comment: SEE CADD FILE - 5,920' SOUTH SIDE OF CORRIDOR; 4,225' NORTH SIDE OF CORRIDOR				
	Roadway Component Total				$12,424,987.30

Sequence 9 Total $12,424,987.30

Sequence: 10 WDR - Widen/Resurface, Divided, Rural

Net Length: 0.474 MI / 2,500 LF

Description: Covers the widen, mill and resurfacing along the connector road west of Seq. 1 at the turnpike as well as the reconstruction of the NB to WB loop ramp.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.284
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Median Slope L/R	6 to 1 / 6 to 1
Existing Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.72	AC	$33,571.83	$57,743.55
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	357.66	CY	$25.26	$9,034.49
	Earthwork Component Total				$66,778.04

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Existing Roadway Pavement Width L/R	24.00 / 0.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	15.00 / 0.00
Widened Inside Pavement Width L/R	0.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,278.11	SY	$7.65	$78,627.54
285-709	OPTIONAL BASE,BASE GROUP 09	4,258.47	SY	$26.54	$113,019.79
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	6,666.88	SY	$4.59	$30,600.98

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	733.36 TN	$165.90	$121,664.42
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	687.52 TN	$165.90	$114,059.57
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	266.68 TN	$183.10	$48,829.11
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	166.67 TN	$183.10	$30,517.28

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	64.00	EA	$4.78	$305.92
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.79	GM	$863.58	$3,272.97
	Roadway Component Total				$540,897.58

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	6.00 / 6.00
New Total Outside Shoulder Width L/R	6.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 0.00
Existing Paved Outside Shoulder Width L/R	2.00 / 4.00
New Paved Outside Shoulder Width L/R	2.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ï¿½No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	647.24	SY	$18.90	$12,232.84
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	1,666.72	SY	$2.64	$4,400.14
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	30.56	TN	$165.90	$5,069.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	7.33	TN	$183.10	$1,342.12
570-1-1	PERFORMANCE TURF	555.57	SY	$2.39	$1,327.81

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,750.18	LF	$1.87	$10,752.84
104-11	FLOATING TURBIDITY BARRIER	47.35	LF	$17.27	$817.73
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	47.35	LF	$9.50	$449.83
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$1,198.06	$1,198.06
107-1	LITTER REMOVAL	3.44	AC	$44.12	$151.77
107-2	MOWING	3.44	AC	$80.90	$278.30
	Shoulder Component Total				$38,021.34

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.52	CY	$2,500.00	$21,300.00
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	384.00	LF	$463.20	$177,868.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	$314.55	$12,582.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	19.00	EA	$3,868.31	$73,497.89
570-1-1	PERFORMANCE TURF	333.34	SY	$2.39	$796.68
	Drainage Component Total				$286,045.37

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$356.03	$356.03
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	12.00	AS	$1,111.25	$13,335.00
700-1-50	SINGLE POST SIGN, RELOCATE	1.00	AS	$281.30	$281.30
700-1-60	SINGLE POST SIGN, REMOVE	12.00	AS	$29.03	$348.36
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,644.86	$4,644.86
700-2-60	MULTI- POST SIGN, REMOVE	1.00	AS	$666.24	$666.24
	Signing Component Total				$19,631.79

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$10.33	$8,264.00

635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	4.00 EA	$676.97	$2,707.88
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	2,400.00 LF	$2.60	$6,240.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	4.00 EA	$7,290.02	$29,160.08
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	4.00 EA	$572.79	$2,291.16
	Subcomponent Total			$48,663.12
	Lighting Component Total			$48,663.12
Sequence 10 Total				$1,000,037.24

Sequence: 11 RSD - Resurfacing, Divided **Net Length:** 1.000 MI 5,280 LF

Description: Construct Water Feature Enhancement ponds and resurface Century Blvd. from Ellesmere Dr. to Hillsboro Blvd due to pond construction.

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	28,160.00	SY	$4.59	$129,254.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,548.80	TN	$165.90	$256,945.92

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	405.00	EA	$4.78	$1,935.90
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	8.00	GM	$863.58	$6,908.64
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.00	GM	$372.47	$1,489.88
	Roadway Component Total				$396,534.74

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips ï¿½No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,520.00	SY	$40.91	$144,003.20
	Comment: 12' WIDE SHARED USE PATH. 0.5 miles per pond, 3 ponds.				
	Shoulder Component Total				$144,003.20

DRAINAGE COMPONENT

Retention Basin 1

Description	Value
Size	1 AC
Multiplier	1
Depth	6.00
Description	Three new ponds incorporating 11.18 acres. For depth, assume an average of 10 feet. The input parameters have been overridden by X-item quantities.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.18	AC	$33,571.83	$375,333.06
400-2-2	CONC CLASS II, ENDWALLS	48.90	CY	$2,500.00	$122,250.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION	180,371.00	CY	$10.00	$1,803,710.00
	Comment: 11.18 AC (487,000.8 SF)x 10' depth / 27				
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	1,256.00	LF	$389.84	$489,639.04
	Comment: 300 LF + 750 LF + 200 LF = 1250				
570-1-1	PERFORMANCE TURF	182,780.00	SY	$2.39	$436,844.20
	Comment: Area of restored sod outside of the ponds due to construction, CADD file quant. - 11.18 AC				
	Drainage Component Total				$3,227,776.30

LANDSCAPING COMPONENT

User Input Data

Description	Value
Lump Sum	981,000.00
Cost %	0.00
Component Detail	N

	Landscaping Component Total	$981,000.00
Sequence 11 Total		$4,749,314.24

Sequence: 12 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: This sequence is for the corridor signing and ITS quantities developed by HDR.

ROADWAY COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	28.00	EA	$243.79	$6,826.12
711-14-660	THERMOPLASTIC, PREFORMED, MULTI, ROUTE S	2.00	EA	$2,909.43	$5,818.86
	Roadway Component Total				$12,644.98

SIGNING COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-3-204	SIGN PANEL, F&I OM, 31-50 SF	1.00	EA	$1,375.56	$1,375.56
700-3-205	SIGN PANEL, F&I OM, 51-100 SF	3.00	EA	$2,998.52	$8,995.56
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	8.00	EA	$5,048.64	$40,389.12
700-3-207	SIGN PANEL, F&I OM, 201-300 SF	9.00	EA	$8,096.72	$72,870.48
700-3-208	SIGN PANEL, F&I OM, 301-400 SF	6.00	EA	$9,371.03	$56,226.18
700-3-211	SIGN PANEL, F&I OM, 601 SF AND GREATER	2.00	EA	$22,947.38	$45,894.76
700-4-112	OH STATIC SIGN STR, F&I, C 21-30 FT	3.00	EA	$61,935.33	$185,805.99
700-4-113	OH STATIC SIGN STR, F&I, C 31-40 FT	8.00	EA	$60,433.33	$483,466.64
700-4-114	OH STATIC SIGN STR, F&I, C 41-50 FT	2.00	EA	$69,967.17	$139,934.34
700-4-125	OH STATIC SIGN STR, F&I, S 51-100 FT	9.00	EA	$197,000.00	$1,773,000.00
700-7-132	EMBED DYNAMIC MESS SIGN, F&I, FULL,12-20	4.00	EA	$30,643.90	$122,575.60
700-8-134	FRONT ACC DYN MESS SIGN, F&I, FULL,31-50	7.00	EA	$52,722.82	$369,059.74
700-8-136	FRONT ACC DYN MESS SIGN, F&I, FULL,101-	1.00	EA	$104,433.33	$104,433.33
700-9-137	WALK-IN DYN MESS SIGN,F&I, FULL,201-	1.00	EA	$139,519.81	$139,519.81
700-10-115	DMS SUPPORT STRUCTURE, SPAN, 51-100 FT	1.00	EA	$131,989.97	$131,989.97
	Signing Component Total				$3,675,537.08

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	Miscellaneous
Multiplier	1

Description

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	21.00	EA	$1,676.50	$35,206.50
641-2-13	PREST CNC POLE,F&I,TYP P-III	11.00	EA	$5,592.94	$61,522.34
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I	43.00	EA	$3,784.98	$162,754.14
685-1-11	UPS POWER SUPPLY, F&I, LINE INTERACTIVE	43.00	EA	$3,689.23	$158,636.89
	Signalizations Component Total				$418,119.87

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	11,524.00	LF	$10.33	$119,042.92
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	5,762.00	LF	$19.82	$114,202.84
630-2-15	CONDUIT, F& I, BRIDGE MOUNT	2,593.00	LF	$21.63	$56,086.59
633-1-122	FIBER OPTIC CABLE, F&I, UG,13-48	5,762.00	LF	$3.33	$19,187.46
633-1-124	FIBER OPTIC CABLE, F&I, UG,97-144	28,808.00	LF	$3.51	$101,116.08
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	477.00	EA	$46.41	$22,137.57
633-2-32	FIBER OPTIC CONNECTION, INSTALL, TERM	1,030.00	EA	$98.24	$101,187.20
633-3-11	FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE	43.00	EA	$885.58	$38,079.94
633-3-12	FIBER OPTIC CONN HDWR, SPLICE TRAY	43.00	EA	$68.68	$2,953.24
633-3-13	FIBER OPTIC CONN HDWR, PRETERM CONNECT A	43.00	EA	$56.58	$2,432.94
633-3-15	FIBER OPTIC CONN HDWR, PRETERM PATCH PAN	43.00	EA	$1,848.01	$79,464.43
633-8-1	MULTI-CONDUCTOR COMMUNICATION CABLE, F&I	12,870.00	LF	$7.48	$96,267.60
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	57.00	EA	$676.97	$38,587.29
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36"	52.00	EA	$1,353.72	$70,393.44
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" OR 36"	48.00	EA	$2,643.27	$126,876.96
639-1-122	ELECTRICAL POWER SRV,F&I, UG,PUR CONT	3.00	AS	$2,939.57	$8,818.71
639-2-1	ELECTRICAL SERVICE WIRE, F&I	17,719.00	LF	$5.09	$90,189.71
639-3-12	ELEC SERV DISCON, F&I,	43.00	EA	$665.48	$28,615.64

	CABINET				
641-3-163	CONCRETE CCTV POLE, FUR & INS W/LOW	17.00	EA	$22,079.77	$375,356.09
660-3-11	VEHICLE DETECTION SYSTEM-MICRO,F&I, CAB	22.00	EA	$774.22	$17,032.84
660-3-12	VEHICLE DETECTION SYSTEM-MICRO,F&I, ABO	22.00	EA	$9,030.42	$198,669.24
660-6-121	VEHICLE DETECTION SYSTEM-AVI B,F&I, CAB	2.00	EA	$2,198.98	$4,397.96
660-6-122	VEHICLE DETECTION SYSTEM-AVI B,F&I, ABO	2.00	EA	$7,699.27	$15,398.54
676-2-122	ITS CABINET- F&I, POLE, 336S	21.00	EA	$8,523.42	$178,991.82
676-2-143	ITS CABINET- F&I, BASE, 334	21.00	EA	$8,723.50	$183,193.50
682-1-113	ITS CCTV CAMERA, F&I, DOME ENCL-PRESS	17.00	EA	$7,546.08	$128,283.36
684-2-1	DEVICE SERVER, F&I	22.00	EA	$994.36	$21,875.92

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	TOLLING GANTRY	2.00	LS	$1,700,000.00	$3,400,000.00
	Comment: Cost includes toll building and all equipment. Price is from I-95 PHASE 3B-1 EXPRESS LANES (8/15/2016)				
	Intelligent Traffic System (ITS) Component Total				$5,638,839.83

Sequence 12 Total $9,745,141.76

Sequence: 13 MIS - Miscellaneous Construction **Net Length:** 0.000 MI 0 LF

Description: Sequence for Risk Based Contingency

MISCELLANEOUS COMPONENT

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	RISK BASED CONTINGENCY	1.00	LS	$11,300,000.00	$11,300,000.00
	Miscellaneous Component Total				$11,300,000.00

Sequence 13 Total $11,300,000.00

Date: 6/8/2020 5:11:12 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 439891-1-52-01 **Letting Date:** 12/2022

Description: SR-869/SW 10 ST FROM W OF SR-845/POWERLINE RD TO WEST OF MILITARY TRL

District: 04 **County:** 86 BROWARD **Market Area:** 12 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 2.158 MI

Project Manager: BOSTIAN

Version 30 Project Grand Total **$183,698,495.51**
Description: SR-869/SW 10TH STREET FROM WEST OF POWERLINE ROAD TO WEST OF MILITARY TRAIL. Without Powerline Road access ramps and HDR quantities for Signing and ITS.

Project Sequences Subtotal			**$141,740,412.93**
102-1	Maintenance of Traffic	10.00 %	$14,174,041.29
101-1	Mobilization	8.00 %	$12,473,156.34
Project Sequences Total			**$168,387,610.56**
Project Unknowns		0.00 %	$0.00
Design/Build		9.00 %	$15,154,884.95

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00	LS	$3,000.00	$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$156,000.00**
Version 30 Project Grand Total					**$183,698,495.51**

Appendix G – Pump Station Technical Memorandum

SW 10th STREET

TECHNICAL MEMORANDUM

To:	Robert Bostian, P.E. FDOT Project Manager	**FPID No:** **Contract No.:**	439891-1-22-02 C9V60
From:	Cassie Piche, P.E. 3400 West Commercial Blvd Fort Lauderdale FL		
Subject:	Pump Station Analysis		
Date:	October 10, 2018		

A preliminary pump station analysis was completed for four alternatives being presented at the November 29 Public Alternatives Workshop. The following technical memo describes the assumptions and computations for the pump station design for each alternative.

Fully Depressed Alternative (117)

For the pump stations serving the depressed section the plan is to use a generator within a sound enclosure (with base fuel tank) and electrical equipment within NEMA 4X cabinets which are outdoor rated to eliminate the need for a building. If a building is desired by FDOT or stakeholders, there does appear to be space on this alternative to use one. For the pump station serving the canal on the north and south side of SW 10th street we are using a building to house both the generator and the electrical gear. A fuel tank is not shown, as there are a number of options for the fuel tank which include a tank within the building, underground tank, or above ground tank adjacent to the building. Below are the backup assumptions for determining the size.

Alternative 117 – (Fully Depressed Section)

- Area of depressed roadway = 14.96 acres – 4.43 acres (bridge) = 10.53
- Weighted C = 0.95
- Rainfall Intensity = 9.25
- Flow = (10.53)(0.95)(9.25) = 92.53 cfs

- Plan is to use two pump stations for the Fully Depressed Section.
- West Pump Station will pump to Pond Alternative 2
- East Pump Station will pump to C-2 Canal
- Each Pump Station Capacity = 45.3cfs = 20,767gpm
- Quadplex Pump Station with each pump sized for a third of the total capacity.
- Forcemain size from pump station to each discharge location = 48” (3.69fps) with a total length of 3425ft.
- Approximate Pump Duty Point = 7000 gpm at 54ft – Yields approximate horsepower of 135hp
- Approximate Generator Size = 600Kw (Conservatively sized for four pumps to operate. Use an outdoor generator with a sound attenuated enclosure)
- Wetwell size to meet Flygt Pumps Minimum Design Recommendations (based on Hydraulic Institute)
- Wetwell volume is sized to provide 3 minutes of run time for one pump.

- To minimize wetwell size the influent drainage pipe will need to be sized to provide additional working volume within the pump operating level range (influent pipe will need to be larger and deeper than drainage flow alone would indicate).

C-2 Canal Pump Stations

This alternative requires a pump station on the north and south side of SW 10th street to pump provide either flow to the north of flow to the south. The existing canal is served by two 72" RCP pipes. The required capacity of the C-2 canal in the north direction or south direction are currently unknown. The capacity of the two 72" RCP pipes is conservatively estimated to equal 328 cfs (this is believed to be well over the actual required drainage capacity). Each station north and south are sized to be equal and equipped with its own electrical gear and generator. Pump Station will use an open intake from the canal. Discharge will utilize an inverted siphon under the depressed roadway section.

- Each Pump Station Capacity = 328 cfs = 147,226gpm
- Pump Station will utilize 5 axial flow pumps where each pump is sized for a quarter of the total capacity.
- Estimated horsepower is 250 hp each
- Approximate Generator Size = 1500 Kw (Conservatively sized for five pumps to operate. Use an indoor generator housed within a masonry building)

Depressed WB Alternative (237)

For this pump station the plan is to use a generator within a sound enclosure (with base fuel tank) and electrical equipment within a Nema 4X cabinets which are outdoor rated to eliminate the need for a building. If a building is desired by FDOT or stakeholders, there does appear to be space on this alternative to use one. Below are the backup assumptions for determining the size.

Alternative 237 – (depressed ramp)

- Area of depressed roadway = 1.18 acres - 0.268 acres (bridge) = 0.91
- Weighted C = 0.95
- Rainfall Intensity = 9.25
- Flow = (0.91)(0.95)(9.25) = 8.0 cfs

- Worst Case Scenario is pumping to Pond Alternative 2
- Pump Station Capacity = 8.0 cfs = 3,590 gpm
- Triplex Pump Station with each pump sized for half of the total capacity.
- Forcemain size from pump station to pond = 18" (4.5 fps) with a total length of 2700 ft.
- Approximate Pump Duty Point = 1800 gpm at 60 ft – Yields approximate horsepower of 40-45 hp
- Approximate Generator Size = 200 Kw (Conservatively sized for three pumps to operate. Use an outdoor generator with a sound attenuated enclosure)
- Wetwell size to meet Flygt Pumps Minimum Design Recommendations (based on Hydraulic Institute)
- Wetwell volume is sized to provide 3minutes of run time for one pump.
- To minimize wetwell size the influent drainage pipe will need to be sized to provide additional working volume within the pump operating level range (influent pipe will need to be larger and deeper than drainage flow alone would indicate).

Depressed Eastbound Managed Lanes Alternative (242)

This particular alternative does not have sufficient space for the sound wall and the pump station and associated equipment. The pump station will fit within the right of way at the expense of eliminating the space for the sound wall. The wetwell extends beneath the sidewalk. For this pump station, the plan is to use a generator within a sound enclosure (with base fuel tank) and electrical equipment within a Nema 4X cabinets which are outdoor rated to eliminate the need for a building. If a building is desired by FDOT or stakeholders, it appears additional land will be required. Below are the backup assumptions for determining the size.

Alternative 242 – (Two eastbound lanes depressed)

- Area of depressed roadway = 3.70 acres - 0.19 acres (bridge) = 3.51
- Weighted C = 0.95
- Rainfall Intensity = 9.25
- Flow = (3.51)(0.95)(9.25) = 30.8 cfs

- Worst Case Scenario is pumping to Pond Alternative 2
- Pump Station Capacity = 30.8 cfs = 13,843 gpm
- Triplex Pump Station with each pump sized for half of the total capacity.
- Forcemain size from pump station to pond = 36" (4.41 fps) with a total length of 3125 ft.
- Approximate Pump Duty Point = 7000 gpm at 52 ft – Yields approximate horsepower of 130-135 hp
- Approximate Generator Size = 450 Kw (Conservatively sized for three pumps to operate. Use an outdoor generator with a sound attenuated enclosure)
- Wetwell size to meet Flygt Pumps Minimum Design Recommendations (based on Hydraulic Institute)
- Wetwell volume is sized to provide 3minutes of run time for one pump.
- To minimize wetwell size the influent drainage pipe will need to be sized to provide additional working volume within the pump operating level range (influent pipe will need to be larger and deeper than drainage flow alone would indicate

Partially Depressed Alternative (245)

For this pump station the plan is to use a generator within a sound enclosure (with base fuel tank) and electrical equipment within a Nema 4X cabinets which are outdoor rated to eliminate the need for a building. If a building is desired by FDOT or stakeholders there does appear to be space on this alternative to use one. Below are the backup assumptions for determining the size.

Alternative 245 – (Optimized depressed section)

- Area of depressed roadway = 6.10 acres - 0.29 acres (bridge) = 5.81
- Weighted C = 0.95
- Rainfall Intensity = 9.25
- Flow = (5.81)(0.95)(9.25) = 51.1 cfs

- Worst Case Scenario is pumping to Pond Alternative 2
- Pump Station Capacity = 51.1 cfs = 22,917 gpm
- Quadplex Pump Station with each pump sized for a third of the total capacity.

- Forcemain size from pump station to pond = 48” (4.08 fps) with a total length of 3425 ft.
- Approximate Pump Duty Point = 7667 gpm at 54 ft – Yields approximate horsepower of 150 hp
- Approximate Generator Size = 750 Kw (Conservatively sized for four pumps to operate. Use an outdoor generator with a sound attenuated enclosure)
- Wetwell size to meet Flygt Pumps Minimum Design Recommendations (based on Hydraulic Institute)
- Wetwell volume is sized to provide 3 minutes of run time for one pump.
- To minimize wetwell size the influent drainage pipe will need to be sized to provide additional working volume within the pump operating level range (influent pipe will need to be larger and deeper than drainage flow alone would indicate).

Appendix H –
COAT Recommendations

History of the COAT

In 2015, the Broward Metropolitan Planning Organization (MPO) created the Community Oversight Advisory Team (COAT). The COAT was tasked with obtaining consensus on a vision for the SW 10th Street corridor. The team was comprised of members from the surrounding community (businesses and homeowner representatives) as well as elected and appointed officials. The composition of the team consisted of:

- Nine members from the City of Deerfield Beach:
  - Four residents from communities adjacent to SW 10th Street;
  - Two business representatives; and
  - Three citywide representatives.
- Eight members from the SW 10th Street Study Area:
  - Two from the City of Coconut Creek;
  - Two from the City of Coral Springs;
  - Two from the City of Parkland; and
  - Two representing Broward County interests.

The COAT ultimately provided 18 recommendations and 15 sub-recommendations to the Broward MPO in 2016. The PD&E team has had numerous meetings with the COAT since the start of the PD&E Study, the meeting minutes for those meetings are included in the Comments and Coordination Report, available under separate cover.

The COAT Recommendations Table below provides a summary of how each recommendation is being implemented or considered with respect to the Preferred Alternative along with a reference to where additional information on that topic can be found.

COAT Recommendations Table

Rec #	Recommendation	Disposition	Reference for More Information
1	Creatively determine if an engineering solution which is environmentally feasible can be provided to improve safety of SW 10th Street and provide an efficient traffic solution between Sawgrass / Turnpike and I-95 while maintaining quality of life.	The project will have two roadway envelopes that address the safety and improve operations of the facility while maintaining the quality of life by including a lower posted speed on local SW 10th Street and incorporating complete street elements including a shared use path, as well as landscaping and aesthetic treatments along the corridor.	PER Section 6
2	Improve safety while maximizing improvements to traffic flow of 10th Street and roadway intersections and expressway interchanges.	The project includes a managed lane system which adds capacity to the corridor with a limited access connector road that will connect I-95 with the Sawgrass Expressway and Florida's Turnpike while also providing ingress and egress to the SW 10th Street local lanes. This "connector road", which will not be tolled initially, will allow trucks to use the facility, thereby helping to maximize the reduction of congestion in the local SW 10th Street lanes. This congestion reduction will, in turn, reduce congestion related incidents as well as provide improved evacuation and emergency response routes. A 12-foot wide shared use path along the south side of local SW 10th Street is also proposed.	Traffic conditions: PER Section 4.4.2 Intersection Design: PER Section 6.1.8 Safety Improvements: PTAR Section 7.2
2.1	To include public safety accessibility		
3	Include near term solutions.	Near term solutions include signal timing improvements and other Transportation Systems	

Rec #	Recommendation	Disposition	Reference for More Information
		Management and Operations (TSM&O) type improvements.	TSM&O: PER Sections 4.3 and 6.1.9 Additional Capacity: PER Sections 6.1.1 and 6.1.4
3.1	Signal timing improvements - current technology.	The signals have been optimized by Broward County Traffic Engineering (BCTE) along SW 10th Street and are continually monitored. BCTE conducted a vehicle detection test in April 2019 to confirm traffic signal optimization is working correctly.	
3.2	Adaptive Signal Technology.	Adaptive traffic signal technology does not improve the flow of traffic when the roadway is at, or over, capacity. Adaptive traffic signals alone do not provide a long-term solution. However, adaptive technologies will be built into the project and the latest technology utilized for the improvements. FDOT is also considering work-zone oriented applications that could provide benefits to the local system after construction as well.	
3.3	Additional Traffic Lanes	Additional travel lanes are not considered as a near-term solution, but the project includes four additional managed lanes (four-lane connector road).	
4	Include a below-grade expressway with at-grade local access roads.	The project provides at-grade local road intersections that function similar to the existing connections. The connector road will also remain at-grade until it needs to elevate over Powerline Road to the west and Military Trail to the east. After an extensive evaluation of several alternatives that examined depress road elements none were providing	

Rec #	Recommendation	Disposition	Reference for More Information
		significant benefits that would offset the considerable impacts depressing the road was creating including impacts to private property, business, utilities and construction disruption. Therefore, the Preferred Alternative does not construct the expressway below-grade but does minimize the amount of elevated roads adacent to residential properties. .	PER Sections: 6.1.2 and 6.1.4
4.1	Include extending below-grade expressway, west of westerly residential roadway connection to SW 10th Street.	This option has been determined to not be feasible due to the proximity to the Turnpike overpass and future planned improvements at the Turnpike and Sawgrass Expressway interchange. However, the overpass bridge at Waterways has been moved west in order to minimize visual impact to the residential areas.	
4.2	Include extending below-grade expressway as close to Military Trail as possible, that would allow Military Trail intersection to remain at grade (No overpass of Military Trail over Expressway).	The Preferred Alternative remains at-grade as close to Military Trail as possible per FDOT geometric design criteria. Military Trail will remain at-grade. The managed lanes are required to overpass Military Trail due to the proximity of the railroad crossing.	
5	Minimize, and attempt to eliminate, use of above grade overpass where adjacent to residential areas.	Overpasses are being used only where absolutely unavoidable. The Preferred Alternative does include a managed lane overpass at Military Trail and Powerline Road, which transitions to at-grade in the vicinity of residential areas. In order to keep the local roads at-grade and due to the proximity of the	

Rec #	Recommendation	Disposition	Reference for More Information
		railroad, these overpasses are necessary. The overpass previously proposed at Waterways Boulevard was moved to the west to better comply with this recommendation.	
6	Improve access for local roadways and expressways west of I-95.	The project includes two facilities in one corridor: managed lanes on the north and local SW 10th Street on the south side. Locating SW 10th Street on the south allows access to residential communities and commercial centers to remain. There will also be median modifications that improve safety and traffic flow along local SW 10th Street. Additional features will be provided to help enhance business access, such as an additional traffic signal along Powerline Road to facilitate a protected left-turn out of Quiet Waters Business Park. The Connector Road will provide high speed limited access connection with Sawgrass Expressway, I-95 and the Newport Center intersection that will be accessible to and from the connector lanes just east of Military Trail. These connections will improve commercial access as well as improve overall intersection operations and traffic circulation.	PER Section 6.1.7 and 6.1.8
6.1	Improve residential access to SW 10th and expressways from Waterways, Independence Bay, Century Village, Waterford Homes, Waterford Courtyards, and the Renaissance (nursing home).		
6.2	Improve commercial access to SW 10th and expressways for Newport Center, Publix Distribution, Palm Trails Plaza, SW 10th Street strip mall, Industrial area along SW 30th Street, Sawgrass Promenade.		
6.3	Improve Sawgrass Expressway and Turnpike connection to I-95.		
7	Encourage improved access to expressway and 10th Street from local roads east of I-95.	The project provides ingress and egress access to local SW 10th Street that will accommodate traffic coming from and going to locations along SW 10th Street east of I-95.	PER Sections 4.4.2 and 6.1.7

Rec #	Recommendation	Disposition	Reference for More Information
8	Include generous tabletop intersections for local roads to improve pedestrian and bike connectivity north and south across SW 10th Street.	Tabletop intersections were envisioned to improve pedestrian and bicycle connectivity. However, since the project utilizes a northern alignment, this connectivity is not needed in the form of tabletops. The project includes crosswalks at all signalized intersections and a 12-foot wide shared use path along the south side of SW 10th Street.	PER Section 6.1.5
9	Prepare Noise Study and identify mitigation needs required.	A Noise Study Report has been prepared and has identified mitigation requirements in the form of noise walls which are warranted all residential areas that are fronting SW 10th Street.	Noise Analysis: NSR and PER Section 6.2.7 Project Commitments: PER Section 1.3
9.1	Include noise walls (include at the beginning of construction).	The Noise Study Report prepared for the Preferred Alternative indicates that noise walls are warranted in front of all residential areas on SW 10th Street from Turnpike to Military Trail. Noise walls that are desired and identified to be constructed with the project, will be constructed as early in the construction project as possible (project commitment).	
9.2	Explore sound proofing for affected homes and businesses.	FDOT has worked closely with the Federal Highway Administration (FHWA) and the FDOT Office of Environmental Management to determine the potential for soundproofing windows and doors for residential properties. Based on this coordination and per the FHWA 23 CFR 772 regulation as well as State Statute 335.17, it has been determined that	

Rec #	Recommendation	Disposition	Reference for More Information
		interior noise abatement may only be considered for qualifying public facilities (medical facilities, libraries, place of worship etc.) or nonprofit institutions. FDOT does not have authorization to provide noise abatement outside of the FDOT proposed right-of-way except for those facilities listed above if it is warranted.	
10	Accelerate SW 10th Street PD&E scoping and consultant selection to catch up with:	The SW 10th Street PD&E scoping and consultant selection were accelerated to align with the adjacent PD&E Studies.	N/A
10.1	PD&E for the Sawgrass / 10th Street interchange with Turnpike.	The SW 10th Street PD&E project has been accelerated and is now anticipated to be completed prior to the Sawgrass / Turnpike interchange with SW 10th Street PD&E Study. The acceleration of the SW 10th Street project has allowed both teams to collaborate and refine roadway geometry on the west end of the SW 10th Street project.	
10.2	PD&E for the SW 10th Street interchange with I-95.	The SW 10th Street PD&E and the I-95 interchange PD&E from SW 10th Street to Hillsboro Boulevard project schedules are closely aligned to obtain Location Design Concept Acceptance (LDCA) within a short time frame of each other. The two studies had joint public alternatives meetings and joint public hearings.	
11	Create a Gateway to North Broward by maximizing landscaping along	FDOT has created two stand-alone landscaping projects to occur after the construction of the SW 10th	Project Commitments: PER Section 1.3

Rec #	Recommendation	Disposition	Reference for More Information
	10th Street and north and south along adjacent connecting roadways, including landscape buffers and berms (by using native species).	Street Connector and the I-95 project. FDOT will maintain trees, but if more robust landscaping is desired, then FDOT is willing to construct it but would require the City of Deerfield Beach to maintain. FDOT commits that landscaping and aesthetic treatments will be coordinated with the local communities and the City of Deerfield Beach during the final design phase. Aesthetic treatments and landscaping schemes will be in conformance with the City of Deerfield Beach guidelines.	
11.1	Explore use of revenue generated by tolls for maintenance of landscaping and tabletop parks.	FDOT commits that the managed lanes will open without tolling, and a separate public hearing would be conducted if it is determined to introduce tolling on the managed lanes in the future. Moreover, if the facility is tolled in the future, electronic open road tolling would be used. Any potential future tolling revenue will be allocated per Florida Statute *338.166*.	
12	Minimize impacts to the environment including wetlands and air and water quality.	The project has been designed to minimize the natural, physical, cultural, and social impacts. The natural environment impacts have been documented in a Natural Resources Evaluation (NRE) Report. There are no wetland impacts associated with this project and minimal surface water impacts. FDOT commits to conducting updated bald eagle survey the nesting season prior to the start of construction and will coordinate the results with United States Fish	NRE, AQTM, and WQIE

Rec #	Recommendation	Disposition	Reference for More Information
		and Wildlife Service (USFWS). The air quality has been assessed and documented in the Air Quality Technical Memorandum (AQTM). The addition of the managed lanes is anticipated to improve traffic flow along the corridor which will reduce greenhouse gas emissions. The water quality has been documented in the Water Quality Impact Evaluation (WQIE) as well as the Sole Source Aquifer (SSA) checklist that has been coordinated with the Environmental Protection Agency (EPA). No significant water quality impacts are anticipated. During design, permitting, and construction this will be further addressed through the use of best management practices and adherence to the standard specifications for roadway and bridge construction.	
13	Encourage mass transit and carpooling alternatives.	Broward County lacks a transit route along SW 10th Street, but the City has a local bus route. FDOT will work with both entities to accommodate bus stops and other transit features to facilitate transit service.	PER Section 6.1.6
14	Protect Deerfield Beach's West Well Field.	The Preferred Alternative has been evaluated and has been determined to have no impacts to the well field. FDOT will continue to work with City to ensure that there are no adverse impacts during construction and after the project is completed.	PER Appendix J

Rec #	Recommendation	Disposition	Reference for More Information
15	Maximize business signage visibility and include temporary signage for local businesses during construction.	FDOT standards require business signing during construction. These details will be coordinated during the design phase. Access will be maintained to all businesses and communities during construction.	FDOT Design Standards
16	If tolling is planned for expressway, locate toll stations so as not to adversely affect local roadway network.	FDOT commits that the managed lanes will open and remain without tolling until performance and operations fall below acceptable levels. When the introduction of tolling could improve the declining performance levels, at such time FDOT will notify the public and solicit feedback for any tolling that is proposed in the future. FDOT commits that any future tolling of the managed lanes will be electronic tolling that does not require vehicles to stop and pay a toll.	Project Commitments: PER Section 1.3
17	Include alternate transportation routes during the construction phase to alleviate congestion once construction begins on SW 10th Street and plans to alleviate congestion on Hillsboro Blvd., Sample Rd., Wiles Rd., and SW 18th St.	Public outreach will be conducted to notify SW 10th Street users of the construction and potential for traffic delays. Alternate routes will be encouraged and temporary improvements to traffic signal timing along alternate routes will be implemented. A conceptual Temporary Traffic Control Plan will be further developed during the design phase to identify any detour routes if needed.	Design Phase
17.1	Explore the potential to go under the railroad tracks at Hillsboro Blvd, to alleviate traffic during the	The tunnel alternative was deemed infeasible and not advanced as part of the I-95 from SW 10th Street to Hillsboro Boulevard Interchange PD&E Study.	I-95 PD&E (FM # 436964-1) PER

Rec #	Recommendation	Disposition	Reference for More Information
	construction phase and resolve issues on I-95.		
18	Install utilities underground.	Utility coordination is being performed as a part of this PD&E study. City utilities will be relocated at no cost to the City of Deerfield Beach. Florida Power and Light (FP&L) has indicated that their transmission lines, if relocated, must remain above ground. Most other utilities will remain buried or attached to the FP&L poles.	Utility Assessment Report

Appendix I – Groundwater Technical Memorandum

Kimley»Horn

MEMORANDUM

To: Chris Jackson, PE, LEED AP
RS&H, Inc.

Phil Schwab, PE
RS&H, Inc.

From: Jason C. Sheasley, PG

Date: September 13, 2019

RE: Public Water Supply Wells Considerations
FPID No. 439891-1-22-02
SW 10th Street Connector PD&E Study
Broward County, Florida

Kimley-Horn and Associates, Inc. (Kimley-Horn) has reviewed the SW 10th Street Connector Project Development & Environmental (PD&E) Study Preferred Alternative plans which propose to depress a section of SW 10th Street adjacent to existing public water supply wells maintained by the City of Deerfield Beach. Based on our review of the plans and Deerfield Beach well field data we do not anticipate any adverse impacts to the existing public water supply wells.

BACKGROUND

The depressed roadway will be constructed in cells; each approximately 100-feet long and 40-feet deep. Sheet piling will be installed along the perimeter of each cell to facilitate excavation and construction. The sheet pile will be constructed to depths ranging from 40 to 60 feet below land surface (bls). Furthermore, the sheet pile walls will be sealed using grout to preclude ground water infiltration into the excavation. As excavation and construction proceeds, the area inside each cell will be dewatered. Water-proofing will be installed in each cell prior to the construction of a concrete slab and concrete retaining walls. Each cell and the corresponding depressed roadway will be constructed in such a manner that permanent dewatering will not be necessary.

The City of Deerfield Beach maintains three public water supply wells (WW-22, WW-23 and FA-2) along the southern side of SW 10th Street (**Figure 1**). Wells WW-22 and WW-23 are constructed into the Biscayne Aquifer whereas FA-2 is constructed into the upper Floridan aquifer. The construction information for the three wells is presented below in **Table 1**.

TABLE 1
DEERFIELD BEACH WELL CONSTRUCTION DETAILS

Well No.	Diameter (inches)	Total Depth (feet, bls)	Casing Depth (feet, bls)	Pump Capacity (gallons/minute)
WW-22	14	170	105	2,800
WW-23	14	200	105	2,800
FA-2	12	1,030	915	3,000

FIGURE 1
DEERFIELD BEACH WELL LOCATIONS

HYDROGEOLOGY

There are two principal aquifer systems in northern Broward County; the surficial aquifer and the Floridan aquifer. According to Fish (1987), the surficial aquifer system is comprised of all materials from the top of the water table to the top of the intermediate confining unit. The intermediate confining unit is a thick sequence of low permeability sediments that separates the surficial aquifer from the underlying Floridan aquifer. The Floridan aquifer includes a thick sequence of highly permeable limestone and carbonate rocks. It is divided into the upper Floridan aquifer, middle confining or semi-confining unit and lower Floridan aquifer.

In the vicinity of SW 10th Street, the base of the surficial aquifer occurs at an altitude of approximately -320 feet below sea level. The bottom of the intermediate confining unit and the top of the Floridan aquifer occurs at approximately -1,000 feet below sea level.

The permeability of the sediments within the surficial aquifer system are highly variable. The system may be divided locally into one or more water bearing units separated by units of lower permeability. The most prominent water-bearing unit within the surficial aquifer system is known as the Biscayne

aquifer. It is comprised of sand, limestone and shelly limestone and is highly transmissive (150,000 to 300,000 feet^2/day). For this reason, the Biscayne aquifer serves at the principal source of drinking water for several communities in south Florida, including Deerfield Beach.

The intermediate confining unit, which separates the surficial aquifer system from the Floridan aquifer is comprised chiefly of interbedded sand, silt and clay with mudstone, claystone, and dolomite. These lithologic units have very low permeabilities and have limited capacities for transmitting water. Furthermore, the low permeability of the intermediate confining unit precludes the movement of water between the overlying surficial aquifer system and the underlying Floridan aquifer. In the vicinity of the SW 10th Street, the low permeability units of the intermediate confining unit are more than 700 feet thick.

The Floridan aquifer is comprised of highly permeable limestone, dolomite, and dolomitic limestone. Historically, the Floridan aquifer has not been used as a source of drinking water in south Florida due to elevated chloride concentrations. However, in recent years the Floridan aquifer in south Florida has been used as an alternative water supply due to increased demands. The upper Floridan aquifer is highly transmissive. The transmissivity of the aquifer ranges from 20,000 to 29,000 feet^2/day in the vicinity of SW 10th Street.

Based on the geotechnical data from the proposed depressed roadway section and lithologic logs for the City of Deerfield Beach wellfields unconsolidated sand, silt and shell hash is present to a depth of approximately 40 to 50 feet bls in the vicinity of SW 10th Street. Between 50 to 100 feet bls an alternating sequence of limestone, sand and sandstone is present. Below 100 feet bls, alternating sequences of limestone, sandstone, phosphatic sands, and shell hash are present to a depth of approximately 320 feet bls.

DISCUSSION

Kimley-Horn has considered both the short-term and long-term effects of the depressed roadway section on the nearby public water supply wells and presents the following discussion.

Construction Dewatering

We anticipate that there will be little to no effect on the nearby public water supply wells as a result of the proposed construction dewatering activities. This is based on the following:

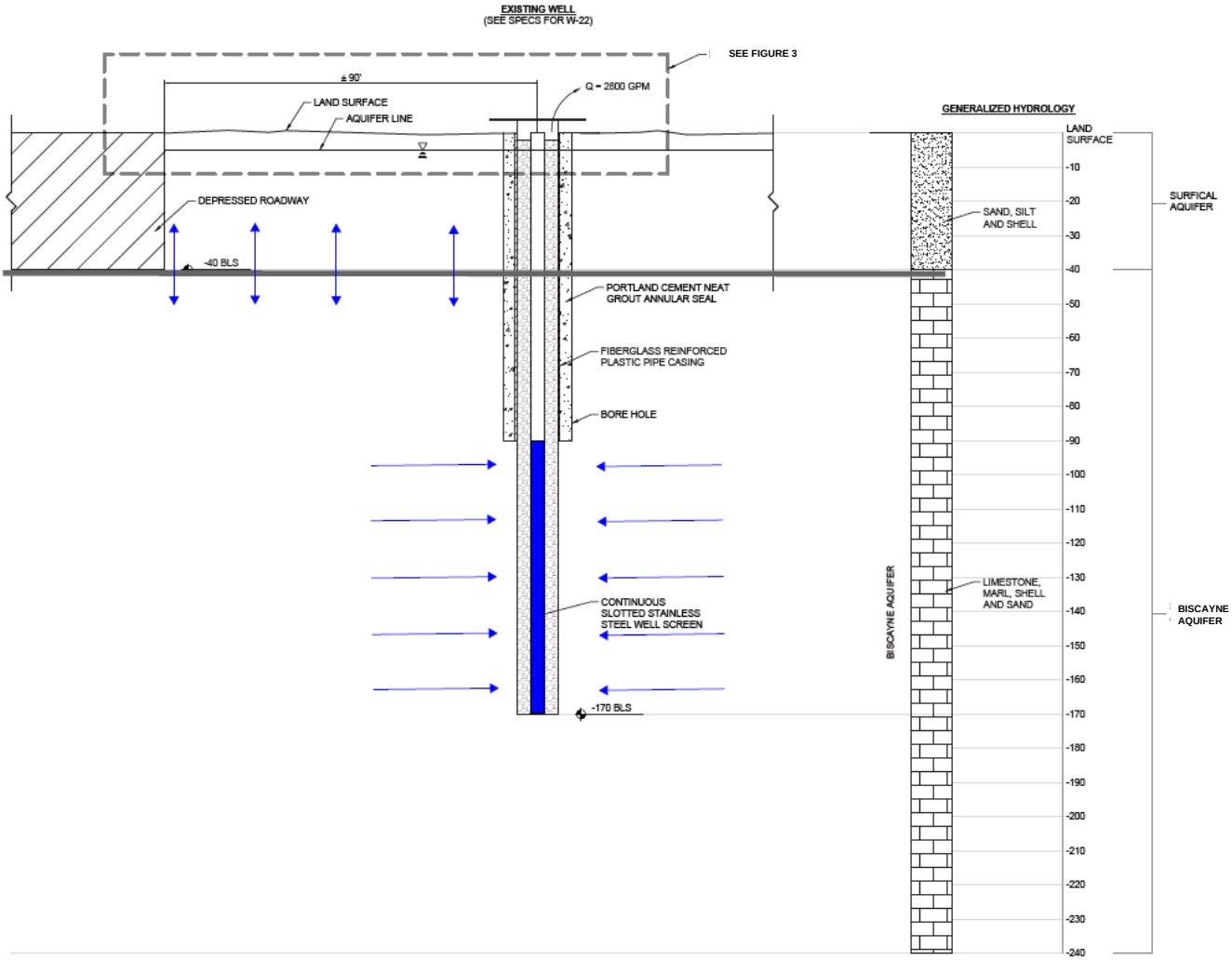
1. The proposed construction dewatering will occur inside of sheet piled cells. The sheet piling and tremie seal will isolate the individual cells from the surrounding subsurface area and prevent the infiltration of ground water into the excavation. Conversely, the sheet piling and tremie seal will preclude drawdown of the water table outside of the excavation area. Thus, the area inside the cells may be pumped dry to facilitate excavation and construction of the depressed roadway section.

   The South Florida Water Management District (SFWMD) considers the use of sheet pile as an effective physical barrier to prevent drawdown of the water table due to short-term construction dewatering activities.

2. The total depths of the two Biscayne aquifer wells WW-22 and WW-23 are 170 and 200 feet bls, respectively. The wells are cased to approximately 105 feet bls. The depressed roadway

will be constructed to a depth of approximately 40 feet bls. Thus, the excavation activities will not intersect the water-bearing zone for the two production wells (**Figure 2**).

FIGURE 2
DEPRESSED ROADWAY AND PUBLIC WATER SUPPLY WELL CROSS-SECTION



3. It is estimated that it will take approximately two months to complete each cell. Thus, the duration of dewatering will be short-term. When permitting short-term construction dewatering permits, the SFWMD does not require the corresponding impact analysis to include nearby water wells due to the limited duration at which potential impacts could occur.

4. With regards to the nearby Floridan aquifer well FA-2, the intermediate confining unit between the surficial aquifer and underlying Floridan aquifer will preclude any hydraulic influence on the well.

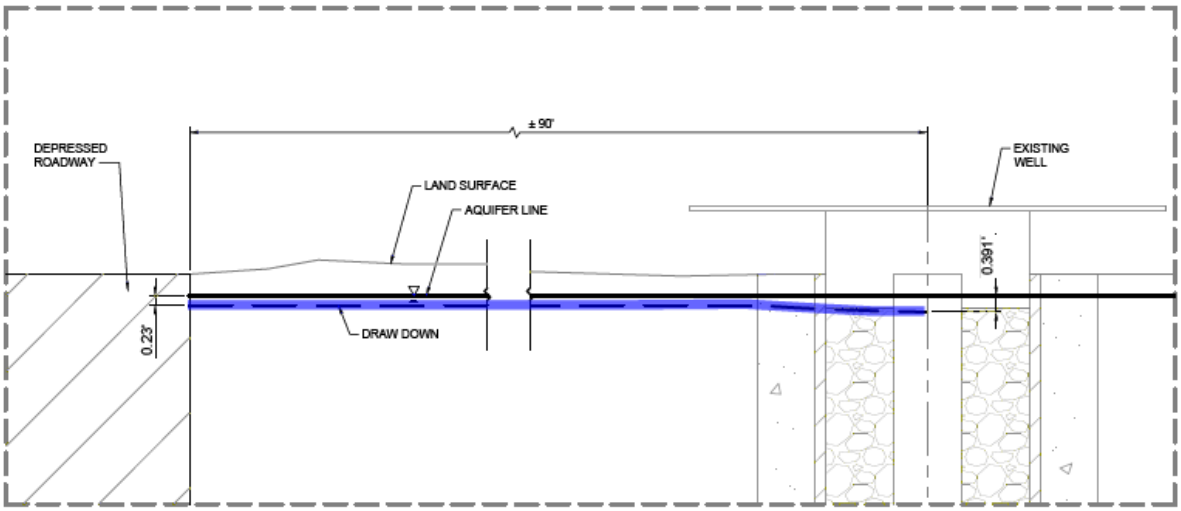
Post-Construction Long-Term Effects

Kimley-Horn does not anticipate any long-term effects on the nearby public supply wells as a result of the depressed roadway section. This is based on the following:

1. The primary production zone for the two Biscayne aquifer wells (WW-22 and WW-23) is between approximately 100 to 200 feet bls, which is 60 to 160 feet below the base of the depressed roadway section. As such, the completed depressed roadway will not physically interfere with the production zone of the well.

2. The Biscayne aquifer is highly transmissive in the vicinity of SW 10th Street. Ground water modeling performed by CDM Smith for the City of Deerfield Beach's Water Use Permit demonstrated that the depressed roadway is within the 0.1-foot drawdown contour for WW-22 and WW-23 (**Figure 3**). The limited amount of drawdown predicted to occur in the surficial aquifer suggests that the depressed roadway will have little to no effect on the two wells.

FIGURE 3
DRAWDOWN CROSS-SECTION



3. The depressed roadway section and wells WW-22 and WW-23 are located within the Northern Broward County Recharge System (NBCRS). The system is a diversion and impoundment project consisting of several canals that capture rainfall and runoff to maintain water levels in the surficial aquifer and recharge wetlands. The NBCRS will regionally maintain water levels in the surficial aquifer including within the areas of WW-22, WW-23 and the depressed roadway.

Furthermore, the two wells are located immediately adjacent to the C-2 canal, which maximize the amount of recharge to the aquifer.

4. Construction of the depressed roadway will include the use of sealed sheet piling and tremie seals. These controls will effectively seal each construction cell and preclude depressed roadway from acting as a conduit for the introduction and downward migration of contaminants into the aquifer.

5. Regarding the nearby Floridan aquifer well FA-2, the intermediate confining unit between the surficial aquifer and underlying Floridan aquifer will preclude any hydraulic influence on the well.