

PRELIMINARY ENGINEERING REPORT

Project Development and Environment (PD&E) Study

Widen Florida's Turnpike (SR 91) From South of Kissimmee Park Road to US 192

Mile Post 238.5 - 242.5

Osceola County, Florida

Financial Project Identification Numbers: 441224-1-22-01

Efficient Transportation Decision Making Number: 14329



Prepared for:

**Florida Department of Transportation
Florida's Turnpike Enterprise**

Prepared by:

Dewberry Engineers Inc.

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PROFESSIONAL ENGINEER CERTIFICATION PRELIMINARY ENGINEERING REPORT

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This preliminary engineering report contains engineering information that fulfills the purpose and need for the Widening of Florida's Turnpike (SR 91) Project Development and Environment (PD&E) Study from south of Kissimmee Park Road to US 192 in Osceola 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 Dewberry Engineers Inc. and that I have prepared or approved the evaluation, findings, opinions, conclusions or technical advice for this project.

This item has been digitally signed and sealed by Don Hammack, P.E. on the date adjacent to the seal.

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1.0 Project Summary

1.1 Project Description

Florida's Turnpike Enterprise (FTE) is conducting a Project Development and Environment (PD&E) Study to evaluate alternatives for the widening of Florida's Turnpike (SR 91) from south of Kissimmee Park Road to US 192 (E. Irlo Bronson Memorial Highway), henceforth US 192, in Osceola County, a distance of approximately 4 miles, from Mile Post (MP) 238.5 to MP 242.5. The project consists of widening Florida's Turnpike (SR 91), from four- to eight-lanes, along with evaluation of modifications to the existing Kissimmee Park Road and US 192 interchanges.

There is an existing partial diamond interchange between Florida's Turnpike (SR 91) and Kissimmee Park Road that serves the City of St. Cloud and Osceola County. This interchange currently provides a southbound off-ramp from Florida's Turnpike (SR 91) to Kissimmee Park Road and a northbound on-ramp from Kissimmee Park Road to Florida's Turnpike (SR 91). The missing interchange ramps serving movements to and from the south were previously planned, but not constructed. The existing interchange is experiencing operational issues due to heavy peak traffic volumes on the ramps to Kissimmee Park Road and a lack of adequate spacing between the Old Canoe Creek Road intersection.

To the north, the existing interchange with US 192 currently provides only a northbound off-ramp from Florida's Turnpike (SR 91) to US 192. This lack of a southbound off-ramp directs additional traffic to the Kissimmee Park Road interchange. FTE currently has a project under design that will add a southbound off-ramp from Florida's Turnpike (SR 91) to US 192 and a northbound on-ramp from US 192 to Florida's Turnpike (SR 91). The FPID for this project is 436194-1.

This study's project limits include several area roadways including Kissimmee Park Road, Old Canoe Creek Road, Nolte Road and US 192. These roadways provide accommodations for pedestrians and bicyclists, as well as motorized vehicles. The project study area is shown in **Figure 1-1: Project Location Map**, located below.

Proposed improvements include:

- The widening of the Florida's Turnpike (SR 91) mainline, from the existing 4-lanes to 8-lanes,
- Modifications to, or potential relocation of, the existing Kissimmee Park Road interchange, and
- Completion of movements at the US 192 partial interchange by adding a southbound on-ramp.



1.2 Purpose and Need

Capacity improvements to Florida's Turnpike (SR 91) mainline and interchange improvements along the corridor are being proposed to address existing and future traffic congestion and related safety issues. Traffic at the Florida's Turnpike (SR 91) southbound off-ramp terminal intersection with Kissimmee Park Road currently experiences long delays and queues during the evening commute. Queues extend along the entire length of the ramp and onto the Florida's Turnpike (SR 91) mainline. This is mainly due to the heavy southbound off-ramp left turn traffic demand, which exceeds the capacity of the existing single left turn lane. Also, eastbound right turn queues at the Kissimmee Park Road and Old Canoe Creek Road intersection, located near the interchange, extend upstream to the interchange ramp terminals. These conditions compound the backups on the southbound off-ramp and the Florida's Turnpike (SR 91) mainline. As travel demand increases in the future, traffic operations are expected to further deteriorate within the interchange area and along the Florida's Turnpike (SR 91) mainline.

Transportation Demand

Travel demand on Florida's Turnpike (SR 91) through much of Orange and Osceola Counties has increased significantly. Florida's Turnpike (SR 91) has continued to grow as a "commuter" facility serving trips between urban centers and has become an important component of local transportation systems. As demand for local access grows, continued increase in traffic volumes at existing interchanges will result in future congestion. If Florida's Turnpike (SR 91) is to efficiently fulfill this evolving role in the urban transportation system, it will require new or modified access points with major crossroads. It is within this context that interchange improvements are proposed to improve and enhance access between Florida's Turnpike and the surrounding transportation network.

System Linkage

There is a need to address and improve linkage to the existing local roadway network. Relocating the existing partial interchange to Nolte Road as a full interchange, along with the addition of a direct connection to Old Canoe Creek Road south of Kissimmee Park Road, will provide more efficient access points to better serve trips originating or ending in the City of St. Cloud. The addition of a southbound on-ramp at the US 192 interchange will also improve connectivity and enhance existing evacuation routes.

Consistency with Transportation Plans

The MetroPlan Orlando 2040 Long Range Transportation Plan (LRTP) (Blueprint 2040) Cost Feasible Plan was amended to include improvements to the Kissimmee Park Road interchange and the widening of Florida's Turnpike (SR 91) mainline from approximately MP 240 to MP 242. These amendments were adopted on May 10, 2017. The LRTP will be updated to include the full project limits during the PD&E phase. This project is being completed without federal funding.

Social/Economic Demand

Population and employment projections referenced in MetroPlan Orlando's 2040 LRTP (Blueprint 2040) indicate that the population of Osceola County is expected to grow from 350,542 to 609,025 (74% growth) between 2015 and 2040. Employment is projected to grow from 96,460 jobs to 269,821 jobs (180% growth) between 2015 and 2040. The project area is expected to experience a portion of this growth directly, due to several planned developments in the vicinity of the project, including the Edgewater Development of Regional Impact (DRI), Toho Preserves subdivision, and the Tohoqua subdivision. The Edgewater DRI has a buildout date of 2027 and maximum buildout potential of 7,000 single and multi-family residential units, and 507,000 square feet of retail space in mixed-use community centers. Preliminary subdivision plans for Toho Preserves and Tohoqua were approved by Osceola County in 2015 and 2016, respectively. These subdivisions are located west of Florida's Turnpike (SR 91).

Traffic Safety

Crash data from the state's Crash Analysis Reporting System (CARS) database for the most recent five years showed that the number of crashes doubled from 2012 to 2016 within the study area. All of the crashes resulted in injury and property damage only. Within the PD&E study area, the Florida's Turnpike (SR 91) crashes were mostly off road and crashes along the ramps were mostly rear end. Most of the crashes at the PD&E study area intersections were rear end or angle in nature. Queue backups on the Florida's Turnpike (SR 91) mainline contribute to crashes at the Kissimmee Park Road interchange. The intersection of Kissimmee Park Road and Old Canoe Creek Road is also a high crash location.

1.3 Commitments

To minimize the impacts of this project to the social, cultural, natural, and physical environment, FTE has identified the following commitments:

1. The United States Fish and Wildlife Service (USFWS) Standard Protection Measures for the Eastern Indigo Snake (*Drymarchon corais couperi*) will be implemented to assure that the Eastern Indigo Snake will not be adversely impacted by the project.
2. A gopher tortoise (*Gopherus polyphemus*) survey within 25-feet of construction limits (including roadway footprint, construction staging areas, and stormwater management ponds) will be performed prior to the start of the project construction, per FWC guidelines. FTE will secure any relocation permits needed and ensure that gopher tortoises are relocated prior to construction.
3. Impacts to suitable foraging habitat for the federally protected wood stork (*Mycteria americana*) will be mitigated through the purchase of credits from a USFWS approved mitigation bank pursuant to Section 373.4137, Florida Statute (F.S.) or as otherwise agreed to by the Florida Department of Transportation (FDOT) and the appropriate regulatory agencies. FTE will consult with USFWS through the USACE Permitting process and provide documentation that "impacts to wood stork foraging habitat are offset."

4. FDOT will initiate technical assistance with USFWS to confirm species that have Consultation Areas (CA) inside the study boundary, to obtain concurrence on Level of Effect (LOE) and confirm requirements for species-specific surveys. FDOT will provide one seasonal species-specific survey for Audubon's crested caracara (*Polyborus plancus audubonii*) and Florida scrub jay (*Aphelocoma coerulescens*) prior to project letting, to confirm absence.
5. FDOT will provide an updated desktop review of available occurrence data for bald eagle (*Haliaeetus leucocephalus*) nests, which will be conducted at least three (3) months prior to project letting, to ensure no nest sites are adversely affected within 660-feet of the project limits.
6. During the design phase, a Level II Contamination Assessment will be conducted for locations with risk rating of medium, if the identified contamination concerns have the potential to impact the existing and/or proposed right-of-way (ROW).
7. Additional cultural resource assessments of project may be required during the project's design phase. Findings of the Cultural Resources Assessment Survey (CRAS) will be coordinated with the State Historic Preservation Office (SHPO) for their review and concurrence.
8. The FTE is committed to the construction of feasible and reasonable noise abatement measures at Teka Village, Betsy Ross Lane/Kettle Creek Drive, Neptune Elementary School and Neptune Middle School as identified in Noise Study Report, dated June 2020, contingent upon the following conditions during future Design phases:
 - 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 FTE; 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.

1.4 Alternatives Analysis Summary

The Alternative Analysis focused on the Kissimmee Park Road interchange modifications, since the Florida's Turnpike (SR 91) mainline widening and US 192 southbound on-ramp were fairly straightforward. The Florida's Turnpike (SR 91) widening alternatives included one inside widening and two outside widening concepts. It was agreed in discussions with FTE to widen to the inside and provide a 26-foot median for the Florida's Turnpike (SR 91) mainline improvements. This section matches the project to the north (FPID 436194-1). The ROW for the US 192 southbound on-ramp was previously acquired by FDOT, so alternatives focused on the location

of the ramp within this ROW. Also, the location of the future ramp considered the maximum offset to adjacent properties and avoidance of the existing Florida Gas Transmission line.

Five Build Alternatives (along with a No-Build Alternative) were considered at the beginning of the PD&E study which included interchange improvements along the corridor. These alternatives included the No-Build Alternative and Alternatives 1, 2, 3a, 3b, and 4. Alternatives 1, 2, and 3a were eliminated during preliminary stages of traffic analysis as they did not meet future traffic needs and the Florida Department of Transportation (FDOT) Design Manual criteria.

Alternatives 3b and 4 were carried forward to further analysis for consideration and are currently the primary alternatives. Throughout the remainder of this section, Alternative 3b is referred to as Alternative 1 and Alternative 4 is referred to as Alternative 2, respectively, including in referenced attached exhibits.

Alternative 1 - Alternative 1 will add capacity to Florida's Turnpike (SR 91) through the addition of travel lanes from south of Kissimmee Park Road to US 192. Florida's Turnpike (SR 91) will be widened from the existing 4-lane section (2 lanes in each direction) to an ultimate 8-lane section (4 lanes in each direction). This alternative includes modifications to the existing Kissimmee Park Road interchange and direct connections between Florida's Turnpike (SR 91) and Old Canoe Creek Road, located approximately $\frac{3}{4}$ mile south of Kissimmee Park Road. The existing Kissimmee Park Road interchange currently provides northbound on-ramp and southbound off-ramp connections with Florida's Turnpike (SR 91). The interchange improvements will add a southbound on-ramp and northbound off-ramp, as well as modifications to the existing ramps. Alternative 1 also includes a proposed southbound on-ramp from US 192 at the location of the existing US 192 partial interchange.

Alternative 2 - Alternative 2 will add capacity to Florida's Turnpike (SR 91) through the addition of travel lanes from south of Kissimmee Park Road to US 192. Florida's Turnpike (SR 91) will be widened from the existing 4-lane section (2 lanes in each direction) to an ultimate 8-lane section (4 lanes in each direction). This alternative includes a proposed new Florida's Turnpike (SR 91) interchange at an extension of Nolte Road, located approximately $\frac{1}{2}$ mile north of Kissimmee Park Road. This new interchange will provide full access to and from Florida's Turnpike (SR 91). The existing ramps at the Kissimmee Park Road interchange will be removed, however the overpass will remain for local access. The proposed interchange features a diverging diamond configuration, which offers improved capacity with a smaller footprint. Direct connections between Florida's Turnpike (SR 91) and Old Canoe Creek Road will be located approximately $\frac{1}{2}$ mile south of Kissimmee Park Road. Alternative 2 also includes a proposed southbound on-ramp from US 192 to Florida's Turnpike (SR 91) at the location of the existing US 192 partial interchange.

Pond Design alternatives within the study area include up to three (3) alternative sites per basin and are described and displayed in the June 2020 *Pond Siting Report*, available under separate cover. Drainage design options associated with each alternative, and the potential habitat and wetland impacts, is further described in the appropriate sections of the report below.

Both alternatives, Alternatives 1 and 2, improve lane capacity by widening to the inside median, shifting drainage to the outside edge of the right-of-way (ROW) boundary. No shift in alignment

alternatives were considered, as the adjacent northern Florida's Turnpike (SR 91) segment of 4-lane to 8-lane widening is in final design and currently funded for construction.

1.5 Description of Recommended Alternative

The recommended Build Alternative, Alternative 2, addresses the operational issues of the existing Kissimmee Park Road interchange and accommodates the future travel demand by creating a new interchange approximately ½ mile north of Kissimmee Park Road. When compared to Alternative 1, additional ROW will be required for Alternative 2; however, Alternative 2 has fewer relocations than required for Alternative 1. Additionally, Alternative 2 has less environmental impacts and offers the lower total cost when compared to Alternative 1. A summary of these impacts is further described in the appropriate sections of the report below. The attendees at the Public Information Meeting held on August 6, 2019, who expressed a preference in a Build Alternative, overwhelmingly preferred Alternative 2 over Alternative 1 by a margin of 47 to 3.

Additional ROW will be required for Alternative 2. This recommended Build Alternative includes the following features:

- Widening Florida's Turnpike (SR 91), to the median, from the existing 4-lane section (2 lanes in each direction) to an ultimate 8-lane section (4 lanes in each direction). The future horizontal alignment will match the existing horizontal alignment.
- New fully directional, diverging diamond interchange at Nolte Road.
- Extension of Nolte Road from east of Old Canoe Creek Road to west of Florida's Turnpike (SR 91), including intersection improvements at the Nolte Road / Old Canoe Creek intersection.
- The existing Kissimmee Park Road bridge over Florida's Turnpike (SR 91) will remain for local access, however the existing interchange ramps will be removed.
- Addition of a southbound off-ramp and northbound on-ramp to Florida's Turnpike (SR 91), with direct connections to Old Canoe Creek Road, located approximately ½ mile south of Kissimmee Park Road. The southbound off movement will require a flyover ramp bridge over Florida's Turnpike (SR 91) mainline.
- A southbound on-ramp from US 192 to Florida's Turnpike (SR 91) will be added at the existing US 192 partial interchange.
- The vertical profile of the Florida's Turnpike (SR 91) will be adjusted (raised) slightly to meet base clearance criteria over the seasonal high-water elevations. The bridges over the C-31 Canal will be replaced with one structure.

The No-Build Alternative is also being considered by FTE for this corridor; it assumes that no improvement to capacity, safety or intersections are proposed.

1.6 List of Technical Documents

The following documents were prepared as part of the study:

- Draft Contamination Screening Report November 2019
- Draft Natural Resources Evaluation November 2019
- Draft Methodology Letter of Understanding September 2019
- Pond Siting and Location Hydraulics Report..... January 2020
- Draft Utility Assessment Report November 2019
- Draft Typical Section Technical Memorandum..... October 2019
- Cultural Resources Assessment December 2019
- Draft Water Quality Impact Evaluation December 2019
- Draft Air Quality Impact Evaluation December 2019
- Draft Sociocultural Effects Evaluation December 2019
- Draft Letter of Geotechnical Engineering January 2020
- Draft Bridge Analysis Report..... January 2020
- Draft Toll Siting Technical MemorandumFebruary 2020
- Draft ITS Technical MemorandumFebruary 2020
- Systems Interchange Modification Report March 2020
- Noise Analysis Report..... May 2020
- Conceptual Stage Relocation Plan To be determined

2.0 Existing Conditions

2.1 Roadway

The following sections provide a description of the major roadways within the project study limits.

Florida's Turnpike (SR 91)

Florida's Turnpike (SR 91) provides multi-regional connectivity from Miami-Dade County in South Florida to Interstate 75 (I-75) at Wildwood in Sumter County. The proposed interchange modifications at MP 240 and 242 are within the Northern Turnpike system which extends 67 miles from north of the Three Lakes Toll Plaza in Osceola County, through Orlando in Orange County, to I-75 at Wildwood in Sumter County. Within the vicinity of the proposed interchange modifications, Florida's Turnpike (SR 91) has two 12-foot lanes in each direction, with 8-foot inside and 10-foot outside paved shoulders. Florida's Turnpike (SR 91) crosses the C-31 Canal with twin low-level bridges, each providing two 12-foot travel lanes with 5-foot -11-inch inside shoulders and 9-foot -11inch outside shoulders. The posted speed on Florida's Turnpike (SR 91) within the study area is 70 miles per hour (mph).

Kissimmee Park Road

Kissimmee Park Road is an east-west arterial that begins close to Lake Tohopekaliga and ends at Old Canoe Creek Road in Osceola County, crossing Florida's Turnpike (SR 91). Within the study area, Kissimmee Park Road is primarily a two-lane undivided arterial. However, Kissimmee Park Road from just west of Florida's Turnpike (SR 91) to the Old Canoe Creek Road intersection, including the overpass, is a three-lane section with sidewalk on the north and south side. The posted speed is 35 mph within the study area.

US 192

US 192 is an east-west arterial that begins at US 27 in Lake County and ends at SR A1A in Brevard County, crossing several major roadways including I-4, US 17/92/441, Florida's Turnpike (SR 91), and I-95. Within the study area, US 192 is a divided urban principal arterial classified as an Access Management Class 3 facility (controlled access) and the posted speed is 45 mph. Also, US 192 was recently widened to six lanes from Aeronautical Drive to Budinger Avenue (FPID: 239682-1).

Old Canoe Creek Road

Old Canoe Creek Road is a north-south minor arterial with a posted speed of 45 mph within the study area. The roadway has a four-lane divided urban section north of Kissimmee Park Road and transitions to a two-lane rural section south of Kissimmee Park Road.

Nolte Road

Nolte Road is a four-lane, divided, east-west rural collector which currently does not have direct access to or from the Florida's Turnpike (SR 91). It starts at Old Canoe Creek Road and ends at

Hickory Tree Road, providing access to mostly residential areas. It forms a T-intersection with Old Canoe Creek Road and has a posted speed limit of 35 mph.

2.2 Pedestrian and Bicycle Facilities

Chapters 222 and 223 of the 2020 *Florida Design Manual* provide updated guidelines on designing pedestrian and bicycle facilities, respectively. Specifically, these guidelines further implement a “Complete Streets” policy, designing multi-modal facilities that are safer and more accessible for all roadway users.

These guidelines were used in designing the new Nolte Road extension and interchange as part of Alternative 2. This includes 6-foot sidewalks, the latest FDOT standard, on both sides of Nolte Road, the four-lane section of Old Canoe Creek Road and along the south side of Kissimmee Park Road in the interchange vicinity. The proposed improvements will provide sidewalks for all four-lane urban reconstruction sections. A 12-foot multi-use path will be provided along the south side of the Nolte Road extension and through the interchange, for increased safety at the ramp crossings. Cross walks will be signed and striped and ped signals provided at the signalized intersections.

Dedicated bike lanes will be provided on both sides of Nolte Road and the four-lane section of Old Canoe Creek Road. Five-foot bike lanes will be provided for the widened sections of Old Canoe Creek Road.

2.3 Transit Facilities

LYNX Transit Service has bus routes that serve portions of Osceola County. The closest route to the study area is Route 10, which provides service along US 192. This route will not be impacted by the proposed improvements.

2.4 Right of Way

The existing Florida’s Turnpike (SR 91) ROW width within the project limits is 400 feet. The ROW varies for the local roadways.

2.5 Vertical and Horizontal Alignment

Florida’s Turnpike (SR 91) is the major horizontal alignment. There are two 1° curves within the study area which are superelevated at 3.7%. The vertical profile is relatively flat, with over 2.5 miles of the study area having a profile grade less than 0.10%.

The Old Canoe Creek Road horizontal geometry is primarily on a tangent alignment with a 1,000-foot radius curve (reverse crown) at the south end of the study area and an 800-foot curve (3.2% superelevated) just south of Nolte Road. The profile is a series of vertical curves with profile grades ranging +/-0.30% to +/-0.57%.

Kissimmee Park Road is on a tangent between the Florida’s Turnpike (SR 91) ramps, with a 4 45-foot curve approaching from the west and a 9 30-foot’ curve approaching the intersection with

Old Canoe Creek Road. The Florida's Turnpike (SR 91) overpass is the high point of a crest vertical curve with a +4.07% grade approaching from the west and a -5.7% grade approaching the intersection with Old Canoe Creek Road.

2.6 Pavement Condition

This section to be updated when pavement condition information is available in November.

2.7 Bridges and Structures

Existing structures within the project limits includes seven (7) bridges and three (3) box culverts. Four (4) of the bridges within the study limits will be replaced under the adjacent Florida's Turnpike (SR 91) project (FPID 436194-1) or by Osceola County. These include the Neptune Road and Neptune Road Bike Path bridges over the Florida's Turnpike (SR 91) mainline and separate Florida's Turnpike (SR 91) southbound and northbound bridges over US 192. The remaining bridge sites include Kissimmee Park Road over the Florida's Turnpike (SR 91) mainline and twin bridges carrying Florida's Turnpike (SR 91) over the C-31 Canal (St. Cloud Canal). The three (3) culverts include Florida's Turnpike (SR 91) mainline over a canal, Florida's Turnpike (SR 91) southbound off-ramp at US 192 over a ditch, and Florida's Turnpike (SR 91) mainline over an abandoned cattle crossing.

The existing Kissimmee Park Road bridge over Florida's Turnpike (SR 91) mainline (Bridge No. 924182) will remain in place. The bridge has an overall length of 202-feet with two (2) equal spans of 101-feet. The bridge consists of a concrete deck/prestressed AASHTO Type IV girder, simple span superstructure, with concrete abutments and intermediate pier founded on prestressed 18-inch square concrete piles. The vertical clearance is 17-feet - 5-inches in the design plans but the inspection report indicated a vertical clearance of 16-feet - 4-inches. The bridge carries three 12-foot lanes with a 10-foot outside shoulder, 2-foot - 6-inch inside shoulder and an 8-foot protected and enclosed sidewalk. It was constructed in 2006 for the ultimate 6-lane mainline section on Florida's Turnpike (SR 91). The existing bridge spans can accommodate the recently proposed 8-lane mainline section. The intermediate bridge pier was originally designed for the current criteria vehicle impact loading. The bridge is not posted for load and has ratings of 8 out of 9 for deck, 8 out of 9 for superstructure and 7 out of 9 for substructure (2017 Inspection Report). Through an agreement with FTE, Osceola County is responsible for the maintenance of this bridge.

The existing Florida's Turnpike (SR 91) bridges over the C-31 Canal, Bridge No. 920074 (southbound) and Bridge No. 920140 (northbound), each have two 12-foot wide travel lanes with 6-foot inside and 10-foot outside shoulders. The bridge has an overall length of 254-feet - 6-inches with five (5) spans at 56.54-feet, 43-feet, 55-feet, 43-feet, and 56.54-feet consecutively. The bridge consists of a concrete deck/prestressed AASHTO Type II girder, simple span superstructure, with concrete abutments and intermediate bents founded on prestressed 18-inch concrete piles. The vertical clearance is 10.05-feet over the DHW Elevation of 55.9-feet, and 8-feet over the maintenance berm. The bridges were constructed in 1963 and widened in 1991. To maintain the vertical clearance when widening to the outside, the beam flanges were reduced. The worst-case reduction is from 6-inches deep to 4½-inches at the exterior beams.

The northbound (920140) bridge is not posted for load and has ratings of 7 of 9 for deck condition, 7 of 9 for superstructure condition and 6 of 9 for substructure condition (2017 Inspection Report). The inspector recommendations for the northbound bridge include repair spalls and failed patches in all spans (lane 1), repair spall Bay 2 Span 4, 10-feet north of Bent 4 (total of 10,973 sf), repair spall in bridge railing (10 lf), remove vegetation growing from slope protection all corners (800 sf).

The southbound (920074) bridge is not posted for load and has ratings of 6 out of 9 for deck condition, 7 out of 9 for superstructure condition and 6 out of 9 for substructure condition. The inspector recommendations for the southbound bridge include remove unsound epoxy and patch Abutment 6 joint header in Lane 1 (3 lf), install reflectors on east barrier to meet standards for shoulders less than 8-feet wide (7 lf), and spray vegetation growing in both slope protection areas (900 sf). The bridge may be in suitable condition for widening, although the age, conditions of 6 out of 9 and vertical clearance issues are indications that the bridge is more suitable for replacement. FTE is responsible for the maintenance of these bridges.

Box Culvert 92Q037 is under the Florida's Turnpike (SR 91) southbound off-ramp to Kissimmee Park Road. The box culvert carries a ditch under Florida's Turnpike (SR 91) southbound ramp. The box culvert is a 7-foot by 4-foot concrete, double cell with a length of 98-feet and was constructed in 2006. The box culvert is currently in good condition with a sufficiency rating of 100 and a health index of 91.37 (2019 Inspection Report). There are no inspector recommendations for corrective action. Box Culvert 92Q037 is not posted for load.

Box Culvert 92Q027 is approximately 0.1 mile north of Neptune Road and carries Florida's Turnpike (SR 91) over a canal. The box culvert is a 7-foot by 4-foot concrete, double cell with a length of 263-feet. The box culvert was built in 1963, then extended in 1990 and again in 2006. The box culvert is currently in fair condition with a sufficiency rating of 85 and a health index of 68.59 (2017 Inspection Report). There are no inspector recommendations for corrective action. Box Culvert 92Q027 is not posted for load and suitable for widening.

Box Culvert 92Q028 is approximately 1.2 miles south of Osceola Parkway and carries Florida's Turnpike (SR 91) over an abandoned cattle crossing. The box culvert is a 12-foot by 10-foot concrete, single cell with a length of 110-feet. The box culvert was built in 1963 and rehabbed in 1975. The box culvert is currently in good condition with a sufficiency rating of 93 and a health index of 89.36 (2019 Inspection Report). Corrective Action evaluation noted to clean and patch spalls in the top faces of the culvert headwalls (partially completed under work order from 2014). There are still impending spalls at the west face of east headwall. Box Culvert 92Q028 is not posted for load and suitable for widening.

2.8 Drainage

The entire project limits are within the C-31 Canal watershed where runoff generally flows towards the Canal and then east to west from East Lake Tohopekaliga to Lake Tohopekaliga. East Lake Tohopekaliga is controlled by Structure S-59 before discharging west into the C-31 Canal, and Lake Tohopekaliga is controlled by Structure S-61 before discharging south. These lakes are part of the headwaters of the Kissimmee River.

There are offsite areas that flow to the Florida's Turnpike (SR 91) limited access ROW. These are documented in the Florida's Turnpike (SR 91) Drainage Connection Permits listed:

- TP-92-DC-070-94- Teka Village
- TP-92-DC-058-4 – Anthem Park Subdivision MP 241 – discharge to Florida's Turnpike (SR 91) through three structures
- TP-92-DC-042-16 – Tohoqua MP 242*

**Note: TP-92-DC-109-04 – Keystone Point Phase 3 at MP 241.5 had permitted discharge to the Florida's Turnpike (SR 91) ROW, but this permit was not constructed and has expired, so it was not considered within the analysis.*

The C-31 Canal watershed Water Body Identification Number (WBID) 3173B is not listed as a verified impaired waterbody. The project limits also do not directly discharge to any Outstanding Florida Water. All basins through the project limits are considered open and have a positive outfall.

There are four (4) major basins along the corridor which are defined based on their outfall location. Refer to **Figure 2-1: Existing Cross Drain and Basin Map** below for their general location. In addition, the location of each cross drain (CD) is shown on this figure.

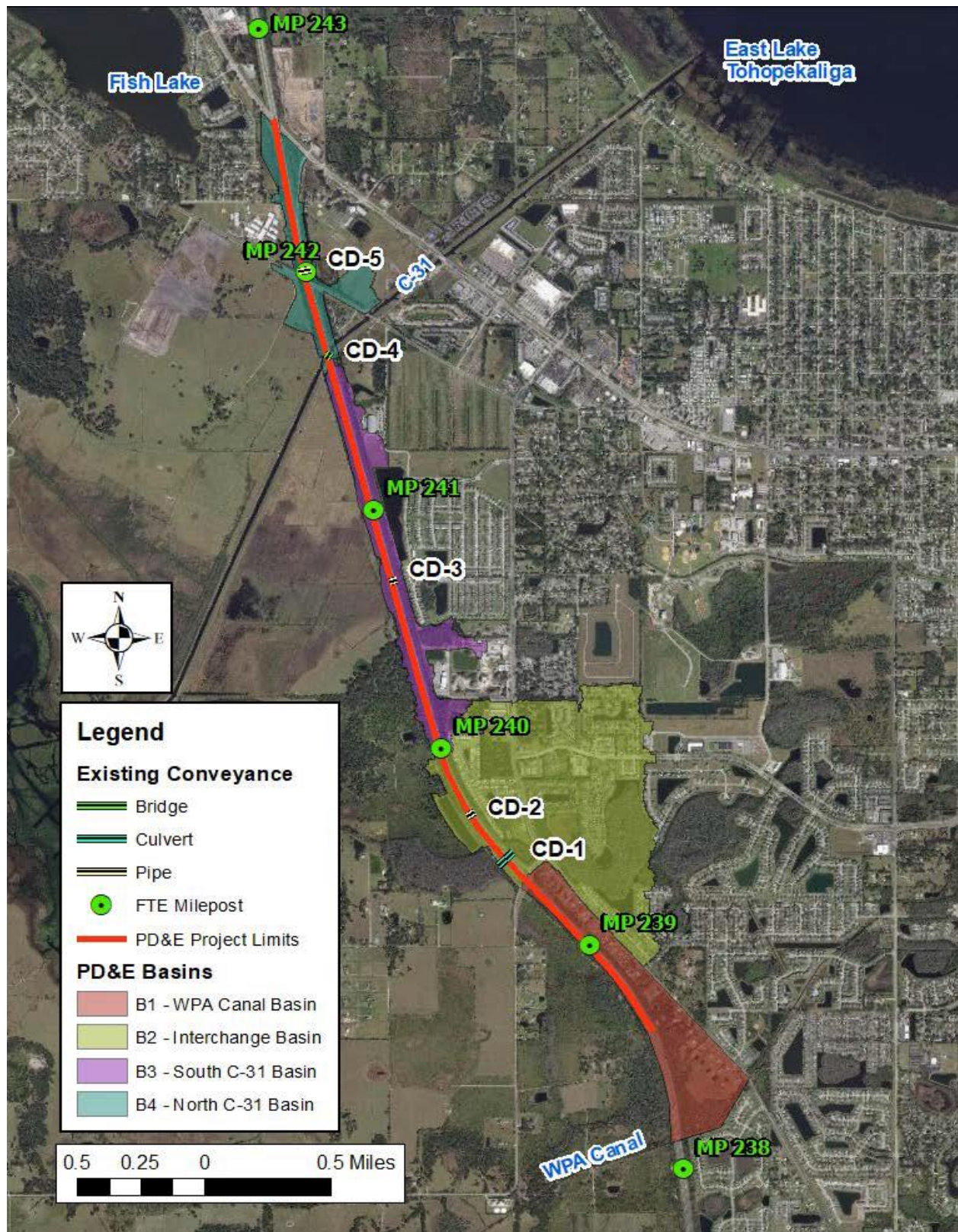


Figure 2-1: Existing Cross Drain and Basin Map

A description of the four basins is provided below.

Basin 1 – WPA Canal Basin (MP 238.5 to MP 239.4)

Basin 1 extends from the beginning of the project limits (MP 238.5) to the Kissimmee Park Road interchange (MP 239.4). There are no permitted stormwater management facilities and no existing cross drains within this basin. Existing onsite runoff flows into roadside swales which are ultimately conveyed south to the WPA Canal, which crosses Florida's Turnpike (SR 91) at MP 238.1. WPA Canal flows east to west and discharges into Lake Tohopekaliga

Basin 2 – Kissimmee Park Road Interchange Basin (MP 239.4 to MP 240)

Basin 2 extends from the Kissimmee Park Road overpass (MP 239.4) to MP 240 and includes a significant amount of offsite area with a total area of approximately 400-acres. This was delineated as part of the Kissimmee Park Road interchange (FPID 441224-1-52-01) design effort.

There is an existing stormwater management facility for this basin permitted under the Kissimmee Park Road interchange (South Florida Water Management District [SFWMD] Permit 49-01481-P, Application 041008-30, issued March 2005) which was modified on November 2005 (Application 050816-6). Under this permit, the existing Florida's Turnpike (SR 91) wet detention pond located at MP 239.7 adjacent to the southbound Florida's Turnpike (SR 91) mainline was constructed. The existing pond provides treatment, attenuation, and floodplain compensation storage. There are two cross drains within this basin. CD-1 is a double 7-foot by 4-foot box culvert that conveys a majority of the offsite flow to the adjacent wetlands to the west. CD-2 is a 42-inch steel pipe which conveys offsite runoff into a floodplain settling basin between the existing pond and roadway mainline, which is then conveyed into the existing pond. Refer to **Figure 2-2: CD-1 (Double 7-foot by 4-foot Concrete Box Culvert) at MP 239.5** for CD-1 and **Figure 2-3: CD 2 (42-inch steel pipe) at MP 239.7** for CD-2.



Figure 2-2: CD-1 (Double 7-foot by 4-foot Concrete Box Culvert) at MP 239.5 (Photo taken 1/23/2019)



Figure 2-3: CD 2 (42-inch steel pipe) at MP 239.7 (Photo taken 1/23/2019)

Basin 3 – South C-31 Canal Basin (MP 240 to MP 241.6)

Basin 3 extends from MP 240 to the C-31 Canal bridges and primarily consists of onsite runoff. There are no permitted stormwater management facilities within this basin. CD-3 is located at MP 240.7 and is a 36-inch pipe that acts as an equalizer pipe between roadside ditches. Refer to **Figure 2-4: CD-3 (36-inch Reinforced Concrete Pipe) at MP 240.7**. Existing roadside ditches convey onsite runoff to the north prior to discharge into the C-31 Canal. Offsite properties along the northbound side discharge to these roadside ditches as well.



Figure 2-4: CD-3 (36-inch Reinforced Concrete Pipe) at MP 240.7
(Photo taken 1/23/2019)

CD-4 are the existing C-31 Canal bridges. The C-31 Canal flows east to west from East Lake Tohopekaliga to Lake Tohopekaliga.

Basin 4 – North C-31 Basin (MP 241.6 to 242.6)

Basin 4 extends from the C-31 Bridge (MP 241.6) to US 192 (MP 242.6) and primarily consists of onsite runoff. There are no permitted stormwater management facilities within this basin. CD-5 is located at MP 242 and is a double 36-inch pipe that conveys runoff from the west to the east just north of the Neptune Road overpass. Refer to **Figure 2-5: CD-5 (Double 36-inch RCP) at MP 242**. Existing roadside ditches convey onsite runoff to the south prior to discharge into the C-31 Canal.



Figure 2-5: CD-5 (Double 36-inch RCP) at MP 242
(Photo taken 1/23/2019)

2.9 Floodplains

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Osceola County, community panel number 12097C0252G and 12097C0090G, dated June 18, 2013, indicates a portion of the project area is located in the 100-year floodplain (see **Figure 2-6: Figure 2-6: FEMA Floodplains (FEMA Database, 2018)**). Therefore, there will be floodplain involvement with federally defined floodplains. There are no regulated floodways within the project limits.

The project corridor crosses two (2) FEMA floodplains: 1) Zone AE at the C-31 Canal, and 2) Zone A at CD-1, just north of the Kissimmee Park Road interchange.

No adverse impacts are anticipated to the floodplain, as required by the SFWMD permitting process. The SFWMD requires replacement of floodplain storage lost as a result of encroachments. In addition, the SFWMD and FDOT design criteria for conveyance systems (e.g. culverts) allow no significant increase in flood stages.

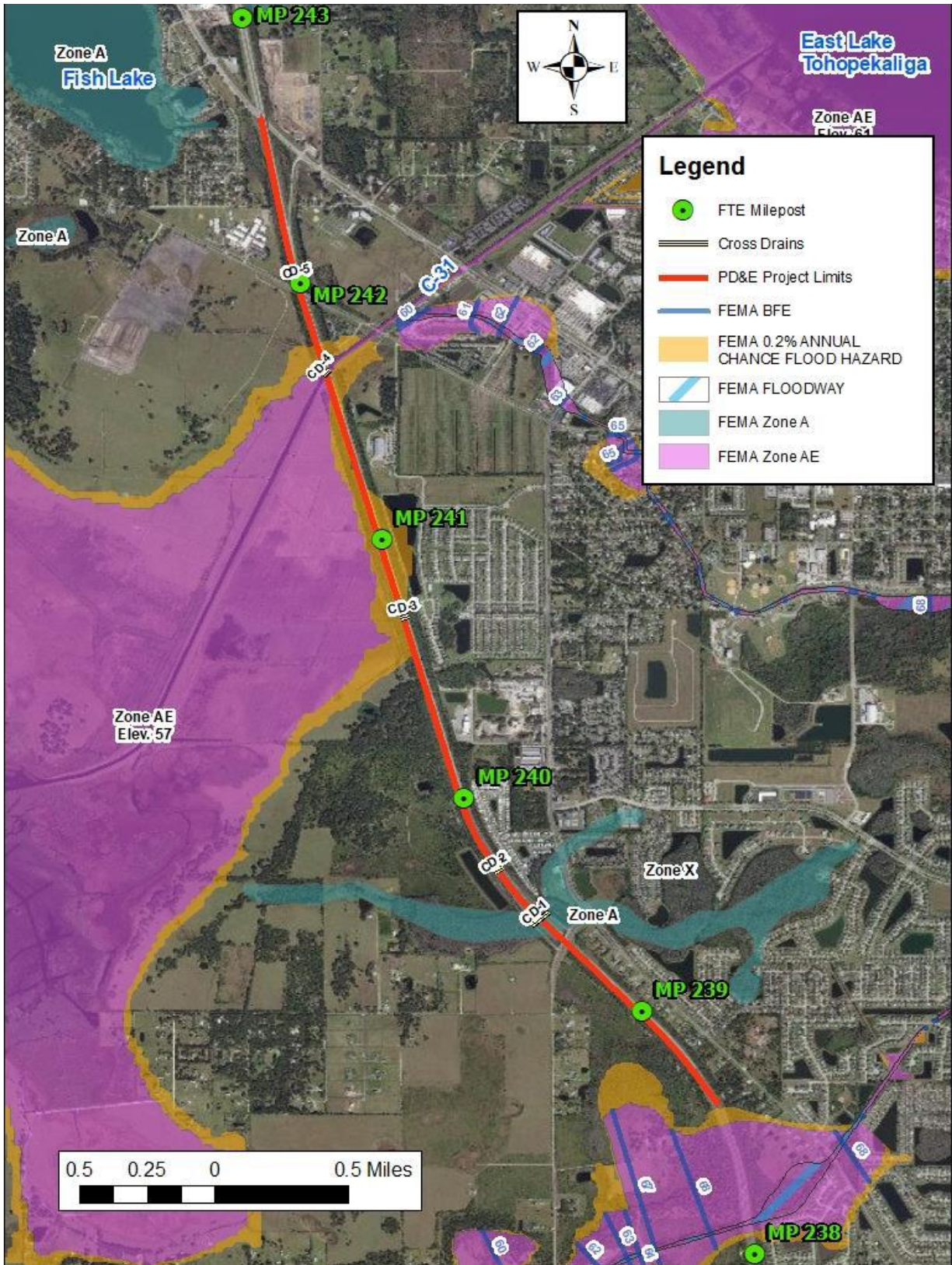


Figure 2-6: FEMA Floodplains (FEMA Database, 2018)

2.10 Soils and Geotechnical Data

The Natural Resources Conservation Service (NRCS) Soil Survey of Osceola County was reviewed to obtain near surface soils along the project corridor. The site soils along the project corridor generally consist of fine sands (poorly drained to depressional, nearly level to gently sloping) with variable silt content fines (A-3, A-2-4). These soil types may contain near surface to buried layers of organic (muck/A-8) soils. Loamy/clayey soils are also identified by the NRCS between approximate stations 4580+00 to 4650+00. The NRCS estimated seasonal high groundwater levels generally range from 0.5 to 3.3 feet below the natural ground surface. Ponded groundwater conditions (+2.0 feet) are estimated by the NRCS to exist in areas of depressional and loamy soil types at approximate station limits of 4520+40 to 4530+00 and 4580+00 to 4650+00. The NRCS Soil Survey of the respective soil types are shown in **Figure 2-7: Soil Map (Source: NRCS for Osceola County, 2017)**.

In addition to consulting published sources, a preliminary exploration was conducted along the project alignment to evaluate subsurface conditions. Our field exploration included 25 auger borings to depths ranging from 5- to 10-feet and 19 Standard Penetration Test (SPT) borings performed to a depth of 20-feet below the existing grade (see *Letter of Geotechnical Engineering Exploration* for more detailed boring information).

The soil borings generally encountered fine sands with varying amounts of silt content (SP, SPSM, SM/A-3, A-2-4) with occasional trace organic material, roots, limerock and hardpan to the maximum boring depth of 20-feet. Intermittent layers of clayey fine sand (SC/A-2-6, A-6, A-7-6) to sandy clay (CH/ A-7-6) were encountered at depths ranging from 3- to 20-feet along the project alignment. Surficial to buried layers of mucky fine sand to sandy muck (PT/A-8) were encountered from the ground surface and extended to a depth of about 6-feet below grade between approximate stations 4605+00 to 4635+00.

Groundwater levels were typically encountered at depths of 2.4- to 6.5-feet below the existing ground surface. Deeper groundwater levels that ranged from 7.1- to 11.4-feet below grade were encountered at some locations. Groundwater was not encountered in 9 of the 42 borings performed along the alignment. The borings that did not encounter groundwater were performed to a depth of 5-feet.

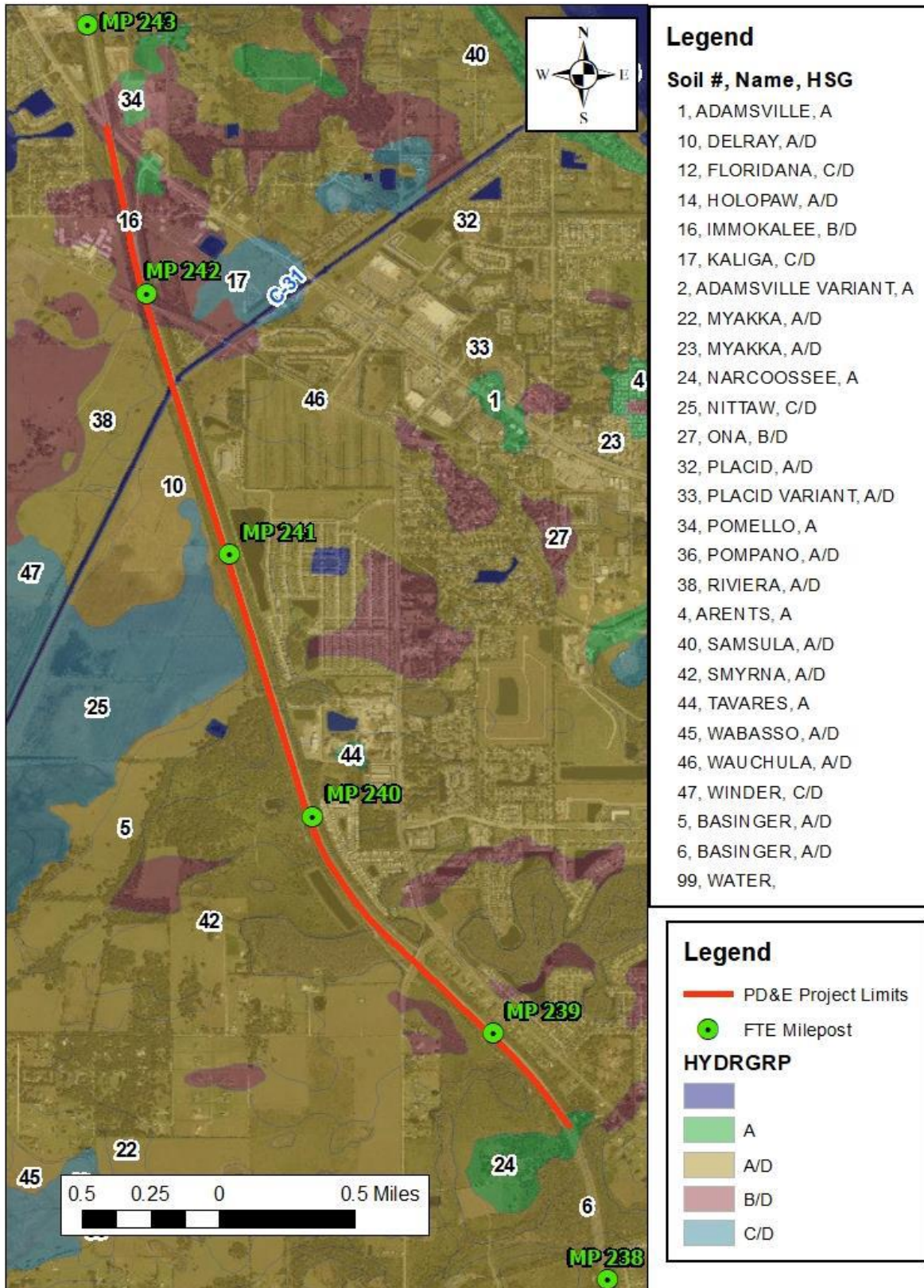


Figure 2-7: Soil Map (Source: NRCS for Osceola County, 2017)

2.11 Adjacent Land Use

The existing land use within the study area is primarily a mixture of low to medium density residential and rural/agricultural (see **Figure 2-8: Existing Land Use Map (Source: Osceola County Comprehensive Plan)**). The area in close proximity to the Kissimmee Park Road interchange is comprised of rural, medium and low density residential land uses. The area along the Florida's Turnpike (SR 91) southeast of the Kissimmee Park Road interchange features higher density and more urbanized development than much of Osceola County. The City of St. Cloud, located south of East Lake Tohopekaliga, features a significant amount of residential and commercial land uses. The area west of the Florida's Turnpike (SR 91) features predominately lower density rural land uses with scattered low-density residential area located along Lake Tohopekaliga.

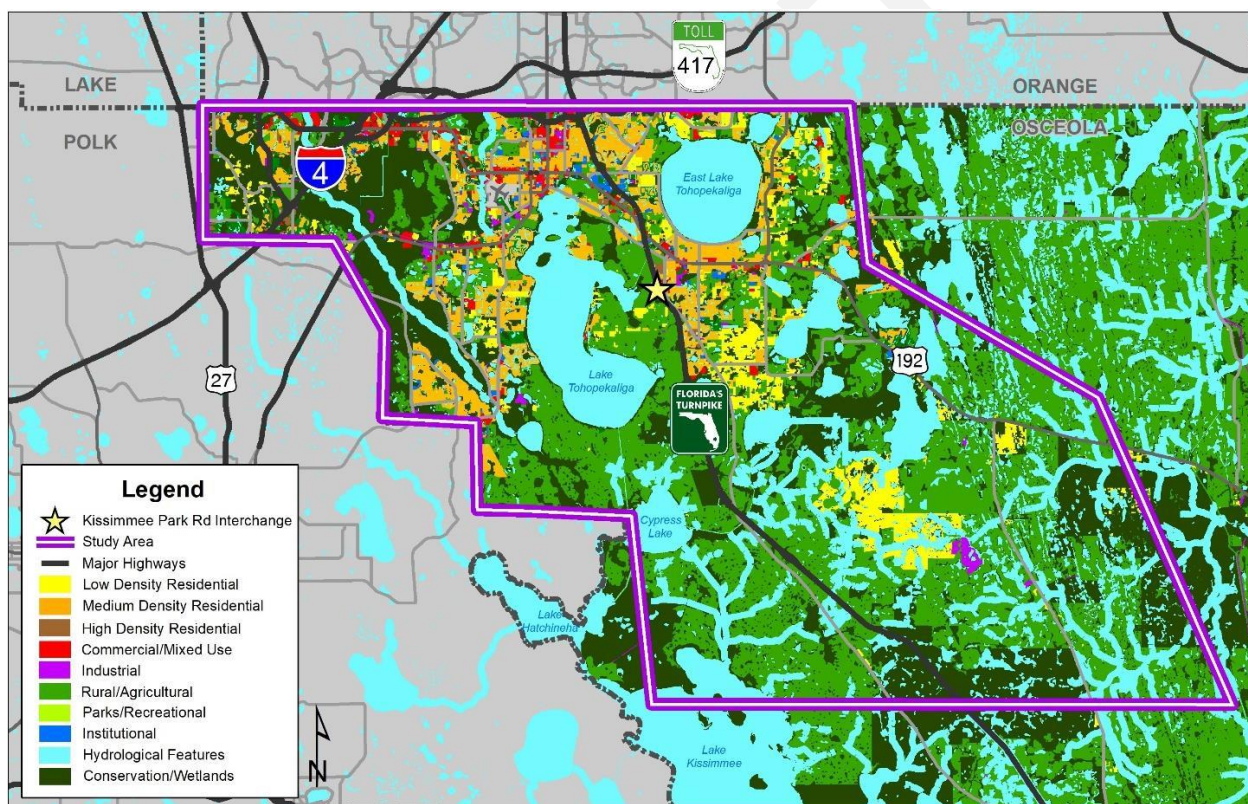


Figure 2-8: Existing Land Use Map (Source: Osceola County Comprehensive Plan)

2.12 Traffic Volumes and Operational Conditions

The existing Annual Average Daily Traffic (AADT) volumes, Directional Design Hour Volumes (DDHV), truck percentages and operational conditions are addressed in the *Systems Interchange Modification Report (SIMR)*, which covers the project study area. The 2018 AADT volumes and lane assignments are shown in **Figure 2-9: 2018 AADT Volumes (from SIMR)** and **Figure 2-10: 2018 Lane Assignments (from SIMR)**, respectively.

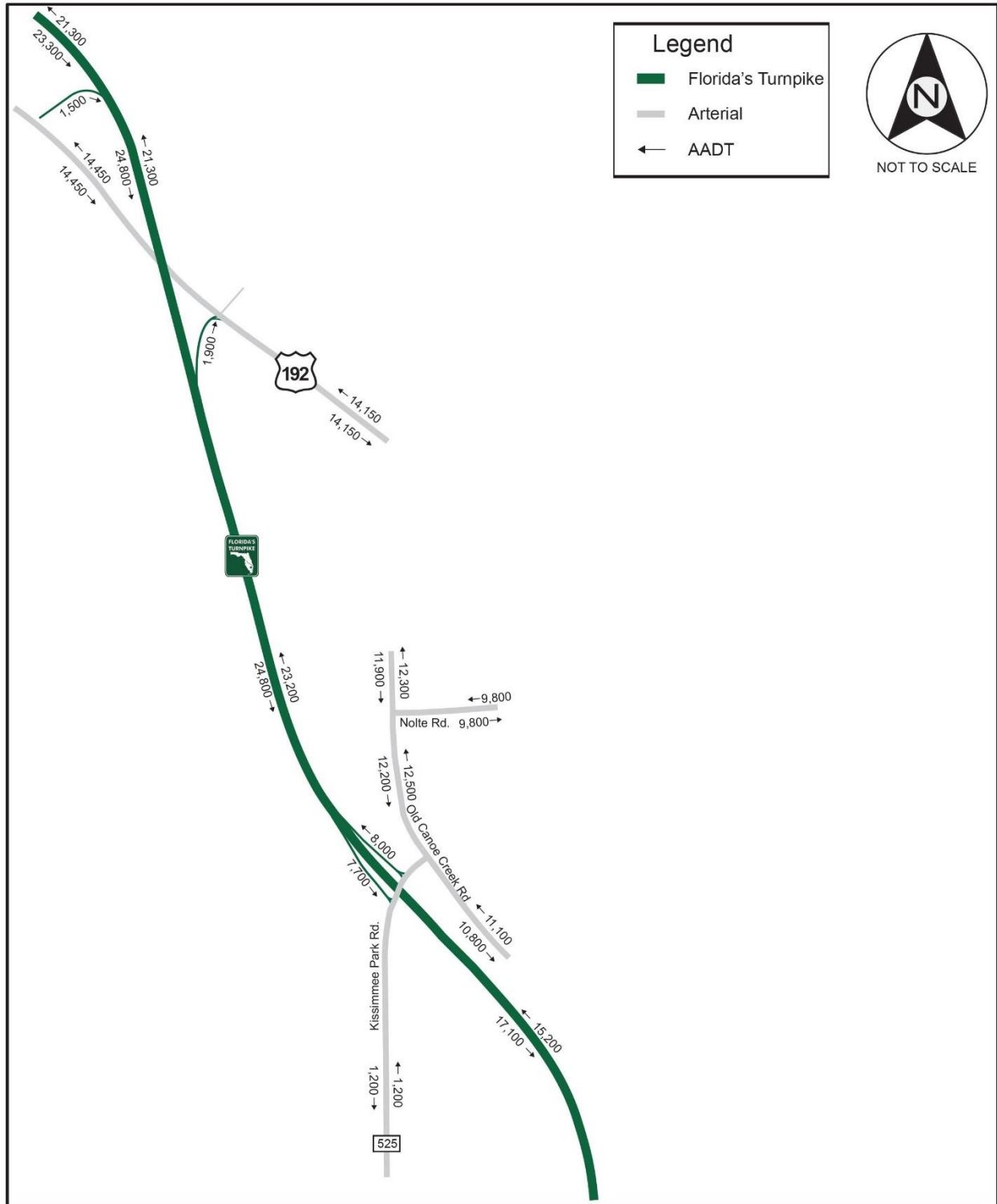


Figure 2-9: 2018 AADT Volumes (from SIMR)

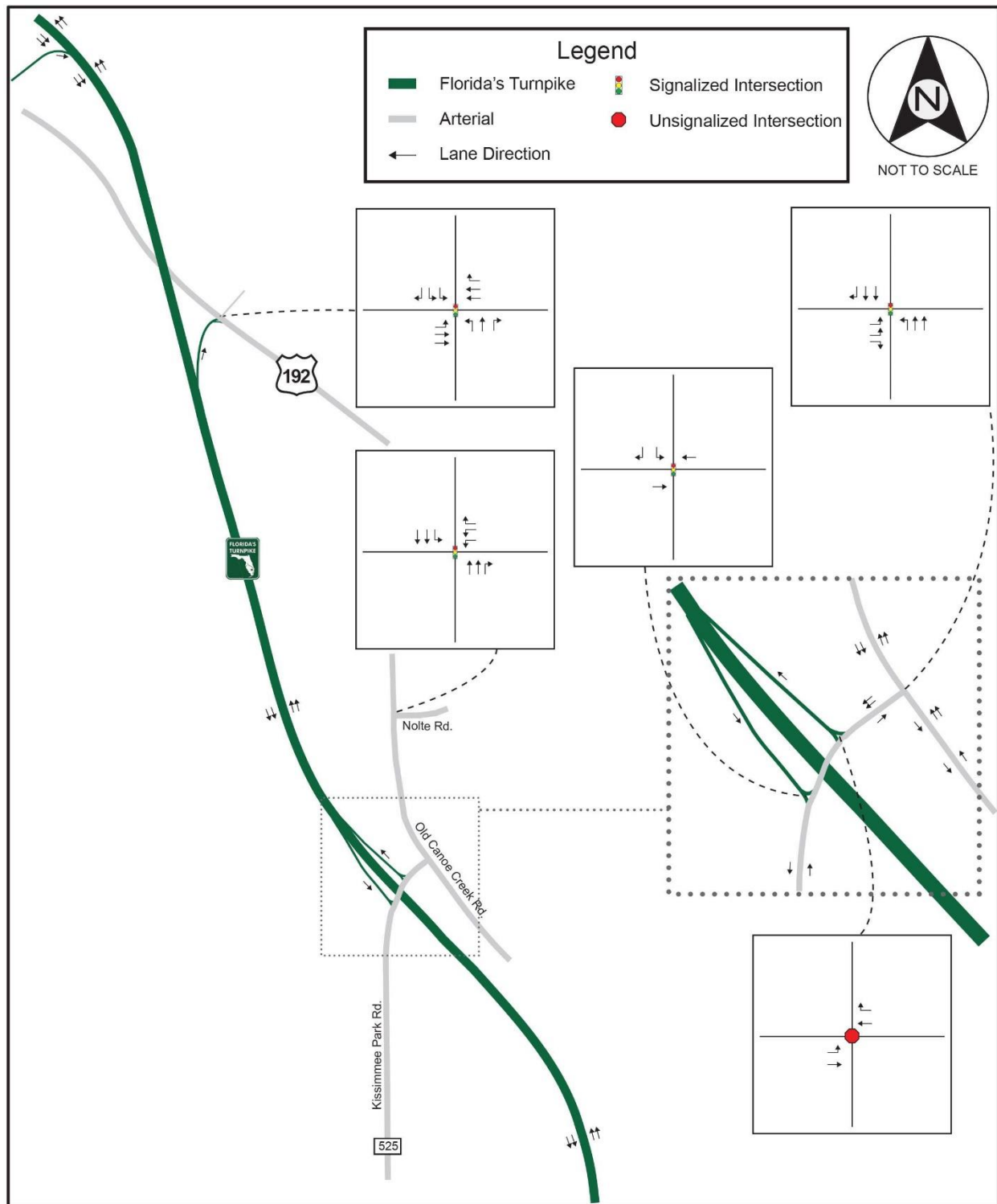


Figure 2-10: 2018 Lane Assignments (from SIMR)

2.13 Intersection Layout and Traffic Control

There are three (3) existing signalized intersections within the study limits. These include the following:

Kissimmee Park Road/Florida's Turnpike (SR 91) southbound off-ramp

Kissimmee Park Road is a three-lane section at the southbound Florida's Turnpike (SR 91) off-ramp intersection. The southbound off-ramp is one lane and widens out at the approach to Kissimmee Park Road to provide right turn only and left turn only lanes. The one-lane, northbound on-ramp from Kissimmee Park Road is not signalized.

Kissimmee Park Road/Old Canoe Creek Road

Kissimmee Park Road has signal-controlled dual left turn lanes and a dedicated free flow right turn lane at the intersection with Old Canoe Creek Road (Kissimmee Park Road eastbound ends at the intersection). Old Canoe Creek Road is a four-lane divided urban section at the intersection. Old Canoe Creek Road has a signal-controlled northbound left turn lane and a southbound free flow right turn lane onto Kissimmee Park Road.

Old Canoe Creek Road/ Nolte Road

Nolte Road is a four-lane divided urban section at the intersection. Nolte Road has signal-controlled westbound to southbound dual left turn lanes and a dedicated free-flow westbound to northbound right turn lane at the intersection (Nolte Road westbound ends at the intersection). Old Canoe Creek Road is a four-lane divided urban section, with left turn lanes in each direction at the intersection (the northbound turn lane is used for U-turns only as Nolte Road does not currently extend to the west past the intersection).

2.14 Crash Data and Safety Analysis

Crash data for state roads within the project area of influence (AOI) were processed using the most recent five-year data from the FDOT's CARS, from 2012 through 2016. Crash data for non-state roads were obtained from the Signal Four Analytics tool, an FDOT-funded database developed in coordination with the state's CARS. Signal Four data was processed for the same time period as the CARS data. Detailed crash reports (long forms) were reviewed to verify the accuracy of the information obtained from the databases.

A total of 261 crashes were reported within the AOI during the five-year study period from 2012 to 2016, as presented in **Table 2-1: Number of Crashes and Crash Severity by Year**. There was a small increase in crashes from 2012 to 2013 but the number of crashes reduced in 2014. There was a major increase in crashes from 2014 to 2015 and a small increase in 2016. Overall, the number of crashes almost doubled from 2012 to 2016. All the crashes resulted in injury and property damage only. No fatalities were reported during the five-year analysis period.

Table 2-1: Number of Crashes and Crash Severity by Year

Crash Severity	2012	2013	2014	2015	2016	Total	Proportion
Fatality	0	0	0	0	0	0	0.0%
Injury	19	24	19	28	34	124	47.5%
Property Damage Only	18	21	21	38	39	137	52.5%
Total	37	45	40	66	73	261	100.0%

Table 2-2: Number of Crashes on Road Segments summarizes the crashes based on location within the project study area. Sixty-six percent of the crashes occurred on the Florida's Turnpike (SR 91) mainline, seven percent along the ramps, and 27 percent at intersections. Crash analysis at the intersections included a 250-foot influence area. Refer to the *SIMR* for crash data summaries, intersection crash rates and safety ratios and supporting documentation.

Table 2-2: Number of Crashes on Road Segments

Roadway Segment	2012	2013	2014	2015	2016	Total	Proportion
Freeway Mainline	27	32	28	46	40	173	66.3%
Ramps	2	6	2	2	6	18	6.9%
Intersections	8	7	10	18	27	70	26.8%
Total	37	45	40	66	73	261	100.0%

2.16 Utilities

A list of existing utility companies within the project limits was obtained from Sunshine 811. The utilities are located primarily along Old Canoe Creek Road and Nolte Road. The utility owners, with contact information, located within the project limits are summarized in **Table 2-3: Utility Owners and Contact Information**.

Table 2-3: Utility Owners and Contact Information

Utility	Representative	Phone Number	Email Address
AT&T Corporation - Transmission	Steve Eriksson	(407) 578-8000	seriksson@pea-inc.net
AT&T Florida - Distribution	Alan Reynolds	(407) 351-8180	ar2916@att.com
Bright House Networks/ Charter - CATV	Todd Hudson	(407) 532-8510	Todd.hudson@charter.com
CenturyLink Legacy - Local Telephone	Ty Leslie	(407)-814-5293	michel.t.leslie@centurylink.com
City of St. Cloud - Public Utilities	Veronica Miller	(407) 957-7265	vmiller@stcloud.org
ComCast Communications - CATV	Cesar Rivera	(407) 849-3611	cesar_Rivera@cable.comcast.com
Florida Gas Transmission - Natural Gas	Joseph Sanchez	(407) 838-7171	joseph.e.sanchez@energytransfer.com
CenturyLink National/Level 3- Communications	Xan Rypkema	(636) 887-4747	NationalRelo@centurylink.com
Orlando Telephone Company/Summit Broadband	Aaron Pickle	(321) 356-2995	aaron.pickle@summit-broadband.com
Orlando Utilities Commission (OUC) - Electric	Robert Scheuerle	(407) 434-2107 D (407) 236-9651 O (407) 221-8597 C	developmentservices@ouc.com

The recommended Build Alternative, Alternative 2, includes alignment changes of Nolte Road with new on- and off-ramps accessing Florida's Turnpike (SR 91). The potential impact at Florida's Turnpike (SR 91) will include communications facilities owned and maintained by AT&T Corporation. The greatest impact to utilities occurs at Old Canoe Creek Road, where the potential impact includes those facilities owned and maintained by the City of St. Cloud, CenturyLink Legacy, CenturyLink National, Bright House Networks, and Orlando Utilities Commission. No impacts to Florida Gas Transmission Lines are proposed.

Additionally, no FTE-owned utilities were identified on the Sunshine 811 design ticket for the entire PD&E study area. However, due to the existing toll plaza within the study area and interchange

lighting, it is anticipated that fiber-optic and electrical utility lines are located within the existing FDOT ROW.

2.17 Lighting

For Florida's Turnpike (SR 91), roadway lighting is currently provided for the Kissimmee Park Road interchange area only, including the ramps, overpass and signalized intersection with Old Canoe Creek Road. All of the existing interchange lighting is conventional and maintained by the FTE asset management contractor. Roadway lighting is also provided along Nolte Road, which is maintained by the County.

2.18 Intelligent Transportation Systems (ITS)

Within the projects limits, the existing ITS system fiber backbone runs along the west side of the Florida's Turnpike (SR 91) mainline. In addition to the fiber backbone, there are fiber feeder lines and buried electric lines for the fiber equipment that also run along the west side of the mainline. With the proposed Florida's Turnpike (SR 91) widening, there will be approximately 3.6 miles of fiber backbone, fiber feeder lines, splice vaults, pull boxes, buried electric lines and fiber route markers that will be affected.

There are nine (9) existing devices and associated equipment locations within the project limits. **Table 2-4: Existing ITS Device Locations** lists the existing equipment. See the *ITS Technical Memorandum* for locations of the existing equipment.

Table 2-4: Existing ITS Device Locations

Location	Equipment Type	Direction	Station	Milepost	Roadside or Median	Structure Type
1	CCTV, MVDS	Northbound	4480+55	238.6	Roadside	Pole
2	MVDS	Southbound	4506+48	239.1	Roadside	Pole
3	CCTV, MVDS	Southbound	4535+50	239.6	Roadside	Pole
4	MVDS	Southbound	4546+09	239.8	Roadside	Pole
5	MVDS	Southbound	4575+43	240.4	Roadside	Pole
6	CCTV, MVDS	Southbound	4587+05	240.5	Roadside	Pole
7	MVDS	Southbound	4614+28	241.1	Roadside	Pole
8	CCTV, MVDS	Southbound	4638+49	241.5	Roadside	Pole
9	MVDS	Southbound	4663+42	242.0	Roadside	Pole

2.19 Tolling

The northbound on- and southbound off-ramps at the Kissimmee Park Road partial interchange are the only existing tolling sites within the project limits. Tolls are collected through electronic means, with single lane "starlight" type overhead gantries, which are no longer used by FTE. There are no cash accommodations at the two ramp plazas.

2.20 Signing

A conceptual signing plan was developed showing the location and disposition of existing signs and is provided under separate cover. There are no overhead signs within the project limits.

DRAFT

3.0 Project Design Controls and Criteria

3.1 Roadway Classification & Context Classification

The roadways in the study area have the following roadway/context classifications:

- Florida's Turnpike (SR 91): Interstates, Freeways and Expressways/C2-Rural
- Kissimmee Park Road: Collector/C2-Rural
- US 192: Principal Arterial/C3R – Suburban Residential
- Old Canoe Creek Road: Collector/C3R – Suburban Residential
- Nolte Road: Collector/C3R – Suburban Residential

3.2 Access Management Classification

The roadways in the study area have the following access management classifications:

- Florida's Turnpike (SR 91): Class One (Limited Access)
- Kissimmee Park Road: Class Six (Non-Restrictive)
- US 192: Class Three (Controlled Access)
- Old Canoe Creek Road: Class Five (Restrictive)
- Nolte Road: Class Five (Restrictive)

3.3 Design and Posted Speeds

The roadways in the study area have the following design/posted speeds:

- Florida's Turnpike (SR 91): 70 mph/70 mph
- Kissimmee Park Road: 35 mph/35 mph
- US 192: 50 mph/50 mph
- Old Canoe Creek Road: 45 mph/45 mph
- Nolte Road: 35 mph/35 mph

3.4 Design Control and Criteria

Please see the Tables in **Appendix A** for roadway design controls and criteria.

4.0 Alternatives Analysis

4.1 Previous Planning Studies

Previous planning studies focused on the existing Kissimmee Park Road interchange. Recognizing the safety issues related to the operational deficiencies of the existing interchange, FTE contracted with Hardesty & Hanover to prepare preliminary concepts for improvements to the existing interchange (FPID No. 437301-2). The goals were to eliminate the southbound off-ramp traffic from backing up into the Florida's Turnpike (SR 91) mainline in the evening peak, reduce conflicts at the Kissimmee Park Road intersection with Old Canoe Creek Road and provide all movements at the interchange (the existing interchange only provides access to and from the north). Eight (8) concepts were developed and presented to FTE at a meeting on July 24, 2017. These included the following:

- Concept 1A. Added a new northbound entry ramp for Old Canoe Creek Road and reduced left turns at the northbound exit with a loop ramp.
- Concept 1B. Similar to 1A, with additional lanes on the northbound on-ramp.
- Concept 2. Optimized turning movements between Kissimmee Park Road and south leg of Old Canoe Creek Road and reduced left turns at the northbound exit with a loop ramp.
- Concept 3. Tight Urban Diamond Interchange.
- Concept 4A. Eliminated all but one left turn for ramps from Kissimmee Park Road.
- Concept 5. Eliminated left turn movements at northbound on-ramp.
- Concept 5A. Same as 5 but relocates the northbound off-ramp from Old Canoe Creek Road to Kissimmee Park Road.
- Concept 6. Added a new connector road between Kissimmee Park Road and Old Canoe Creek Road with a partial interchange with movements to and from the south.

At the meeting, two (2) of the concepts (Concept 3 and Concept 4A) were eliminated from further consideration, due to estimated costs and impacts. The remaining six (6) concepts were provided to Dewberry for further study and refinement during the PD&E process.

4.2 No-Build (No Action) Alternative

The No-Build Alternative involves not widening Florida's Turnpike (SR 91) or making any modifications to the existing Kissimmee Park Road interchange.

The advantages to the No-Build Alternative include the following:

- No acquisition of additional ROW.
- No design, ROW or construction costs.
- No inconvenience to the traveling public and property owners during construction.
- No new impacts to the adjacent natural, physical and human environment.

The disadvantages of the No-Build Alternative include the following:

- It is not consistent with the MetroPlan Orlando 2040 LRTP (Blueprint 2040).
- Does not accommodate the future (2045) traffic demands.
- Does not solve the operational issues at the existing interchange, jeopardizing safety and potentially leading to an increase in accidents.
- Does not provide improved access to the large developments planned for the project area, creating increased congestion and delays.
- Does not provide southbound Florida's Turnpike (SR 91) access at the existing US 192 interchange.
- Does not provide connections to and from the south at the Kissimmee Park Road interchange.

4.3 Transportation Systems Management and Operations (TSM&O) Alternative

The TSM&O Alternative is intended to optimize the efficiency of the existing transportation system or facility through low cost remedies which could include the following:

- Signal re-timing
- Enhanced signing
- Intersection improvements

TSM&O Alternatives were not carried forward because they would not address the following:

- The existing operational issues at the interchange, due to the proximity of the Kissimmee Park Road and Old Canoe Creek Road intersection to the interchange ramps.
- Missing movements at the Kissimmee Park Road and US 192 interchanges.
- Increasing capacity on Florida's Turnpike (SR 91) mainline to accommodate the projected future traffic volumes.

4.4 Future Conditions

Population and employment projections referenced in MetroPlan Orlando's 2040 LRTP (Blueprint 2040) indicate that the population of Osceola County is expected to grow from 350,542 to 609,025 (74% growth) between 2015 and 2040. Employment is projected to grow from 96,460 jobs to 269,821 jobs (180% growth) between 2015 and 2040.

A portion of this projected growth will affect the existing land uses in the project study area directly. There are several planned developments in the vicinity of the project, including the Edgewater DRI, Toho Preserves subdivision, and the Tohoqua subdivision.

Future traffic projections for the project area show that peak hour traffic volumes will increase, on average, 275% during the AM peak period and 136% during the PM peak period from 2016 to 2045, under No Build conditions. DDHV estimates indicate that Florida's Turnpike (SR 91)

mainline north of Kissimmee Park Road will operate at Level of Service (LOS) F by the year 2030, and the ramps to and from the north at the Kissimmee Park Road interchange will operate at LOS F by the year 2032 under No Build conditions. See the *Systems Interchange Modification Report* (March 2020) for additional details.

4.5 Build Alternative(s)

Refinements of the preliminary concepts, discussed in Section 4.1, and additional preliminary concepts for the Kissimmee Park Road interchange were developed. A preliminary traffic operational analysis and evaluation matrix were prepared, resulting in five alternatives for a more in-depth evaluation. They included Alternatives 1, 2, 3a, 3b, and 4, which are outlined below.

Alternative 1 - Alternative 1 involved shifting the southbound off-ramp to the west to improve intersection spacing. Northbound off- and on-ramps were added south of Kissimmee Park Road and a direct connect on-ramp from southbound Old Canoe Creek Road to northbound Florida's Turnpike (SR 91) was added to remove these movements from the Kissimmee Park Road and Old Canoe Creek Road intersection.

Alternative 2 - Alternative 2 featured a displaced left turn movement for the eastbound Kissimmee Park Road to northbound Florida's Turnpike (SR 91) movement. A loop ramp in the southwest quadrant, with a direct connection to southbound Old Canoe Creek Road, replaced the existing tight diamond ramp.

Alternative 3a - Alternative 3a was similar to Alternative 2, with a larger loop ramp for the southbound off-ramp. The southbound to westbound Kissimmee Park Road movements and the southbound Florida's Turnpike (SR 91) on-ramp from Kissimmee Park Road were located at a new signalized intersection with Clay Whaley Road.

Alternative 3b - Alternative 3b has the same configuration as Alternative 3a, except the Florida's Turnpike (SR 91) southbound to westbound Kissimmee Park Road movement is on a separate ramp.

Alternative 4 - Alternative 4 moves the interchange with the Florida's Turnpike (SR 91) north of Kissimmee Park Road to an extension of Nolte Road. The interchange has a diverging diamond configuration with an overpass over Florida's Turnpike (SR 91). The existing ramps at Kissimmee Park Road will be removed with this alternative.

Alternatives 1, 2, and 3a were eliminated during preliminary stages of traffic analysis as they did not meet future traffic and the Florida Department of Transportation (FDOT) Design Manual criteria. See **Appendix B** for the Preliminary Alternatives Evaluation Matrix.

Alternatives 3b and 4 were carried forward to further analysis for consideration and are currently the primary alternatives. Throughout the remainder of this section, Alternative 3b is referred to as Alternative 1 and Alternative 4 is referred to as Alternative 2, respectively, including in referenced attached exhibits.

In addition to the Kissimmee Park Road interchange modifications, the engineering evaluation for this study includes the widening of the Florida's Turnpike (SR 91) mainline from 4- to 8-lanes and the addition of a southbound on-ramp at the existing US 192 partial interchange. Those features will be the same with the two primary alternatives and are discussed following the description of the Kissimmee Park Road interchange alternatives. See **Appendix C** for an illustration of each alternative.

Alternative 1 – Alternative 1 addresses the current operational issues associated with the existing interchange and accommodates the future traffic demands. Additional ROW will be required for this alternative. Features of Alternative 1 include the following:

- The southbound Florida's Turnpike (SR 91) off-ramp will be widened to two lanes and the southbound Florida's Turnpike (SR 91) to eastbound Kissimmee Park Road movement will be replaced with a loop ramp.
- The Kissimmee Park Road overpass will be replaced with a longer/wider bridge.
- An offset left turn movement will be provided for the eastbound Kissimmee Park Road to northbound Florida's Turnpike (SR 91) movement.
- A direct connect ramp will be provided for the southbound Old Canoe Creek Road to northbound Florida's Turnpike (SR 91) movement.
- A Florida's Turnpike (SR 91) southbound on-ramp from Kissimmee Park Road will be constructed.
- The Kissimmee Park Road intersection with Old Canoe Creek Road will be expanded.
- Old Canoe Creek Road will be widened from Kissimmee Park Road to Nolte Road and in the vicinity of the new ramps.
- Kissimmee Park Road will be widened from west of Whaley Road to Old Canoe Creek Road.
- A Florida's Turnpike (SR 91) northbound off-ramp and on-ramp, with direct connections to Old Canoe Creek Road will be constructed approximately $\frac{3}{4}$ mile south of Kissimmee Park Road.

Alternative 2 - Alternative 2 addresses the operational issues of the existing Kissimmee Park Road interchange and accommodates the future traffic demands by creating a new interchange approximately $\frac{1}{2}$ mile north of Kissimmee Park Road. Additional ROW will be required for this Alternative. Features of Alternative 2 includes the following:

- Extension of Nolte Road west, to Florida's Turnpike (SR 91), with an overpass of the mainline.
- Diverging diamond configuration for the interchange.
- All directional access to and from Florida's Turnpike (SR 91).
- Realignment of a portion of Nolte Road, east of Old Canoe Creek Road, and expansion of the Nolte Road intersection with Old Canoe Creek Road.

- The existing Kissimmee Park Road bridge over Florida's Turnpike (SR 91) will remain for local access, however the existing interchange ramps will be removed.
- A southbound Florida's Turnpike (SR 91) off-ramp and northbound Florida's Turnpike (SR 91) on-ramp with direct connections to Old Canoe Creek Road, approximately $\frac{3}{4}$ mile south of Kissimmee Park Road. The southbound off-ramp movement will require a flyover bridge over the Florida's Turnpike (SR 91) mainline.

Both alternatives, Alternatives 1 and 2, will add capacity to Florida's Turnpike (SR 91) through the addition of travel lanes from south of Kissimmee Park Road to US 192. Florida's Turnpike (SR 91) will be widened, to the median, from the existing 4-lane section (2 lanes in each direction) to an ultimate 8-lane section (4 lanes in each direction). The future horizontal alignment will match the existing horizontal alignment. The vertical profile of Florida's Turnpike (SR 91) will be adjusted (raised) slightly to meet base clearance criteria over the seasonal high-water elevations. The bridges over the C-31 Canal will be replaced with one structure.

Both alternatives include a proposed southbound on-ramp from US 192 to Florida's Turnpike (SR 91) at the location of the existing partial interchange. The ramp will be located within the existing ROW, so additional ROW will not be required. This ramp, in conjunction with the Florida's Turnpike (SR 91) widening project to the north (FPID 436194-1), will provide full access at the US 192 interchange, which currently only has a northbound off-ramp.

4.6 Comparative Alternatives Evaluation

An evaluation matrix was prepared for the two Build Alternatives and the No-Build Alternative (see **Table 4-1: Alternatives Evaluation Matrix** below). Evaluation criteria includes the number of residential and business relocations; social, physical and environmental impacts; and estimated costs.

Table 4-1: Alternatives Evaluation Matrix

Evaluation Criteria	No-Build Alternative	Build Alternative 1 <i>Modifications to Existing Kissimmee Park Road Interchange</i>	Build Alternative 2 <i>New Diverging Diamond Interchange with Extension of Nolte Road</i>
Relocations			
ROW requirements	0	38.3 acres	48.2 acres
Number of parcels impacted	0	34	39
Number of residential relocations	0	5	0
Number of business relocations	0	0	1
Natural, Environmental & Physical Impacts			
Threatened and endangered species impacted	None	Low	Low
Archaeological/historic site impacts	None	Low	Low
Potential contamination sites	0	5	5
Wetland impacts	0	Moderate	Moderate
Recreational impacts	None	None	None
Social & neighborhood impacts	None	Low	Low
Estimated Costs			
Design	No cost	\$10.4 M	\$11.1 M
ROW	No cost	\$10.6 M	\$22.9 M
Wetland mitigation	No cost	\$4.0 M	\$4.0 M
Construction	No cost	\$130.6 M	\$138.2 M
Utility relocations	No cost	\$6.7 M	\$4.7 M
Construction Engineering & Inspection	No cost	\$11.8 M	\$12.4 M
Total cost	No cost	\$174.1 M	\$193.3 M

4.7 Selection of the Recommended Alternative

Alternative 2 was selected as the recommended Build Alternative. This alternative addresses the operational issues of the existing Kissimmee Park Road interchange and accommodates the future travel demand by creating a new interchange approximately ½ mile north of Kissimmee Park Road. Alternative 2 meets the needs of the project, has less residential and environmental impacts and offers the lowest cost of the two Build Alternatives. In addition, the attendees at the Public Information Meeting who expressed a preference in a Build Alternative overwhelmingly preferred Build Alternative 2 over Build Alternative 1 by a margin of 47 to 3.

5.0 Project Coordination and Public Involvement

5.1 Efficient Transportation Decision Making (ETDM) Screening

In December 2017, FTE solicited agency comments using the Efficient Transportation Decision Making (ETDM) screening tool. Detailed agency comments can be viewed on FDOT's website at <https://etdmpub.fl-a-etat.org/est/> and searching under the ETDM Number 14329. Notable natural resource comments include requests from the USFWS and the Florida Fish and Wildlife Commission (FWC) to survey for the potential occurrence of multiple federally and state protected species. Both the SFWMD and the U.S. Army Corps of Engineers (USACE) comments noted natural wetlands within the project boundary and cited a need for permits. Further details regarding species that may be affected by the proposed project are provided in Section 6.18.2 of this document. No other notable natural environmental comments were provided in the Screening Report.

5.2 Local Government Coordination

Project kick-off meetings were held with the City of St. Cloud and Osceola County officials on October 29, 2018 to discuss the purpose of the project and to gain initial insight into their issues and concerns related to the proposed project. The main concerns for both agencies focused on the operational issues associated with the existing Kissimmee Park Interchange and the ability to accommodate the future development planned for the area. Both agencies were in support of developing improvements to the existing interchange.

Follow up meetings were held with City of St. Cloud and Osceola County officials on May 31, 2019 and June 7, 2019, respectively, to present the two Build Alternatives that would be displayed at the Public Information Meeting. Both the City and County officials in attendance at the meetings favored the recommended alternative, Alternative 2 and acknowledged that they would seek board approvals of the recommended alternative.

A joint meeting with both the City of St. Cloud and Osceola County officials was held at the FTE offices on January 7, 2020 to present the updated concept for the recommended alternative. Following the meeting conceptual plans were provided to both agencies for review and comments. See **Appendix D** for the City of St. Cloud and Osceola County comments on the recommended alternative.

5.3 Public Involvement

A Public Involvement Plan was developed and approved by FTE. Specific public outreach activities associated with the project included a project specific PD&E website, www.TurnpikeStCloud.com, a Public Information Meeting and a formal Public Hearing.

5.4 Public Information Meeting

A Public Information Meeting was held on August 6, 2019 at the City of St. Cloud Community Center, located at 3101 17th Street, St. Cloud, FL 34769. The meeting was conducted as an open

house from 5:30 p.m. to 7:30 p.m. There was no formal presentation at the meeting. Over 600 notices were mailed out to residents and property owners in the study area, elected and appointed officials, Native American Tribal Officials and government agencies. This public information meeting was advertised in the Florida Administrative Register, FDOT Public Notice Website, Orlando Sentinel, El Sentinel, El Osceola Star and the Osceola News Gazette.

There was a total of 91 people from the community who attended the public information meeting, including one elected official. The majority of the attendees were residents of Teka Village, an age-restricted (55+) manufactured-home community located in the northwest quadrant of the Kissimmee Park Road and Old Canoe Creek Road intersection.

A total of 42 comment cards were received at the public information meeting or emailed to the Project Manager following the meeting. The attendees at the Public Information Meeting who expressed a preference in a Build Alternative, overwhelmingly preferred Build Alternative 2 over Build Alternative 1 by a margin of 47 to 3 (some comment cards represented more than one attendee). The majority of the concerns expressed by the public were related to increased noise caused by the improvements, followed by drainage. The results are outlined in **Figure 4-1: Public Information Meeting – Summary of Concerns**.

Public Information Meeting - Primary Concerns

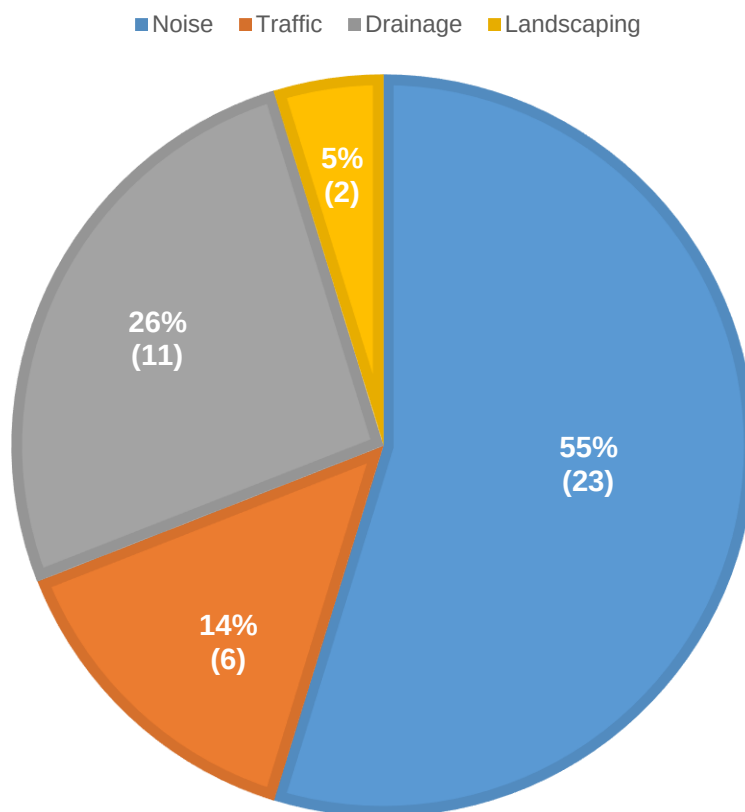


Figure 5-1: Public Information Meeting – Summary of Concerns Raised

5.5 Additional Public Meetings

At the request of the Teka Village Homeowners Association, a follow up presentation was made to interested residents on November 14, 2019 at the Teka Village Community Center. Similar to the Public Information meeting, the major concern of those in attendance was noise.

5.6 Public Hearing

This section to be completed after the Public Hearing on November 10, 2020.

6.0 Design Features of the Recommended Alternative

This section includes a description of design features of the recommended alternative, Alternative 2. This section will be updated after the Public Hearing, if necessary.

6.1 Typical Sections

Florida's Turnpike (SR 91) Mainline Typical Sections

The typical section for the Florida's Turnpike (SR 91) mainline will consist of eight (8) general purpose travel lanes (four (4) in each direction). The median will be 26-feet with a concrete median traffic barrier. The outside shoulders will be 12-feet in width. See **Figure 6-1: Florida's Turnpike (SR 91) Mainline Typical Section**.

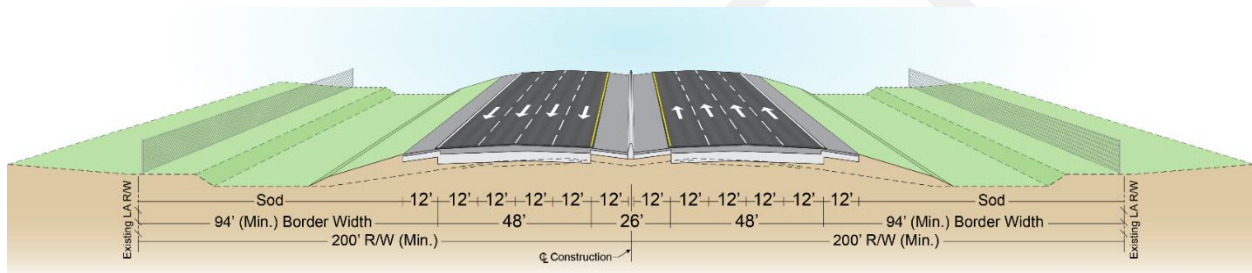


Figure 6-1: Florida's Turnpike (SR 91) Mainline Typical Section

Nolte Road and Old Canoe Creek Road Typical Sections

In the reconstruction areas, Nolte Road and Old Canoe Creek Road will be four-lane (two (2) lanes in each direction) divided urban sections with 11-foot travel lanes. A 5-foot dedicated bike lane and 6-foot sidewalks will be provided on each side of the roadway. See **Figure 6-2: Nolte Road and Old Canoe Creek Road Reconstruction Areas Typical Section**.

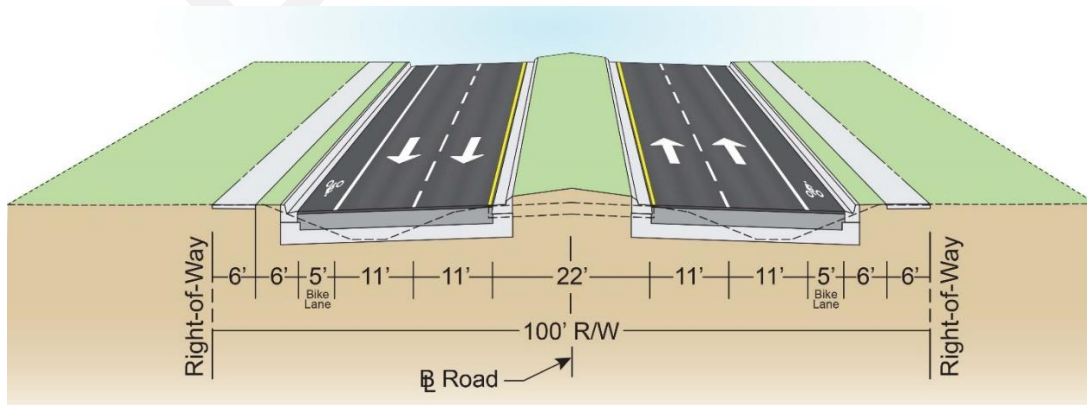


Figure 6-2: Nolte Road and Old Canoe Creek Road Reconstruction Areas Typical Section

Nolte Road Extension Typical Section

The Nolte Road extension will have the same roadway section as Nolte Road. But, instead of sidewalks on both sides, the extension will have a 12-foot multi-use path on the south side of the roadway only. This will result in safer pedestrian crossings of the ramps because of reduced volumes for ramps on the southside of the interchange versus ramps on the northside of the interchange. See **Figure 6-3: Nolte Road Extension Typical Section**.

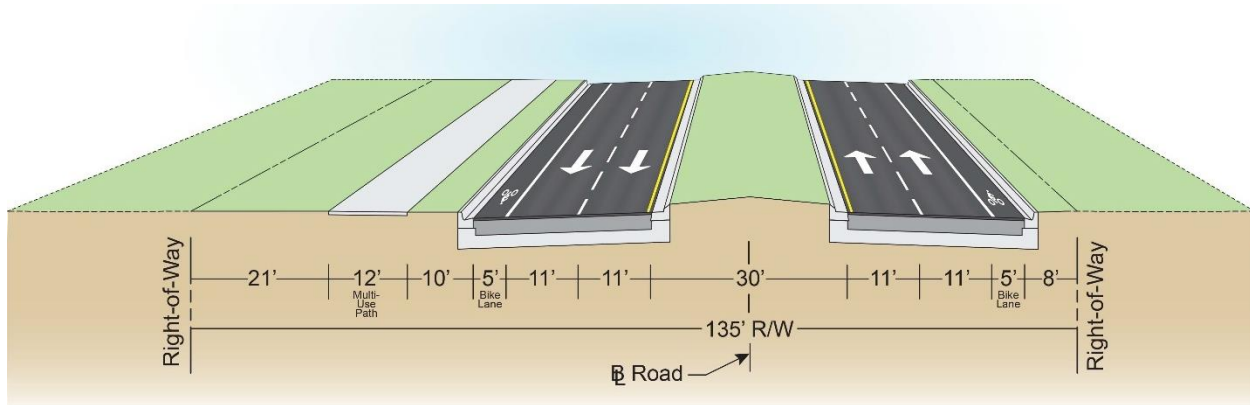


Figure 6-3: Nolte Road Extension Typical Section

6.2 Bridges and Structures

Bridge sites include (north to south):

- Neptune Road and Neptune Road Bike Path over Florida's Turnpike (SR 91)
- Florida's Turnpike (SR 91) over the C-31 Canal
- Nolte Road over Florida's Turnpike (SR 91)
- Kissimmee Park Road over Florida's Turnpike (SR 91)
- Southbound off-ramp to Old Canoe Creek Road over Florida's Turnpike (SR 91)

There are also three (3) box culverts:

- Florida's Turnpike (SR 91) over a canal
- Florida's Turnpike (SR 91) southbound off-ramp over a ditch
- Florida's Turnpike (SR 91) over a cattle crossing

Each location is summarized below. Refer to the *Bridge Analysis Report* for additional details.

Neptune Road and Neptune Road Bike Path over Florida's Turnpike (SR 91)

Although they are within the study limits, the Neptune Road and Neptune Bike Path bridges will be replaced by Osceola County with a separate project, under an agreement with FTE.

Florida's Turnpike (SR 91) over the C-31 Canal

A new, single bridge is proposed to replace the existing twin bridges (Bridge. No. 920140 and Bridge. No. 920074) to span Florida's Turnpike (SR 91) over the C-31 Canal. The Florida's Turnpike (SR 91) proposed bridge typical section in both the southbound and northbound direction consists of four (4) 12-foot wide travel lanes with 12-foot wide inside and outside shoulders. The northbound and southbound lanes will be separated by a 36-inch Single Slope Traffic Railing Median. See **Appendix E** for the bridge plan and elevation and typical section.

There are several factors that led to the recommendation of replacement versus widening. These include:

1. The existing bridges at this location were built in 1963 and widened in 1991 by modifying the top flange of American Association of State Highway Transportation Officials (AASHTO) Type II beams. Widening will require complete removal of the top flange of a Type II beam, which does not provide the needed capacity.
2. The Florida's Turnpike (SR 91) mainline profile will be adjusted (raised) in this area to meet base clearance criteria.
3. The bridges will be over 60 years old at the time of construction, nearing their design service life.
4. The maintenance of traffic will be in place for the roadway widening, making this project the appropriate time for bridge replacement.
5. Osceola County has plans for a trail along the canal, which requires a minimum of 8-feet vertical clearance (10-feet preferred) over the canal berm to meet design criteria. The existing clearance is 8-feet over the berm, therefore widening the existing bridge will encroach on the minimum clearance.

Jacking the bridge to provide clearance is not preferred, as it is labor intensive and most likely not cost effective as a temporary bridge will be necessary and extensive substructure work required. There is opportunity for deck cracking if the beams are not lifted at the same time. This, combined with the current condition of the deck (6 out of 9) and the spalling noted in the inspection report, will result in more cracks, spalling and a substandard result. Due to the nature of the bridge site at C-31 Canal, the site will most likely be listed as a Level One aesthetics effort. Also, smooth concrete elements are the preferred finish for bridges over water from a maintainability standpoint.

Nolte Road over Florida's Turnpike (SR 91)

A new diverging diamond interchange will be constructed with an extension of Nolte Road. The interchange will include two (2) bridges over the Florida's Turnpike (SR 91) mainline.

The traffic traveling eastbound is on the left side (north side) looking in the direction of stationing. This bridge will consist of four (4) 12-foot lanes, a 10-foot outside shoulder and a 5-foot inside bike lane with 36-inch single slope barriers.

The westbound bridge will consist of two (2) 12-foot lanes, a 10-foot outside shoulder, a 5-foot bike lane and a 12-foot barrier-protected multi-use trail with appropriate outside barriers. See **Appendix E** for the bridge plan and elevation and typical sections.

Due to the bridge site being in a residential and commercial area and near other bridges with color finishes (Kissimmee Park Road over SR 91), these bridges will most likely be listed as Level Two aesthetics. The bridge aesthetics will follow the FTE Supplement to the FDOT Structures Manual for the finish and color of copings, railings, beams, and walls. Pier shape will be coordinated with the FTE Structures Engineer.

Kissimmee Park Road over Florida's Turnpike (SR 91)

The existing Kissimmee Park Road bridge over the Florida's Turnpike (SR 91) mainline (Bridge No. 924182) will remain in place. It was constructed in 2006 for the ultimate 6-lane section. The existing spans can accommodate the recently proposed 8-lane mainline section, so there are no planned improvements to the bridge with this project. See **Appendix E** for elevation.

Southbound Off-Ramp to Old Canoe Creek Road over Florida's Turnpike (SR 91)

The proposed new southbound exit ramp to Old Canoe Creek Road from Florida's Turnpike (SR 91) will include a horizontally curved flyover. The typical section consists of two (2) 12-foot wide lanes, one (1) 6-foot wide inside shoulder, one (1) 14-foot wide inside shoulder, and two (2) 42-inch single slope barriers. See **Appendix E** for the bridge plan and elevation and typical section. Similar to Nolte Road interchange, this bridge will most likely be listed as Level Two aesthetics.

Box Culvert 92Q037

Existing Box Culvert 92Q037 is under the Florida's Turnpike (SR 91) southbound ramp to Kissimmee Park Road. The box culvert carries a ditch under the Florida's Turnpike (SR 91) southbound ramp. The box culvert is a 7-foot by 4-foot double cell with a length of 98-feet and was built in 2006. The box culvert is currently in good condition with a sufficiency rating of 100 and a health index of 91.37. The structure is proposed to be removed with the ramp removal that is part of this widening.

Box Culvert 92Q027

Existing Box Culvert 92Q027 is approximately 0.1 mile north of Kissimmee Park Road and carries Florida's Turnpike (SR 91) over a canal. The box culvert is a 7-foot by 4-foot double cell with a length of 263-feet. The box culvert is currently in fair condition with a sufficiency rating of 85 and a health index of 68.59. This box culvert was built in 1963, extended in 1990 and again in 2006. The box culvert +II is 12-feet from the proposed edge of shoulder; therefore, the box culvert may not need to be extended to the west, but appropriate protection will be added. The eastern headwall extends past the existing toll plaza ramp that will be removed as part of the proposed widening. The box culvert will remain in place to maintain the connection of the wetlands.

Box Culvert 92Q028

Box Culvert 92Q028 is approximately 1.2 miles south of canal crossing and carries Florida's Turnpike (SR 91) over an abandoned cattle crossing. The box culvert is a 12-foot by 10-foot single cell with a length of 110-feet. The box culvert is currently in good condition with a sufficiency rating of 93 and a health index of 89.36. The box culvert was built in 1963 and extended in 1975.

This box culvert will be impacted by the proposed widening, due to the construction of two (2) new ramps adjacent to the box culvert. The west headwall of this box culvert is located within the existing clear zone. In order to maintain through access, the box culvert may have to be extended a total of 120-feet (80-feet to the west and 40-feet to the east). Alternatively, a retaining wall with barriers may be provided at this location. Property on the east side is owned by Anthem Park Community Development District. The property to the west was recently bought by D.R. Horton; therefore, communication will be made as FTE will coordinate box culvert treatments throughout the corridor.

6.3 ROW and Relocations

Additional ROW will be required for the recommended Build Alternative. A total of 48.2 acres will be required. ROW requirements are summarized in **Table 6-1: Recommended Build Alternative – ROW Impacts**. Please refer to the *Conceptual Stage Relocation Plan* for details.

Table 6-1: Recommended Build Alternative – ROW Impacts

Description	Number of Parcels Impacted
Commercial	4
Residential	11
Unimproved	19
Government	0

The proposed improvements will require ROW acquisition. ROW requirements and relocations have been minimized through the concept development. FDOT will implement a *Right-of-Way Acquisition and Relocation Program* in accordance with Florida Statute 339.09 and the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Public Law 91-646 as amended by Public Law 100-17). In accordance with Chapter 4.3.3 of the FDOT PD&E Manual, a *Conceptual Stage Relocation Plan* (CSRP) dated June 2020, was developed as part of the overall study. Since the time of CSRP development, further ROW acquisitions have been reduced due to updated conceptual design. Proposed ROW acquisitions are summarized below.

The recommended Build Alternative, Alternative 2, includes a total of 48.2 acres of necessary ROW acquisition. A total of 34 parcels will be impacted, with four (4) parcels being wholly acquired. One (1) parcel requires a business relocation (7-Eleven store at Old Canoe Creek Road and Nolte Road Intersection); however, there are no anticipated residential relocations.

The remaining whole parcel impacts are to unoccupied property. As previously stated, no parcel impacts are proposed to religious facilities, government facilities or other community resources. Relocation assistance is available to all qualified business per the above-referenced Florida Statute (F.S.). Because of the urban setting of the study area as well as multiple other available gas station and convenience stores within a two-mile radius of this existing business, the proposed relocation is anticipated to have no significant impact on the local community.

6.4 Horizontal and Vertical Geometry

Florida's Turnpike (SR 91) is the major horizontal alignment. Cross streets include Kissimmee Park Road, Nolte Road, Neptune Road, and US 192. There is no proposed work on the Neptune Road overpass in this project. The only proposed work on the Kissimmee Park Road overpass involves removal of the existing interchange ramps. Another arterial in the project area is Old Canoe Creek Road, which runs north to south parallel with Florida's Turnpike (SR 91) and intersects all the cross streets previously mentioned. Two (2) ramps service a partial interchange with Old Canoe Creek Road at the south end of the study area. One (Ramp D) connects from Florida's Turnpike (SR 91) southbound and the other (Ramp C) to Florida's Turnpike (SR 91) northbound. There are four (4) ramp movements (Ramps A-D) proposed at a diverging diamond interchange with the Nolte Road extension. Finally, a single ramp is proposed from US 192 to Florida's Turnpike (SR 91) southbound (Ramp A) as part of this study.

Profiles include Florida's Turnpike (SR 91), the Nolte Road extension, and the seven (7) ramps listed above. No vertical geometry is required for improvements on Old Canoe Creek Road, the portion of Nolte Road on its existing alignment, and US 192.

The following sections describe the roadway geometric elements of the recommended alternative. Concept plans are submitted under separate cover.

Florida's Turnpike (SR 91) Mainline

The proposed horizontal geometry of Florida's Turnpike (SR 91) is unchanged from the existing centerline. There are two (2) 1° curves within the study area which are superelevated at 3.7%. For the vertical profile, the design intent is to provide minimum 0.5% profile grades up and down with crest and sag curves about every 1,000-feet. This design exceeds the 0.3% minimum gutter grade at the proposed median barrier without requiring shoulder rocking. Wherever existing or proposed overpasses occur, a minimum of 16-feet - 6-inches vertical clearance will be met. The proposed profile will be raised approaching and over the C-31 Canal to accommodate vertical clearance for a multi-use trail underneath and meet base clearance criteria.

Old Canoe Creek Road

Old Canoe Creek Road's horizontal geometry is also unchanged, primarily on a tangent with a 1,000-foot radius curve (reverse crown) at the south end of the study area and an 800-foot curve (3.2% superelevated) just south of Nolte Road. The proposed work on Old Canoe Creek Road includes widening and resurfacing, without any change in profile grade.

Nolte Road Extension

The extension of Nolte Road was developed with curvature using $e_{max} = 5\%$ (the Florida Design Manual (FDM) Table 210.9.2) at 35 mph. It begins with a tangent coming from the proposed Edgewater DRI roundabout, forming a 74° angle with Florida's Turnpike (SR 91) through the diverging diamond interchange and parallel with the property line of a vacant parcel. A 550-foot radius curve is introduced, the lowest radius on reverse crown superelevation at this design speed.

The placement of the adjacent tangent was set to minimize impacts to both Teka Village and Mickey's Plaza, which the alignment bisects. Nolte Road then has a long 1,200-foot radius normal crown curve through the intersection with Old Canoe Creek Road and ties into an existing 585-foot radius curve (reverse crown) by the Summit Crestwood Apartment complex.

For the vertical profile, Nolte Road has a 700-foot vertical curve between the diverging diamond interchange crossovers with 3% grades coming down from the Florida's Turnpike (SR 91) overpass. Through the bisection between Teka Village and Mickey's Plaza, the profile was set close to the existing grade to minimize impacts. The profile then crowns at the existing Old Canoe Creek Road intersection and ties back to the existing profile at a 0.5% grade.

Partial Interchange with Old Canoe Creek Road Ramps

On-ramp from Old Canoe Creek Road to northbound Florida's Turnpike (SR 91) (Ramp C).

Ramp C starts perpendicular to the Old Canoe Creek Road centerline and then curves out of the vacant property at 24° for 10% superelevation at 30 mph. It parallels the Florida's Turnpike (SR 91) mainline 1° curve with barrier separation and 10-foot inside and outside shoulders on the two-lane ramp. Per FDM Figure 260.1.1, only a 6-foot inside shoulder is required; however, providing a 10-foot width accommodates a sign structure foundation for either the mainline or ramp, plus avoids broke back curvature at the end of the ramp when tying into the mainline with a $0^\circ 30'$ curve to meet the minimum curve length of 400-feet. After separating from Ramp D, the Ramp C vertical profile matches the adjacent Florida's Turnpike (SR 91) mainline. The toll gantry is not located in a sag curve for drainage considerations.

Southbound off-ramp from Florida's Turnpike (SR 91) to Old Canoe Creek Road (Ramp D).

Ramp D starts perpendicular to the Old Canoe Creek Road centerline and then curves over the Florida's Turnpike (SR 91) mainline at 11° for 8.6% superelevation at 35 mph. This was set to provide 10-foot minimum maintenance access on the outside of the proposed retaining wall to the existing limited access ROW. After a tangent, Ramp D curves back towards Florida's Turnpike (SR 91) with a $1^\circ 45'$ curve, exceeding the 3,000-foot minimum radius threshold to place a tolling site within. The alignment ties 73-foot offset to the Florida's Turnpike (SR 91) baseline with a 4° exit gore angle. After separating from Ramp C, the Ramp D vertical profile climbs at 6% to bridge over Florida's Turnpike (SR 91) at met vertical clearance requirements. A vertical crest curve good for 35 mph is

provided here. After a tangent down grade, a 50 mph sag curve ties the alignment in with Florida's Turnpike (SR 91).

Nolte Road Diverging Diamond Interchange (DDI) Ramps

Southbound on-ramp (Ramp A)

Ramp A of the Nolte Road DDI tangents off the Florida's Turnpike (SR 91) mainline 1° curve. There is a single 2° curve with 4% superelevation at 50 mph and 66° angle.

Northbound off-ramp (Ramp B)

Ramp B of the DDI comes off the Florida's Turnpike (SR 91) curve at 2° to obtain 4% superelevation when the adjacent mainline lanes are 3.7%. The ramp simply tangents from there into Nolte Road at a 74° angle.

Northbound on-ramp (Ramp C)

Ramp C is controlled from the Nolte Road eastbound dual left- turn lanes. A 75-foot radius turn is followed by a short tangent and then a 3° curve, 5.7% at 50 mph, that provides 10-foot minimum maintenance access on the outside of the proposed retaining wall to an existing property corner. After a tangent with a tolling site, there is a normal crown 0° curve followed by a 1° curve to tie into the Florida's Turnpike (SR 91) mainline.

Southbound off-ramp (Ramp D)

Ramp D starts at an 82° angle from Nolte Road. A long tangent includes a toll site. It then curves back towards Florida's Turnpike (SR 91) with a 1° curve of 400-foot minimum length at 2.1% superelevation. The alignment ties 73-foot offset to the Florida's Turnpike (SR 91) baseline with a 4° exit gore angle.

All four ramps at the Nolte Road DDI have similar proposed profiles with upgrades coming from the mainline ranging from 0.5-2% and a single vertical sag curve.

US 192 Interchange Southbound On-Ramp (Ramp A)

Ramp A at US 192 comes off Florida's Turnpike (SR 91) with a 1°30' curve of 400-foot minimum length at 3.1% superelevation. This accommodates lateral clearance of an existing Florida Gas Transmission line. After a tangent, there is a 2° curve with 4% superelevation at 50 mph, again at the minimum curve length. The alignment terminates at the US 192 arc centerline at an approximate 28° angle. The profile of Ramp A is relatively flat, given Florida's Turnpike (SR 91) ascent over US 192.

6.5 Bicycle and Pedestrian Accommodations

The recommended alternative will provide sidewalks and dedicated bicycle lanes on all Osceola County roadway segments reconstructed in conjunction with the project.

Chapters 222 and 223 of the 2020 *Florida Design Manual* provide updated guidelines on designing pedestrian and bicycle facilities, respectively. Specifically, these guidelines further implement a “Complete Streets” policy, designing multi-modal facilities that are safer and more accessible for all roadway users.

These guidelines were used in designing the new Nolte Road extension and interchange as part of Alternative 2. This includes 6-foot sidewalks, the latest FDOT standard, on both sides of Nolte Road, the four-lane section of Old Canoe Creek Road and along the south side of Kissimmee Park Road in the interchange vicinity. The proposed improvements will provide sidewalks for all four-lane urban reconstruction sections. A 12-foot multi-use path will be provided along the south side of the Nolte Road extension and through the interchange, for increased safety at the ramp crossings. Cross walks will be signed and striped and ped signals provided at the signalized intersections.

6.6 Multi-Modal Accommodations

There are no impacts to transit routes, railroads and/or truck routes with the recommended alternative.

6.7 Access Management

The existing access management classifications will not change with the recommended alternative; however, existing access will be altered in four primary areas.

The existing ramps at Kissimmee Park Road will be closed. Access to Florida’s Turnpike (SR 91) will take place at an extension of Nolte Road, approximately ½ mile north of the existing interchange. Access to and from the south, currently not provided at the Kissimmee Park Road interchange, will be provided with the proposed Nolte Road interchange.

Secondary access will be provided through a partial interchange between Florida’s Turnpike (SR 91) and Old Canoe Creek Road, located approximately ¾ mile south of Kissimmee Park Road. The partial interchange will consist of a southbound off-ramp and northbound on-ramp.

Access to properties near the Nolte Road intersection with Old Canoe Creek Road will be altered through the realignment of Nolte Road and the introduction of traffic separators near the intersection. Refer to the Concept Plans, submitted under separate cover, for details.

The existing partial interchange only provides a northbound off-ramp. A separate project, FPD1 436194-1, will add ramps to and from the north. A southbound on-ramp will be provided at the existing US 192 partial interchange as part of this project. This ramp will complete the movements at the interchange.

6.8 Intersection and Interchange Concepts

Intersections

There are five (5) signalized intersections associated with the recommended alternative. This includes the partial interchange ramps at Old Canoe Creek Road, Nolte Road and Old Canoe Creek Road, two at the Nolte Road DDI, and at the US 192 Ramp A. A description of the proposed intersection geometries for each of these intersections is provided below.

At the partial interchange, northbound Old Canoe Creek Road proposed improvements include dual left-turn lanes, two through lanes, and a bike lane. Southbound Old Canoe Creek Road would include a single left-turn lane, two through lanes, a bike lane, and a right-turn lane. Coming from Ramp D, a left turn lane, a combination through/left-turn lane, and two right-turn lanes are proposed. There is also a combination left/through/right-turn lane proposed for the exit from the Evers Wood Products commercial driveway. Old Canoe Creek Road in both directions, as well as the Ramp C entrance, would have two (2) receiving lanes. The commercial driveway would have a single receiving lane.

The next signalized intersection is Nolte Road extension with Old Canoe Creek Road. Both northbound and southbound Old Canoe Creek, as well as westbound Nolte Road, would have dual left-turn lanes, two (2) through lanes, a bike lane, and a right-turn lane. Eastbound Nolte Road would have dual left-turn lanes, two (2) through lanes, a bike lane, and dual right-turn lanes. All four legs of the intersection would include two (2) receiving lanes.

Ramps A and D are planned to intersect the Nolte Road extension at the western DDI crossover. Nolte Road eastbound would have four (4) through lanes, a bike lane, and a right-turn lane onto Ramp A. Two (2) of those through lanes would eventually become left-turn lanes to enter northbound Florida's Turnpike (SR 91). Westbound Nolte Road would have a left-turn lane onto Ramp A, two (2) through lanes, and a bike lane. Ramp D would include dual left-turn lanes and a single right-turn lane.

Ramps B and C are planned to intersect the Nolte Road extension at the eastern DDI crossover. Eastbound Nolte Road would have dual left-turn lanes onto Ramp C, two (2) through lanes, and a bike lane. Westbound Nolte Road would have two (2) through lanes, a bike lane, and a right-turn lane onto Ramp C. Ramp B is proposed for single left-turn and right-turn lanes.

At the US 192 and Ramp A intersection, there is a proposed single receiving lane on the ramp and three (3) proposed receiving lanes on each leg of the arterial. Eastbound US 192 would have three (3) through lanes, a bike lane, and a right-turn lane onto Ramp A. Westbound US 192 would have a left-turn lane onto Ramp A, three (3) through lanes, and a bike lane.

Interchanges

There are three (3) interchange locations, Old Canoe Creek Road, Nolte Road and US 192, in which new ramps are proposed as part of this project. At Old Canoe Creek Road, at the south end of the study area, two (2) ramps would service a partial interchange. One (1) ramp (Ramp D) would connect from Florida's Turnpike (SR 91) southbound and the other ramp (Ramp C) to

Florida's Turnpike (SR 91) northbound. At the Nolte Road extension diverging diamond interchange, four (4) ramp movements (Ramps A-D) are proposed. Finally, a single ramp is proposed from US 192 to Florida's Turnpike (SR 91) southbound (Ramp A) as part of this study.

6.9 Intelligent Transportation System (ITS)

Within the projects limits, the existing ITS system fiber backbone runs along the west side of the Florida's Turnpike (SR 91) mainline. In addition to the fiber backbone, there are fiber feeder lines and buried electric lines for the fiber equipment that also run along the west side of the mainline. With the proposed widening, there will be approximately 3.6 miles of fiber backbone, fiber feeder lines, splice vaults, pull boxes, buried electric lines and fiber route markers that will be affected. See the *ITS Technical Memorandum* and Concept Plans for details.

6.10 Tolling

There are four (4) tolling sites associated with the proposed improvements. This includes two (2) at the Old Canoe Creek Road partial interchange and two (2) at the Nolte Road DDI. There are no new mainline tolling sites proposed, as all tolling sites will be on the ramps. See *Draft Toll Siting Technical Memorandum* for details. Details on these tolling locations are as follows:

Tolling Site #1

Tolling section 1 represents the area that tolls the northbound entrance ramp from the new interchange with Old Canoe Creek Road, located approximately $\frac{3}{4}$ mile south of the existing Kissimmee Park Road interchange. The area east of Florida's Turnpike (SR 91) is relatively rural with sparse developments along Old Canoe Creek Road. Most of the land west of the Florida's Turnpike (SR 91) mainline is currently agricultural or undeveloped.

Tolling Site #2

Tolling section 2 represents the area that tolls the southbound exit ramp from the new interchange with Old Canoe Creek Road, located approximately $\frac{3}{4}$ mile south of the existing Kissimmee Park Road Interchange.

Tolling Site #3

Tolling section 3 represents the area that tolls the northbound entrance ramp from the new interchange with New Nolte Road, located approximately $\frac{1}{2}$ mile north of the existing Kissimmee Park Road Interchange. The area east of Florida's Turnpike (SR 91) is relatively rural with developments along Old Canoe Creek Road leading to the City of St. Cloud. Most of the land west of the Florida's Turnpike (SR 91) mainline is currently agricultural or undeveloped.

Tolling Site #4

Tolling section 4 represents the area that tolls the southbound exit ramp from the new interchange with Nolte Road, located approximately ½ mile north of the existing Kissimmee Park Road interchange.

6.11 Lighting

In accordance with Chapter 231 of FDOT Design Manual, lighting will be provided for Florida's Turnpike (SR 91) mainline corridor, all mainline ramps, and the mainline intersection at Nolte Road. All lighting within the mainline and interchanges associated with mainline ramps will be maintained by Florida's Turnpike Enterprise or their maintenance contractor. Lighting is not proposed in the FDOT Scope of Services for the intersection of Kissimmee Park Road and Old Canoe Creek Road; at this time, it is not determined if the City or County will construct and maintain lighting for this Intersection or for the Intersection of New Nolte Road and Old Canoe Creek Road.

6.12 Utilities

Due to the nature of the existing conditions throughout the project corridor, it is anticipated that the proposed improvements will impact a number of existing utilities. Utility owners and contacts are shown in Section 2.18 of this report. Specific utility locations and estimated costs for relocation are included in the *Utility Assessment Report*. Major potential conflict areas include:

Florida's Turnpike (SR 91)

The proposed southbound on-ramp from US 192 has been located to avoid potential impacts with the natural gas pipelines owned and operated by Florida Gas transmission (FGT). The Florida's Turnpike (SR 91) mainline widening potentially impacts the fiber optic cable facilities owned and operated by AT&T Corporation.

Nolte Road Interchange

The greatest utility impacts caused by the proposed interchange will be at the intersection with Old Canoe Creek Road. The potential impact includes those facilities owned and maintained by the City of St. Cloud, CenturyLink Legacy, CenturyLink National, Bright House Networks, and Orlando Utilities Commission.

The purpose of the Utility Assessment is to identify the type, location, and ownership of the existing utilities within the limits of the study area and to assess their impacts with the proposed improvements. All work was performed in accordance with the standards outlined in Part 2, Chapter 21 ("Utilities & Railroads") of the FDOT PD&E Manual. The utility information provided below was obtained from field reviews, as-built plan information from previous projects in the area, as well as information provided by the utility companies. This section summarizes the results of the November 2019 *Utility Assessment Report*. Existing utilities confirmed within the study area are summarized below:

AT&T Corporation – Transmission

- Buried fiber optic cable network consisting of (2) 2-inch HDPE in a 10-foot easement. This easement is in the northbound median of Florida's Turnpike (SR 91)

AT&T Florida's – Distribution

- Buried fiber optic cable facilities are placed in the south ROW of US 192 and crosses Florida's Turnpike (SR 91)

Bright House Networks / Charter – CATV

- Aerial cable facilities are placed along the west ROW of Old Canoe Creek Road
- Buried cable facilities are placed along the west ROW of Old Canoe Creek Road
- Buried cable facilities crossing at Old Canoe Creek Road south of Nolte Road
- Aerial cable facilities are placed along the south ROW of Nolte Road

CenturyLink National / Level 3-Communications

- Buried fiber optic cable facilities are placed in the west ROW of Old Canoe Creek Road
- Buried fiber optic cable facilities are placed in the south ROW of US 192 and crosses Florida's Turnpike (SR 91)

CenturyLink Legacy - Local Telephone

- Buried fiber optic cable facilities are placed in the north ROW of Kissimmee Park Road and crosses Florida's Turnpike (SR 91)
- Buried fiber optic cable facilities are placed in the west ROW of Old Canoe Creek Road
- Buried copper cable facilities are placed in the east and west ROW of Old Canoe Creek Road
- Buried copper cable crossings at 1,050-feet north of Kissimmee Park Road and at 1,450-feet north of Kissimmee Road to the north side of Teka Lane ROW
- Buried copper cable facilities at the southeast corner of Old Canoe Creek Road and Nolte Road
- Buried fiber optic cable facilities are placed in the west ROW of Old Canoe Creek Road
- Buried copper facilities are in the east ROW of Florida's Turnpike (SR 91)
- Buried fiber optic cable facilities are placed in the north ROW of Kissimmee Park Road
- Buried copper cable facilities in the south ROW of Nolte Road

- Buried copper cable crossing at 400-feet east of Old Canoe Creek Road
- Buried copper cable crossing at 1,100-feet east of Old Canoe Creek Road
- The fiber optic cable facilities are placed in the north ROW of US 192

City of St. Cloud – Public Utilities

- 12-inch HDPE water main placed in the north ROW of Neptune Road
- 12-inch HDPE reclaimed water placed in the north ROW of Neptune Road
- 8-inch HDPE force main placed in the north ROW of Neptune Road
- 24-inch DIP water main placed in the south ROW of Kissimmee Park Road
- 8-inch PVC force main in the south ROW of Kissimmee Park Road.
- 12-inch PVC water main placed in the west ROW of Old Canoe Creek Road, from the south limits of this PD&E study
- 12-inch PVC water main placed in the east ROW of Old Canoe Creek Road, from the north right-of-way of Settlers Trail to crossing
- 12-inch PVC water main placed in the east ROW of Old Canoe Creek Road, from the south ROW of Nolte Road
- 12-inch PVC reclaimed water placed in the east ROW of Old Canoe Creek Road, from the south limits of this PD&E study
- 12-inch PVC reclaimed water placed in the east ROW of Old Canoe Creek Road, from the east limits of this PD&E study
- 12-inch PVC reclaimed water placed in the east ROW of Old Canoe Creek Road, from the south ROW of Nolte Road
- 8-inch PVC force main placed in the east ROW of Old Canoe Creek Road, from the east limits of this PD&E study
- 16-inch PVC force main placed in the west ROW of Old Canoe Creek Road, from south of Nolte Road
- 8-inch PVC gravity main placed in the west ROW of Old Canoe Creek Road, from north ROW of Nolte Road to the north limits of this PD&E study
- 12-inch PVC water main placed in the south ROW of Nolte Road from the east ROW of Old Canoe Creek Road to the east limits of this PD&E study
- 12-inch PVC reclaimed water placed in the north ROW of Nolte Road from the east ROW of Old Canoe Creek Road to the east limits of this PD&E study
- 16-inch PVC force main placed in the north ROW of Nolte Road
- 8-inch PVC gravity main placed in the north ROW of Nolte Road

ComCast Communications – CATV

- Aerial cable facilities are placed along the west ROW of Old Canoe Creek Road, beginning from the south limits of this PD&E study
- Buried cable facilities are placed along the west ROW of Old Canoe Creek Road, beginning from the south ROW of Kissimmee Park Road
- Buried fiber optic cable facilities are placed in the south ROW of Kissimmee Park Road

Florida Gas Transmission – Natural Gas

- 30-inch natural gas transmission pipeline from the east limits of this PD&E study and proceeds west, crossing Florida's Turnpike (SR 91) 2,100-feet south of US 192 to the north limits of this study
- 20-inch natural gas transmission pipeline is placed in an easement along the south ROW of US 192, from the east limits of this PD&E study and proceeds west crossing Florida's Turnpike (SR 91)

Orlando Telephone Company / Summit Broadband

- This utility received a request to provide their facility information within the study limits and was provided project alignment plans, which included two alternative interchange involvements. This utility provided a response stating that they have no facilities within the limits of this PD&E study

Orlando Utilities Commission (OUC) Electric

- Aerial 3-Phase electric distribution line is attached to wood poles. These facilities are placed in the west ROW of Old Canoe Creek Road from the south limits of this PD&E study to the south of Kissimmee Park Road
- Buried 3-Phase electric distribution line from a wood power pole to the south of Kissimmee Park Road.
- Aerial 3-Phase electric distribution line from wood power pole in east ROW of Kissimmee Park Road, being 800-feet west/south of ROW of Florida's Turnpike (SR 91)
- Buried 3-Phase electric distribution line from a wood power pole in the east ROW of Kissimmee Park Road, being 725-feet from the southbound off-ramp of Florida's Turnpike (SR 91)
- Buried 3-Phase electric distribution in the north ROW of Kissimmee Park Road Then proceed north in the west ROW of the southbound off-ramp of Florida's Turnpike (SR 91)
- Buried single phase electric distribution line from the east limit of this PD&E study to 150-feet west of St. Cloud Commons in the north ROW of US 192

The recommended Build Alternative, Alternative 2, includes alignment changes of Nolte Road with new on- and off-ramps accessing Florida's Turnpike (SR 91). The potential impact at Florida's

Turnpike (SR 91) will include communications facilities owned and maintained by AT&T Corporation. The greatest impact to utilities occurs at Old Canoe Creek Road, where the potential impact includes those facilities owned and maintained by the City of St. Cloud, CenturyLink Legacy, CenturyLink National, Bright House Networks, and Orlando Utilities Commission. No impacts to Florida Gas Transmission Lines are proposed.

Additionally, no FTE-owned utilities were identified on the Sunshine 811 design ticket for the entire PD&E study area. However, due to the existing toll plaza within the study area and interchange lighting, it is anticipated that fiber-optic and electrical utility lines are located within the existing FDOT ROW.

6.13 Drainage and Stormwater Management Facilities

Water quality criteria will be met with either dry detention systems within the ROW or wet detention facilities for an offsite pond site. Either option provides treatment of new impervious area as well as compensatory treatment for the existing impervious area not previously receiving treatment.

Stormwater Management Design Criteria

Each pond will be sized to meet SFWMD treatment volume criteria of 2.5-inches of runoff over the additional impervious area. The wet detention facilities will be designed to detain 100% of the treatment volume criteria, and dry detention systems will provide 75% of the treatment volume criteria (Section 4.2.1(a) - SFWMD Environmental Resource Permit (ERP) Applicant's Handbook Volume II). There are no direct discharges to an Outstanding Florida Water (OFW) or to a water body that has been identified as impaired by the Florida Department of Environmental Protection (FDEP) (refer to FDEP section below). Therefore, no additional treatment volume is required.

Water quantity criteria will be met by providing storage for the additional post-development volume generated when compared to the pre-development volume generated. During design, routings will be performed to demonstrate that the post-development peak discharge rate is not greater than the pre-development discharge rate.

Per Section 3.3 of the 2016 SFWMD ERP Applicant's Handbook Volume II, unless otherwise specified by previous agency permits or criteria, a storm event of 3-day duration and 25-year return frequency shall be used in computing offsite discharge rates. Applicants are advised that local drainage districts or local governments may require more stringent design storm criteria. For this project, the local government criteria from Osceola County are assumed to govern. All project basins are open basins. The 10-year/72-hour storm event for Osceola County will be used to establish attenuation criteria for the proposed ponds, which is similar to the criteria used in the previous permits within the corridor.

Pond Recommendations

The following recommendations are made for the proposed stormwater management facilities. Basin descriptions are provided in Section 2.8 of this report. Additional details are provided in the *Pond Siting and Location Hydraulics Report*.

In general, where onsite linear ponds could be accommodated within the existing Florida's Turnpike (SR 91) mainline ROW, these were identified as the recommended ponds sites. This applied to Basin 1, Basin 2, Basin 3, and Basin 4. The existing Florida's Turnpike (SR 91) pond, constructed for the Kissimmee Park Road interchange, has excess capacity and will continue to serve Basin 2.

For the ponds associated with the proposed Nolte Road diverging diamond interchange, Basin 300 (Nolte Road interchange area), remnant parcels adjacent to the Nolte Road extension were selected as the recommended pond sites (see **Figure 6-4: Proposed Pond Locations at Nolte Road Interchange**). This area provides flexibility to create multiple pond sites that work hydraulically with the existing grades of Old Canoe Creek Road and Nolte Road. It is anticipated that runoff from roadway portions outside of the limited access ROW will require separate ponds, which will not be maintained by FTE.



Figure 6-4: Proposed Pond Locations at Nolte Road Interchange

For Basin 100 (partial interchange with Old Canoe Creek Road), a pond located on an undeveloped parcel on the east side of Old Canoe Creek Road (Pond 100-1) was selected given the substantial lower overall cost as compared to other options (see **Figure 6-5: Proposed Pond Location at Old Canoe Creek Partial Interchange**).

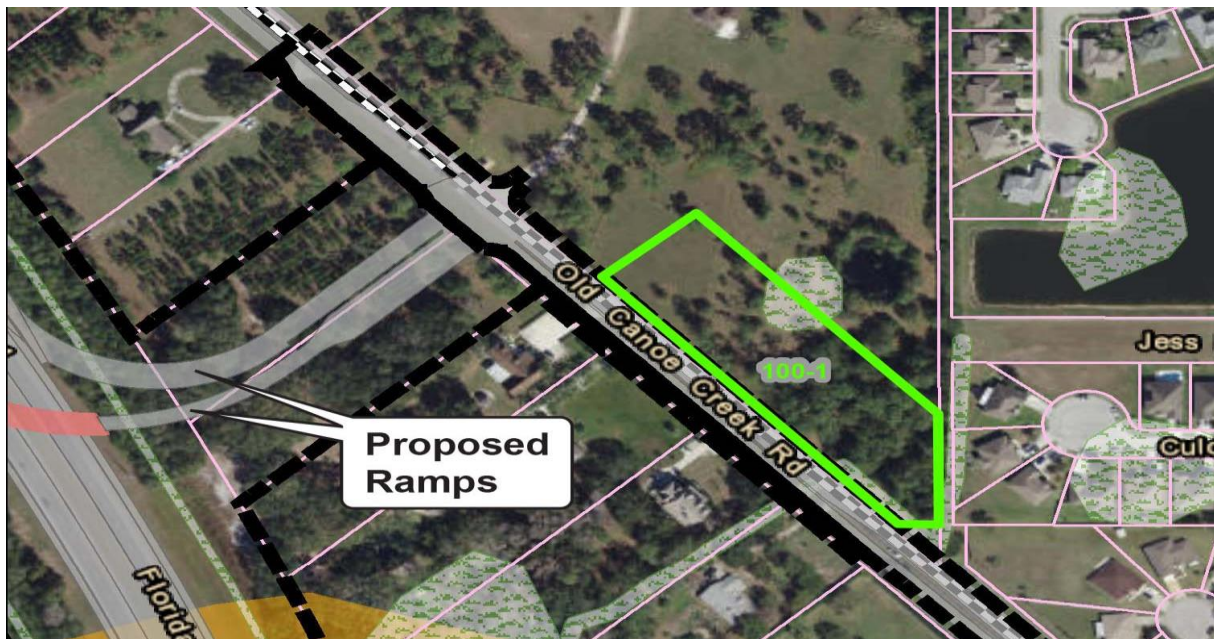


Figure 6-5: Proposed Pond Location at Old Canoe Creek Road Partial Interchange

Floodplain Impacts

The FEMA FIRM for Osceola County, community panel numbers 12097C0252G and 12097C0090G, dated June 18, 2013, indicates a portion of the project area is in the 100-year floodplain (see **Figure 2-6: FEMA Floodplains (FEMA Database, 2018)** shown in Section 2.9 of this report). Therefore, there will be floodplain involvement with federally defined floodplains. There are no regulated floodways within the project limits. The project corridor crosses two FEMA floodplains: 1) Zone AE at the C-31 St. Cloud Canal, and 2) Zone A at CD-1, just north of the Kissimmee Park Road interchange.

No adverse impacts are anticipated to the floodplain, as required by the SFWMD permitting process. The SFWMD requires replacement of floodplain storage lost as a result of encroachments. In addition, the SFWMD and FDOT design criteria for conveyance systems (e.g. culverts) allow no significant increase in flood stages.

6.14 Transportation Management Plan

A preliminary temporary traffic control plan (TTCP) has been developed and is submitted under separate cover. The general sequence of construction can be summarized as follows:

Phase I-A

- Installation of advance warning signs and erosion control measures
- Construction of temporary pavement in the existing median

Phase I

- Shift the mainline traffic to the median
- Construction of the permanent outside lanes

Phase II

- Shift traffic to the completed outside lanes
- Construct the median pavement
- Construct the Nolte Road and Ramp D flyover bridges
- Construct Nolte Road extension and ramps
- Construct widening of Old Canoe Creek Road

Phase III

- Shift traffic to the completed inside lanes
- Construct Old Canoe Creek Road interchange ramps
- Construct US 192 southbound on-ramp
- Construct permanent outside shoulders and slope tie-downs
- Construct ramp tie-ins

6.15 Special Features

Landscaping

Widening Florida's Turnpike (SR 91) and constructing a new interchange creates opportunity for a bold vision landscape project. The conceptual opportunity plan provided (submitted under separate cover) highlights key opportunity areas that have the potential to fulfill design criteria consistent with FTE's branding guidelines.

The design configuration shown in the conceptual opportunity plan prioritizes preserving existing vegetation and its benefit to neighbor and user experiences on Florida's Turnpike (SR 91). Areas that will undergo significant functional use changes, such as the new interchange(s), were evaluated and assigned new programming. All programming in the conceptual opportunity plan was positioned in order to create an overall configuration that will contribute to FTE's unique landscape brand.

The existing southbound ramp to US 192 has established Level III canopy planting including Sabal Palmetto, Magnolia grandiflora and Bismarckia nobilis. The existing materials and design will be carried over to the proposed southbound off ramp from US 192 to create a consistent palette at the interchange. Should construction impact these areas, individual trees would need

to be field located for preservation or re-location based on condition. These conditions are noted and will be included in future submittals.

Noise Walls

Noise walls have been determined to be feasible and reasonable at specific locations within the study limits. For further details, refer to Section 2.4.A Highway Traffic Noise, below and the June 2020 *Project Development and Environment Noise Study Report*. Noise wall design will be finalized during the engineering design phase, with input from the adjacent communities.

6.16 Design Variations and Design Exceptions

The project will require a design variation for border width (ramps) and an exception for shoulder width (intermediate bridge columns in the median). **Table 6-2: Recommended Build Alternative – Cost Estimate** outlines the cost estimate for the recommended Build Alternative.

Table 6-2: Recommended Build Alternative – Cost Estimate

Component	Cost
Construction	\$138 M
Design	\$21 M
Other Services	\$25 M
ROW	\$23 M
Total	\$207 M

6.17 Summary of Environmental Impacts of the Preferred Alternative

The following sections summarize the environmental issues and features associated with the Recommended Alternative.

Wetlands and Other Surface Waters

Jurisdictional waters, including wetlands, surface waters (SWs) and other surface waters (OSWs) were assessed within the PD&E Study in accordance with multiple state and federal regulatory parameters, including the Presidential Executive Order 11990 (“Protection of Wetlands”), U.S. Department of Transportation Order 5660.1A (“Preservation of the Nation’s Wetlands”), Federal Highway Administration Technical Advisory T6640.8A regarding the preparation of environmental documents, and Chapter 9, Wetlands and OSWs, of FDOT’s PD&E Manual. The boundary and functional value of these systems were assessed through literature reviews, agency database searches, and field reviews.

Due to the proposed improvements associated with the recommended alternative, impacts to wetlands and surface waters cannot be completely avoided. However, the majority of these impacts will occur to low-quality surface waters that are primarily vegetated with Brazilian pepper

and other opportunistic species. The potential impacts are summarized below. See the June 2020 *Natural Resource Evaluation Report* for more details.

Direct Impacts

Impacts are summarized below and include the Florida's Turnpike (SR 91) mainline widening and interchange relocation. Impacts assume the entire existing ROW corridor will be utilized and that all existing surface waters will be relocated to the edge of the existing Florida's Turnpike (SR 91) ROW limits. These estimates assume pond sites selected in each basin will have the largest wetland impacts acreage, when compared to other alternatives in the same basin. Proposed stormwater systems for each alternative are included in the impact acreage. Thus, the estimates are conservative for FTE forecasting of mitigation funds.

Per the Uniform Mitigation Assessment Method (UMAM) criteria, landscape support, community structure and water environment were primary factors in consideration of the system's ecological value. As previously described, upland-cut surface waters along the existing mainline corridor are dominated with Brazilian pepper and other invasive species. These borrow areas contain sufficient mature canopy to be forested per FDOT FLUCCS manual criteria, as they include scattered water and laurel oak, red maple and slash pine. Because these OSWs are created in uplands, contain no suitable foraging habitat and will be replaced, mitigation will not be proposed for temporary impacts. Therefore, no UMAM score is provided below for OSWs. It is anticipated that mitigation will be required for wetland-cut surface waters from both state and federal regulatory agencies.

The recommended Build Alternative, Alternative 2, could impact up to 130 acres of wetlands, SWs, and OSWs. Of the 130 acres, approximately 104 acres are wetlands, 20 acres are historically wetland-cut SWs, and 6 acres are OSWs. Because final pond sites are not yet selected, and wetland impacts will be reduced and avoided to the greatest extent feasible during final design, wetland impact acreage will likely diminish from initial provided estimates.

Tables 6-3: Alignment Wetland Impacts and Estimated Functional Loss, 6-4: Drainage Wetland Impacts and Estimated Functional Loss and 6-5: Total Wetland and Surface Water Impacts with Estimated Mitigation provide a detailed summary of estimated impacts for the recommended Build Alternative and drainage design alternative, as well as total estimated impacts and mitigation for the Recommended Build Alternative.

Table 6-3: Alignment Wetland Impacts and Estimated Functional Loss

Impact Acreage Build Alternative	Wetland or Surface Water Florida Lane Use, Cover and Forms Classification System) FLUCCS Category	Estimated UMAM Functional Loss
Up to 5 acres	530D (Upland-Cut, Other Surface Waters)	Not Applicable
Up to 20 acres	630D (Wetland-Cut Surface Waters)	0.4
Up to 88 acres	630	0.4

Table 6-4: Drainage Wetland Impacts and Estimated Functional Loss

Drainage Design Build Alternative	Wetland or Surface Water FLUCCS Category	Estimated UMAM Functional Loss
Up to 1 acre	534 (Borrow Area)	Not Applicable
Up to 16 acres	617/630	0.4
N/A	621	0.6

Table 6-5: Total Wetland and Surface Water Impacts with Estimated Mitigation

Alternative Number	Total Impacts	Estimated Mitigation
Alternative 2 (Build Alternative)	Up to 130 acres	50 UMAM credits

Indirect Impacts

Indirect impacts to wetlands and surface waters offsite are not anticipated along the Florida's Turnpike (SR 91) mainline, as wetland systems within and directly abutting the existing limited-access facility are highly disturbed and comprised of invasive and exotic flora species. Additionally, these systems have been exposed to highway lighting and noise for over fifty years.

Measures to avoid indirect impacts associated with the proposed pond design will be considered early during the design phase and impacts to the scattered higher quality wetlands (FLUCCS 621, Cypress) will be minimized to the greatest practicable extent. While there may be minimal impacts to wetlands within the pond sites west of the Florida's Turnpike (SR 91) corridor, indirect impacts are not expected to be significant, and will be assessed with regulatory agencies during design and permitting.

Potential Cumulative Impacts

Cumulative effects on the environment result from the incremental impacts of the action when added with other past, present and reasonably foreseeable future actions. The Preferred Alternative is not anticipated to significantly contribute to cumulative effects in the regional area, due to existing commercial and residential development already in place. Additionally, all proposed future development of existing agricultural lands, west of the Florida's Turnpike (SR 91) corridor, were zoned and approved in local county comprehensive plans prior to the commencement of the project's planning phase and PD&E study. The primary purpose of this project is to redevelop the existing Florida's Turnpike (SR 91) corridor and provide a safe facility that meets current traffic demands of the surrounding area as well as necessary emergency evacuation.

Protected Species and Habitat

Within the PD&E study area, the potential presence of listed species and their habitat was assessed through literature reviews, agency database searches, and field reviews. Prior to commencement of the PD&E study, agency comments were received from the United States Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FWC), through the ETDM Summary Report. Comments from these agencies focus on the need for species-specific surveys for multiple fauna species. A summary of protected species habitat, surveys needed based on agency comments, literature review, and results of initial field visits are provided below.

All design alternatives were studied and reviewed in accordance with Chapter 16 of the FDOT PD&E Manual, Protected Species and Habitat. All the design alternatives have the potential to impact similar protected species habitat; however, no one alternative has a significantly greater effect on listed species habitat. Therefore, the summary below is based on the recommended Build Alternative, Alternative 2, and associated pond sites. A full description of the complete study area, and the potential to impact protected species and their habitat is provided in the June 2020 NRE, provided under separate cover.

Federally Listed and Protected Species

The project study area was assessed to determine the potential presence of federally protected species and suitable habitat. Based on the results of the data review and field surveys, a total of seven (7) federally listed fauna species, Endangered Species Act (ESA), or otherwise protected by federal law, are potentially affected based on the recommended Build Alternative, Alternative 2. From the initial research, field visits were conducted September-October 2019 and March of 2020 to confirm if potential habitat existed within Alternative 2, and associated pond sites. Based on the USFWS database, no federal listed species critical habitat is located within Alternative 2 or the study area. The anticipated Level of Effect (LOE) for the following species are summarized below:

The recommended Build Alternative, Alternative 2, is anticipated to "may affect, but not likely adversely affect (MANLAA)" the Eastern Indigo Snake (*Drymarchon corais couperi*),

the wood stork (*Mycteria americana*), Audubon's crested caracara (*Polyborus plancus audubonii*), the Florida scrub jay (*Aphelocoma coerulescens*), the Everglade snail kite (*Rostrhamus sociabilis plumbeus*), the Florida grasshopper sparrow (*Ammodramus savannarum floridanus*) and the Florida bonneted bat (*Eumops floridanus*). The MANLAA determination, per ESA regulations, is based on the project occurring within the Consultation Area (CA) for all above-listed species and anticipated species-specific surveys which will be conducted at the direction of USFWS during the project's design phase.

Ongoing coordination with USFWS will continue throughout design. If species-specific surveys result in presence of listed species, FDOT will minimize and avoid impacts to habitat in design, where feasible, obtain a required Biological Opinion and provide mitigation approved by USFWS, to ensure no net loss of listed species habitat.

Although not protected under ESA, the bald eagle (*Haliaeetus leucocephalus*) is protected under multiple federal regulations. No bald eagle nests exist within the 660-foot protection zone of any proposed alternatives. One active nest site (FWC Nest ID# OS-194) was documented within 0.5 mile of the project study area during multiple site visits in 2019 and 2020. Ongoing monitoring of existing and new bald eagle nests within the project limits will continue through final design, to ensure there is no adverse impact to the breeding success of any active bald eagle pairs.

While the project lies within the USFWS Consultation Area for the red-cockaded woodpecker and limited Lake Wales Ridge plants, it is anticipated to have "no effect (NE)" on these species. The NE determination for these species is based on no suitable habitat for these species within the recommended Build Alternative, Alternative 2, no documented occurrence based on all available public records, and no observation of these species during field reviews.

State Listed and Protected Species

In addition to assessment for federally protected species, the project study area also was assessed to determine the potential presence of state-only protected species and suitable habitat. For purpose of this summary, those species that are both state and federally listed, and discussed above, are not repeated in this section, due to the fact that USFWS will take lead efforts in regulating those species. Based on the results of the data review and field surveys, it was determined that a total of six (6) state-only listed species, per 68A-27, Florida Administrative Code, or otherwise protected by federal law, have the potential to occur within the corridor. No listed or otherwise protected species critical habitat, based on FWC database results, is located within the recommended Build Alternative, Alternative 2, or the entire study area. The anticipated effect level for the following species are summarized below:

The recommended Build Alternative, Alternative 2, is anticipated to have "no adverse effect" on the following species: gopher tortoise (*Gopherus polyphemus*), Florida

burrowing owl (*Athene cunicularia*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), sandhill crane (*Grus canadensis*) and roseate spoonbill (*Platalea ajaja*).

Species specific surveys for the gopher tortoise and Florida burrowing owl will be conducted during design phase. Permitting through FWC and relocation of gopher tortoises to conservation property will occur for all work within 25-feet of impacted burrows.

If burrowing owl burrows are discovered during surveys, efforts to avoid and minimize impacts will occur. An Incidental Take Permit will be obtained, and approved mitigation provided for any unavoidable impacts to burrowing owls. No nest sites or rookeries were observed for any state-only listed wading birds within the limits of the study area; therefore, no species-specific surveys are proposed during design phase.

Table 6-6: Potential Listed Species Effect Determinations below summarizes the effect determinations and anticipated potential adverse effects on federally and state protected species, as they are described above.

Table 6-6: Potential Listed Species Effect Determinations

Common Name	Scientific Name	Build Alternative
Gopher tortoise	<i>Gopherus polyphemus</i>	No adverse effect anticipated
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	MANLAA*
Audubon's crested caracara	<i>Polyborus plancus audubonii</i>	MANLAA
Bald eagle	<i>Haliaeetus leucocephalus</i>	MANLAA
Florida Sandhill Crane	<i>Antigone canadensis pratensis</i>	No adverse effect anticipated
Florida scrub jay	<i>Aphelocoma coerulescens</i>	MANLAA
Little blue heron	<i>Egretta caerulea</i>	No adverse effect anticipated
Roseate spoonbill	<i>Platalea ajaja</i>	No adverse effect anticipated
Tricolored heron	<i>Egretta tricolor</i>	No adverse effect anticipated
Wood stork	<i>Mycteria americana</i>	MANLAA
Florida burrowing owl	<i>Athene cunicularia</i>	No adverse effect anticipated
Grasshopper sparrow	<i>Ammodramus savannarum floridanus</i>	MANLAA
Florida bonneted bat	<i>Eumops floridanus</i>	MANLAA

*May affect not likely to adversely affect

Cultural Resources

A Cultural Resources Assessment Survey (CRAS) was conducted within the study area to locate, identify, and aerially delimit any archaeological sites and historic resources (e.g., structures,

buildings, bridges, cemeteries, linear resources, historic districts) within the project's Area of Potential Effect (APE). As defined in 36 CFR Part 800.16(d), and recognized by Chapter 267, F.S., the APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist." The CRAS was prepared in accordance with Part 2, Chapter 8 of the FDOT PD&E Manual and the *Cultural Resource Management Standards and Operational Manual: Module 3* (Florida Division of Historical Resources [FDHR] 2003). Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. The CRAS documents resources significance in terms of eligibility criteria for listing in the National Register of Historic Places (NRHP). Surveys were completed in accordance with Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-655, as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*, effective August 2004), as well as Chapters 267 and 373, *Florida Statutes (F.S.)*, Chapter 1A-46, *Florida Administrative Code (FAC)*, and Florida's Coastal Management Program. The results of the CRAS are summarized below.

Ten (10) new historic resources were identified, and two previously recorded historic resources were identified within the APE. These resources and the APE are depicted below on **Figures 6-6A, 6-6B, and 6-6C: CRAS Survey Resources**. The resources include nine buildings, one concrete bridge (FDOT Bridge No. 920044) and two linear resources. Of the twelve identified historic resources, eleven appear ineligible for listing in the National Register of Historic Places (NRHP).

The C-31 Canal (St. Cloud Canal), within the limits of the APE, appears to be eligible under Criteria A and Criteria C for early drainage efforts in the Kissimmee Basin. However, the recommended Build Alternative, Alternative 2, will expand two existing bridges (FDOT Bridge No. 920140 & FDOT Bridge No. 920074) that cross the canal by adding four 12-foot lanes (2-lanes in each direction). Therefore, the recommended Build Alternative, Alternative 2, will not result in the removal or destruction of any potential significant resources under the proposed bridges. In addition, the canal was not used for transportation navigability and the existing bridges do not detract from the canal's significance.



Figure 6-6A: CRAS Survey Resources

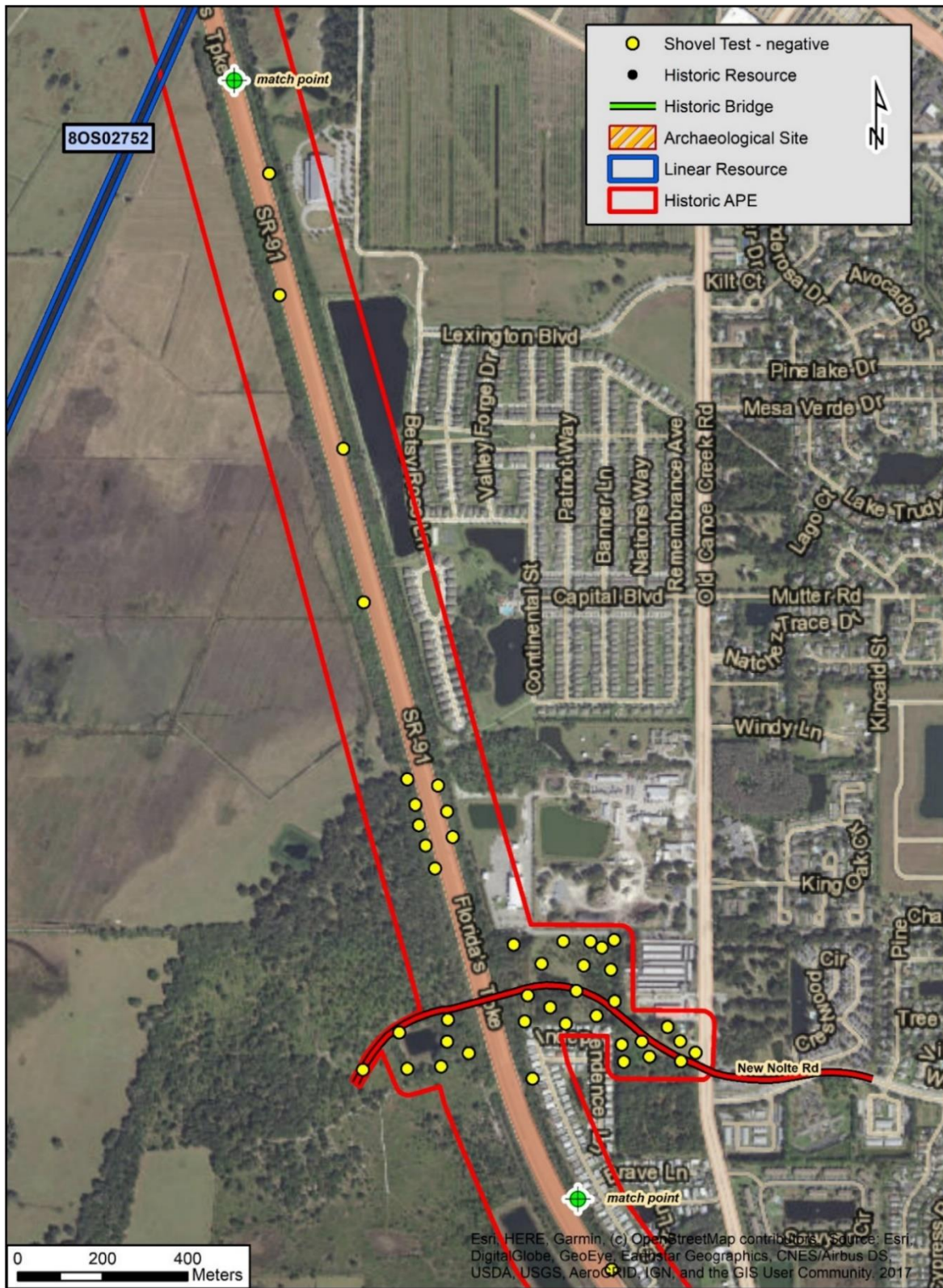


Figure 6-6B: CRAS Survey Resources



Figure 6-6C: CRAS Survey Resources

Air Quality

The objective of the air quality screening is to determine if project-related motor vehicle emissions will cause, or contribute to, a violation of the National Ambient Air Quality Standards (NAAQS) for carbon monoxide, the most prevalent air pollutant emission from motor vehicles. The December 2019 Air Quality Technical Memorandum has been prepared per the requirements as outlined in the FDOT PD&E Manual, Part 2, Chapter 19. This summary contains information regarding the air quality study conducted for the proposed improvements. The recommended Build Alternative, Alternative 2, was evaluated for potential air quality impacts.

The roadway segment chosen for the screening test is typically the one with the combination of highest traffic volumes, lowest vehicular speeds, and closest receptors. For this project, the proposed northbound on-ramp to Florida's Turnpike (SR 91) mainline from the extension of Nolte Road and the northbound off-ramp from the Florida's Turnpike (SR 91) mainline were selected as the worst-case roadway segments due to the projected traffic volumes, reduced speeds and proximity of the residences.

A receptor site is a place where people can reasonably be expected to spend a significant amount of time, such as the backyard of a residence. Two receptor sites (Receptor Site 1 [R1] and Receptor Site 2 [R2]) were selected as the closest reasonable air quality receptors to the roadway. The southbound (west) side of Florida's Turnpike (SR 91) is currently undeveloped, therefore the proposed receptor sites are on the northbound (east) side of Florida's Turnpike (SR 91).

R1 is located in the southeast area of the proposed interchange near Teka Village, and R2 is located near the intersection of the northbound on-ramp with the Nolte Road extension (see **Figure 2-8: Receptor Site Location Map**). For R1, the northbound general use lanes of Florida's Turnpike (SR 91) were used for the worst-case. For R2, the northbound on-ramp was used. The screening test for urban areas in Central Florida was used.

All the scenarios passed the screening and "No Exceedances of NAAQ Standards are Predicted" based on the recommended Build Alternative, Alternative 2.



Figure 6-7: Receptor Site Location Map

6.18 Highway Traffic Noise

A traffic noise analysis was performed in accordance with Title 23, Code of Federal Regulations, Part 772 (23 CFR 772), *Procedures for Abatement of Highway Traffic Noise and Construction Noise* following methodology and procedures established by the FDOT in the *PD&E Manual*, Part 2, Chapter 18. The purpose of this noise study is to identify noise sensitive sites that would be impacted by the recommended Build Alternative, Alternative 2 (i.e., Nolte Road interchange), evaluate abatement measures at impacted noise sensitive sites, and determine where noise abatement (i.e., noise barriers) needs to be included in the design plans.

The project's specific report dated June 2020, *Project Development and Environment Noise Study Report*, contains further details regarding traffic noise analysis. Noise levels are expressed in decibels (dB) using an "A" - scale [dB(A)] weighting, to approximate the response characteristics of the human ear. All predicted noise levels represent hourly equivalent levels (LAeq1h) consistent with the federal regulations regarding noise metrics. Traffic noise levels were predicted at noise sensitive sites of Alternative 2.

Regarding Alternative 2, traffic noise levels were predicted at 215 receptor points representing 324 residences and ten (10) special land uses:

1. Neptune Middle School (basketball court)
2. Villas of Emerald Lake Condo Association (basketball court)
3. Origin Hospitality/Assisted Living Facility (outdoor pavilion)
4. Journey Bible Fellowship Church (basketball court)
5. Teka Village (recreational shuffleboard court)
6. Anthem Park
7. Sunset Park
8. Neptune Elementary School (playground)
9. Partin Triangle Park
10. City of Life Christian School (baseball field, basketball courts, and a playground)

For Design Year (2045) conditions of Alternative 2, noise levels are predicted to approach, meet, or exceed the Noise Abatement Criteria (NAC) at 198 residences and eight (8) special land uses. These 198 impacted residences and eight (8) special land uses were further evaluated to determine the feasibility and reasonableness of providing noise barriers to reduce traffic noise.

The noise barrier evaluation identified that noise barriers are a reasonable and feasible form of abatement and could potentially provide at least a 5 dB(A) reduction at 125 of the 198 impacted residences (in Teka Village and along Betsy Ross Lane and Kettle Creek Drive), and at one (1) of the eight (8) impacted special land uses (Neptune Elementary School) at a cost below the reasonable limit.

A noise barrier at a second special land use, Neptune Middle School, was found to be potentially feasible but its reasonableness could not be conclusively determined at the time of analysis, due to impacts from COVID-19, which have resulted in a lack of field and basketball court usage with the current school closure.

A combination ROW (up to 22-feet) and shoulder (8-feet) noise barrier system was found to be potentially reasonable and feasible for Teka Village. A combination ROW (up to 22-feet) and shoulder (14-feet and 8-feet) noise barrier system was found to be potentially reasonable and feasible for residents along Betsy Ross Lane and Kettle Creek Drive. Barriers ranging between 10- and 22-feet were found to be potentially reasonable and feasible for Neptune Elementary School. Barriers ranging between 14- and 16-feet were presumed to be potentially reasonable and feasible at Neptune Middle School, pending a determination of site usage, which will be resolved during the design phase.

DRAFT

7.0 Appendices

DRAFT



Appendix A: Design Criteria



**Widen Florida's Turnpike
From South of KPR to US 192
FPIDs 441224-1-22-01, 441224-2-32-01
Roadway Design Criteria
April 2020**

Design Element	Design Standard	Sources / Notes
Design Year	2045	per Design Traffic Report in Project Scope
Roadway Classification State Road 91 (Florida's Turnpike) Kissimmee Park Road (KPR) Old Canoe Creek Road (OCCR) Nolte Road (NR)	Urban Principal Arterial Expressway (Limited Access) Urban Minor Collector Urban Minor Arterial Urban Minor Arterial	Straight Line Diagram per Osceola County per Osceola County per Osceola County
Interchange Type OCCR Nolte US 192	Partial T-Type Diverging Diamond Interchange (DDI) Diamond	2018 AASHTO 10.9.2 2018 AASHTO 10.9.3.5 2018 AASHTO 10.9.3.2
Design Vehicle	WB-62FL	2020 FDM 201.6.2
Design Speed State Road 91 Interchange Ramps Kissimmee Park Road Old Canoe Creek Road Nolte Road	70 mph 50 mph 35 mph 45 mph 35 mph	2020 TDH 201.5.1 2020 FDM Table 201.5.2 Posted Posted Posted
Horizontal Alignment		
Maximum Deflections Flush Shoulder and Curbed Roadways Flush Shoulder Roadways Curbed Roadways High Speed Curbed Roadways	2° 00' (V ≤ 40 mph) 0° 45' (V ≥ 45 mph) 1° 00' (V ≥ 45 mph) 0° 45' (V ≥ 50 mph)	2020 FDM 210.8.1
Length of Horizontal Curve Expressway Ramps Arterials 35 mph 45 mph	Desired 2100 ft. 1500 ft. 525 ft. 675 ft. Minimum 1050 ft. 750 ft. 400 ft. 400 ft.	2020 FDM Table 211.7.1 2020 FDM Table 210.8.1
Minimum Stopping Sight Distance Expressway Ramps Arterials 35 mph 45 mph	730 ft. 425 ft. 250 ft. 360 ft.	2020 FDM Table 210.11.1 (flat grades)



Widen Florida's Turnpike
From South of KPR to US 192
FPIDs 441224-1-22-01, 441224-2-32-01
Roadway Design Criteria
April 2020

Design Element	Design Standard	Sources / Notes
Entrance Ramp Acceleration Lengths Single Lane	580 ft. + 300 ft. taper	2018 AASHTO Figure 10-72 2018 AASHTO Table 10-4
Two-Lane	First lane drop, treat as single lane entrance with single lane taper. Second lane drop has an auxiliary lane taper and a tangent length that makes the total length 2500 ft. (including 300 ft. tapers).	2018 AASHTO 10.9.6.6.5
Exit Ramp Deceleration Lengths Single Lane	340 ft. + taper	2018 AASHTO Figure 10-73 2018 AASHTO Table 10-6
Two-Lane	1800 ft. (includes 300 ft. taper)	2018 AASHTO Figure 10-77
Vertical Alignment		
Maximum Profile Grade Expressway Ramps Arterials 35 mph 45 mph	3% 6% 7% 6%	2020 FDM Table 210.10.1
Maximum Change in Grade without Vertical Curve Expressway Ramps Arterials 35 mph 45 mph	0.2% 0.6% 0.9% 0.7%	2020 FDM Table 210.10.2
Minimum Grade (shoulder gutter, barrier wall) Minimum Distance Between VPIs Minimum Grade Expressway Others	250 ft. 0.5% 0.3%	2020 FDM 210.10.1.1 2020 TDH 211.9.1 2020 FDM 210.10.1.1
Crest Vertical Curve Expressway Ramps Arterials 35 mph 45 mph	Min. K 506 136 47 98 Min. L 1,000 ft. 300 ft. 135 ft. 105 ft.	2020 FDM Tables 211.9.2 & 211.9.3 2020 FDM Tables 210.10.3 & 210.10.4



Widen Florida's Turnpike
From South of KPR to US 192
FPIDs 441224-1-22-01, 441224-2-32-01
Roadway Design Criteria
April 2020

Design Element	Design Standard		Sources / Notes
Sag Vertical Curve	Min. K	Min. L	
Expressway	206	800 ft.	2020 FDM Tables 211.9.2 & 211.9.3
Ramps	96	200 ft.	
Arterials			
35 mph	49	135 ft.	2020 FDM Tables 210.10.3 & 210.10.4
45 mph	79	105 ft.	
Minimum Vertical Clearance			
Roadway over Turnpike	16.5 ft.		2020 FDM Table 260.6.1
Turnpike over Canal	6 ft.		2020 FDM 260.8.1
Cross Section			
Lane Widths			
Expressway	12 ft.		2020 FDM 211.2
Ramps			
1-Lane	15 ft.		2020 FDM 211.2.1
2-Lane	24 ft.		
Arterials			
35 mph	11 ft.		2020 FDM Table 210.2.1
45 mph	11 ft.		
Shoulder Widths	Inside Paved / Full	Outside Paved / Full	
Expressway	10 / 12	10 / 12	2020 FDM Table 211.4.1
Ramps			
1-Lane	2 / 6	4 / 6	
2-Lane	4 / 8	10 / 12	
Arterials	<i>curb & gutter</i>		
Shoulder Width on Bridges	Inside	Outside	
Expressway	12 ft.	12 ft.	2020 FDM Table 260.1.1
Ramps			
1-Lane	6 ft.	6 ft.	
2-Lane	6 ft.	10 ft.	
Cross Slope			
Roadway 2-Lanes in Same Direction	2%		2020 FDM Figure 210.2.1
Roadway Additional Lane (Same Direction)	3%		
Inside Shoulder	5%		2020 FDM 210.4.1
Outside Shoulder	6%		
Clear Zone Width			
Expressway	36 ft.		2020 FDM Table 215.2.1
Ramps			
1-Lane	14 ft.		
2-Lane	24 ft.		
Arterials	<i>curb & gutter</i>		
Border Width			
Expressway	94 ft.		2020 FDM 211.5
Ramps	94 ft.		
Arterials			
35 mph	12 ft.		2020 FDM Table 210.7.1
45 mph	14 ft.		



Widen Florida's Turnpike
From South of KPR to US 192
FPIDs 441224-1-22-01, 441224-2-32-01
Roadway Design Criteria
April 2020

Design Element	Design Standard			Sources / Notes
Superelevation Transition Distribution	Standard	Minimum		
Tangent	80%	50%		2020 FDM 210.9.1
Curve	20%	50%		
Superelevation Transition Slope Rates	e_{max}	Slope Rate	Min. Length	
Expressway	10%	1:250	100 ft.	2020 FDM Table 210.9.1
Ramps	10%	1:200	100 ft.	2020 FDM Table 210.9.2
Arterials				2020 FDM Table 210.9.3
35 mph	5%	1:100	50 ft.	
45 mph	5%	1:150	75 ft.	



Appendix B: Preliminary Alternatives Matrix

441224-1 - TPK KPR Interchange Prelim Alts Matrix

		Criteria																						
Alt.	Description	Engineering Considerations						Cost		Environmental and Community			Other		RANK	Grade/ Score	Notes							
		Intersection Analysis & LOS	Exit Ramp Queueing (Safety)	MOT Complexity & Constructability	KPR Bridge(s) over Turnpike	Traffic Ops & Driver Expectancy (Triple Left for Diamond)	Estimated Construction Cost (excludes R/W and Utility Costs)	ROW Requirement	Local Support	Drainage / Environmental Impacts	Community & Business Impacts	Utility Impacts												
<u>0</u>	NO-BUILD	Kissimmee Park Road intersection with Old Canoe Creek Road has a low LOS.	Major concern. Southbound off-ramp traffic backs up on the mainline.	N/A	Widen existing bridge.	Operational issues remain. No change to driver expectancy.	N/A	N/A	No full interchange & high congestion.	No Impacts	No Impacts	No Impacts		F										
			0		0		10		7		2		10		10		0		5		5		5	
<u>1</u>	SPREAD DIAMOND (with new NB-side connections)	Results in longest travel time delays of the alternatives. LOS D for PM Peak	Relocated ramp provides additional queue length. Triple lefts at Kissimmee Park Road.	Southbound off- and on-ramps can be constructed in the clear. Northbound on-ramp relocated. Mainline affected by the bridge widening.	Existing bridge could be widened	Standard diamond with triple lefts on west side for ramp and OCC Road. Northbound off occurs prior to interchange. Two northbound on-ramp locations.	Bridge \$1.56M Roadway \$10.43M Total \$11.99M	Impacts large undeveloped private parcel, City of St Cloud and Osceola County property.	Relocated/ widened northbound on-ramp affects Teka Village. New access to Old Canoe Creek Road affects adjacent residences.	<5 acres floodplain impacts; impacts 2 stormwater ponds; <10 acres of wetland impacts; eagle nest monitoring likely required during construction.	Impacts City of St Cloud fire department property.	Utilities buried during previous construction. Minimal impacts.		D										
			7		7		7		7		3		5		8		3		3		4		4	
<u>2</u>	DISPLACED LEFT TURN (with SB exit turbo lane)	Results in shortest total delay time of the alternatives (AM Peak 617hr, PM Peak 822hr). LOS C for peak periods.	Tight loop ramp.	Affects existing ramps. Bridge reconstruction required.	Existing bridge to be replaced. Separate bridge required for displaced left turn movement.	Loop ramp provided for southbound off. Displaced left for northbound.	Bridges \$9.83M Roadway \$13.70M Total \$23.53M	Impacts large undeveloped private parcel, City of St Cloud and Osceola County property. Potential residential impacts for turbo lane.	Relocated/ widened northbound on-ramp affects Teka Village. New access to Old Canoe Creek Road affects adjacent residences.	<5 acres floodplain impacts; impacts 2 stormwater ponds; <10 acres of wetland impacts; eagle nest monitoring likely required during construction	Impacts City of St Cloud fire department property. Possible minor impacts to neighborhood entrances/walls along Old Canoe Creek Road.	Utilities buried during previous construction. Minimal impacts.		B										
			15		14		6		6		9		8		7		3		3		4		4	
<u>3A</u>	CLAY WHALEY INTERSECTION (also with a displaced left)	Total delay time falls between Alt 2 and Alt 3B (AM Peak 661hr, PM Peak 846hr). LOS C for peak periods.	Loop ramp.	Affects existing ramps. Bridge reconstruction required.	Existing bridge to be replaced. Separate bridge required for displaced left turn movement.	Similar to Alt 2. Access points moved to Clay Whaley Road intersection. Driver expectancy may be an issue.	Bridges \$9.83M Roadway \$16.14M Total \$25.97M	Impacts large undeveloped private parcels, City of St Cloud and Osceola County property. Potential residential impacts for turbo lane. Residential impacts at Clay Whaley Road.	Same as Alt 2 with additional residential impacts at Clay Whaley Road.	<5 acres floodplain impacts; impacts 2 stormwater ponds; <10 acres of wetland impacts; eagle nest monitoring likely required during construction	Impacts City of St Cloud fire department property. Possible minor impacts to neighborhood entrances/walls along Old Canoe Creek Road.	Utilities buried during previous construction. Minimal impacts.		C										
			11		15		6		6		8		9		6		2		3		4		4	
<u>3B</u>	CLAY WHALEY INTERSECTION (adds SB exit to WB KPR)	Second best total delay time (AM Peak 647hr, PM Peak 833hr). LOS C for peak periods.	Loop ramp.	Affects existing ramps. Bridge reconstruction required.	Existing bridge to be replaced. Separate bridge required for displaced left turn movement.	Similar to 3A, with additional southbound off-ramp connection to westbound Kissimmee Park Road. Driver expectancy may be an issue.	Bridges \$9.83M Roadway \$16.86M Total \$26.69M	Impacts large undeveloped private parcels, City of St Cloud and Osceola County property. Potential residential impacts for turbo lane. Residential impacts at Clay Whaley Road.	Similar to 3A with one additional parcel impacted.	<5 acres floodplain impacts; impacts 2 stormwater ponds; <10 acres of wetland impacts; eagle nest monitoring likely required during construction	Impacts City of St Cloud fire department property. Possible minor impacts to neighborhood entrances/walls along Old Canoe Creek Road.	Utilities buried during previous construction. Minimal impacts.		B										
			13		15		6		6		6		10		6		2		3		4		4	

Possible High Score	15	15	10	10	10	10	10	5	5	5	5	100
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Ranking Methodology	Score	LOS	15	Cost	15	Other Eng	10	Env, Comm, Stake	5	Overall Score	
LOS	0-15		13		13		9		5	85-100	A
Other Engineering	0-10		10		10		7		4	75-84	B
Cost	0-10		7		7		5		3	65-74	C
Env and Community	0-5		4		4		3		2	55-64	D
Agency/Stakeholders	0-10		0		0		1		1	<55	F



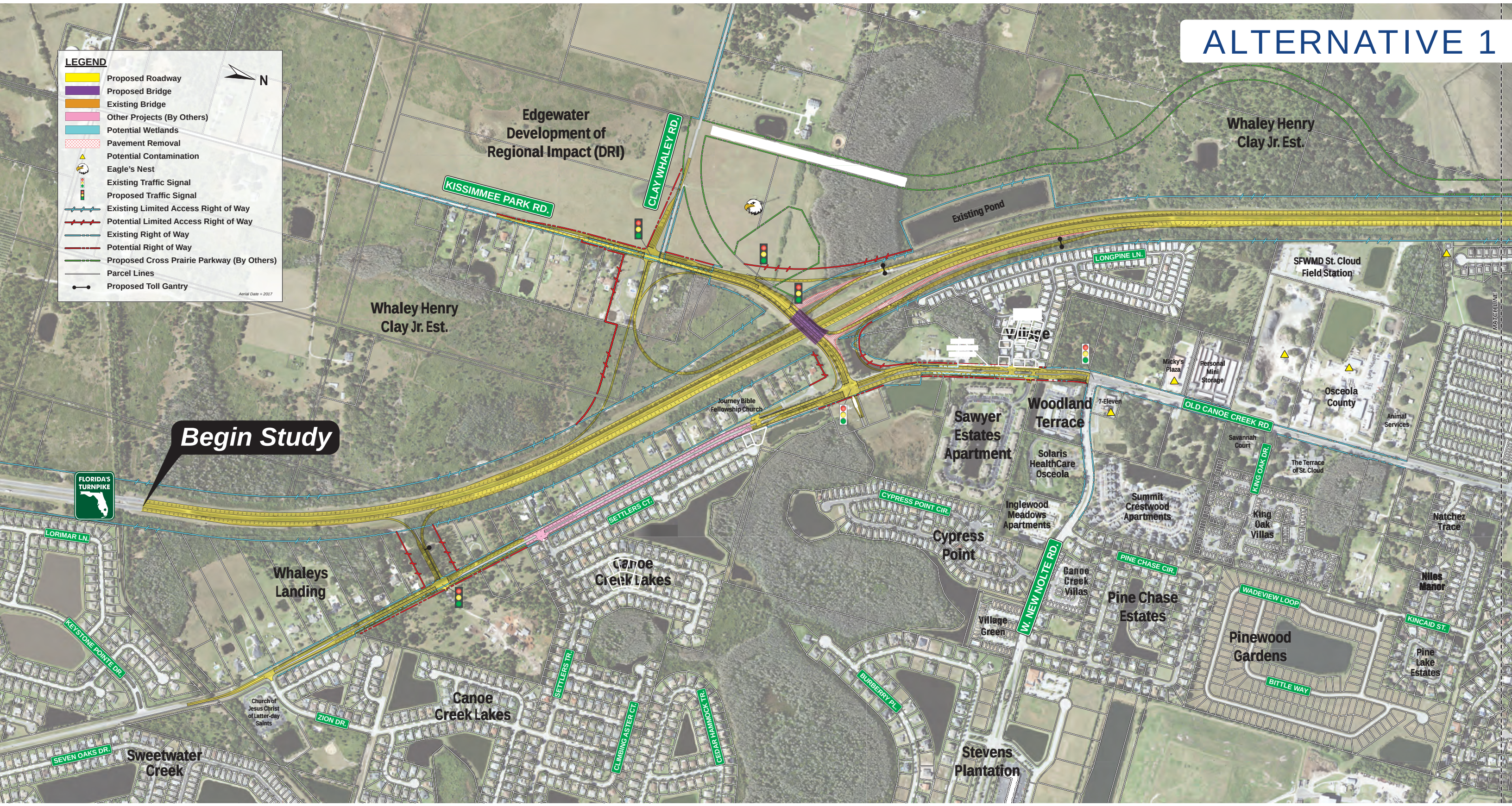
Appendix C: Potential Build Alternatives

ALTERNATIVE 1

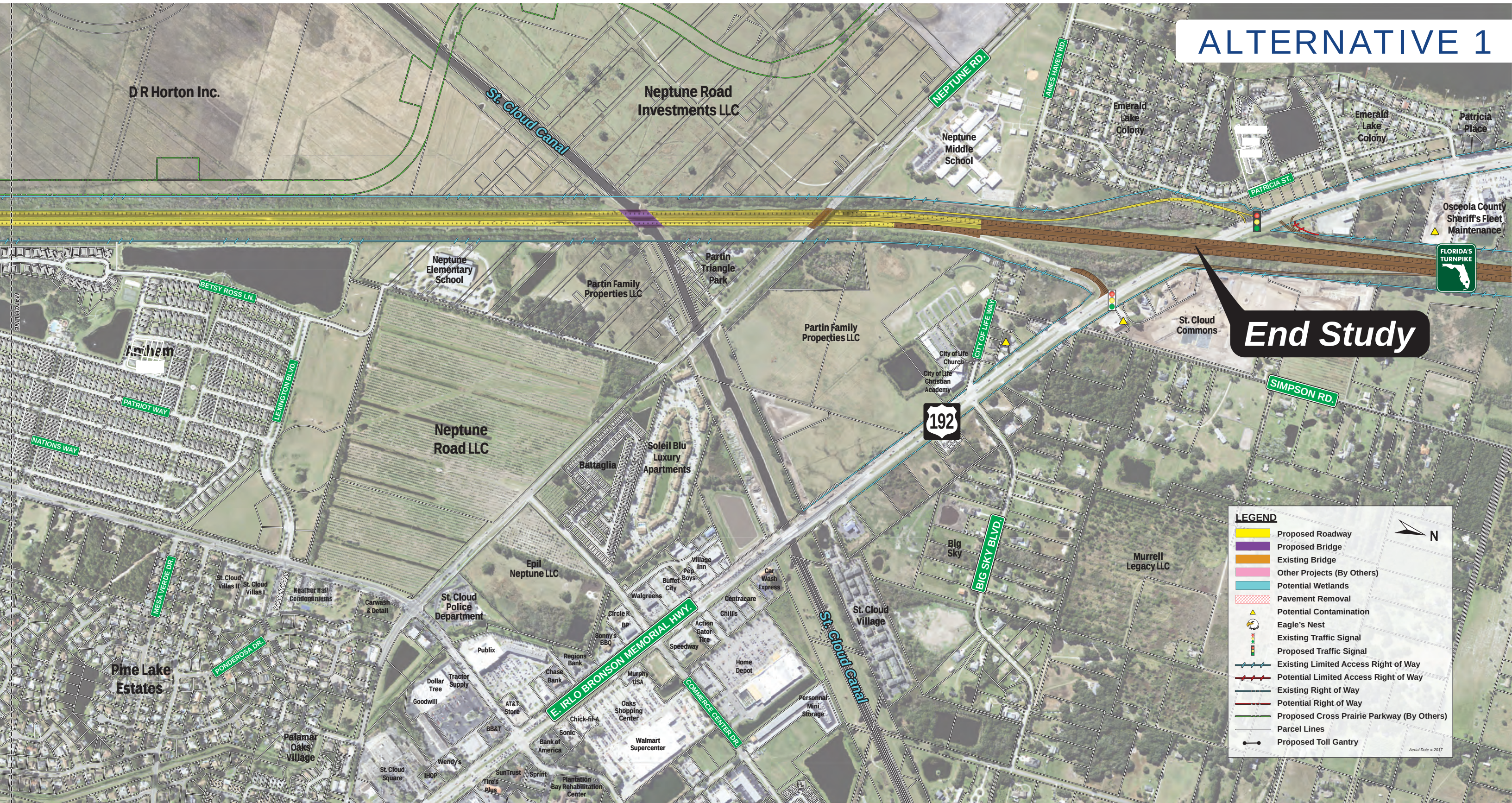
LEGEND

- Proposed Roadway
- Proposed Bridge
- Existing Bridge
- Other Projects (By Others)
- Potential Wetlands
- Pavement Removal
- Potential Contamination
- Eagle's Nest
- Existing Traffic Signal
- Proposed Traffic Signal
- Existing Limited Access Right of Way
- Potential Limited Access Right of Way
- Existing Right of Way
- Potential Right of Way
- Proposed Cross Prairie Parkway (By Others)
- Parcel Lines
- Proposed Toll Gantry

Aerial Date = 2017



ALTERNATIVE 1



End Study

LEGEND

- Proposed Roadway
- Proposed Bridge
- Existing Bridge
- Other Projects (By Others)
- Potential Wetlands
- Pavement Removal
- Potential Contamination
- Eagle's Nest
- Existing Traffic Signal
- Proposed Traffic Signal
- Existing Limited Access Right of Way
- Potential Limited Access Right of Way
- Existing Right of Way
- Potential Right of Way
- Proposed Cross Prairie Parkway (By Others)
- Parcel Lines
- Proposed Toll Gantry

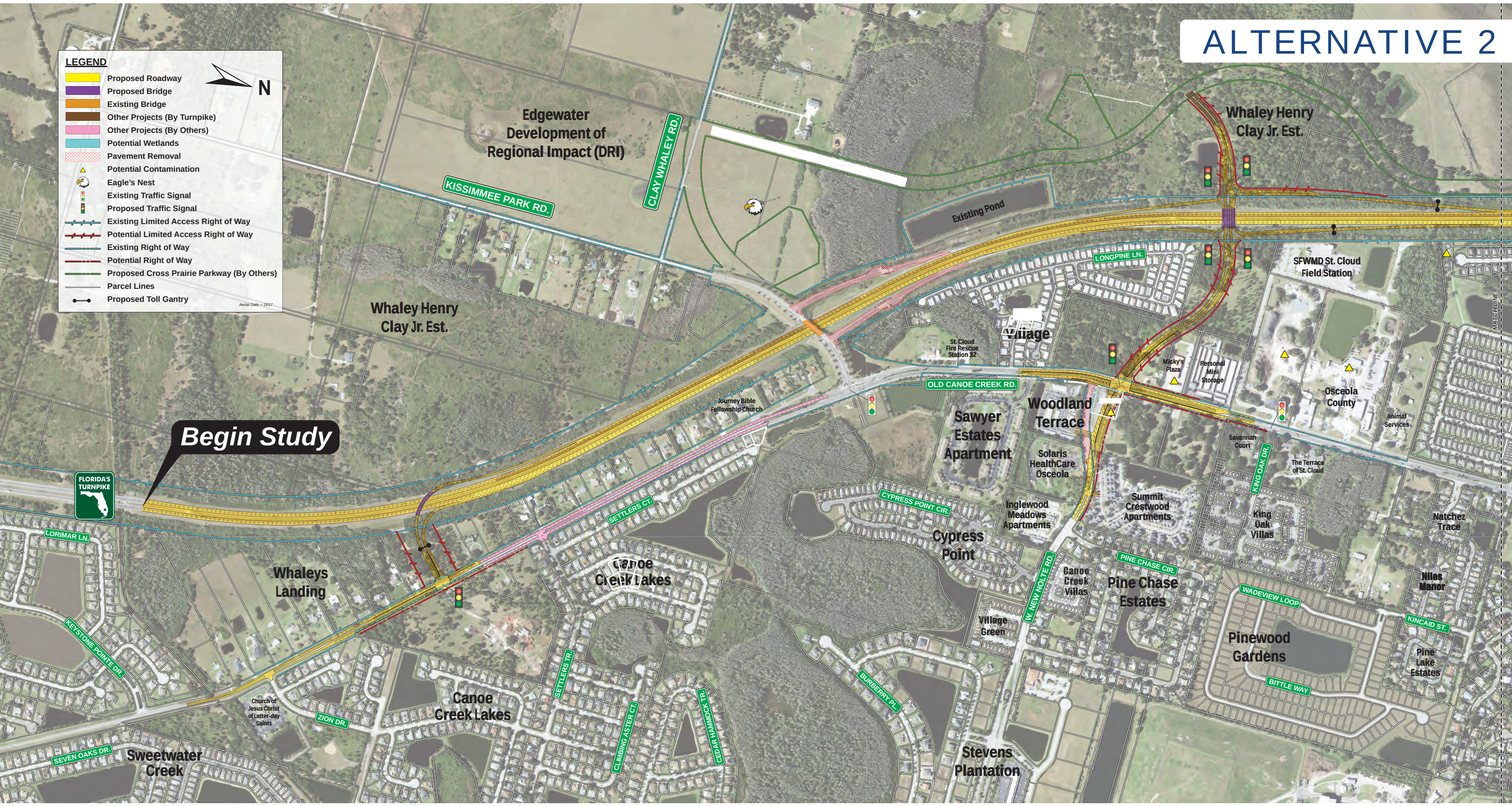
Aerial Date = 2017

ALTERNATIVE 2

LEGEND

- Proposed Roadway
- Proposed Bridge
- Existing Bridge
- Other Projects (By Turnpike)
- Other Projects (By Others)
- Potential Wetlands
- Pavement Removal
- Potential Contamination
- Eagle's Nest
- Existing Traffic Signal
- Proposed Traffic Signal
- Existing Limited Access Right of Way
- Potential Limited Access Right of Way
- Existing Right of Way
- Potential Right of Way
- Proposed Cross Prairie Parkway (By Others)
- Parcel Lines
- Proposed Toll Gantry

Aerial Date = 2017



Begin Study

ALTERNATIVE 2



End Study

Osceola County
Sheriff's Fleet
Maintenance

FLORIDA'S
TURNPIKE

**Appendix D: City of St. Cloud & Osceola County
Review Comments**

The City of St. Cloud appreciates the opportunity to review and provide comments on the draft concept plans for the preferred alternative for the Turnpike interchange at Nolte Road. Please see our comments below. We anticipate having additional comments as we move through the remainder of the design-build process.

1. The St. Cloud Environmental Utilities Department is interested in possibly adding utility crossings (water, force main, and/or reclaimed water) under the Turnpike at these locations. Please contact Cameron Crandell at 407-957-7279 to discuss the specific crossing locations.

Please have Cameron contact Joe Bitar at 407-264-3007 to discuss.

2. The stormwater pond sites are not shown. Please indicate the proposed location of the ponds.

R. Pond alternatives have been identified. Final pond locations are being analyzed.

3. Will the stormwater ponds be incorporated into joint use or regional ponds?

R. Joint use ponds will be an option.

4. If there is one large pond, is it possible to partner with City of St. Cloud to develop an alternative water supply with excess stormwater?

R. There will be several smaller ponds.

5. Please update the name of New Nolte Road to Nolte Road.

R. Name will be revised to Nolte Road.

6. The Nolte Road extension does not appear to have sidewalks proposed on the north side of the roadway. Please consider pedestrian facilities on both sides of Nolte Road.

R. We considered sidewalks on both sides of Nolte Road. However, as discussed at the coordination meeting between FTE, Osceola County and the City of St. Cloud on January 7, the engineer has recommended a multi-use trail on the south side of Nolte Road only. The ramps on the south side have much lower traffic volumes and will result in a safer condition for pedestrians and bicyclists crossing the ramps.

7. Will there be any proposed landscaping in the 22'-30' grassed median? If not, why not?

R. Landscaping will be considered; however, it will be limited in some areas due to sight distance considerations.

8. Will there be signalized intersections at the proposed on and off ramps on sheet 5? If not, why not?

R. There will be signals at the ramp intersections with Nolte Road.

9. Will there be street lighting provided for Nolte Road and all proposed interchanges? If not, why not?

R. Conventional street lighting will be provided.

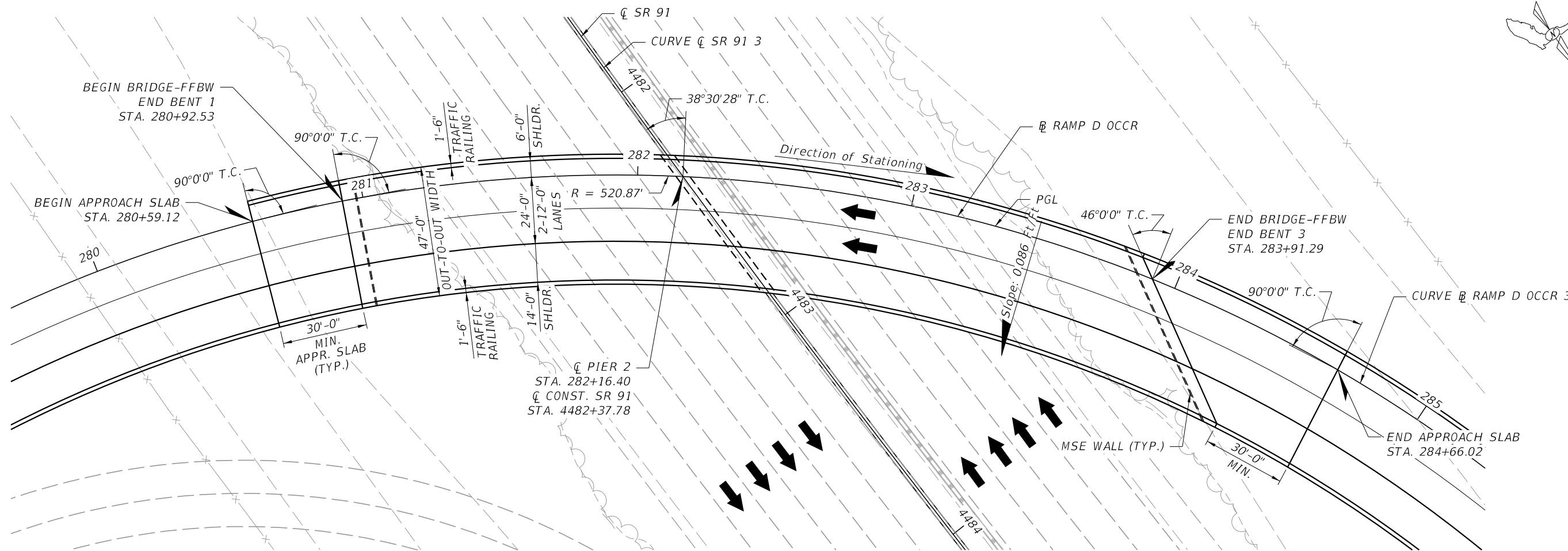
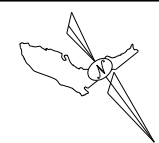
10. Please ensure that the street lighting meets [Division 28 – Exterior Lighting Standards](#) of the St. Cloud land development code.

R. The City code will be used for lighting along Nolte Road and FTE criteria for the interchange.

SHEET	COMMENT	COMMENT BY
2	THE DESIGN SPEED AND CONTEXT CLASS WERE NOT PROVIDED SO WE ARE UNABLE TO VERIFY TYPICAL SECTION ELEMENTS. R. Design speed and context will be provided to the County.	SKANE
2	THE COUNTY HAS THE R/W FOR A FUTURE ROAD AT APPROXIMATELY STA 41+50, 285' RT OF OLD CANOE CREEK RD. PER THE COUNTY COMPREHENSIVE PLAN TRANSPORTATION ELEMENT MAP SERIES, THERE IS A DESIRE TO EXTEND THIS ROAD TO THE WEST OF THE TURNPIKE. THE INTERSECTION FOR THE RAMPS AT STA 48+00 SHOULD BE RECONFIGURED TO A TRADITIONAL HALF DIAMOND WITH A PERPENDICULAR BRIDGE ACROSS THE TURNPIKE THAT CAN BE EXTENDED WEST IN THE FUTURE. THE CURRENT DEMAND IS FOR A SINGLE BRIDGE BUT THE RAMPS AND CONNECTION AT THE CROSS STREET SHOULD BE ALIGNED FOR THE FUTURE 4 LANE CONFIGURATION WITH TWO BRIDGES OVER THE TURNPIKE. R. At this time, the study will only include the ramps shown.	SKANE & JDEVRIES
2	SOUTHBOUND OLD CANOE CREEK ABRUPTLY OPENS TO 4 LANES AND APPEARS TO BE SHIFTED WEST OF THE EXISTING ROAD. PLEASE SHOW THE SHIFT AND OPENING TAPERS TO CLEARLY IDENTIFY THE LIMITS OF CONSTRUCTION R. This interchange/intersection will not be part of the initial construction contract. A transition from the existing 2-lane to the proposed 4-lane section will be developed.	SKANE
2	GIVEN THE DISTANCE BETWEEN THE IMPROVEMENTS AT THE NEW INTERCHANGE AND KISSIMMEE PARK ROAD, IT IS RECOMMENDED THAT THE 2000' GAP BE WIDENED TO 4-LANE DIVIDED TO PROVIDED CONTINUITY BETWEEN INTERSECTIONS. R. As this time it is the intent to only widen the portion of the roadway needed for the interchange. As noted, this interchange is not part of the initial construction contract.	SKANE
3	PROVIDE A SIDEWALK ON THE NORTH SIDE OF NOLTE ROAD. PLANNED RESIDENTIAL DEVELOPMENT ON THE NORTH SIDE OF NOLTE ROAD. R. Sidewalks can be provided on both sides of Nolte Road. However, as discussed at the coordination meeting between FTE, Osceola County and the City of St Cloud on January 7, the engineer is recommending a multi-use trail on the south side of Nolte Road only. The ramps on the south side will have significantly lower volumes than the north side which will create a much safer condition for pedestrians and bicyclists crossing the ramps. A crossing from the north side to the multi use trail will be provided.	SKANE
3	RETAINING WALL APPEARS TO BE NEEDED ON OUTSIDE OF RAMP IN SOUTHWEST QUADRANT OF NOLTE ROAD. R. Agree. We are developing the vertical geometry and additional wall locations may be required.	SKANE
3	EITHER PROVIDE RETAINING WALL ALONG NOLTE ROAD WEST OF TURNPIKE OR WIDEN PROPOSED RIGHT OF WAY. WILL NEED TO TIE-DOWN THE ROADWAY AND FILL SLOPE CAN'T FIT IN THE SPACE SHOWN. RECOMMENDATION IS TO USE FILL SLOPES TO REDUCE WALL COST R. We are developing the vertical geometry for the interchange. Fill slopes, instead of walls, will be used where feasible to reduce costs.	SKANE
3	ALIGNMENT OF "NEW" NOLTE ROAD SHOULD BE SHIFTED SOUTH TO AVOID IMPACT TO APARTMENT BUILDING AT STATION 50. SEE INSET IN TOP RIGHT CORNER R. We do not anticipate any impacts to the apartment building, only the parking lot and location of the access to Nolte Road.	SKANE
2 & 3	"NEW" NOLTE ROAD LABEL SHOULD BE CHANGED TO HAVE A CONSISTENT NAMING CONVENTION, (I.E. NOLTE ROAD), AS THERE IS ALREADY A NEW NOLTE ROAD EXISTING FURTHER EAST AS A SEPARATE ROAD FROM NOLTE. R. "New Nolte Road" labels will be revised to "Nolte Road".	JDEVRIES

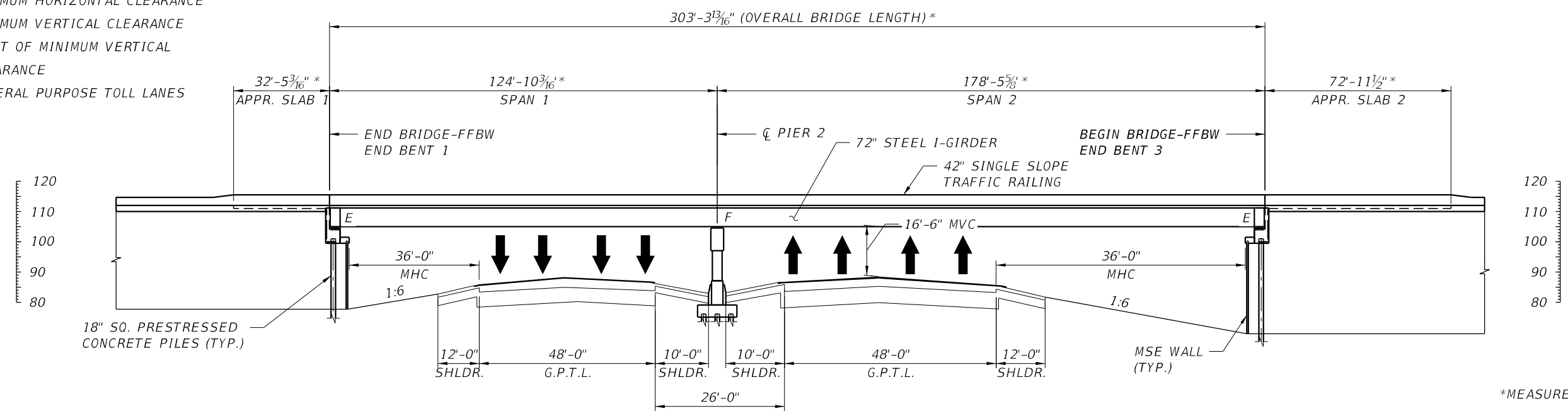


Appendix E: Preliminary Bridge Plans



PLAN

- LEGEND:**
- FFBW FRONT FACE OF BACKWALL
 - @ BASELINE
 - CL CENTERLINE
 - MHC MINIMUM HORIZONTAL CLEARANCE
 - MVC MINIMUM VERTICAL CLEARANCE
 - PMVC POINT OF MINIMUM VERTICAL CLEARANCE
 - G.P.T.L. GENERAL PURPOSE TOLL LANES

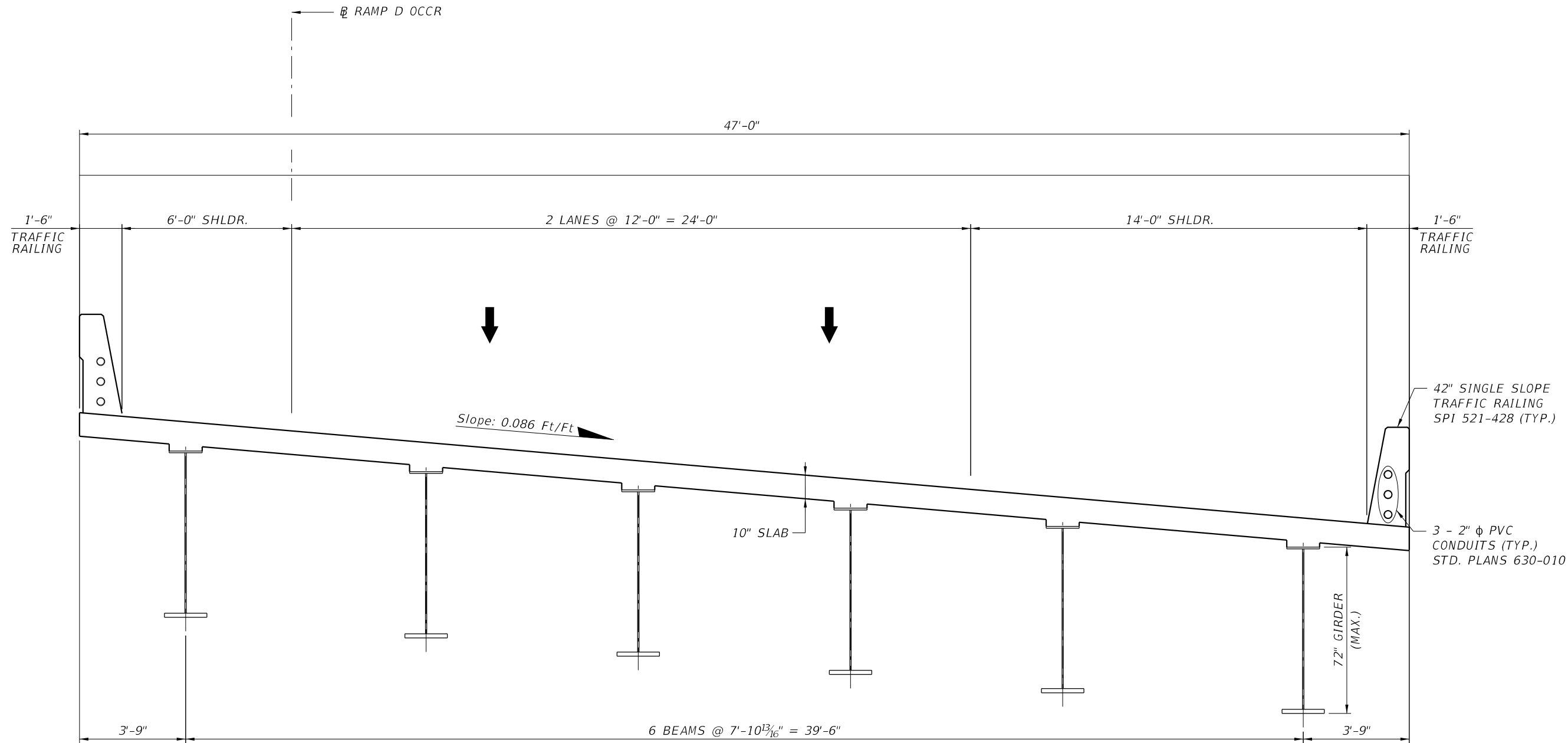


ELEVATION

*MEASURED ALONG @
RAMP D

FIGURE 1

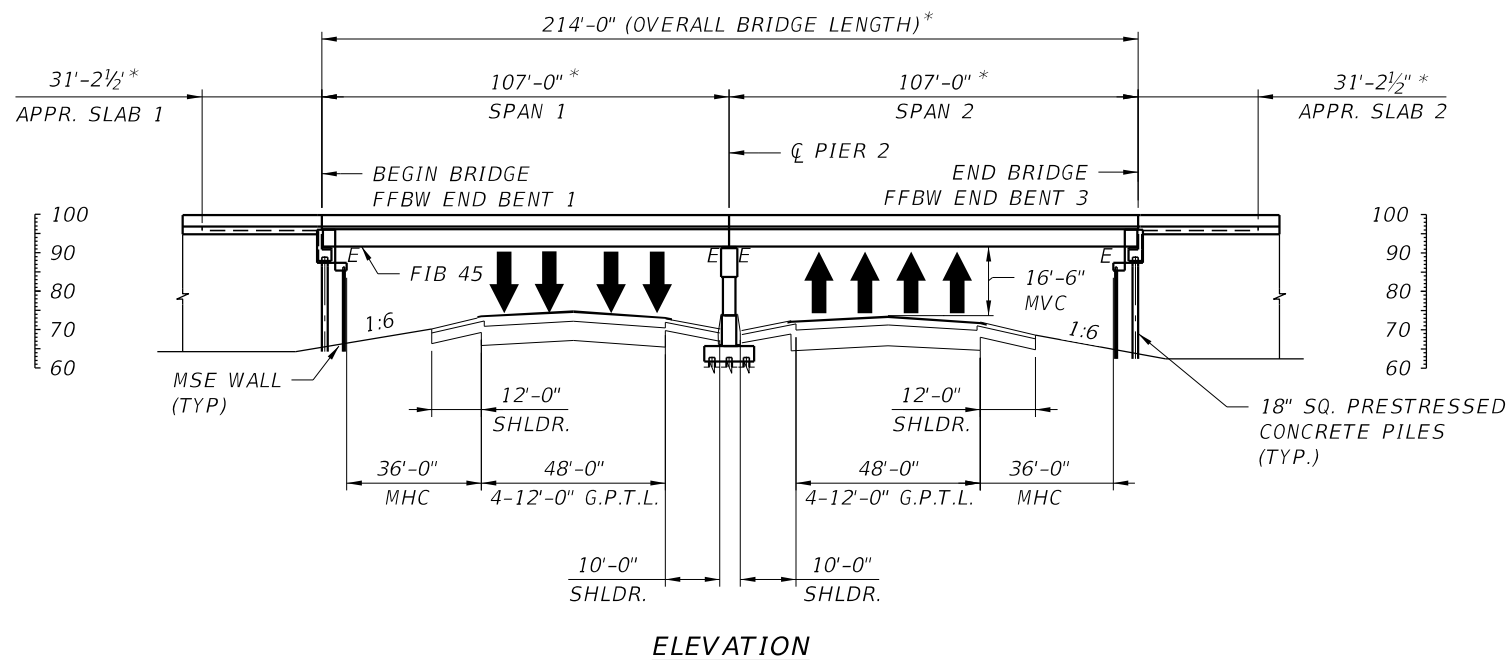
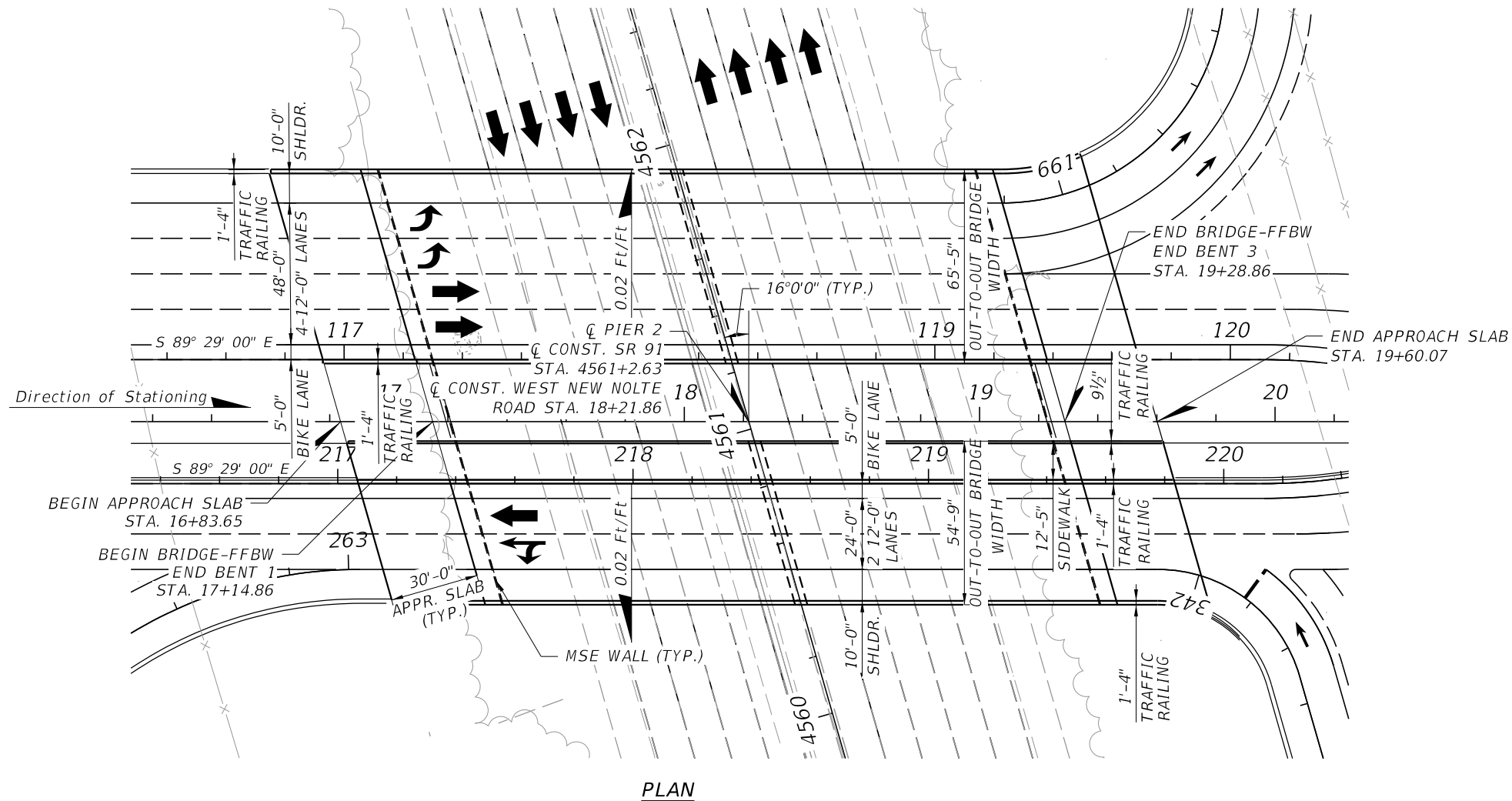
REVISIONS						MARYBETH MORIN, P.E. P.E. LICENSE NUMBER 57547 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE, SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	DRAWN BY: BS 10-19 CHECKED BY: MM 10-19 DESIGNED BY: XXX MM-YY CHECKED BY: XXX MM-YY	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: PLAN AND ELEVATION RAMP EXIT TO OLD CANOE CREEK OVER SR 91 PROJECT NAME: TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192	REF. DWG. NO. SHEET NO. B1-1
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								SR 91	OSCEOLA	441224-1-22-01		



TYPICAL SECTION

FIGURE 2

REVISIONS						MARYBETH MORIN, P.E. P.E. LICENSE NUMBER 57547 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE, SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	DRAWN BY: BS 10-19 CHECKED BY: MM 10-19 DESIGNED BY: XXX MM-YY CHECKED BY: XXX MM-YY	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: TYPICAL SECTION RAMP EXIT TO OLD CANOE CREEK OVER SR 91		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						PROJECT NAME:		SHEET NO.
								ROAD NO.	COUNTY	FINANCIAL PROJECT ID	TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192		B1-2
								SR 91	OSCEOLA	441224-1-22-01			



LEGEND:

FFBW FRONT FACE OF BACKWALL

CL CENTERLINE

MHC MINIMUM HORIZONTAL CLEARANCE

MVC MINIMUM VERTICAL CLEARANCE

G.P.T.L GENERAL PURPOSE TOLL LANES

*MEASURED ALONG CL WEST NEW NOLTE ROAD

FIGURE 3

REVISIONS						DRAWN BY: BS 10-19	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	SHEET TITLE: PLAN AND ELEVATION WEST NEW NOLTE ROAD OVER SR 91	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
						CHECKED BY: MM 10-19	ROAD NO.	PROJECT NAME:	SHEET NO.
						DESIGNED BY: XXX MM-YY	SR 91	TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192	B2-1
						CHECKED BY: XXX MM-YY	COUNTY		
							OSCEOLA		
							FINANCIAL PROJECT ID		
							441224-1-22-01		

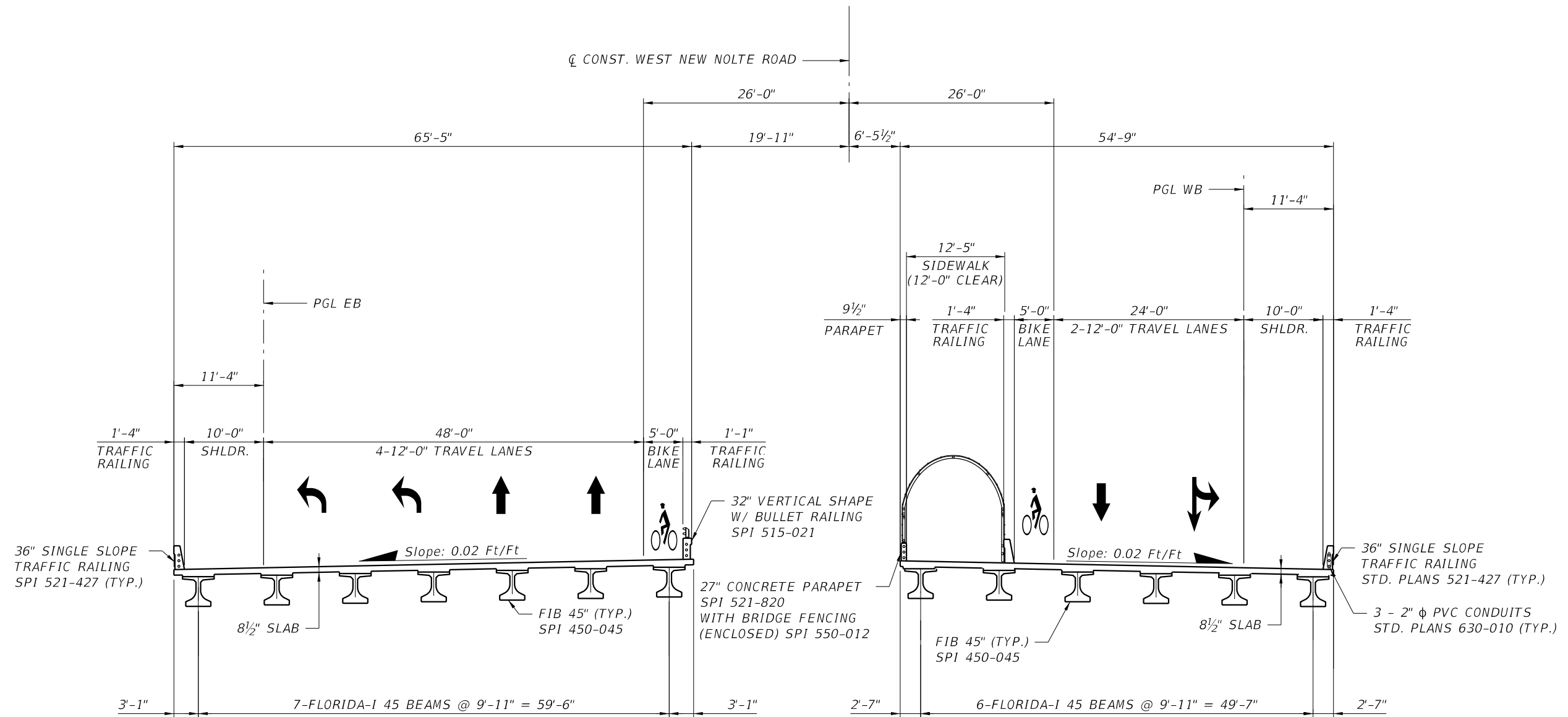
MARYBETH MORIN, P.E.
P.E. LICENSE NUMBER 57547
DEWBERRY ENGINEERS INC.
800 NORTH MAGNOLIA AVENUE, SUITE 1000
ORLANDO, FL 32803
CERTIFICATE OF AUTHORIZATION 8794

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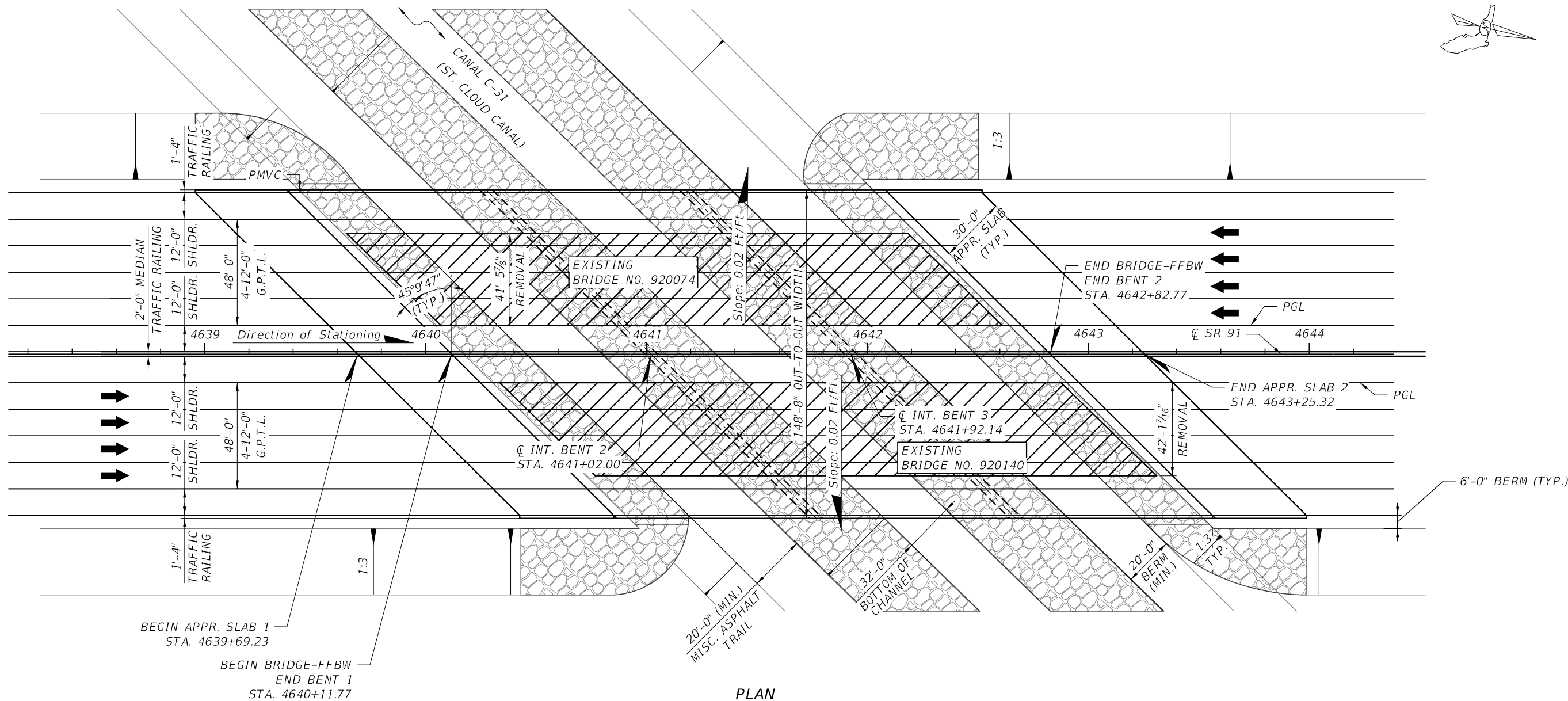
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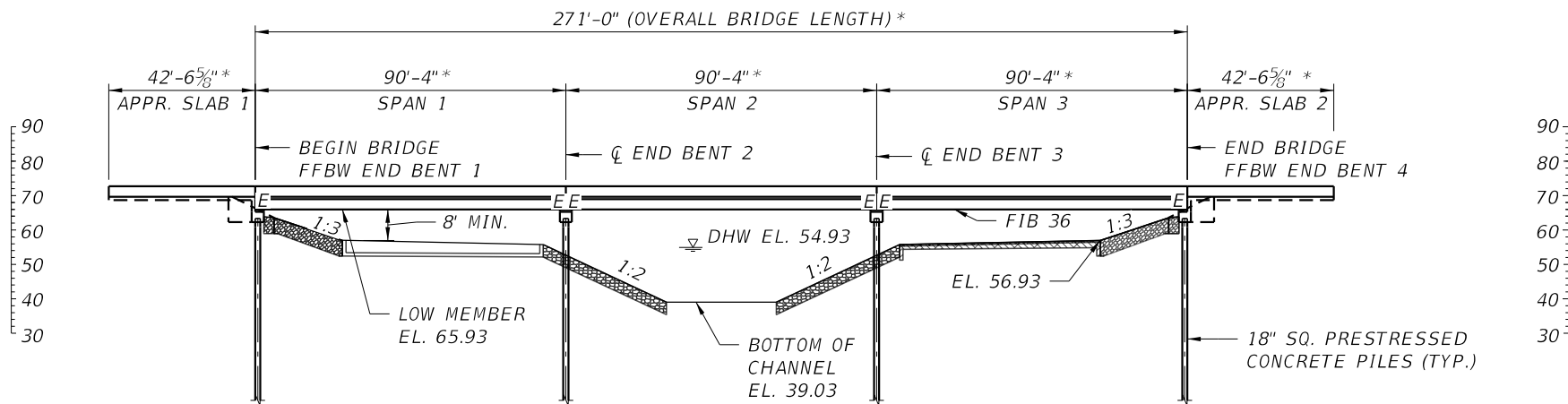
TYPICAL SECTION

FIGURE 4

REVISIONS						MARYBETH MORIN, P.E. P.E. LICENSE NUMBER 57547 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE, SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	DRAWN BY: BS 12-19			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: MM 12-19						TYPICAL SECTION WEST NEW NOLTE ROAD OVER SR 91		
							DESIGNED BY: BS 12-19			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	SHEET NO.	
							CHECKED BY: MM 12-19			SR 91	OSCEOLA	441224-1-22-01			TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192



PLAN



ELEVATION

- LEGEND:**
- FFBW FRONT FACE OF BACKWALL
 - CL CENTERLINE
 - EXISTING BRIDGE TO BE REMOVED
 - G.P.T.L. GENERAL PURPOSE TOLL LANES
 - RUBBLE RIPRAP

*MEASURED ALONG CL SR 91

WATER ELEVATIONS DERIVED FROM EXISTING PLANS AND CONVERTED TO NGVD (-0.967)

FIGURE 5

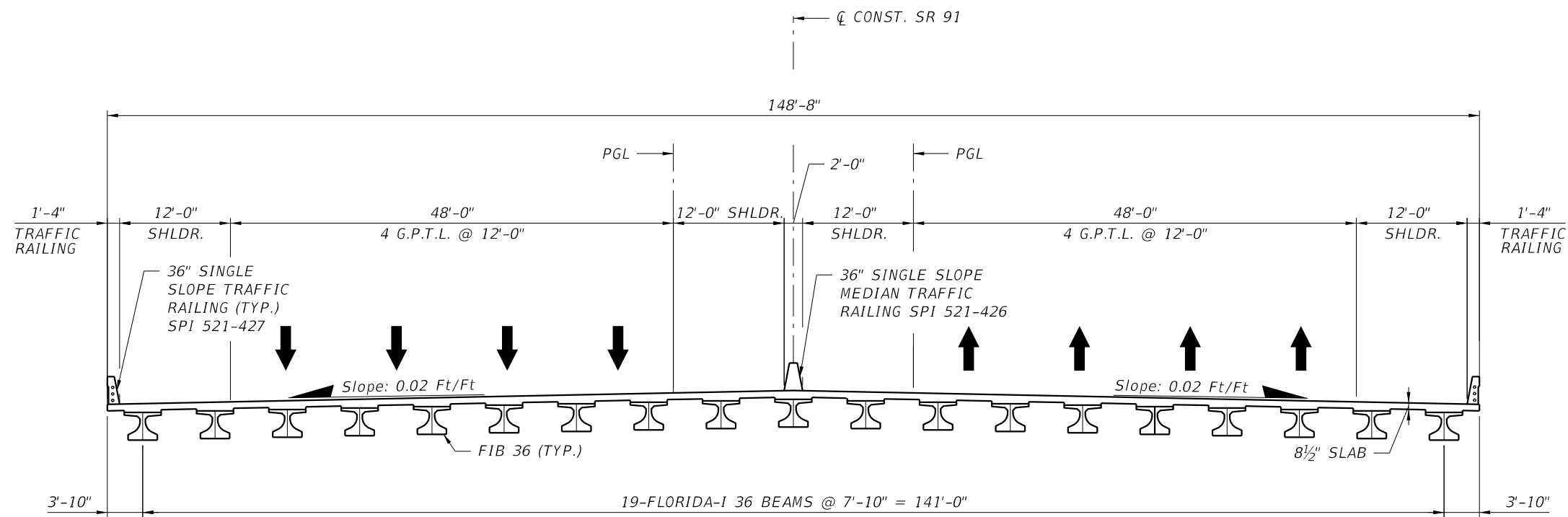
REVISIONS						MARYBETH MORIN, P.E. P.E. LICENSE NUMBER 57547 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE, SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	DRAWN BY: BS 10-19	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: MM 10-19				PLAN AND ELEVATION SR 91 OVER ST CLOUD CANAL		
							DESIGNED BY: XXX MM-YY	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
							CHECKED BY: XXX MM-YY	SR 91	OSCEOLA	441224-1-22-01	TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192		B3-1

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TYPICAL SECTION

FIGURE 6

REVISIONS						MARYBETH MORIN, P.E. P.E. LICENSE NUMBER 57547 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE, SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	DRAWN BY: BS 10-19			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: TYPICAL SECTION SR 91 OVER ST CLOUD CANAL		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: MN 10-19								
							DESIGNED BY: XXX MM-YY			ROAD NO. SR 91	COUNTY OSCEOLA	FINANCIAL PROJECT ID 441224-1-22-01	PROJECT NAME: TURNPIKE (SR 91) MAINLINE WIDENING FROM KISSIMMEE PARK ROAD TO US 192		SHEET NO. B3-2
							CHECKED BY: XXX MM-YY								



Appendix F: Crash Data

Turnpike @ Begin Project to Kissimmee Park Road

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK19OFF069443	12/3/2019	6:00 PM	Rear End	0	0	Daylight	Dry
FHPK15OFF010544	2/28/2015	1:50 PM	Rear End	1	0	Daylight	Wet
FHPK15OFF038036	7/7/2015	2:57 PM	Off Road	1	0	Daylight	Wet
FHPK16OFF035390	6/2/2016	3:58 PM	Rear End	4	0	Daylight	Dry
FHPK19OFF029350	5/22/2019	5:27 PM	Sideswipe	0	0	Daylight	Dry
FHPK19OFF072981	12/22/2019	2:33 PM	Off Road	3	0	Daylight	Wet
FHPK15OFF006395	2/6/2015	5:38 PM	Animal	0	0	Daylight	Dry
FHPK15OFF014707	3/19/2015	4:16 PM	Off Road	0	0	Daylight	Dry
FHPK18OFF064060	8/30/2018	1:40 PM	Off Road	0	0	Daylight	Dry
FHPK17OFF098345	12/31/2017	3:14 PM	Off Road	0	0	Daylight	Dry
FHPK17OFF053609	7/29/2017	12:12 PM	Off Road	0	0	Daylight	Wet
FHPK17OFF040296	6/11/2017	3:13 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF037270	5/21/2018	12:00 AM	Animal	0	0	Night	Dry
FHPK18OFF039638	5/29/2018	10:30 PM	Other	0	0	Night	Wet
FHPK15OFF031226	6/6/2015	5:45 AM	Off Road	0	0	Night	Wet
FHPK19OFF067488	11/24/2019	3:41 AM	Other	0	0	Night	Wet
FHPK18OFF087707	12/2/2018	11:20 AM	Rear End	0	0	Daylight	Dry
FHPK19OFF017631	3/27/2019	6:35 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF035470	6/3/2016	6:32 AM	Rollover	0	0	Daylight	Dry
FHPK16OFF0768719	11/18/2016	6:58 PM	Off Road	0	0	Night	Dry
FHPK15OFF040758	7/20/2015	5:11 PM	Rollover	3	0	Daylight	Dry
FHPK19OFF029813	5/24/2019	6:01 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF052997	7/20/2018	11:16 AM	Off Road	1	0	Daylight	Wet
FHPK16OFF014903	3/10/2016	10:06 PM	Other	0	0	Night	Dry
FHPK19OFF055006	9/21/2019	10:33 PM	Pedestrian	2	1	Night	Dry
FHPK18OFF052419	7/17/2018	10:50 PM	Unknown	2	0	Night	Dry
General Crash Summary				Crash Type Summary			
Total Crashes		26		Rear End Crashes		6	
Number of Injuries		17		Sideswipe Crashes		1	
Number of Fatalities		1		Off Road Crashes		10	
Number of Daylight Crashes		18		Angle Crashes		0	
Number of Night Crashes		8		Left Turn Crashes		0	
Number of Wet Crashes		9		Other Crashes		9	
Number of Dry Crashes		17					

FL Turnpike at Kissimme Park Road Intersection

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
19I038913	4/15/2019	7:06 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF062930	9/22/2016	8:15 AM	Sideswipe	0	0	Daylight	Dry
FHPK17OFF027345	4/24/2017	11:30 AM	Other	0	0	Daylight	Dry
19004381	8/13/2019	5:01 PM	Rear End	0	0	Daylight	Dry
19003867	7/14/2019	12:36 PM	Rear End	1	0	Daylight	Dry
215004471	9/17/2015	5:37 PM	Left Turn	1	0	Daylight	Dry
18000661	2/9/2018	12:05 PM	Left Turn	0	0	Daylight	Dry
17I058484	6/15/2017	3:50 PM	Rear End	0	0	Daylight	Wet
18003994	8/2/2018	6:43 AM	Rear End	0	0	Daylight	Dry
19002481	4/30/2019	5:15 PM	Rear End	0	0	Daylight	Dry
17001933	5/14/2017	6:51 PM	Rear End	0	0	Daylight	Dry
17005193	11/30/2017	10:57 AM	Rear End	0	0	Daylight	Dry
17001567	4/19/2017	5:20 PM	Rear End	0	0	Daylight	Dry
18000794	2/16/2018	7:42 AM	Unknown	0	0	Daylight	Dry
19I079535	7/30/2019	3:26 PM	Sideswipe	0	0	Daylight	Dry
19007171	12/31/2019	6:18 AM	Unknown	0	0	Night	Dry
FHPK16OFF007786	2/7/2016	6:37 AM	Rear End	1	0	Daylight	Wet
FHPK18OFF083484	11/15/2018	1:00 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF003656	1/17/2016	10:05 PM	Off Road	0	0	Night	Dry
FHPL17OFF042714	5/31/2017	5:40 AM	Off Road	0	0	Night	Wet
FHPK19OFF037458	6/29/2019	4:16 AM	Off Road	0	0	Night	Dry
216003143	7/12/2016	9:58 PM	Head On	2	0	Night	Dry
18003590	7/10/2018	9:55 PM	Left Turn	0	0	Daylight	Dry
18003995	8/2/2018	6:28 AM	Left Turn	2	0	Daylight	Dry
FHPD17OFF052414	5/27/2017	11:40 AM	Left Turn	3	0	Daylight	Dry
17002172	5/30/2017	8:10 AM	Rear End	0	0	Daylight	Dry
215002390	5/15/2015	2:25 PM	Left Turn	1	0	Daylight	Dry
216000690	2/10/2016	5:30 PM	Sideswipe	0	0	Night	Dry
216000550	2/2/2016	9:40 PM	Left Turn	1	0	Night	Dry
19006368	11/21/2019	1:57 PM	Rear End	0	0	Daylight	Dry
17I050587	5/25/2017	3:11 PM	Rear End	0	0	Daylight	Dry
19000889	2/10/2019	2:00 PM	Rear End	0	0	Daylight	Dry
19002018	4/9/2019	6:48 PM	Rear End	0	0	Daylight	Wet
19000967	2/13/2019	4:52 PM	Rear End	0	0	Daylight	Dry
18004676	9/4/2018	5:29 AM	Rear End	0	0	Night	Wet
17I118337	11/22/2017	8:55 PM	Other	0	0	Night	Dry

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK16OFF011839	2/26/2016	12:45 PM	Other	0	0	Daylight	Dry
17I018303	2/24/2017	10:17 PM	Rear End	0	0	Night	Dry
FHPK18OFF072202	10/2/2018	8:20 AM	Rear End	0	0	Daylight	Dry
FHPD17OFF040496	4/25/2017	8:29 PM	Left Turn	1	0	Night	Dry
215005268	11/4/2015	6:40 PM	Left Turn	3	0	Night	Dry
18005934	10/30/2018	9:55 AM	Other	0	0	Daylight	Dry
16I022462	3/8/2016	4:08 PM	Rear End	0	0	Daylight	Dry
216003717	8/23/2016	8:07 AM	Rear End	0	0	Daylight	Dry
19000079	1/4/2019	9:40 PM	Rear End	0	0	Night	Wet
FHPK17OFF072002	9/28/2017	1:40 PM	Other	0	0	Daylight	Dry
FHPK16OFF036085	6/5/2016	1:00 PM	Other	0	0	Daylight	Dry
FHPK19OFF016425	3/22/2019	1:55 PM	Other	0	0	Daylight	Dry
19001671	3/22/2019	3:02 AM	Off Road	1	0	Night	Dry
FHPD17OFF063693	6/26/2017	8:50 PM	Rear End	0	0	Night	Dry
16I077047	8/10/2016	1:35 PM	Rear End	0	0	Daylight	Dry
215004957	10/17/2015	11:03 AM	Left Turn	0	0	Daylight	Dry
216001234	3/11/2016	11:46 PM	Left Turn	4	0	Night	Dry
18002939	6/5/2018	4:22 PM	Left Turn	0	0	Daylight	Wet
18005031	9/18/2018	9:54 PM	Unknown	0	0	Night	Wet
18005363	10/2/2018	9:11 PM	Unknown	1	0	Night	Dry
16I031727	4/3/2016	6:08 PM	Rear End	0	0	Daylight	Dry
18006471	11/30/2018	10:34 PM	Unknown	0	0	Night	Dry
18004064	8/5/2018	5:56 PM	Rear End	1	0	Daylight	Dry
215005357	11/9/2015	5:45 PM	Rear End	1	0	Daylight	Dry
FHPK19OFF055015	9/21/2019	10:14 PM	Off Road	1	0	Night	Dry
FHPK16OFF018490	3/25/2016	11:45 AM	Other	0	0	Daylight	Dry
16005743	12/29/2016	8:58 AM	Off Road	0	0	Daylight	Unknown
17005553	12/19/2017	6:15 AM	Rear End	1	0	Night	Dry
216004096	9/17/2016	1:12 AM	Rear End	0	0	Night	Dry
216003296	7/24/2016	1:32 PM	Left Turn	2	0	Daylight	Dry
19000169	1/9/2019	1:07 PM	Rear End	0	0	Daylight	Dry
216003872	9/4/2016	4:30 PM	Rear End	0	0	Daylight	Dry
19002517	5/2/2019	5:42 PM	Other	0	0	Daylight	Dry
18000359	1/22/2018	3:33 AM	Other	0	0	Night	Dry
19004640	8/28/2019	11:50 AM	Off Road	1	0	Daylight	Wet
18002362	5/6/2018	3:00 PM	Sideswipe	0	0	Daylight	Dry
216003430	8/3/2016	4:04 PM	Off Road	3	0	Daylight	Dry
FHPK17OFF064816	9/6/2017	5:17 PM	Sideswipe	0	0	Daylight	Dry

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK18OFF092840	12/22/2018	11:32 AM	Rear End	0	0	Daylight	Dry
FHPK16OFF000037	1/1/2016	4:00 AM	Off Road	1	0	Night	Wet
FHPD19OFF018168	2/26/2019	8:55 PM	Off Road	0	0	Night	Wet
18I019296	2/24/2018	3:52 PM	Other	0	0	Daylight	Dry
18000075	1/5/2018	4:05 PM	Rear End	0	0	Daylight	Dry
17I076240	8/2/2017	4:24 PM	Rear End	0	0	Daylight	Wet
17001908	5/12/2017	9:05 PM	Left Turn	0	0	Night	Dry
216001054	3/1/2016	10:30 PM	Left Turn	0	0	Night	Dry
FHPD15OFF043423	5/14/2015	9:11 PM	Rear End	0	0	Night	Dry
FHPD17OFF038813	4/21/2017	9:30 AM	Rear End	0	0	Daylight	Dry
19001849	4/1/2019	5:00 PM	Rear End	0	0	Daylight	Dry
FHPD17OFF109835	10/30/2017	7:33 PM	Rear End	0	0	Night	Dry
18004273	8/15/2018	8:24 AM	Unknown	1	0	Daylight	Dry
19000281	1/14/2019	9:07 PM	Rear End	0	0	Night	Dry
FHPD16OFF000889	1/3/2016	10:25 PM	Off Road	1	0	Night	Wet
FHPK15OFF060214	10/20/2015	10:05 PM	Other	0	0	Night	Dry
18002999	6/8/2018	9:47 AM	Off Road	0	0	Daylight	Wet
19000196	1/11/2019	7:24 AM	Rear End	0	0	Daylight	Dry
18002772	5/27/2018	2:28 PM	Rollover	2	0	Daylight	Dry
216003255	7/21/2016	11:59 AM	Rear End	1	0	Daylight	Dry
215005626	11/25/2015	4:33 PM	Rear End	1	0	Daylight	Dry
18003724	7/18/2018	5:28 AM	Left Turn	1	0	Night	Dry
18003970	7/31/2018	8:51 PM	Left Turn	3	0	Night	Dry
18003160	6/17/2018	8:11 AM	Left Turn	1	0	Daylight	Dry
215005344	11/8/2015	7:10 PM	Angle	2	0	Night	Dry
19001153	2/22/2019	2:38 PM	Rear End	0	0	Daylight	Dry
18005436	10/6/2018	12:14 PM	Rear End	0	0	Daylight	Dry
215006096	12/30/2015	5:24 AM	Rear End	0	0	Night	Dry
FHPD18OFF013269	2/9/2018	3:38 AM	Off Road	0	0	Night	Wet
19006350	11/20/2019	8:41 PM	Other	2	0	Night	Dry
19004176	7/31/2019	12:19 PM	Rear End	2	0	Daylight	Dry
18I006535	1/19/2018	6:30 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF005863	1/28/2016	8:50 PM	Off Road	1	0	Night	Wet
FHPK17OFF003291	1/15/2017	5:33 PM	Off Road	0	0	Daylight	Dry
FHPK16OFF015945	3/15/2016	11:10 AM	Other	0	0	Daylight	Dry
FHPK17OFF046191	7/2/2017	12:00 PM	Sideswipe	0	0	Daylight	Dry
18005751	10/21/2018	3:00 AM	Rear End	0	0	Night	Dry
215004121	8/26/2015	8:49 AM	Left Turn	0	0	Daylight	Dry

[illegible]

FL Turnpike from Kissimmee Park Road to US-192

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK15OFF016390	3/27/2015	6:40 AM	Off Road	1	0	Daylight	Wet
FHPK17OFF040564	6/12/2017	4:36 PM	Rear End	2	0	Daylight	Wet
FHPK17OFF036472	5/29/2017	5:15 AM	Other	0	0	Night	Wet
FHPK17OFF064704	9/6/2017	12:34 AM	Rear End	0	0	Daylight	Wet
FHPK17OFF034687	5/22/2017	9:42 PM	Off Road	0	0	Night	Wet
FHPK15OFF068688	11/29/2015	1:15 PM	Rear End	0	0	Daylight	Dry
FHPK17OFF048964	7/12/2017	10:10 PM	Off Road	0	0	Night	Wet
FHPK19OFF062816	10/31/2019	3:45 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF065586	9/5/2018	5:10 AM	Rear End	6	0	Night	Dry
FHPK17OFF040787	6/13/2017	4:28 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF076761	10/19/2018	6:36 PM	Rear End	6	0	Daylight	Dry
FHPK19OFF008380	2/11/2019	9:00 AM	Rear End	0	0	Daylight	Dry
FHPK19OFF009546	2/17/2019	5:49 AM	Rear End	1	0	Night	Dry
FHPK15OFF058015	10/10/2015	10:00 AM	Off Road	0	0	Daylight	Dry
FHPK18OFF046772	6/25/2018	2:33 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF053244	9/13/2019	2:35 AM	Rear End	1	0	Night	Dry
FHPK19OFF047787	8/16/2019	5:46 PM	Rear End	0	0	Daylight	Dry
FHPK17OFF093469	12/13/2017	6:35 AM	Sideswipe	1	0	Daylight	Dry
FHPK16OFF010099	2/18/2016	12:10 PM	Rear End	0	0	Daylight	Dry
15I072972	8/14/2015	8:05 AM	Rear End	0	0	Daylight	Dry
FHPK18OFF092827	12/22/2018	11:27 AM	Off Road	0	0	Daylight	Dry
FHPK16OFF054523	8/18/2016	5:30 AM	Other	0	0	Night	Dry
FHPK16OFF019651	3/29/2016	7:15 PM	Rear End	0	0	Daylight	Wet
FHPK17OFF080744	10/28/2017	3:32 AM	Sideswipe	0	0	Night	Dry
FHPK16OFF045177	7/11/2016	12:46 PM	Off Road	0	0	Daylight	Dry
FHPK16OFF061560	9/16/2016	7:00 AM	Other	0	0	Daylight	Dry
FHPK15OFF049802	8/30/2015	4:48 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF040310	6/1/2018	12:57 PM	Unknown	2	0	Daylight	Dry
FHPK17OFF088576	11/24/2017	1:10 PM	Rear End	3	0	Daylight	Wet
FHPK18OFF026132	4/10/2018	3:07 AM	Rear End	0	0	Night	Dry
FHPK18OFF033914	5/8/2018	10:15 PM	Animal	0	0	Night	Dry
FHPK19OFF055897	9/27/2019	12:10 PM	Sideswipe	0	0	Daylight	Dry
FHPK19OFF053548	9/14/2019	12:07 PM	Rear End	2	0	Daylight	Dry
FHPK18OFF076456	10/18/2018	5:47 PM	Other	0	0	Daylight	Dry
FHPK15OFF012028	3/7/2015	9:15 AM	Off Road	0	0	Daylight	Dry
FHPK15OFF052589	9/13/2015	6:29 PM	Off Road	0	0	Daylight	Dry

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK17OFF015808	3/11/2017	9:51 AM	Off Road	1	0	Daylight	Dry
FHPK19OFF008659	2/12/2019	5:10 PM	Sideswipe	0	0	Daylight	Dry
FHPK15OFF065063	11/13/2015	12:58 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF009219	2/15/2019	3:14 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF056091	7/31/2018	1:00 PM	Unknown	0	0	Daylight	Dry
FHPK15OFF053831	9/19/2015	6:04 PM	Sideswipe	0	0	Daylight	Dry
FHPK16OFF036648	6/7/2016	5:30 PM	Off Road	0	0	Daylight	Wet
17I020308	3/2/2017	7:00 PM	Rear End	0	0	Night	Dry
FHPK15OFF004566	1/27/2015	12:10 PM	Other	0	0	Daylight	Dry
FHPK15OFF053174	9/16/2015	3:52 PM	Off Road	0	0	Daylight	Wet
FHPK15OFF040762	7/20/2015	5:45 PM	Rear End	1	0	Daylight	Dry
FHPK15OFF004377	1/26/2015	5:00 AM	Off Road	0	0	Night	Wet
FHPK17OFF065084	9/7/2017	9:20 AM	Rear End	0	0	Daylight	Dry
FHPK18OFF014157	2/25/2018	4:21 PM	Off Road	0	0	Daylight	Dry
FHPK18OFF001121	1/4/2018	9:13 PM	Rear End	3	0	Night	Dry
FHPK15OFF032380	6/12/2015	6:45 AM	Off Road	0	0	Daylight	Dry
FHPK19OFF068258	11/27/2019	5:40 PM	Off Road	0	0	Daylight	Dry
FHPK16OFF026891	4/29/2016	5:50 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF001920	1/7/2018	11:00 PM	Other	0	0	Night	Dry
FHPK19OFF067151	11/22/2019	12:25 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF066924	11/21/2019	7:50 AM	Other	1	0	Daylight	Dry
FHPK18OFF070250	9/24/2018	12:20 PM	Unknown	0	0	Daylight	Dry
FHPK16OFF063647	9/24/2016	11:05 PM	Other	1	0	Night	Dry
FHPK17OFF027194	4/23/2017	8:08 PM	Off Road	0	0	Night	Dry
FHPK17OFF008238	2/7/2017	6:05 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF066578	9/9/2018	1:36 AM	Off Road	0	0	Night	Wet
FHPK17OFF039235	6/8/2017	8:19 AM	Other	0	0	Daylight	Wet
FHPK17OFF092917	12/10/2017	7:29 PM	Rear End	3	0	Night	Dry
FHPK16OFF005766	1/28/2016	2:50 PM	Rear End	0	0	Daylight	Wet
FHPK17OFF064885	9/6/2017	9:05 PM	Rear End	0	0	Night	Dry
FHPK18OFF061005	8/18/2018	10:00 AM	Rear End	0	0	Daylight	Dry
FHPK19OFF059404	10/13/2019	11:47 PM	Rear End	0	0	Night	Dry
FHPK16OFF025640	4/24/2016	3:07 PM	Rollover	6	0	Daylight	Dry
FHPK16OFF050740	8/2/2016	5:29 PM	Off Road	0	0	Daylight	Dry
FHPK18OFF008473	2/4/2018	1:34 AM	Off Road	1	0	Night	Dry
FHPK16OFF020337	4/1/2016	6:20 PM	Other	0	0	Daylight	Dry
FHPK17OFF036528	5/29/2017	11:35 AM	Sideswipe	0	0	Daylight	Dry
FHPK16OFF080889	12/6/2016	7:00 AM	Sideswipe	5	0	Daylight	Dry

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK19OFF005036	1/25/2019	2:45 AM	Rear End	0	0	Night	Dry
FHPK17OFF035738	5/26/2017	5:49 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF045642	6/22/2018	1:00 AM	Other	0	0	Night	Dry
FHPK15OFF028206	5/23/2015	5:30 AM	Rear End	0	0	Night	Dry
FHPK17OFF074346	10/6/2017	1:01 PM	Off Road	0	0	Daylight	Dry
FHPK16OFF059609	9/7/2016	6:11 PM	Sideswipe	0	0	Daylight	Dry
FHPK18OFF034762	5/12/2018	9:50 AM	Off Road	0	0	Daylight	Wet
FHPK18OFF019524	3/17/2018	10:30 AM	Rear End	0	0	Daylight	Dry
FHPK17OFF054055	7/31/2017	2:10 AM	Off Road	1	0	Night	Wet
FHPK15OFF041568	7/24/2015	11:29 AM	Other	0	0	Daylight	Dry
FHPK19OFF054019	9/16/2019	6:45 PM	Rear End	1	0	Daylight	Dry
FHPK16OFF027438	5/1/2016	4:19 PM	Off Road	0	0	Daylight	Dry
FHPK17OFF064880	9/6/2017	8:50 PM	Rear End	0	0	Night	Dry
FHPK19OFF055611	9/25/2019	5:02 PM	Rear End	0	0	Daylight	Dry
FHPK19OFF070839	12/11/2019	4:50 PM	Rear End	1	0	Daylight	Dry
19002026	4/10/2019	6:57 AM	Off Road	0	0	Night	Wet
FHPK15OFF001905	1/11/2015	8:40 PM	Sideswipe	0	0	Night	Wet
FHPK17OFF097897	12/29/2017	1:09 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF042465	7/23/2019	3:59 PM	Sideswipe	0	0	Daylight	Dry
FHPK17OFF083195	11/6/2017	6:30 AM	Animal	0	0	Daylight	Dry
FHPK17OFF023654	4/10/2017	8:16 AM	Rear End	0	0	Daylight	Dry
FHPK17OFF060392	8/22/2017	8:12 AM	Sideswipe	1	0	Daylight	Dry
FHPK17OFF040557	6/12/2017	4:17 PM	Unknown	1	0	Daylight	Wet
FHPK16OFF063231	9/23/2016	1:05 PM	Off Road	0	0	Daylight	Dry
FHPK18OFF083465	11/15/2018	11:20 AM	Unknown	5	0	Daylight	Dry
FHPK15OFF029490	5/29/2015	8:50 AM	Off Road	0	0	Daylight	Dry
FHPK18OFF021196	3/23/2018	8:57 AM	Rear End	0	0	Daylight	Dry
FHPK15OFF004060	1/24/2015	4:30 AM	Off Road	3	0	Night	Wet
FHPK16OFF068555	10/15/2016	1:20 PM	Other	0	0	Daylight	Dry
FHPK17OFF063130	8/31/2017	9:10 PM	Other	0	0	Night	Dry
FHPK15OFF065127	11/13/2015	4:53 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF082582	12/13/2016	4:18 AM	Off Road	1	0	Night	Dry
FHPK19OFF048164	8/18/2019	3:45 PM	Rear End	0	0	Daylight	Dry
FHPK15OFF068697	11/29/2015	1:40 PM	Rear End	5	0	Daylight	Dry
FHPK19OFF043918	7/29/2019	5:43 PM	Rear End	0	0	Daylight	Dry
FHPK15OFF021642	4/21/2015	4:55 PM	Rear End	0	0	Daylight	Dry
FHPK19OFF009961	2/19/2019	9:48 AM	Other	0	0	Daylight	Dry
FHPD19OFF107114	11/24/2019	8:25 PM	Rear End	0	0	Night	Dry

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK15OFF061205	10/25/2015	12:07 PM	Rear End	0	0	Daylight	Dry
FHPK17OFF014611	3/6/2017	3:17 PM	Other	1	0	Daylight	Dry
FHPK19OFF028345	5/17/2019	8:05 PM	Sideswipe	0	0	Night	Dry
FHPK17OFF064207	9/4/2017	5:22 PM	Off Road	0	0	Daylight	Wet
FHPK15OFF043496	8/1/2015	11:10 PM	Off Road	0	0	Night	Wet
FHPK15OFF051976	9/10/2015	1:00 PM	Rear End	5	0	Daylight	Dry
FHPK16OFF059068	9/5/2016	1:10 PM	Rear End	2	0	Daylight	Wet
FHPK16OFF048888	7/26/2016	4:12 PM	Other	0	0	Daylight	Dry
FHPK19OFF059312	10/13/2019	3:08 PM	Other	3	0	Daylight	Dry
FHPK16OFF066484	10/6/2016	3:30 PM	Off Road	0	0	Daylight	Wet
FHPK19OFF052797	9/10/2019	6:45 PM	Sideswipe	0	0	Daylight	Dry
FHPK17OFF080566	10/27/2017	2:25 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF041496	6/26/2016	6:13 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF052191	9/7/2019	10:30 PM	Off Road	1	0	Night	Dry
FHPD18OFF017275	2/21/2018	7:20 AM	Rear End	1	0	Daylight	Dry
FHPK17OFF038818	6/6/2017	4:50 PM	Off Road	1	0	Daylight	Wet
FHPK17OFF047451	7/7/2017	9:48 AM	Off Road	1	0	Daylight	Dry
FHPK16OFF036520	6/7/2016	10:00 AM	Off Road	0	0	Daylight	Wet
FHPK16OFF015514	3/13/2016	2:30 PM	Rear End	0	0	Daylight	Dry
FHPK19OFF019923	4/7/2019	9:00 PM	Other	0	0	Night	Dry
FHPK16OFF083400	12/16/2016	3:40 PM	Rear End	1	0	Daylight	Dry
FHPK18OFF011199	2/15/2018	5:07 AM	Off Road	0	0	Night	Dry
FHPK18OFF083311	11/14/2018	6:06 PM	Rear End	2	0	Daylight	Dry
16I080073	8/18/2016	5:45 PM	Rear End	0	0	Daylight	Dry
FHPK17OFF006371	1/30/2017	7:47 AM	Rear End	1	0	Daylight	Dry
FHPK15OFF006530	2/7/2015	10:36 AM	Rear End	0	0	Daylight	Dry
FHPK19OFF007755	2/7/2019	9:15 PM	Off Road	0	0	Night	Dry
FHPK19OFF071770	12/15/2019	10:51 PM	Sideswipe	0	0	Night	Dry
FHPK18OFF045646	6/22/2018	12:43 AM	Other	0	0	Night	Dry
FHPK17OFF073738	10/4/2017	2:37 PM	Sideswipe	0	0	Daylight	Wet
FHPK15OFF031927	6/9/2015	6:50 PM	Other	0	0	Daylight	Wet
FHPK19OFF021001	4/13/2019	1:25 AM	Off Road	0	0	Night	Dry
FHPK18OFF068890	9/18/2018	8:29 PM	Off Road	0	0	Night	Wet
FHPK16OFF009555	2/15/2016	3:20 PM	Off Road	0	0	Daylight	Dry
FHPK19OFF053173	9/12/2019	5:15 PM	Rear End	0	0	Daylight	Dry
FHPK19OFF066631	11/19/2019	6:33 PM	Sideswipe	0	0	Daylight	Dry
FHPK15OFF027757	5/21/2015	1:58 PM	Other	1	0	Daylight	Dry
FHPK17OFF042394	6/19/2017	1:34 PM	Other	0	0	Daylight	Wet

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPK18OFF050874	7/12/2018	6:10 AM	Off Road	1	0	Daylight	Dry
FHPD15OFF109178	11/25/2015	8:31 AM	Rear End	0	0	Daylight	Dry
FHPK18OFF077199	10/21/2018	12:10 PM	Sideswipe	0	0	Daylight	Dry
FHPK17OFF037685	6/2/2017	3:57 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF001575	1/6/2018	2:45 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF021335	3/23/2018	5:06 PM	Rear End	1	0	Daylight	Dry
FHPK17OFF074329	10/6/2017	12:00 PM	Rear End	3	0	Daylight	Dry
FHPK17OFF052655	7/26/2017	11:40 AM	Rear End	0	0	Daylight	Dry
FHPK18OFF077934	10/24/2018	3:41 PM	Unknown	0	0	Daylight	Dry
FHPK18OFF066045	9/7/2018	4:25 AM	Rear End	1	0	Night	Wet
FHPK17OFF039080	6/7/2017	2:36 PM	Off Road	0	0	Daylight	Wet
FHPK18OFF072169	10/2/2018	5:59 AM	Sideswipe	1	0	Daylight	Dry
FHPK17OFF056177	8/7/2017	12:55 PM	Rear End	1	0	Daylight	Dry
FHPK18OFF058343	8/8/2018	6:16 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF020048	3/19/2018	7:05 AM	Off Road	0	0	Daylight	Dry
FHPK16OFF021511	4/6/2016	5:50 PM	Other	0	0	Daylight	Dry
FHPK16OFF071232	10/26/2016	2:28 PM	Rear End	0	0	Daylight	Dry
FHPK16OFF038728	6/16/2016	8:00 AM	Rear End	1	0	Daylight	Dry
FHPK19OFF035376	6/19/2019	1:59 PM	Rear End	0	0	Daylight	Dry
FHPK17OFF025886	4/18/2017	9:35 PM	Rear End	8	0	Night	Dry
FHPK17OFF026366	4/20/2017	11:10 PM	Off Road	2	0	Night	Dry
FHPK19OFF046902	8/12/2019	10:29 AM	Other	1	0	Daylight	Dry
FHPK17OFF002940	1/14/2017	5:45 AM	Rear End	1	0	Daylight	Wet
FHPK15OFF025479	5/10/2015	9:40 AM	Other	3	0	Daylight	Dry
FHPK15OFF040818	7/21/2015	4:00 AM	Rear End	1	0	Night	Dry
FHPK18OFF074188	10/9/2018	12:00 AM	Unknown	0	0	Daylight	Dry
FHPD19OFF081637	9/9/2019	7:40 AM	Rear End	0	0	Daylight	Dry
FHPK17OFF034684	5/22/2017	9:20 PM	Off Road	0	0	Night	Wet
FHPK19OFF022852	4/22/2019	10:50 AM	Rear End	1	0	Daylight	Dry
FHPD18OFF024779	3/13/2018	11:40 PM	Unknown	0	0	Night	Dry
FHPK17OFF039084	6/7/2017	2:55 PM	Off Road	1	0	Daylight	Wet
FHPK17OFF065057	9/7/2017	8:10 AM	Rear End	0	0	Daylight	Dry
FHPK17OFF044823	6/27/2017	7:28 PM	Off Road	0	0	Daylight	Wet
FHPK15OFF016391	3/27/2015	6:58 AM	Rear End	4	0	Daylight	Wet
FHPK19OFF067125	11/22/2019	10:45 AM	Rollover	0	0	Daylight	Dry
FHPK16OFF017568	3/21/2016	1:10 PM	Rear End	0	0	Daylight	Dry
FHPK18OFF051660	7/14/2018	8:05 PM	Unknown	0	0	Night	Dry
FHPK16OFF053916	8/15/2016	3:30 PM	Off Road	0	0	Daylight	Wet

[illegible]

FL Turnpike @ US-192 Intersection

[illegible]

FL Turnpike @ US-192 Intersection

Agency Report Number	Date	Time	Crash Type	Number of Injuries	Number of Fatalities	Day/Night	Wet/Dry
FHPD15OFF013997	2/16/2015	4:00 PM	Rear End	0	0	Daylight	Dry
FHPD18OFF018784	2/25/2018	12:46 AM	Rear End	1	0	Night	Dry
FHPD19OFF064860	7/18/2019	3:39 PM	Rear End	0	0	Daylight	Dry
FHPD18OFF111562	11/2/2018	9:42 AM	Rear End	1	0	Daylight	Dry
FHPD19OFF111400	12/8/2019	2:02 PM	Rear End	1	0	Daylight	Dry
FHPK16OFF075508	11/13/2016	1:05 PM	Rear End	1	0	Daylight	Dry
FHPD16OFF026461	3/19/2016	1:31 PM	Rear End	0	0	Daylight	Wet
FHPD18OFF029138	3/25/2018	10:40 AM	Rear End	1	0	Daylight	Dry
FHPD17OFF064484	6/29/2017	6:31 AM	Rear End	0	0	Daylight	Dry

General Crash Summary	
Total Crashes	33
Number of Injuries	14
Number of Fatalities	1
Number of Daylight Crashes	19
Number of Night Crashes	5
Number of Wet Crashes	6
Number of Dry Crashes	18

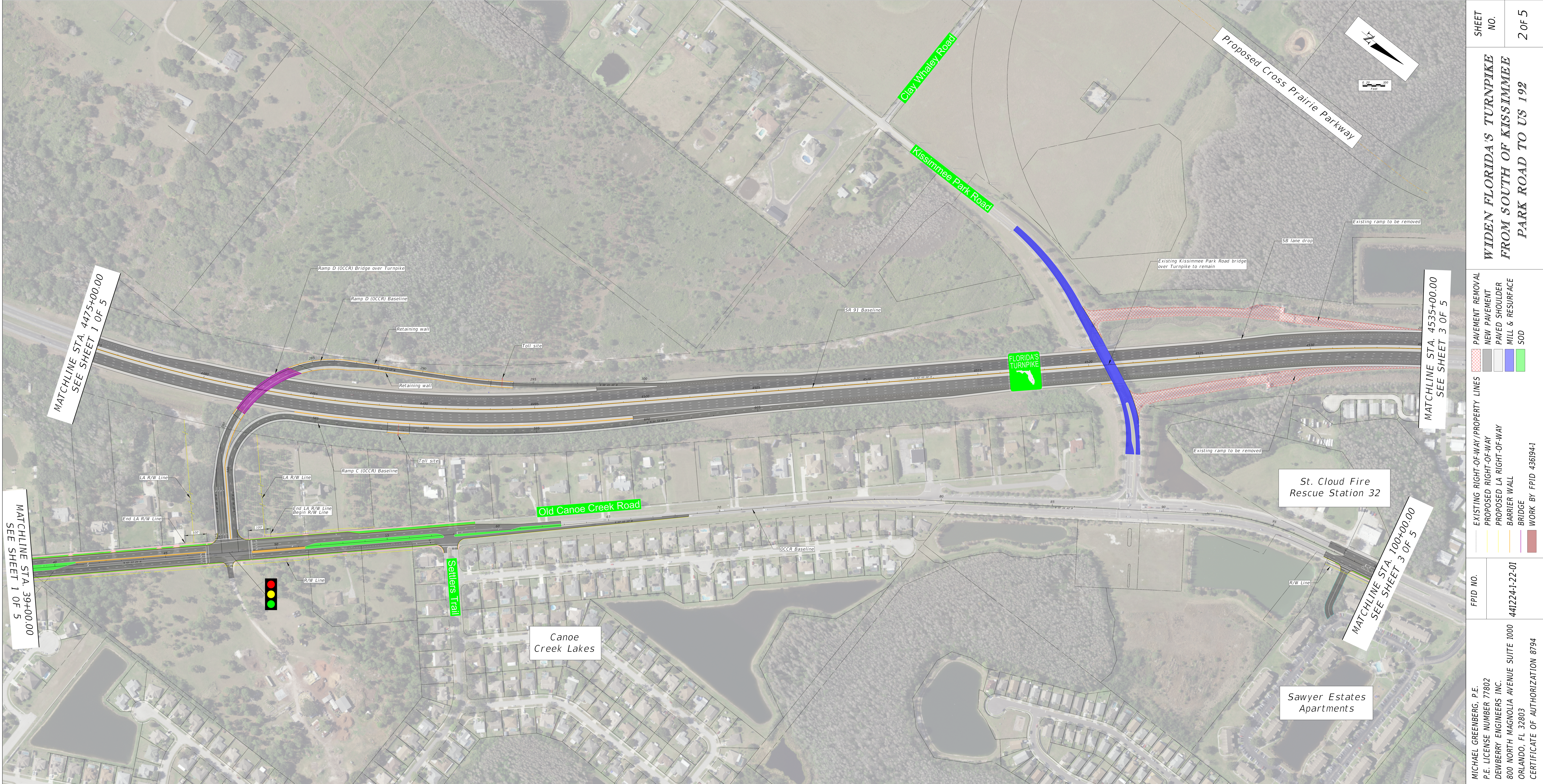
Crash Type Summary	
Rear End Crashes	13
Sideswipe Crashes	0
Off Road Crashes	3
Angle Crashes	0
Left Turn Crashes	2
Other Crashes	15



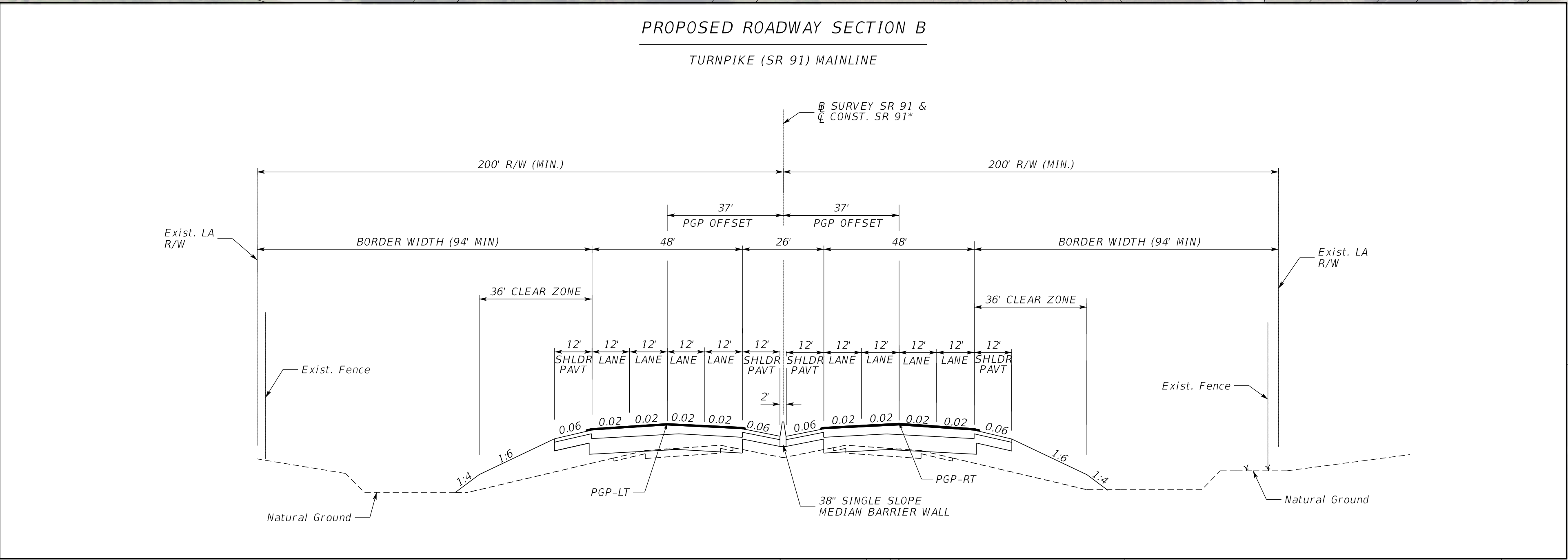
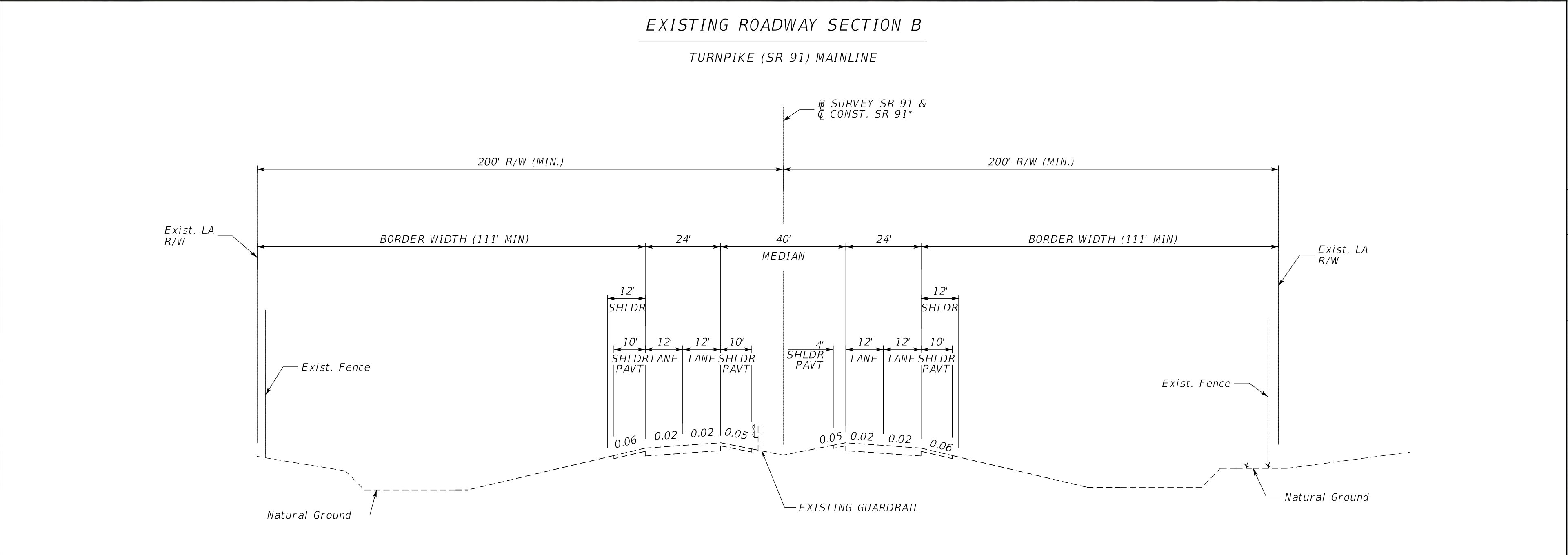
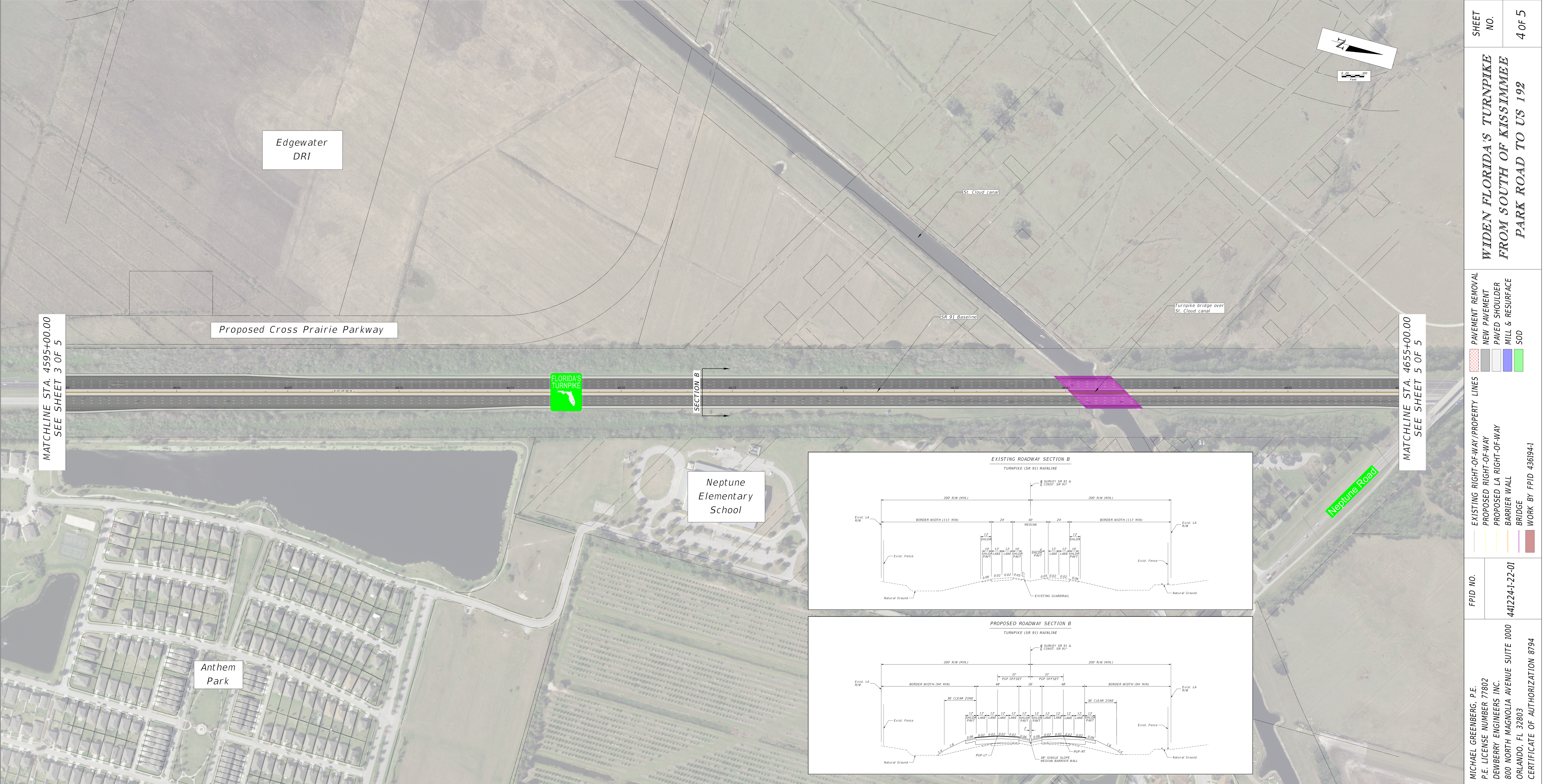
Appendix G: Concept Plans – Preferred Alternative



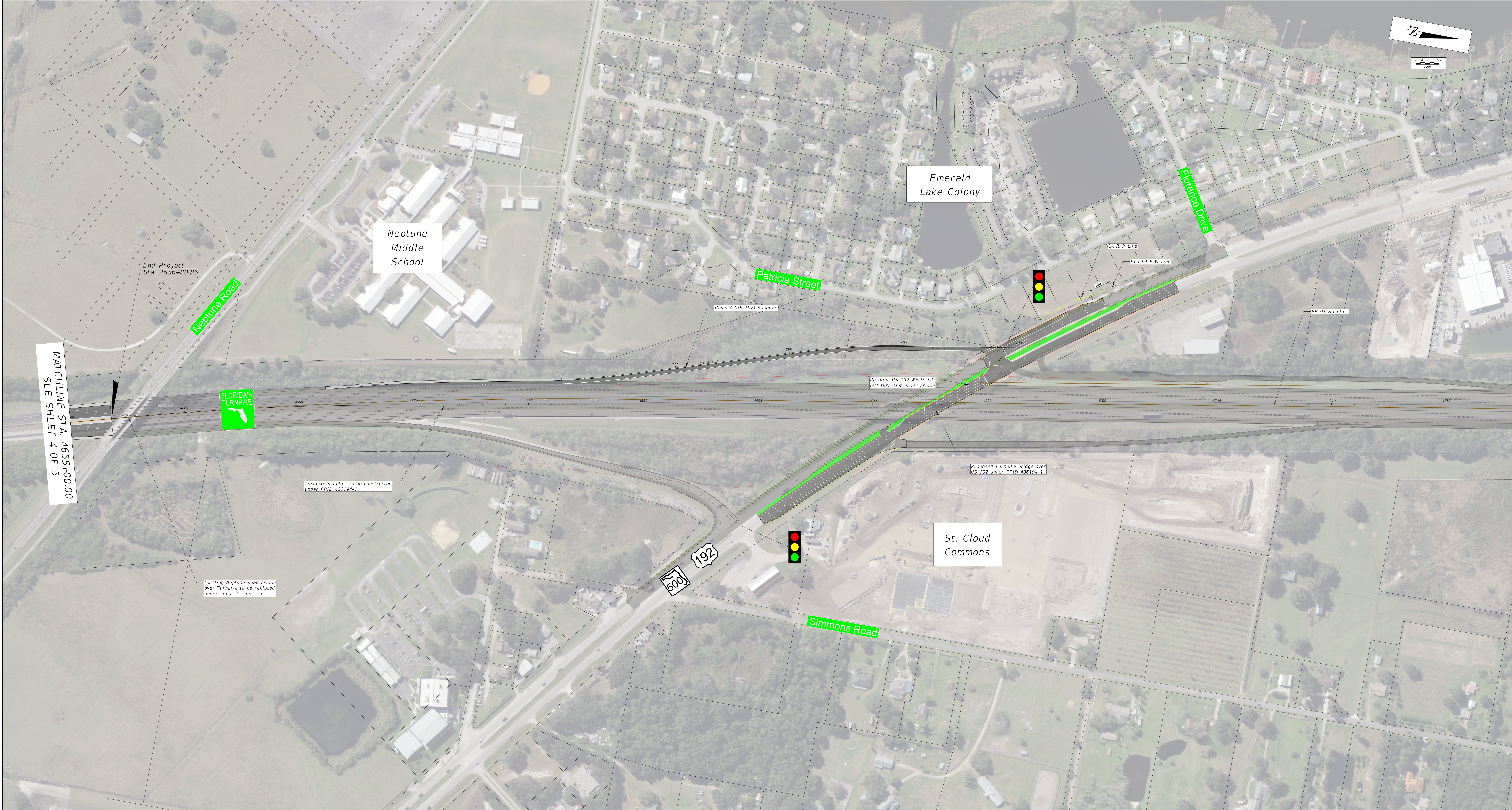
MICHAEL GREENBERG, P.E. P.E. LICENSE NUMBER 77802 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	FPID NO. 441224-1-22-01	EXISTING RIGHT-OF-WAY/PROPERTY LINES PROPOSED RIGHT-OF-WAY PROPOSED LA RIGHT-OF-WAY BARRIER WALL BRIDGE WORK BY FPID 436194-1	PAVEMENT REMOVAL NEW PAVEMENT PAVED SHOULDER MILL & RESURFACE SOD	WIDEN FLORIDA'S TURNPIKE FROM SOUTH OF KISSIMMEE PARK ROAD TO US 192	SHEET NO. 1 OF 5



MICHAEL GREENBERG, P.E. P.E. LICENSE NUMBER 77802 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794		FPID NO. 4412241-22-01	EXISTING RIGHT-OF-WAY/PROPERTY LINES PROPOSED RIGHT-OF-WAY PROPOSED LA RIGHT-OF-WAY BARRIER WALL BRIDGE WORK BY FPID 4361941		PAVEMENT REMOVAL NEW PAVEMENT PAVED SHOULDER MILL & RESURFACE SOD	WIDEN FLORIDA'S TURNPIKE FROM SOUTH OF KISSIMMEE PARK ROAD TO US 192		SHEET NO. 2 OF 5
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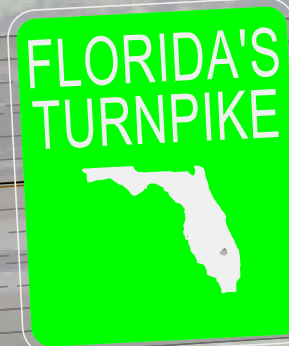
MICHAEL GREENBERG, P.E. P.E. LICENSE NUMBER 77802 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	441224-1-22-01	FPID NO.	EXISTING RIGHT-OF-WAY/PROPERTY LINES PROPOSED RIGHT-OF-WAY PROPOSED LA RIGHT-OF-WAY BARRIER WALL BRIDGE WORK BY FPID 436194-1		PAVEMENT REMOVAL NEW PAVEMENT PAVED SHOULDER MILL & RESURFACE SOD		WIDEN FLORIDA'S TURNPIKE FROM SOUTH OF KISSIMMEE PARK ROAD TO US 192	SHEET NO. 4 of 5



MATCHLINE STA. 4655+00.00
SEE SHEET 4 OF 5

End Project
Sta. 4656+80.86

Neptune Road



Turnpike mainline to be constructed
under FPID 436194-1

Existing Neptune Road bridge
over Turnpike to be replaced
under separate contract

Neptune
Middle
School

Emerald
Lake Colony

Patricia Street

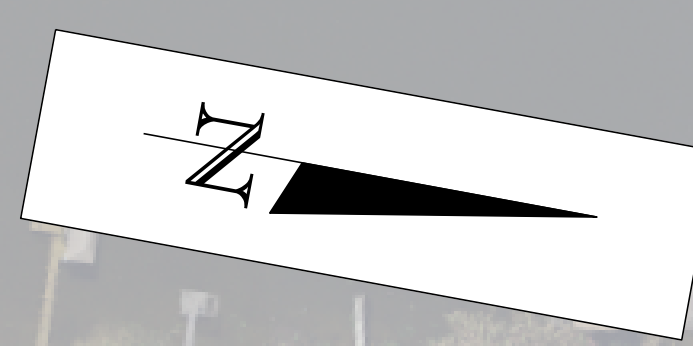
Ramp A (US 192) Baseline

Re-align US 192 WB to fit
left turn slot under bridge

Proposed Turnpike bridge over
US 192 under FPID 436194-1

St. Cloud
Commons

Simmons Road



0 20 100
Feet

MICHAEL GREENBERG, P.E. P.E. LICENSE NUMBER 77802 DEWBERRY ENGINEERS INC. 800 NORTH MAGNOLIA AVENUE SUITE 1000 ORLANDO, FL 32803 CERTIFICATE OF AUTHORIZATION 8794	FPID NO. 441224-1-22-01	EXISTING RIGHT-OF-WAY/PROPERTY LINES PROPOSED RIGHT-OF-WAY PROPOSED LA RIGHT-OF-WAY BARRIER WALL BRIDGE WORK BY FPID 436194-1		PAVEMENT REMOVAL NEW PAVEMENT PAVED SHOULDER MILL & RESURFACE SOD		WIDEN FLORIDA'S TURNPIKE FROM SOUTH OF KISSIMMEE PARK ROAD TO US 192		SHEET NO. 5 OF 5



Appendix H: Typical Section Package

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION PACKAGE

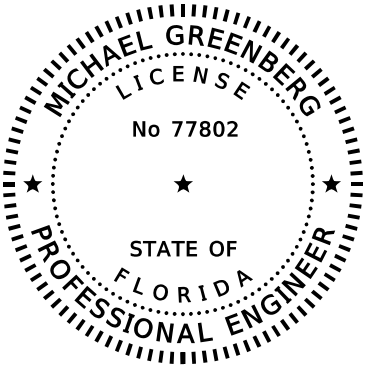
FINANCIAL PROJECT IDS 441224-1-32-01

OSCEOLA COUNTY (92471)

STATE ROAD NO. 91

WIDEN FLORIDA'S TURNPIKE FROM SOUTH
OF KISSIMMEE PARK ROAD TO US 192

APPROVED BY:



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:

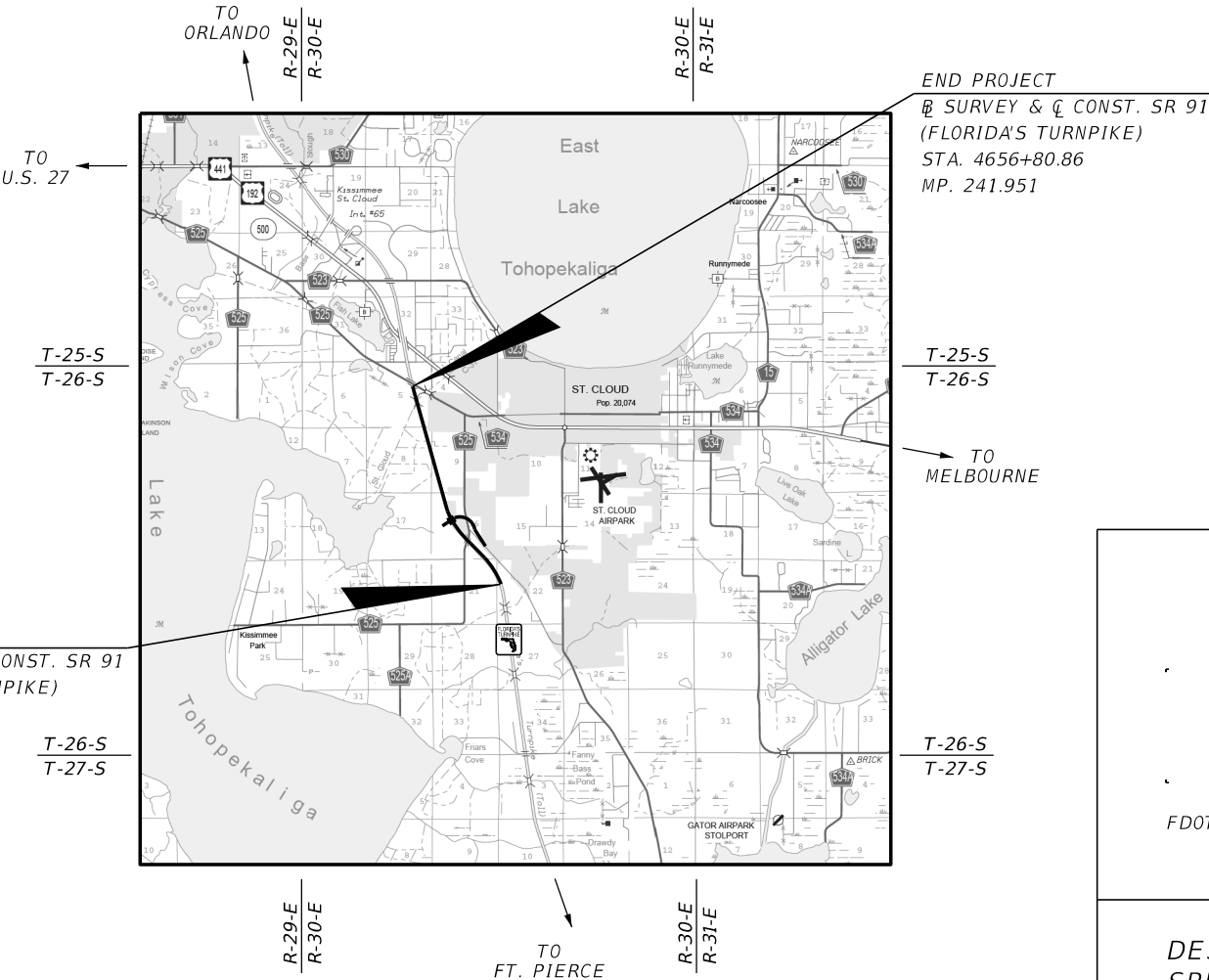
PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED.
THE SIGNATURE MUST BE VERIFIED
IN THE ELECTRONIC DOCUMENTS.

DEWBERRY ENGINEERS, INC.
800 NORTH MAGNOLIA AVE., SUITE 1000
ORLANDO, FL 32803
MICHAEL GREENBERG, P.E. NO. 77802

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

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	TYPICAL SECTION NO. 1
3	TYPICAL SECTION NO. 2
4	TYPICAL SECTION NO. 3
5	TYPICAL SECTION NO. 4
6	TYPICAL SECTION NO. 5
7	TYPICAL SECTION NO. 6
8	TYPICAL SECTION NO. 7
9	TYPICAL SECTION NO. 8
10	TYPICAL SECTION NO. 9
11	TYPICAL SECTION NO. 10
12	TYPICAL SECTION NO. 11
13	TYPICAL SECTION NO. 12
14	TYPICAL SECTION NO. 13
15	TYPICAL SECTION NO. 14
16	TYPICAL SECTION NO. 15
17	TYPICAL SECTION NO. 16
18	TYPICAL SECTION NO. 17
19	TYPICAL SECTION NO. 18
20	TYPICAL SECTION NO. 19
21	TYPICAL SECTION NO. 20
22	TYPICAL SECTION NO. 21



TYPICAL SECTION CONCURRENCE

FDOT DISTRICT DESIGN ENGINEER

FDOT DISTRICT STRUCTURES
DESIGN ENGINEER

FHWA TRANSPORTATION ENGINEER

DESIGN SPEED AND POSTED
SPEED CONCURRENCE:

FDOT DISTRICT TRAFFIC OPERATIONS
ENGINEER

FDOT DISTRICT DESIGN ENGINEER

CONTEXT CLASSIFICATION
CONCURRENCE:

FDOT DISTRICT INTERMODAL SYSTEMS
DEVELOPMENT MANAGER

SHEET
NO.

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

N/A : L.A. FACILITY

FUNCTIONAL CLASSIFICATION

INTERSTATE

MAJOR COLLECTOR

FREEWAY/EXPWY.

MINOR COLLECTOR

PRINCIPAL ARTERIAL

LOCAL

MINOR ARTERIAL

HIGHWAY SYSTEM

NATIONAL HIGHWAY SYSTEM

STRATEGIC INTERMODAL SYSTEM

STATE HIGHWAY SYSTEM

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

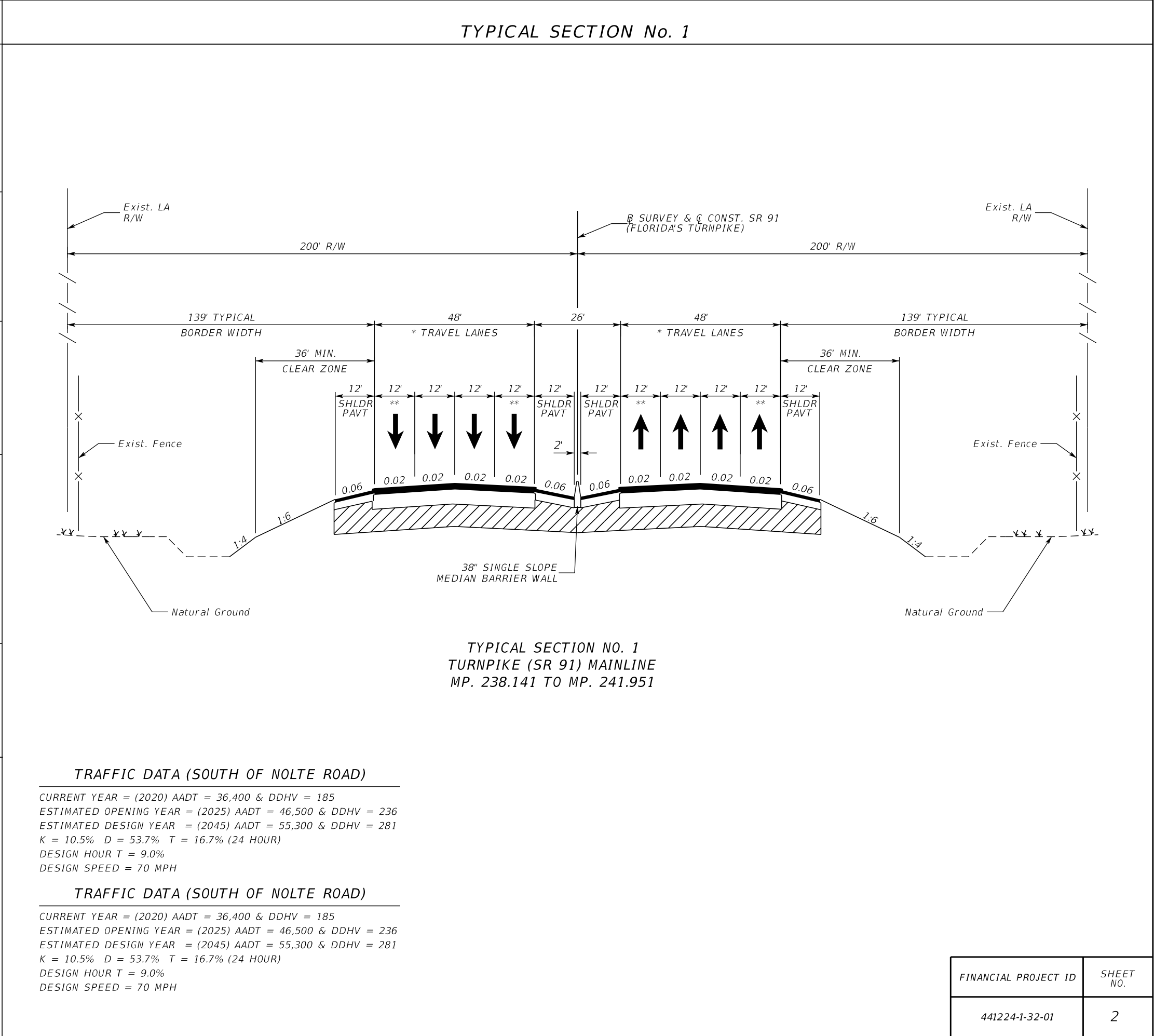
CRITERIA

NEW CONSTRUCTION / RECONSTRUCTION

RESURFACING (LA FACILITIES)

RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS
RELATED TO TYPICAL SECTION:



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

(X) 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

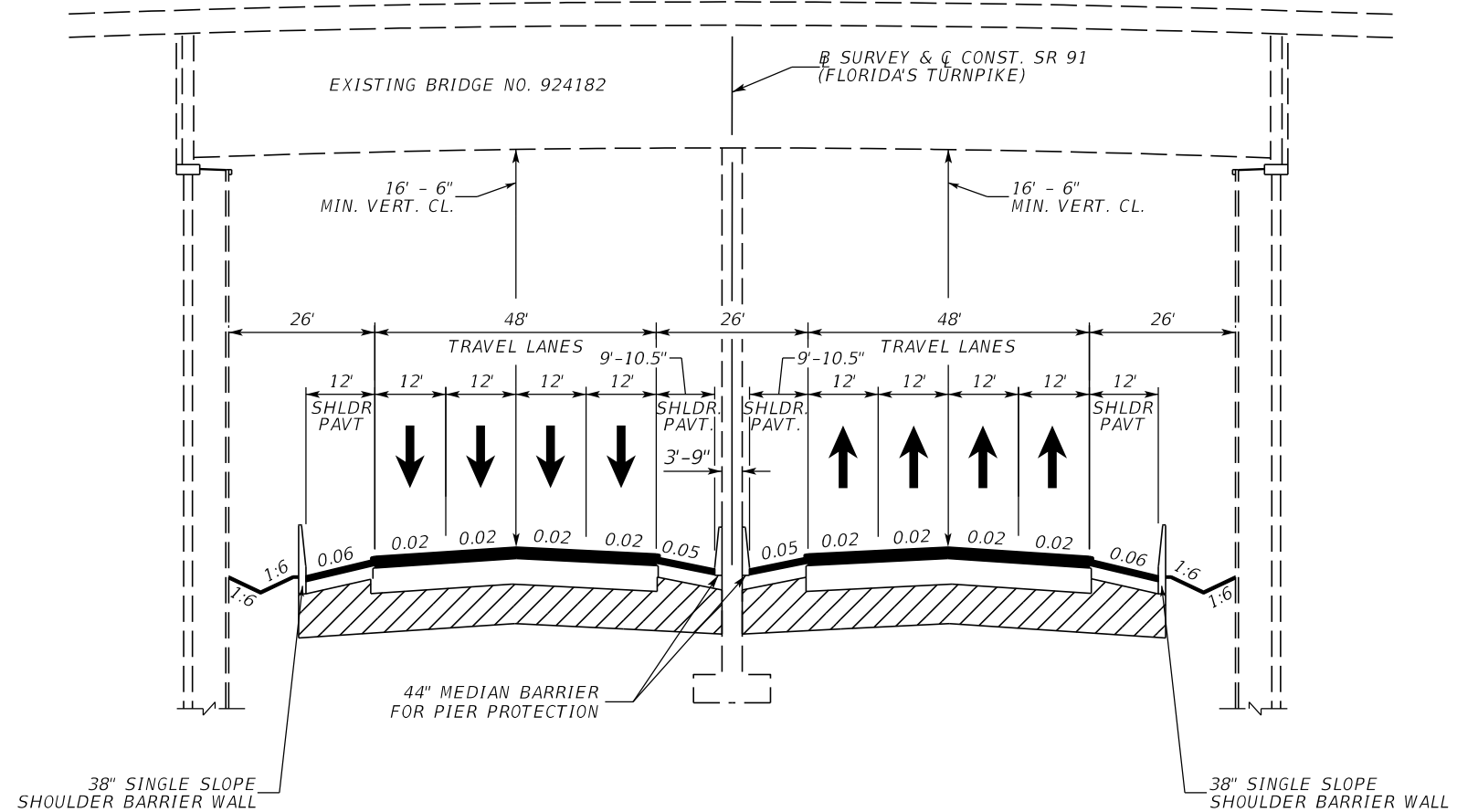
CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION
() RESURFACING (LA FACILITIES)
() RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS
RELATED TO TYPICAL SECTION:

INSIDE SHOULDER WIDTH

TYPICAL SECTION No. 2



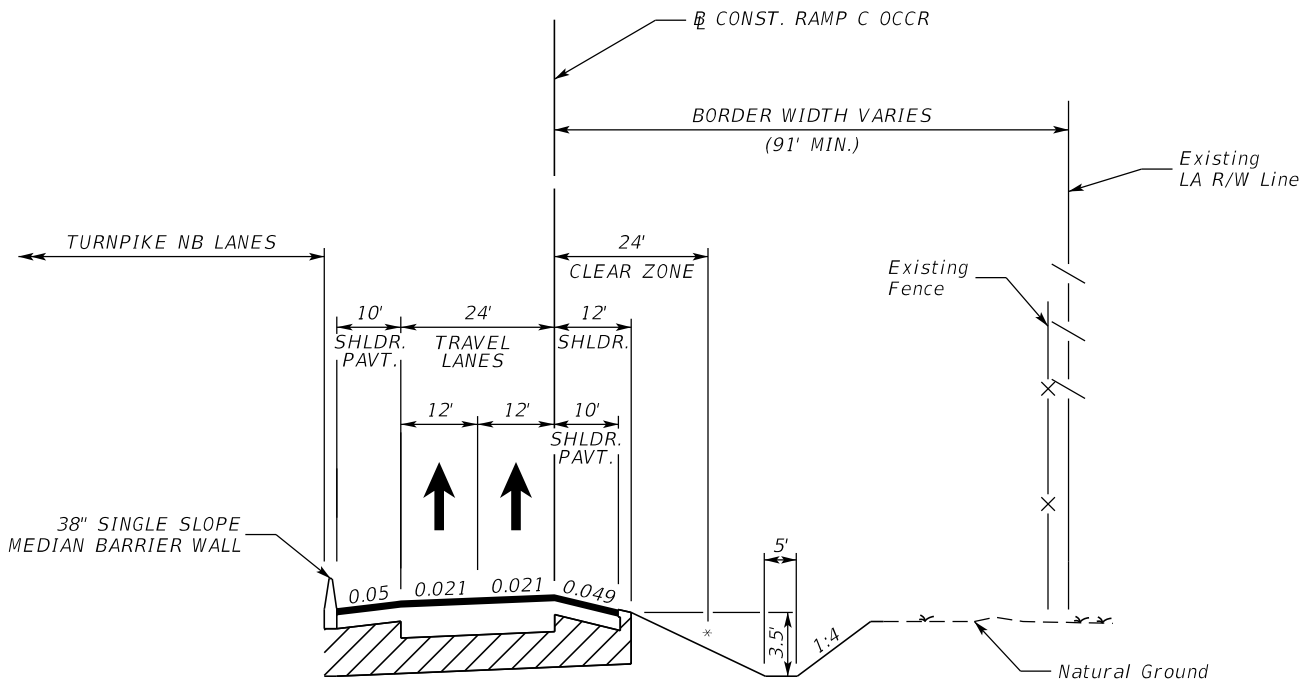
TYPICAL SECTION NO. 2
TURNPIKE (SR 91) MAINLINE
UNDER KISSIMMEE PARK ROAD
MP. 239.368

TRAFFIC DATA

CURRENT YEAR = (2020) AADT = 36,400 & DDHV = 185
ESTIMATED OPENING YEAR = (2025) AADT = 46,500 & DDHV = 236
ESTIMATED DESIGN YEAR = (2045) AADT = 55,300 & DDHV = 281
K = 10.5% D = 53.7% T = 16.7% (24 HOUR)
DESIGN HOUR T = 9.0%
DESIGN SPEED = 70 MPH

<i>FINANCIAL PROJECT ID</i>	<i>SHEET NO.</i>
441224-1-32-01	3

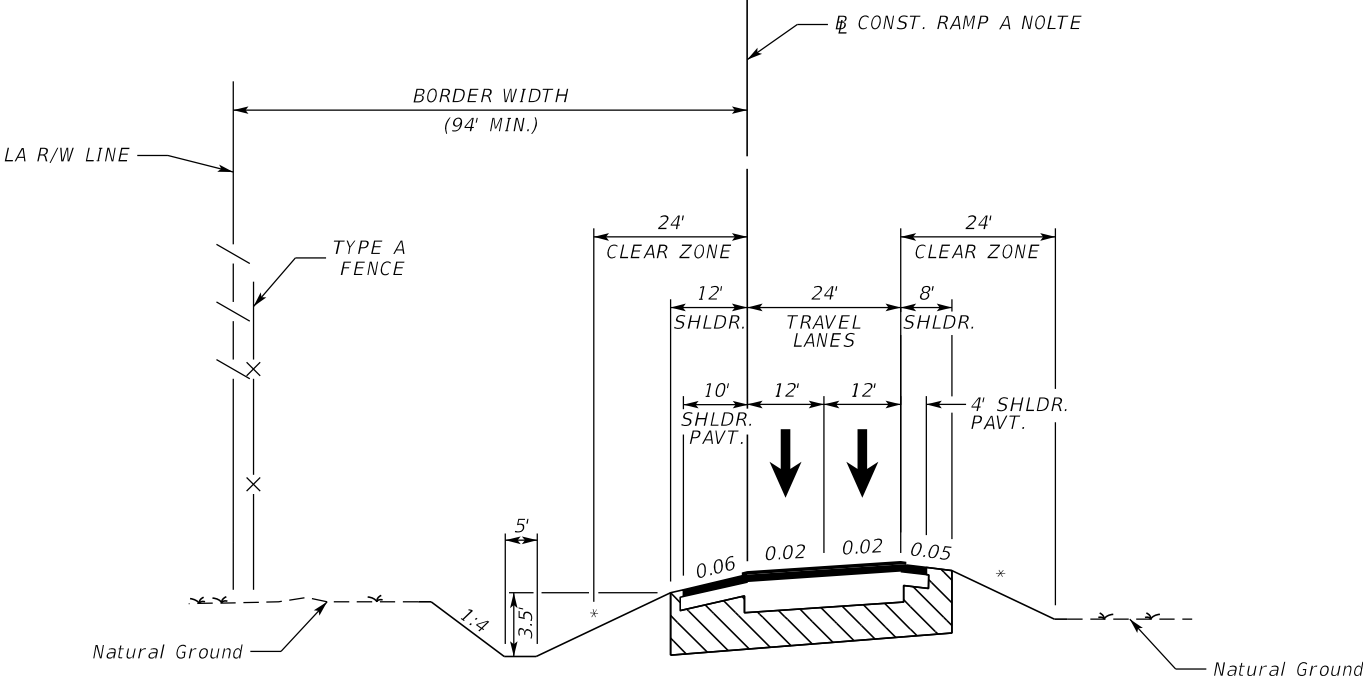
PROJECT CONTROLS		TYPICAL SECTION No. 3	
CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. N/A : L.A. FACILITY C3C : SUBURBAN COMM. C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE			

PROJECT CONTROLS		TYPICAL SECTION No. 4					
CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. X N/A : L.A. FACILITY C3C : SUBURBAN COMM. C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE							
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		TYPICAL SECTION NO. 4 RAMP C OCCR * 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20'					
CRITERIA X NEW CONSTRUCTION / RECONSTRUCTION RESURFACING (LA FACILITIES) RRR (ARTERIALS & COLLECTORS)							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION: BORDER WIDTH VARIATION		RAMP C TRAFFIC DATA CURRENT YEAR = (2020) AADT = 18,300 & DDHV = 79 ESTIMATED OPENING YEAR = (2025) AADT = 24,800 & DDHV = 108 ESTIMATED DESIGN YEAR = (2045) AADT = 46,100 & DDHV = 176 K = 11.5% D = 66.2% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH <table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>5</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	5
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	5						

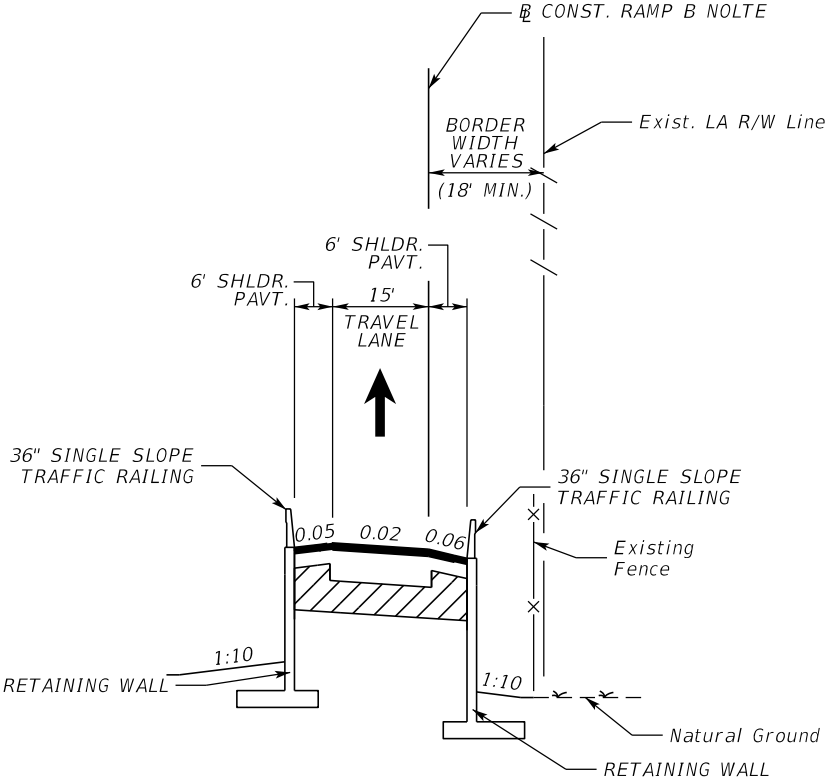
PROJECT CONTROLS		TYPICAL SECTION No. 5	
CONTEXT CLASSIFICATION () C1 : NATURAL () C2 : RURAL () C2T : RURAL TOWN () C3R : SUBURBAN RES. (X) N/A : L.A. FACILITY () C3C : SUBURBAN COMM. () C4 : URBAN GENERAL () C5 : URBAN CENTER () C6 : URBAN CORE			
FUNCTIONAL CLASSIFICATION () INTERSTATE (X) FREEWAY/EXPWY. () 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: BORDER WIDTH VARIATION		RAMP D TRAFFIC DATA CURRENT YEAR = (2020) AADT = 18,300 & DDHV = 79 ESTIMATED OPENING YEAR = (2025) AADT = 24,800 & DDHV = 108 ESTIMATED DESIGN YEAR = (2045) AADT = 46,100 & DDHV = 176 K = 11.5% D = 66.2% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH	
		FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 6	

PROJECT CONTROLS CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. X N/A : L.A. FACILITY C3C : SUBURBAN COMM. C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE 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. 6 The diagram illustrates a cross-section of a highway ramp. On the left, a vertical line marks the 'LA R/W LINE'. A 'TYPE A FENCE' is shown with two 'X' marks. A horizontal dimension line indicates a 'BORDER WIDTH (94' MIN.)' to the right edge of the ramp. The ramp itself is a raised embankment with a 'CONST. RAMP A NOLTE' surface. The cross-section shows a 'TRAVEL LANE' (15' wide) flanked by 'SHLDR.' (6' on each side). Below the travel lane, there are 'SHLDR PAVT.' (4' on the left, 2' on the right) and 'CLEAR ZONE' (24' on each side). The ground profile shows a 'Natural Ground' line with a 1:4 slope. The ramp surface has a 0.02 grade, while the shoulders have 0.06 and 0.05 grades. A 5' vertical clearance is shown above the travel lane. A note at the bottom right specifies: '* 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20' TYPICAL SECTION NO. 6 RAMP A NOLTE RAMP A TRAFFIC DATA CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 3,200 & DDHV = 11 ESTIMATED DESIGN YEAR = (2045) AADT = 6,000 & DDHV = 22 K = 11.7% D = 62.1% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 7
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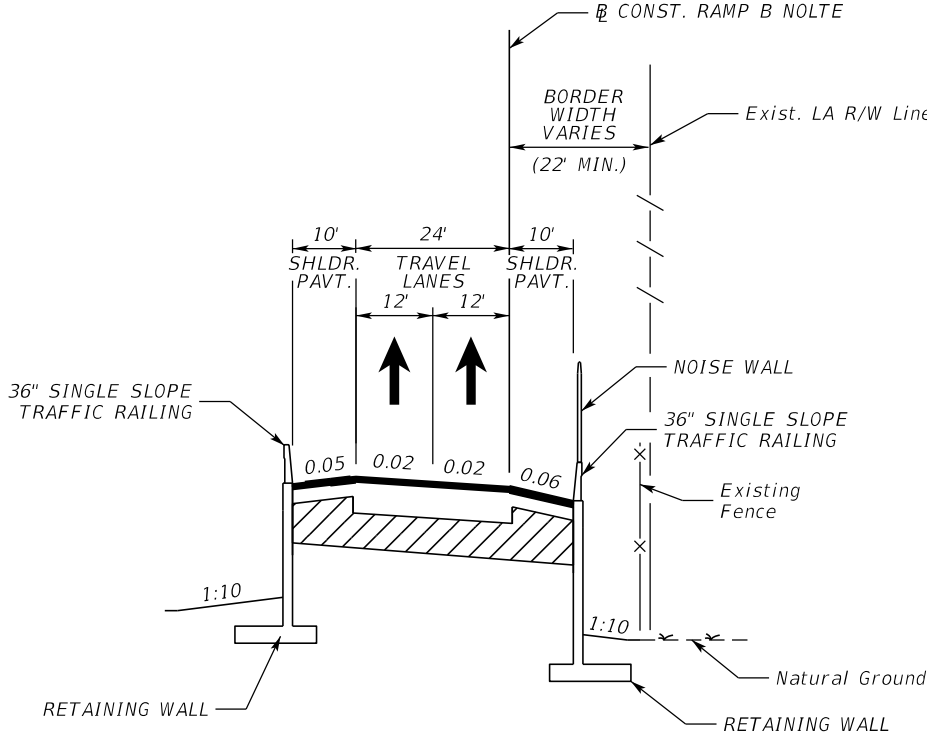
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PROJECT CONTROLS		TYPICAL SECTION No. 7					
CONTEXT CLASSIFICATION		 TYPICAL SECTION NO. 7 RAMP A NOLTE * 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20'					
FUNCTIONAL CLASSIFICATION							
HIGHWAY SYSTEM							
ACCESS CLASSIFICATION							
CRITERIA							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		RAMP A TRAFFIC DATA CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 3,200 & DDHV = 11 ESTIMATED DESIGN YEAR = (2045) AADT = 6,000 & DDHV = 22 K = 11.7% D = 62.1% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH <table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>8</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	8
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	8						

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 8	
CONTEXT CLASSIFICATION		 TYPICAL SECTION NO. 8 RAMP B NOLTE	
FUNCTIONAL CLASSIFICATION			
HIGHWAY SYSTEM			
ACCESS CLASSIFICATION			
CRITERIA			
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		RAMP B TRAFFIC DATA CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 3,200 & DDHV = 11 ESTIMATED DESIGN YEAR = (2045) AADT = 6,000 & DDHV = 22 K = 11.7% D = 62.1% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 9	

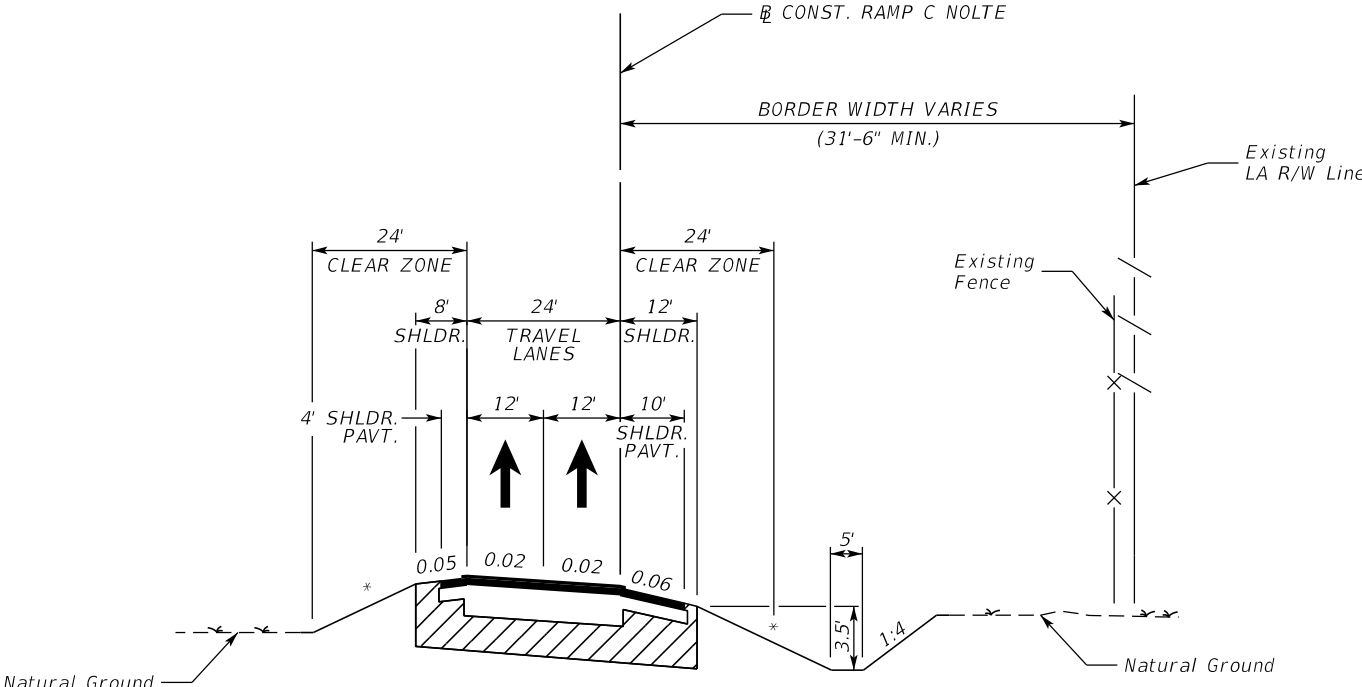
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 9					
CONTEXT CLASSIFICATION () C1 : NATURAL () C2 : RURAL () C2T : RURAL TOWN () C3R : SUBURBAN RES. (X) N/A : L.A. FACILITY () C3C : SUBURBAN COMM. () C4 : URBAN GENERAL () C5 : URBAN CENTER () C6 : URBAN CORE		 TYPICAL SECTION NO. 9 RAMP B NOLTE					
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: BORDER WIDTH (RAMP B)							
		RAMP B TRAFFIC DATA CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 3,200 & DDHV = 11 ESTIMATED DESIGN YEAR = (2045) AADT = 6,000 & DDHV = 22 K = 11.7% D = 62.1% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH					
		<table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>10</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	10
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	10						

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 10					
CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. N/A : L.A. FACILITY C3C : SUBURBAN COMM. C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE		TYPICAL SECTION NO. 10 RAMP C NOLTE					
FUNCTIONAL CLASSIFICATION INTERSTATE FREEWAY/EXPWY. PRINCIPAL ARTERIAL MINOR ARTERIAL MAJOR COLLECTOR MINOR COLLECTOR LOCAL							
HIGHWAY SYSTEM NATIONAL HIGHWAY SYSTEM STRATEGIC INTERMODAL SYSTEM STATE HIGHWAY SYSTEM 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 NEW CONSTRUCTION / RECONSTRUCTION RESURFACING (LA FACILITIES) RRR (ARTERIALS & COLLECTORS)							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION: BORDER WIDTH (RAMP C)							
		RAMP C TRAFFIC DATA CURRENT YEAR = (2020) AADT = 18,300 & DDHV = 79 ESTIMATED OPENING YEAR = (2025) AADT = 24,800 & DDHV = 108 ESTIMATED DESIGN YEAR = (2045) AADT = 46,100 & DDHV = 176 K = 11.5% D = 66.2% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH					
		<table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>11</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	11
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	11						

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 11	
CONTEXT CLASSIFICATION		 TYPICAL SECTION NO. 11 RAMP C NOLTE * 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20'	
() 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:			
BORDER WIDTH (RAMP C)			

PROJECT CONTROLS CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. X N/A : L.A. FACILITY C3C : SUBURBAN COMM. C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE 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. 12 The diagram illustrates a cross-section of a highway ramp. On the left, a vertical line marks the 'LA R/W LINE'. A 'TYPE A FENCE' is shown with two 'X' marks. A 'BORDER WIDTH (94' MIN.)' is indicated between the fence and the start of the 'CLEAR ZONE'. The 'CLEAR ZONE' is 24' wide. Beyond the clear zone, the ramp structure begins. It includes a 'SHLDR. PAVT.' (10' wide) and a 'TRAVEL LANES' section (36' wide, divided into three 12' lanes). The 'SHLDR. PAVT.' on the right is 10' wide. The ramp has a 'CONST. RAMP D NOLTE' and a '36" SINGLE SLOPE TRAFFIC RAILING'. The ground profile shows a 'Natural Ground' line and a 'RETAINING WALL' with a '1:10' slope. Slopes of 1:4 and 1:6 are indicated for different fill heights. Drainage slopes are shown as 0.06, 0.03, 0.02, 0.02, and 0.05. A vertical dimension of 5' and a horizontal dimension of 3.5' are also shown. TYPICAL SECTION NO. 12 RAMP D NOLTE * 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20' RAMP D TRAFFIC DATA CURRENT YEAR = (2020) AADT = 18,300 & DDHV = 79 ESTIMATED OPENING YEAR = (2025) AADT = 24,800 & DDHV = 108 ESTIMATED DESIGN YEAR = (2045) AADT = 46,100 & DDHV = 176 K = 11.5% D = 66.2% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 13
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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS CONTEXT CLASSIFICATION FUNCTIONAL CLASSIFICATION HIGHWAY SYSTEM ACCESS CLASSIFICATION CRITERIA POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:	TYPICAL SECTION No. 13 TYPICAL SECTION NO. 13 RAMP D NOLTE * 1:6 FOR FILLS TO 5' 1:6 TO EDGE OF CLEAR ZONE & 1:4 FOR FILLS 5' TO 10' 1:6 TO EDGE OF CLEAR ZONE & 1:3 FOR FILLS 10' TO 20' 1:2 (WITH GUARDRAIL) FILLS OVER 20' RAMP D TRAFFIC DATA CURRENT YEAR = (2020) AADT = 18,300 & DDHV = 79 ESTIMATED OPENING YEAR = (2025) AADT = 24,800 & DDHV = 108 ESTIMATED DESIGN YEAR = (2045) AADT = 46,100 & DDHV = 176 K = 11.5% D = 66.2% T = 8.2% (24 HOUR) DESIGN HOUR T = 5.0% DESIGN SPEED = 50 MPH FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 14
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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	(X) MAJOR COLLECTOR
() FREEWAY/EXPWY.	() MINOR COLLECTOR
() PRINCIPAL ARTERIAL	() LOCAL
() MINOR ARTERIAL	

HIGHWAY SYSTEM

☐ NATIONAL HIGHWAY SYSTEM

☐ STRATEGIC INTERMODAL SYSTEM

☐ STATE HIGHWAY SYSTEM

☒ OFF-STATE HIGHWAY SYSTEM

ACCESS CLASSIFICATION

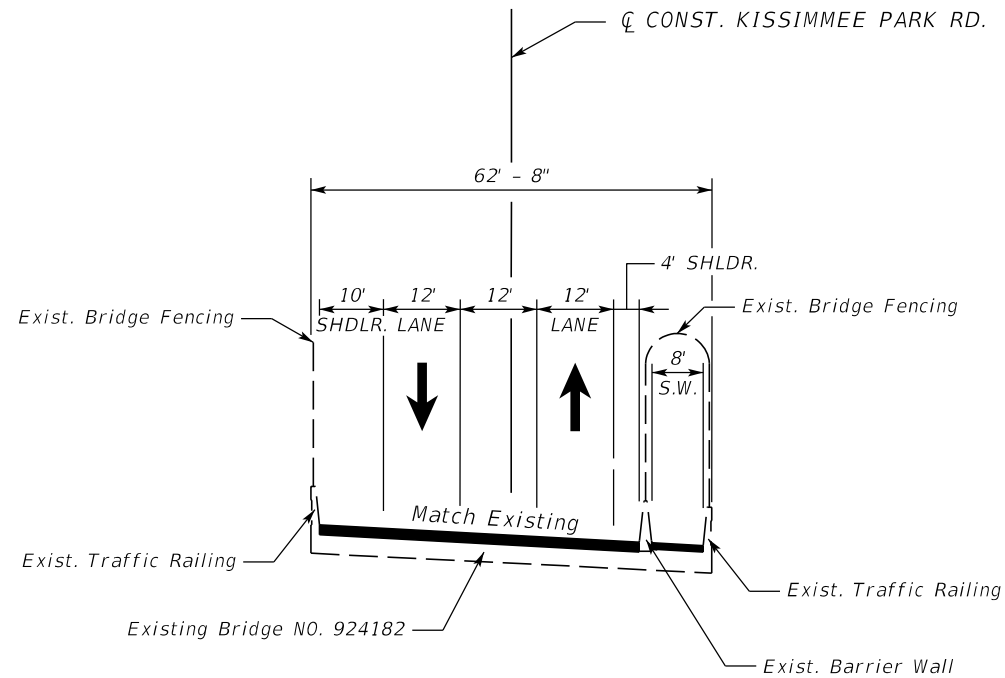
- () 1 - FREEWAY
- () 2 - RESTRICTIVE w/Service Roads
- () 3 - RESTRICTIVE w/660 ft. Connection Spacing
- () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing
- () 5 - RESTRICTIVE w/440 ft. Connection Spacing
- (X) 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing
- () 7 - BOTH MEDIAN TYPES

CRITERIA

() NEW CONSTRUCTION / RECONSTRUCTION
() RESURFACING (LA FACILITIES)
(X) RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS
RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 14

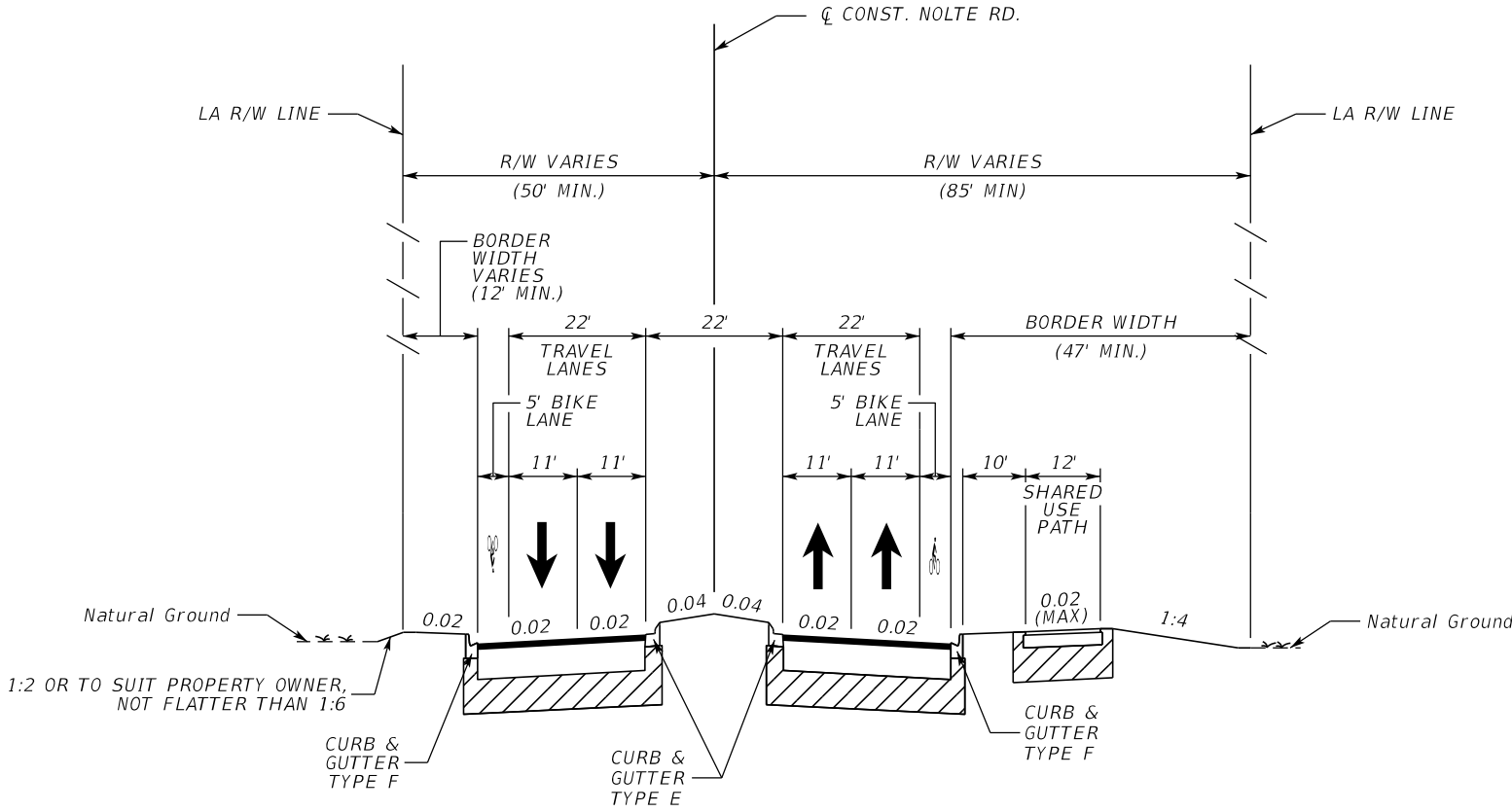


TYPICAL SECTION NO. 14
KISSIMMEE PARK ROAD BRIDGE
OVER TURNPIKE (SR 91) MAINLINE

TRAFFIC DATA

CURRENT YEAR = (2020) AADT = 4,000 & DDHV = 10
ESTIMATED OPENING YEAR = (2025) AADT = 8,000 & DDHV = 21
ESTIMATED DESIGN YEAR = (2045) AADT = 9,400 & DDHV = 25
K = 9.0% D = 58.8% T = 8.2% (24 HOUR)
DESIGN HOUR T = 5.0%
DESIGN SPEED = 45 MPH

<i>FINANCIAL PROJECT ID</i>	<i>SHEET NO.</i>
<i>441224-1-32-01</i>	<i>15</i>

PROJECT CONTROLS		TYPICAL SECTION No. 15					
CONTEXT CLASSIFICATION		 TYPICAL SECTION NO. 15 NOLTE ROAD WEST OF TURNPIKE (SR 91)					
FUNCTIONAL CLASSIFICATION							
HIGHWAY SYSTEM							
ACCESS CLASSIFICATION							
CRITERIA							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:							
		TRAFFIC DATA CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 12,000 & DDHV = 12 ESTIMATED DESIGN YEAR = (2045) AADT = 26,700 & DDHV = 27 K = 9.0% D = 59.2% T = 3.1% (24 HOUR) DESIGN HOUR T = 2.0% DESIGN SPEED = 35 MPH					
		<table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>16</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	16
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	16						

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PROJECT CONTROLS		TYPICAL SECTION No. 16	
CONTEXT CLASSIFICATION			
FUNCTIONAL CLASSIFICATION			
HIGHWAY SYSTEM			
ACCESS CLASSIFICATION			
CRITERIA		TYPICAL SECTION NO. 16 NOLTE ROAD BRIDGE NO. (T.B.D.) OVER TURNPIKE (SR 91) MAINLINE	
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		TRAFFIC DATA	
		CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 16,200 & DDHV = 18 ESTIMATED DESIGN YEAR = (2045) AADT = 24,700 & DDHV = 27 K = 9.0% D = 61.3% T = 3.1% (24 HOUR) DESIGN HOUR T = 2.0% DESIGN SPEED = 35 MPH	
		FINANCIAL PROJECT ID 441224-1-32-01	
		SHEET NO. 17	

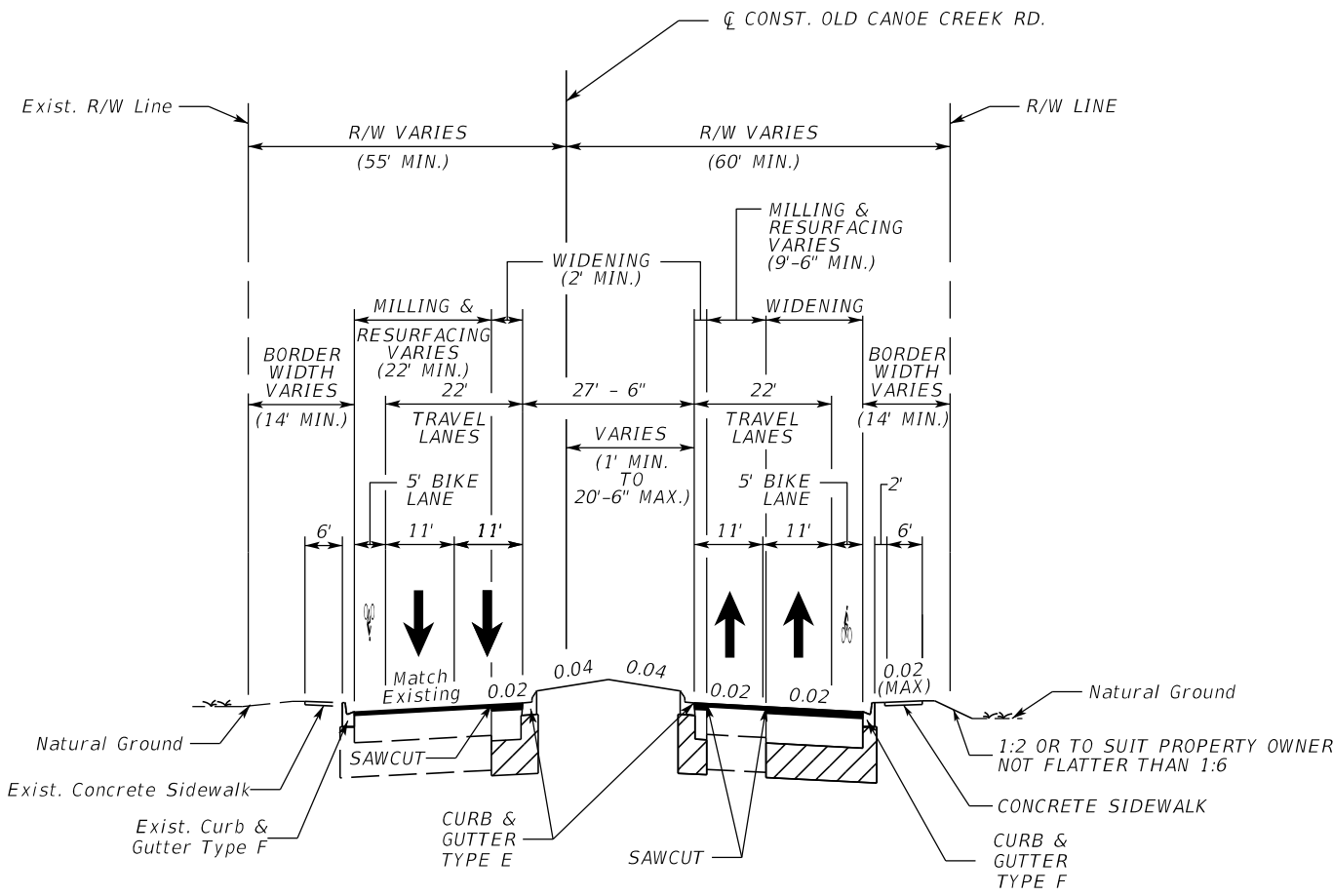
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 17					
CONTEXT CLASSIFICATION							
FUNCTIONAL CLASSIFICATION							
HIGHWAY SYSTEM							
ACCESS CLASSIFICATION							
CRITERIA							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		TRAFFIC DATA					
		CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 16,200 & DDHV = 18 ESTIMATED DESIGN YEAR = (2045) AADT = 24,700 & DDHV = 27 K = 9.0% D = 61.3% T = 3.1% (24 HOUR) DESIGN HOUR T = 2.0% DESIGN SPEED = 35 MPH					
		<table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>18</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	18
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	18						

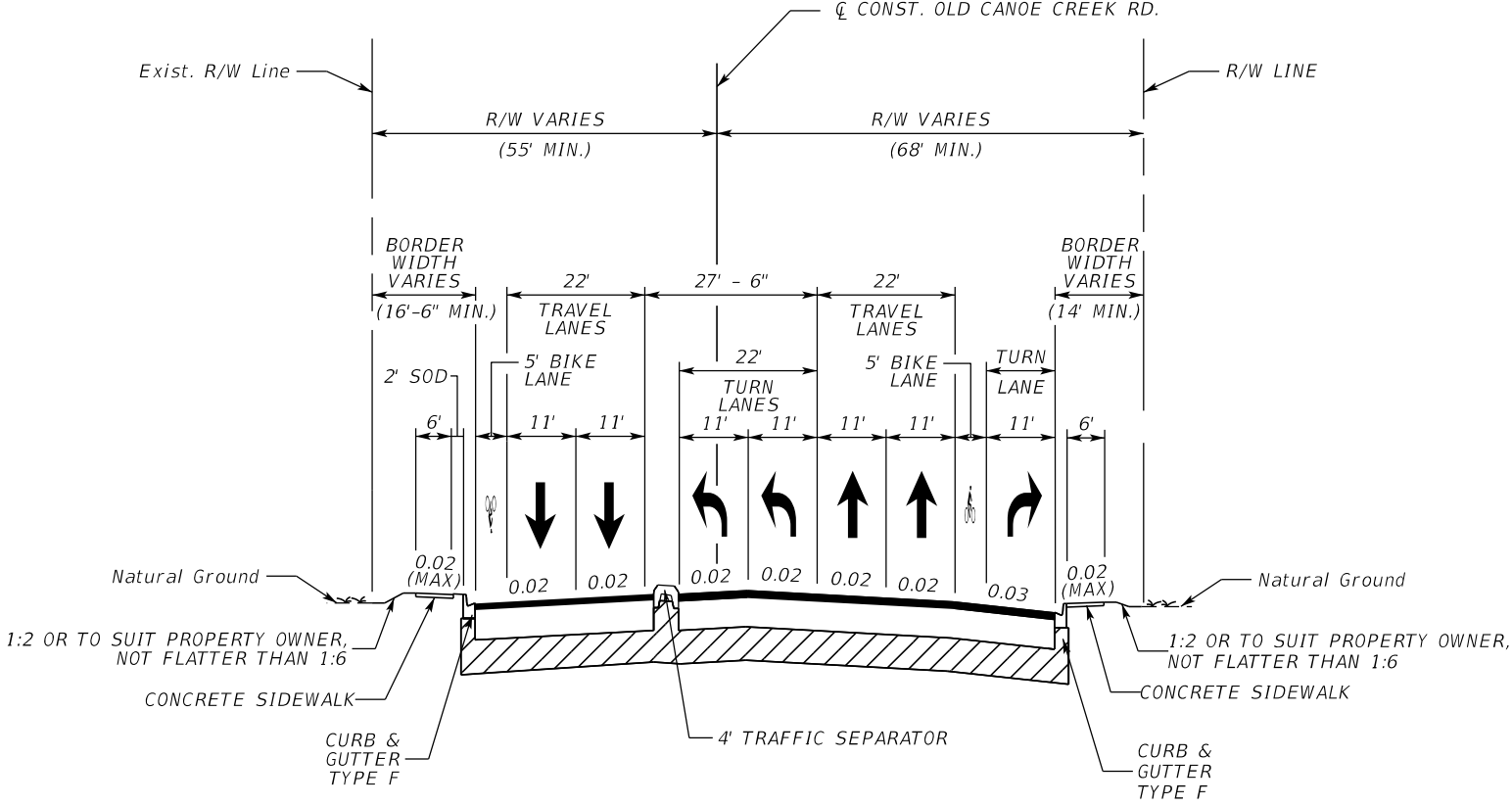
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 18					
CONTEXT CLASSIFICATION							
FUNCTIONAL CLASSIFICATION							
HIGHWAY SYSTEM							
ACCESS CLASSIFICATION							
CRITERIA							
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		TRAFFIC DATA					
		CURRENT YEAR = (2020) AADT = N/A & DDHV = N/A ESTIMATED OPENING YEAR = (2025) AADT = 16,200 & DDHV = 18 ESTIMATED DESIGN YEAR = (2045) AADT = 24,700 & DDHV = 27 K = 9.0% D = 61.3% T = 3.1% (24 HOUR) DESIGN HOUR T = 2.0% DESIGN SPEED = 35 MPH					
		<table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>441224-1-32-01</td><td>19</td></tr></table>		FINANCIAL PROJECT ID	SHEET NO.	441224-1-32-01	19
FINANCIAL PROJECT ID	SHEET NO.						
441224-1-32-01	19						

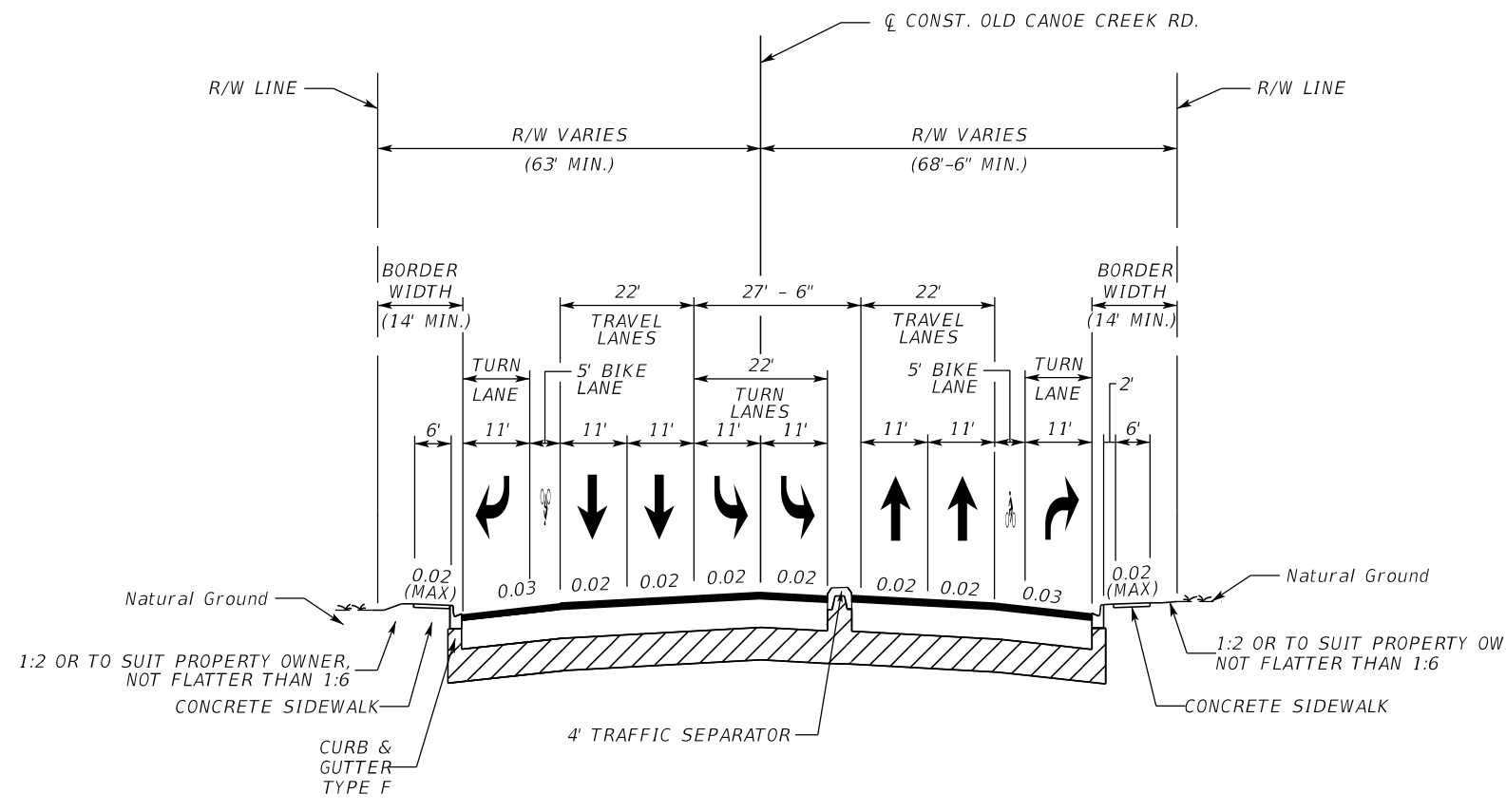
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PROJECT CONTROLS		TYPICAL SECTION No. 19	
CONTEXT CLASSIFICATION C1 : NATURAL C2 : RURAL C2T : RURAL TOWN C3R : SUBURBAN RES. N/A : L.A. FACILITY C3C : SUBURBAN COMM. X C4 : URBAN GENERAL C5 : URBAN CENTER C6 : URBAN CORE			
FUNCTIONAL CLASSIFICATION INTERSTATE FREEWAY/EXPWY. PRINCIPAL ARTERIAL X MINOR ARTERIAL MAJOR COLLECTOR MINOR COLLECTOR LOCAL			
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 X 5 - RESTRICTIVE w/440 ft. Connection Spacing 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing 7 - BOTH MEDIAN TYPES		TYPICAL SECTION NO. 19 OLD CANOE CREEK ROAD	
CRITERIA X NEW CONSTRUCTION / RECONSTRUCTION RESURFACING (LA FACILITIES) RRR (ARTERIALS & COLLECTORS)			
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:			

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PROJECT CONTROLS		TYPICAL SECTION No. 20	
CONTEXT CLASSIFICATION			
FUNCTIONAL CLASSIFICATION			
HIGHWAY SYSTEM			
ACCESS CLASSIFICATION			
CRITERIA			
POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:		TYPICAL SECTION NO. 20 OLD CANOE CREEK ROAD SOUTH OF NOLTE ROAD	
		TRAFFIC DATA	
		CURRENT YEAR = (2020) AADT = 28,100 & DDHV = 72 ESTIMATED OPENING YEAR = (2025) AADT = 36,600 & DDHV = 94 ESTIMATED DESIGN YEAR = (2045) AADT = 50,400 & DDHV = 129 K = 9.0% D = 57.0% T = 5.4% (24 HOUR) DESIGN HOUR T = 3.0% DESIGN SPEED = 45 MPH	
		FINANCIAL PROJECT ID	
		SHEET NO.	
		441224-1-32-01	
		21	

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PROJECT CONTROLS	TYPICAL SECTION No. 21		
CONTEXT CLASSIFICATION () C1 : NATURAL () C2 : RURAL () C2T : RURAL TOWN () C3R : SUBURBAN RES. () N/A : L.A. FACILITY () C3C : SUBURBAN COMM. () C4 : URBAN GENERAL () C5 : URBAN CENTER () C6 : URBAN CORE	 TYPICAL SECTION NO. 21 OLD CANOE CREEK ROAD NORTH OF NOLTE ROAD		
FUNCTIONAL CLASSIFICATION () INTERSTATE () FREEWAY/EXPWY. () PRINCIPAL ARTERIAL (X) MINOR ARTERIAL () MAJOR COLLECTOR () MINOR COLLECTOR () LOCAL			
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 (X) 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:	TRAFFIC DATA CURRENT YEAR = (2020) AADT = 28,100 & DDHV = 72 ESTIMATED OPENING YEAR = (2025) AADT = 36,600 & DDHV = 94 ESTIMATED DESIGN YEAR = (2045) AADT = 50,400 & DDHV = 129 K = 9.0% D = 57.0% T = 5.4% (24 HOUR) DESIGN HOUR T = 3.0% DESIGN SPEED = 45 MPH FINANCIAL PROJECT ID 441224-1-32-01 SHEET NO. 22		



Appendix I: Cost Estimates

Date: 7/10/2019 1:50:28 PM

FDOT Long Range Estimating System - Production

R4: Project Details Composite Report By Component

Project: 441224-2-52-01

Letting Date: 04/2022

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240)

District: 08 County: 92 OSCEOLA

Project Manager: SOLDATI

Version 10

Project Grand

\$78,516,195.11

Total

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240) Dewberry ALT 3B.
(7/10/2019)THIS VERSION IS DUE TO A NEW PD&E ALTERNATIVE. 3B

EARTHWORK COMPONENT

Pay Items

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
110-1-1	CLEARING & GRUBBING	106.96 AC	\$13,152.21	\$1,406,760.39
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	8,016.49 CY	\$12.17	\$97,560.68
120-6	EMBANKMENT	1,011,577.17 CY	\$19.74	\$19,968,533.32
Earthwork Component Total				\$21,472,854.39

ROADWAY COMPONENT

Pay Items

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
160-4	TYPE B STABILIZATION	235,768.47 SY	\$6.68	\$1,574,933.39
285-709	OPTIONAL BASE,BASE GROUP 09	104,919.68 SY	\$19.57	\$2,053,278.14
285-711	OPTIONAL BASE,BASE GROUP 11	30,139.52 SY	\$35.00	\$1,054,883.20
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	21,066.50 SY	\$3.04	\$64,042.16
327-70-8	MILLING EXIST ASPH PAVT,2 1/2" AVG DEPTH	58,665.73 SY	\$3.12	\$183,037.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	7,531.27 TN	\$131.48	\$990,211.38
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	27,432.09 TN	\$119.35	\$3,274,019.95
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76- 22	8,504.88 TN	\$162.04	\$1,378,130.76
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	3,429.00 EA	\$3.91	\$13,407.39
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	26.86 GM	\$1,069.32	\$28,721.93
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	18.78 GM	\$507.46	\$9,530.10
710-11-231		2.67 GM	\$3,267.21	\$8,723.46

	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"			
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	14.31 GM	\$4,741.10	\$67,845.14
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	14.31 GM	\$1,447.34	\$20,711.43
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	22.39 GM	\$4,620.86	\$103,461.05
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	8.08 GM	\$3,902.07	\$31,528.73
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	2.67 GM	\$1,111.66	\$2,968.14
Roadway Component Total				\$10,859,433.43

SHOULDER COMPONENT
Pay Items

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
104-10-3	SEDIMENT BARRIER	102,563.43 LF	\$2.10	\$215,383.21
104-11	FLOATING TURBIDITY BARRIER	1,509.50 LF	\$10.23	\$15,442.18
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	1,509.50 LF	\$13.00	\$19,623.50
104-15	SOIL TRACKING PREVENTION DEVICE	16.00 EA	\$3,496.44	\$55,943.04
104-18	INLET PROTECTION SYSTEM	106.00 EA	\$116.46	\$12,344.76
107-1	LITTER REMOVAL	77.85 AC	\$30.46	\$2,371.29
107-2	MOWING	77.85 AC	\$70.31	\$5,473.65
285-704	OPTIONAL BASE,BASE GROUP 04	60,201.12 SY	\$21.00	\$1,264,223.52
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	24,444.05 SY	\$6.95	\$169,886.15
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	4,033.27 TN	\$110.69	\$446,442.66
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,134.39 TN	\$131.48	\$412,109.59
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76- 22	189.90 TN	\$162.04	\$30,771.40
520-1-10	CONCRETE CURB & GUTTER, TYPE F	21,699.76 LF	\$24.12	\$523,398.20
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	4.17 GM	\$1,826.24	\$7,615.42
570-1-1	PERFORMANCE TURF	6,437.60 SY	\$1.69	\$10,879.55
570-1-2	PERFORMANCE TURF, SOD	9,498.15 SY	\$4.04	\$38,372.53
Shoulder Component Total				\$3,230,280.65

MEDIAN COMPONENT
Pay Items

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
285-704	OPTIONAL BASE,BASE GROUP 04	30,139.52 SY	\$21.00	\$632,929.92
327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	9,777.62 SY	\$6.95	\$67,954.46
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	3,226.62 TN	\$110.69	\$357,154.57

337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	64.53 TN	\$162.04	\$10,456.44
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	9,400.00 LF	\$376.28	\$3,537,032.00
Median Component Total				\$4,605,527.39

DRAINAGE COMPONENT**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
400-2-2	CONC CLASS II, ENDWALLS	120.40 CY	\$1,472.56	\$177,296.22
425-1-351	INLETS, CURB, TYPE P-5, <10'	75.00 EA	\$4,931.70	\$369,877.50
425-1-451	INLETS, CURB, TYPE J-5, <10'	21.00 EA	\$7,131.60	\$149,763.60
425-1-521	INLETS, DT BOT, TYPE C, <10'	11.00 EA	\$3,390.14	\$37,291.54
425-2-41	MANHOLES, P-7, <10'	11.00 EA	\$4,859.80	\$53,457.80
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	4,944.00 LF	\$94.93	\$469,333.92
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	4,200.00 LF	\$102.06	\$428,652.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	992.00 LF	\$153.19	\$151,964.48
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	10,288.00 LF	\$190.29	\$1,957,703.52
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	249.00 EA	\$1,830.61	\$455,821.89
570-1-1	PERFORMANCE TURF	4,940.75 SY	\$1.69	\$8,349.86
Drainage Component Total				\$4,259,512.33

SIGNING COMPONENT**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	29.00 AS	\$359.90	\$10,437.10
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	138.00 AS	\$1,488.36	\$205,393.68
700-1-50	SINGLE POST SIGN, RELOCATE	5.00 AS	\$172.26	\$861.30
700-1-60	SINGLE POST SIGN, REMOVE	50.00 AS	\$37.03	\$1,851.50
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	17.00 AS	\$4,457.55	\$75,778.35
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00 AS	\$6,828.90	\$13,657.80
700-2-60	MULTI- POST SIGN, REMOVE	5.00 AS	\$964.46	\$4,822.30
Signing Component Total				\$312,802.03

LIGHTING COMPONENT**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	42,400.00 LF	\$7.71	\$326,904.00
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24"	212.00 EA	\$692.67	\$146,846.04
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	127,200.00 LF	\$3.38	\$429,936.00

715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	212.00 EA	\$6,359.23	\$1,348,156.76
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	212.00 EA	\$547.99	\$116,173.88

Lighting Component Total

\$2,368,016.68

SIGNALIZATIONS COMPONENT**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,800.00 LF	\$7.71	\$29,298.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,200.00 LF	\$20.94	\$25,128.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	5.00 PI	\$7,743.95	\$38,719.75
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24"	76.00 EA	\$692.67	\$52,642.92
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	5.00 AS	\$2,647.76	\$13,238.80
639-2-1	ELECTRICAL SERVICE WIRE, F&I	300.00 LF	\$5.15	\$1,545.00
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	4.00 EA	\$42,421.17	\$169,684.68
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	16.00 EA	\$46,579.27	\$745,268.32
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	56.00 AS	\$1,053.28	\$58,983.68
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	40.00 AS	\$574.47	\$22,978.80
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	56.00 EA	\$399.17	\$22,353.52
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	56.00 AS	\$1,104.74	\$61,865.44
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	40.00 EA	\$263.18	\$10,527.20
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	5.00 AS	\$23,778.26	\$118,891.30
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	20.00 EA	\$524.57	\$10,491.40
Signalizations Component Total				\$1,381,616.81

BRIDGES COMPONENT**Bridge Type:** High Level**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	12,120.00 SF	\$31.25	\$378,750.00
415-1-9	REINF STEEL- APPROACH SLABS	56,388.50 LB	\$0.96	\$54,132.96
400-2-10	CONC CLASS II, APPROACH SLABS	322.22 CY	\$393.91	\$126,925.68

Bridge No. 12.1 Type=HLB**Length=325 FT****Width=145 FT**

Bridge Basic Cost based on Factored Cost \$148.50 SF

\$6,998,062.50

Bridge Final Cost Per SF \$152.34

Bridges Component Total

\$7,557,871.14

RETAINING WALLS COMPONENT**Pay Items**

Pay Item	Description	Total Unit Quantity	Weighted Avg. Unit Price	Total Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,670.00 SF	\$40.46	\$269,868.20
Retaining Walls Component Total				\$269,868.20

Date: 7/10/2019 1:50:28 PM

FDOT Long Range Estimating System - Production

R4: Project Details Composite Report By Component

Project: 441224-2-52-01

Letting Date: 04/2022

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240)

District: 08 County: 92 OSCEOLA

Project Manager: SOLDATI

Version 10**Project Grand
Total****\$78,516,195.11**

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240) Dewberry ALT 3B.
(7/10/2019)THIS VERSION IS DUE TO A NEW PD&E ALTERNATIVE. 3B

Project Sequences Subtotal**\$56,317,783.05**

102-1	MAINTENANCE OF TRAFFIC	10.00	\$5,631,778.30
101-1	MOBILIZATION	10.00	\$6,194,956.14

Project Sequences Total**\$68,144,517.49****Project Unknowns**

15.00%

\$10,221,677.62

Design/Build

0.00%

\$0.00

Non-Bid Components:**Pay item Description****Quantity Unit****Unit Price****Extended Amount**

999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	1.00 LS	\$150,000.00	\$150,000.00
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Project Non-Bid Subtotal

\$150,000.00

Version 10 Project Grand Total**\$78,516,195.11**

Date: 9/5/2019 1:00:25 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-3-52-01

Letting Date: 09/2024

Description: WIDEN TPK - KISSIMMEE PARK RD TO US 192 (MP 238.5-242.5) (4TO8)

District: 08 County: 92 OSCEOLA

Market Area: 08 Units: English

Contract Class: 7 Lump Sum Project: N

Design/Build: N Project Length: 4.000 MI

Project Manager: SOLDATI

Version 2-P Project Grand Total**\$52,111,048.45**

Description: WIDEN TPK FROM KISSIMMEE PARK RD TO NEPTUNE RD (MP 238.5-242)(4TO8LNS:
INCLUDE WIDENING/EXPRESS LANES SEGMENT FROM MP 242.25 TO 239.75, MP239.75
TO 239.50 IS UNDER -2 PROJECT, M&R EXISTING LANES FROM MP 239.50 TO 238.5. (7-23-
2019)THIS VERSION IS DUE TO 6-MONTH-OLD MANDATORY UPDATE. NO SCOPE
CHANGES WERE INDICATED BY THE PM.

Sequence: 1 WDR - Widen/Resurface, Divided, Rural**Net Length:** 2.500 MI
13,200 LF

Description: MP 242.25 TO 239.75 CONCEPT ASSUMPTIONS WIDENING 4 TO 8 LANES/EXPRESS
LANES 4 FT BUFFER INCLUDED

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	159.00 / 159.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.500
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	96.36 AC	\$13,289.59	\$1,280,584.89
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	20,494.22 CY	\$12.17	\$249,414.66
Earthwork Component Total				\$1,529,999.55

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	8
Existing Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	20.00 / 20.00
Widened Inside Pavement Width L/R	8.00 / 8.00
Widened Structural Spread Rate	770
Widened Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	152,533.33 SY	\$4.39	\$669,621.32
285-711	OPTIONAL BASE,BASE GROUP 11	84,069.33 SY	\$17.00	\$1,429,178.61
327-70-17	MILLING EXIST ASPH PAVT,3 1/4" AVG DEPTH	70,400.00 SY	\$3.98	\$280,192.00
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	9,680.00 TN	\$104.49	\$1,011,463.20
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	31,621.33 TN	\$104.49	\$3,304,112.77
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,816.00 TN	\$144.88	\$407,982.08
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	3,285.33 TN	\$144.88	\$475,978.61

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
536-73	GUARDRAIL REMOVAL	13,200.00 LF	\$3.13	\$41,316.00

EX-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
705-11-5	DELINEATOR, FLEXIBLE HIGH PERFORMANCE 36" MANAGED LANES- EXPRESS LANE MARKER	5,280.00 EA	\$48.80	\$257,664.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	2,362.00 EA	\$4.32	\$10,203.84
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	10.00 GM	\$996.03	\$9,960.30
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	15.00 GM	\$418.48	\$6,277.20

711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	10.00 GM	\$4,602.90	\$46,029.00
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	15.00 GM	\$1,478.34	\$22,175.10
711-15-201	THERMOPLASTIC, STD- OP, YELLOW, SOLID, 6"	10.00 GM	\$4,527.65	\$45,276.50

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	8,000.00
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	176,000.00 SF	\$30.00	\$5,280,000.00

Roadway Component Total

\$13,297,430.53

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	36,168.00 SY	\$13.93	\$503,820.24
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	4,840.00 TN	\$87.73	\$424,613.20
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.44 TN	\$144.88	\$11,219.51
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	5.00 GM	\$2,199.66	\$10,998.30

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	30,360.00 LF	\$1.12	\$34,003.20
104-11	FLOATING TURBIDITY BARRIER	250.00 LF	\$9.64	\$2,410.00
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	250.00 LF	\$5.47	\$1,367.50

104-15	SOIL TRACKING PREVENTION DEVICE	3.00 EA	\$2,855.86	\$8,567.58
107-1	LITTER REMOVAL	18.17 AC	\$30.46	\$553.46
107-2	MOWING	18.17 AC	\$58.54	\$1,063.67
Shoulder Component Total				\$998,616.66

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	26.00
Performance Turf Width	5.34
New Total Median Shoulder Width L/R	12.00 / 12.00
New Paved Median Shoulder Width L/R	12.00 / 12.00
Existing Total Median Shoulder Width L/R	0.00 / 0.00
Existing Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	36,168.00 SY	\$13.93	\$503,820.24
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	4,840.00 TN	\$87.73	\$424,613.20
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	77.44 TN	\$144.88	\$11,219.51
521-1-12	MEDIAN CONC BARRIER, SHORT GRADE SEP	13,200.00 LF	\$211.31	\$2,789,292.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	5.00 GM	\$2,199.66	\$10,998.30
570-1-1	PERFORMANCE TURF	7,832.00 SY	\$1.69	\$13,236.08
Median Component Total				\$3,753,179.33

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	45.00 CY	\$1,472.56	\$66,265.20
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	2,000.00 LF	\$97.93	\$195,860.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	200.00 LF	\$135.42	\$27,084.00
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	100.00 EA	\$1,598.11	\$159,811.00
570-1-1	PERFORMANCE TURF	1,760.00 SY	\$1.69	\$2,974.40

Retention Basin 1

Description	Value
Size	2.5 AC
Multiplier	1

Depth 6.00
Description POND #1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50 AC	\$13,289.59	\$33,223.98
120-1	REGULAR EXCAVATION	24,200.00 CY	\$13.19	\$319,198.00
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,472.56	\$26,506.08
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00 EA	\$5,399.27	\$5,399.27
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$6,362.59	\$6,362.59
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$156.66	\$8,772.96
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$313.39	\$62,678.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00 LF	\$9.54	\$12,735.90
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$2,107.53	\$2,107.53
570-1-1	PERFORMANCE TURF	12,100.00 SY	\$1.69	\$20,449.00
Drainage Component Total				\$949,427.91

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	\$341.10	\$1,705.50
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	60.00 AS	\$1,210.34	\$72,620.40
700-1-50	SINGLE POST SIGN, RELOCATE	5.00 AS	\$160.81	\$804.05
700-1-60	SINGLE POST SIGN, REMOVE	60.00 AS	\$32.34	\$1,940.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	\$4,303.12	\$21,515.60
700-2-60	MULTI- POST SIGN, REMOVE	5.00 AS	\$596.51	\$2,982.55

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	10.00 AS	\$4,303.12	\$43,031.20
700-3-206	SIGN PANEL, F&I OM, 101-200 SF	8.00 EA	\$5,251.42	\$42,011.36
700-4-112	OH STATIC SIGN STR, F&I, C 21-30 FT	8.00 EA	\$60,019.76	\$480,158.08
700-4-127	OH STATIC SIGN STR, F&I, S 151-200 FT	2.00 EA	\$229,688.01	\$459,376.02
700-7-132	EMBED DYNAMIC MESS SIGN, F&I, FULL,12-20	1.00 EA	\$33,308.42	\$33,308.42
700-10-115	DMS SUPPORT STRUCTURE, SPAN, 51-100 FT	1.00 EA	\$133,292.17	\$133,292.17
Signing Component Total				\$1,292,745.75

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work**EX-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
666666	ITS PROJECT BUDGET	1.00	LS	\$3,500,000.00	\$3,500,000.00
Intelligent Traffic System (ITS) Component Total					\$3,500,000.00

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description				Value	
Multiplier (Number of Poles)				211	
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	42,200.00	LF	\$7.71	\$325,362.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	211.00	EA	\$682.85	\$144,081.35
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	126,600.00	LF	\$2.20	\$278,520.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	211.00	EA	\$6,544.58	\$1,380,906.38
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	211.00	EA	\$542.12	\$114,387.32
Subcomponent Total					\$2,243,257.05
Lighting Component Total					\$2,243,257.05

BRIDGES COMPONENT**Bridge NBCANL**

Description	Value
Estimate Type	Detailed Estimate
Primary Estimate	YES
Structure No.	920140
Geographic District	05
Segment Count	1
Bridge Length (LF)	253.00
Average Bridge Width (LF)	84.00
Average Skew Angle	15.00
Construction Type	New/Replacement
Typical Section	Rural Undivided
Sidewalk Width Left	0.00
Sidewalk Width Right	0.00
Concrete Traffic Railing	Left/Right
Pedestrian/Bicycle Railing	
Total Design Load Demand Weight	14,881
Final Bridge Cost	\$3,322,754.08
Calculated Final Cost per SF	\$156.35
Description	NB CANAL BRIDGE REPLACEMENT AT MP 241.7

Bridge Deck and Approach Slab Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING	11,385.00	SF	\$30.00	\$341,550.00

	STRUCTURES/BRIDGES			
400-2-10	CONC CLASS II, APPROACH SLABS	196.03 CY	\$393.91	\$77,218.18
400-9	BRIDGE DECK GROOV & PLANING, DECK 8.5" GR	2,398.67 SY	\$10.63	\$25,497.86
415-1-9	REINF STEEL- APPROACH SLABS	37,394.18 LB	\$1.00	\$37,394.18
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	313.00 LF	\$177.40	\$55,526.20
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	313.00 LF	\$177.40	\$55,526.20

BRIDGE SEGMENTS**Segment 1**

Segment Position	First/Last
Segment Over	Water
Segment Length (LF)	253
Segment Width (LF)	84
Average Clearance (LF)	25
End Bent Fill Height (LF)	18
Average Pile Length (LF)	100
No. of Intermediate Supports	4
Superstructure / Beam Type	I-Beam
Substructure / Pier Type	Multi Columns
Foundation Type	Pre-stressed Sq. Piles 18"
Design Load Demand Weight	14,881
Total Segment Cost	\$3,071,591.46

Segment 1 Superstructure, Substructure and Foundation Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-4	CONC CLASS II, BRIDGE SUPERSTRUCTURE	649.92 CY	\$655.61	\$426,094.05
400-4-5	CONC CLASS IV, SUBSTRUCTURE	320.89 CY	\$1,028.05	\$329,890.96
400-4-5	CONC CLASS IV, SUBSTRUCTURE	606.90 CY	\$1,028.05	\$623,923.55
400-147	COMPOSITE NEOPRENE PADS	21.18 CF	\$1,034.42	\$21,909.02
415-1-4	REINF STEEL- SUPERSTRUCTURE	149,481.60 LB	\$1.01	\$150,976.42
415-1-5	REINF STEEL- SUBSTRUCTURE	43,320.15 LB	\$0.98	\$42,453.75
415-1-5	REINF STEEL- SUBSTRUCTURE	130,483.50 LB	\$0.98	\$127,873.83
450-2-36	PREST BEAMS: FLORIDA-I BEAM 36"	1,518.00 LF	\$264.49	\$401,495.82
455-34-3	PRESTRESSED CONCRETE PILING, 18" SQ	7,311.60 LF	\$102.25	\$747,611.10
455-143-3	TEST PILES-PREST CONCRETE, 18" SQ	812.40 LF	\$245.40	\$199,362.96
Bridge NBCANL Total				\$3,664,304.08

Bridge SBCANA

Description	Value
Estimate Type	Detailed Estimate
Primary Estimate	YES

Structure No.	920074
Geographic District	05
Segment Count	1
Bridge Length (LF)	253.00
Average Bridge Width (LF)	84.00
Average Skew Angle	15.00
Construction Type	New/Replacement
Typical Section	Rural Undivided
Sidewalk Width Left	0.00
Sidewalk Width Right	0.00
Concrete Traffic Railing	Left/Right
Pedestrian/Bicycle Railing	
Total Design Load Demand Weight	14,881
Final Bridge Cost	\$3,322,754.08
Calculated Final Cost per SF	\$156.35
Description	SB BRIDGE REPLACEMENT OVER CANAL AT MP 241.7

Bridge Deck and Approach Slab Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	11,385.00 SF	\$30.00	\$341,550.00
400-2-10	CONC CLASS II, APPROACH SLABS	196.03 CY	\$393.91	\$77,218.18
400-9	BRIDGE DECK GROOV & PLANING, DECK 8.5" GR	2,398.67 SY	\$10.63	\$25,497.86
415-1-9	REINF STEEL- APPROACH SLABS	37,394.18 LB	\$1.00	\$37,394.18
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	313.00 LF	\$177.40	\$55,526.20
521-5-4	CONC TRAF RAIL- BRG, 32" VERT FACE	313.00 LF	\$177.40	\$55,526.20

BRIDGE SEGMENTS**Segment 1**

Segment Position	First/Last
Segment Over	Water
Segment Length (LF)	253
Segment Width (LF)	84
Average Clearance (LF)	25
End Bent Fill Height (LF)	18
Average Pile Length (LF)	100
No. of Intermediate Supports	4
Superstructure / Beam Type	I-Beam
Substructure / Pier Type	Multi Columns
Foundation Type	Pre-stressed Sq. Piles 18"
Design Load Demand Weight	14,881
Total Segment Cost	\$3,071,591.46

Segment 1 Superstructure, Substructure and Foundation Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-4	CONC CLASS II, BRIDGE SUPERSTRUCTURE	649.92 CY	\$655.61	\$426,094.05
400-4-5	CONC CLASS IV, SUBSTRUCTURE	320.89 CY	\$1,028.05	\$329,890.96
400-4-5	CONC CLASS IV,	606.90 CY	\$1,028.05	\$623,923.55

	SUBSTRUCTURE			
400-147	COMPOSITE NEOPRENE PADS	21.18 CF	\$1,034.42	\$21,909.02
415-1-4	REINF STEEL- SUPERSTRUCTURE	149,481.60 LB	\$1.01	\$150,976.42
415-1-5	REINF STEEL- SUBSTRUCTURE	43,320.15 LB	\$0.98	\$42,453.75
415-1-5	REINF STEEL- SUBSTRUCTURE	130,483.50 LB	\$0.98	\$127,873.83
450-2-36	PREST BEAMS: FLORIDA-I BEAM 36"	1,518.00 LF	\$264.49	\$401,495.82
455-34-3	PRESTRESSED CONCRETE PILING, 18" SQ	7,311.60 LF	\$102.25	\$747,611.10
455-143-3	TEST PILES-PREST CONCRETE,18" SQ	812.40 LF	\$245.40	\$199,362.96
Bridge SBCANA Total				\$3,664,304.08
Bridges Component Total				\$7,328,608.16

ARCHITECTURAL COMPONENT

X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
735-74-1	TOLL PLAZA, LOCATION 1 Comment: CANTILEVER DATA GANTRY 35'/NB EXPRESS LANE	1.00 LS	\$1,266,088.58	\$1,266,088.58
Architectural Component Total				\$1,266,088.58

Sequence 1 Total \$36,159,353.52

Sequence: 2 RSD - Resurfacing, Divided**Net Length:** 1.000 MI
5,280 LF**Description:** M&R TPK MAINLINE SECTION MP 239.5 TO 238.5**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-17	MILLING EXIST ASPH PAVT,3 1/4" AVG DEPTH	28,160.00 SY	\$3.98	\$112,076.80
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	3,872.00 TN	\$104.49	\$404,585.28
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,126.40 TN	\$144.88	\$163,192.83

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	405.00 EA	\$4.32	\$1,749.60
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.00 GM	\$996.03	\$3,984.12
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.00 GM	\$418.48	\$836.96
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	4.00 GM	\$4,602.90	\$18,411.60
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	2.00 GM	\$1,478.34	\$2,956.68
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	4.00 GM	\$4,527.65	\$18,110.60

Roadway Component Total

\$725,904.47

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	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2" No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-8	MILLING EXIST ASPH PAVT, 2 1/2" AVG DEPTH	14,080.00 SY	\$3.13	\$44,070.40
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,936.00 TN	\$87.73	\$169,845.28
337-7-25	ASPH CONC FC, INC BIT, FC-5, PG76-22	30.98 TN	\$144.88	\$4,488.38
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	2.00 GM	\$2,199.66	\$4,399.32

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-11	FLOATING TURBIDITY BARRIER	100.00 LF	\$9.64	\$964.00
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	100.00 LF	\$5.47	\$547.00
107-1	LITTER REMOVAL	7.27 AC	\$30.46	\$221.44
107-2	MOWING	7.27 AC	\$58.54	\$425.59

Shoulder Component Total

\$224,961.41

MEDIAN COMPONENT**User Input Data**

Description	Value
Total Median Width	40.00
Performance Turf Width	4.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2" No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-8	MILLING EXIST ASPH PAVT, 2 1/2" AVG DEPTH	14,080.00 SY	\$3.13	\$44,070.40
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,936.00 TN	\$87.73	\$169,845.28
337-7-25	ASPH CONC FC, INC BIT, FC-5, PG76-22	30.98 TN	\$144.88	\$4,488.38
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	2.00 GM	\$2,199.66	\$4,399.32
570-1-2	PERFORMANCE TURF, SOD	2,346.67 SY	\$3.72	\$8,729.61

Median Component Total

\$231,532.99

Sequence 2 Total**\$1,182,398.87**

Date: 9/5/2019 1:00:26 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-3-52-01

Letting Date: 09/2024

Description: WIDEN TPK - KISSIMMEE PARK RD TO US 192 (MP 238.5-242.5) (4TO8)

District: 08 County: 92 OSCEOLA

Market Area: 08 Units: English

Contract Class: 7 Lump Sum Project: N

Design/Build: N Project Length: 4.000 MI

Project Manager: SOLDATI

Version 2-P Project Grand Total**\$52,111,048.45**

Description: WIDEN TPK FROM KISSIMMEE PARK RD TO NEPTUNE RD (MP 238.5-242)(4TO8LNS:
INCLUDE WIDENING/EXPRESS LANES SEGMENT FROM MP 242.25 TO 239.75, MP239.75
TO 239.50 IS UNDER -2 PROJECT, M&R EXISTING LANES FROM MP 239.50 TO 238.5. (7-23-
2019)THIS VERSION IS DUE TO 6-MONTH-OLD MANDATORY UPDATE. NO SCOPE
CHANGES WERE INDICATED BY THE PM.

Project Sequences Subtotal**\$37,341,752.39**

102-1	Maintenance of Traffic	10.00 %	\$3,734,175.24
101-1	Mobilization	10.00 %	\$4,107,592.76

Project Sequences Total**\$45,183,520.39**

Project Unknowns	15.00 %	\$6,777,528.06
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal**\$150,000.00****Version 2-P Project Grand Total****\$52,111,048.45**

Date: 2/21/2020 10:56:25 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-2-52-01

Letting Date: 04/2022

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240)

District: 08 County: 92 OSCEOLA

Market Area: 08 Units: English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y Project Length: 3.500 MI

Project Manager: AMBARE

Version 14 Project Grand Total

\$84,287,130.43

Description: NOLTE ROAD INTERCHANGE. Includes markups 2-20-20

Sequence: 1 NDR - New Construction, Divided, Rural

Net Length: 2.083 MI
11,000 LF

Description: RECONSTRUCTION OF MAINLINE FROM 4 TO 8 LANES 11,000 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.080
Top of Structural Course For Begin Section	101.00
Top of Structural Course For End Section	101.00
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	50.50 AC	\$26,201.27	\$1,323,164.14
Earthwork Component Total				\$1,323,164.14

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	8
Roadway Pavement Width L/R	48.00 / 48.00
Structural Spread Rate	770
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	175,997.18 SY	\$10.71	\$1,884,929.80
285-710	OPTIONAL BASE,BASE GROUP 10	118,944.76 SY	\$41.47	\$4,932,639.20
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	45,172.61 TN	\$117.93	\$5,327,205.90
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	4,693.26 TN	\$159.76	\$749,795.22

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	8
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	1,969.00 EA	\$5.03	\$9,904.07
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	16.67 GM	\$1,021.92	\$17,035.41
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	12.50 GM	\$562.72	\$7,034.00
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	16.67 GM	\$4,821.72	\$80,378.07
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	12.50 GM	\$1,780.98	\$22,262.25
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	16.67 GM	\$4,851.66	\$80,877.17

Roadway Component Total

\$13,112,061.09

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	165
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	30,139.52 SY	\$15.56	\$468,970.93
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	2,419.96 TN	\$111.34	\$269,438.35

337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	64.53 TN	\$159.76	\$10,309.31
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	4.17 GM	\$1,455.86	\$6,070.94

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	28,599.54 LF	\$1.80	\$51,479.17
104-11	FLOATING TURBIDITY BARRIER	520.82 LF	\$11.34	\$5,906.10
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	520.82 LF	\$6.00	\$3,124.92
104-15	SOIL TRACKING PREVENTION DEVICE	3.00 EA	\$3,496.44	\$10,489.32
104-18	INLET PROTECTION SYSTEM	13.00 EA	\$95.13	\$1,236.69
107-1	LITTER REMOVAL	50.50 AC	\$28.94	\$1,461.47
107-2	MOWING	50.50 AC	\$54.76	\$2,765.38
Shoulder Component Total				\$831,252.58

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 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	30,139.52 SY	\$15.56	\$468,970.93
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,613.31 TN	\$111.34	\$179,625.94
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	64.53 TN	\$159.76	\$10,309.31
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	11,000.00 LF	\$440.63	\$4,846,930.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	4.00 GM	\$1,455.86	\$5,823.44
Median Component Total				\$5,511,659.62

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	37.50 CY	\$1,472.56	\$55,221.00

425-1-551	INLETS, DT BOT, TYPE E, <10'	13.00 EA	\$4,172.50	\$54,242.50
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	1,672.00 LF	\$119.03	\$199,018.16
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	720.00 LF	\$96.92	\$69,782.40
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	616.00 LF	\$153.19	\$94,365.04
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	84.00 EA	\$2,060.86	\$173,112.24
524-1-1	CONCRETE DITCH PAVT, NR, 3"	4,166.60 SY	\$82.34	\$343,077.84
570-1-1	PERFORMANCE TURF	1,466.64 SY	\$1.65	\$2,419.96

Box Culvert 1

Description	Value
Size	12 x 10
Length	120.00
Multiplier	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	251.20 CY	\$1,446.66	\$363,400.99
415-1-1	REINF STEEL- ROADWAY	25,962.00 LB	\$1.15	\$29,856.30

Retention Basin 1

Description	Value
Size	5 AC
Multiplier	1
Depth	16.00
Description	Retention Basin

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	5.00 AC	\$26,201.27	\$131,006.35
120-1	REGULAR EXCAVATION	129,066.67 CY	\$20.37	\$2,629,088.07
400-2-2	CONC CLASS II, ENDWALLS	30.00 CY	\$1,472.56	\$44,176.80
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$4,362.57	\$4,362.57
425-2-71	MANHOLES, J-7, <10'	2.00 EA	\$7,403.61	\$14,807.22
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$192.40	\$10,774.40
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00 LF	\$359.13	\$143,652.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,860.00 LF	\$17.43	\$32,419.80
550-60-234	FENCE GATE, TYP B, SLIDE/CANT, 18.1-20' OPEN	2.00 EA	\$2,179.86	\$4,359.72
570-1-1	PERFORMANCE TURF	24,200.00 SY	\$1.65	\$39,930.00

Retention Basin 2

Description	Value
Size	1 AC
Multiplier	1
Depth	16.00
Description	retention basin

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.00 AC	\$26,201.27	\$26,201.27
120-1	REGULAR EXCAVATION	25,813.33 CY	\$20.37	\$525,817.53
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,472.56	\$26,506.08
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$4,362.57	\$4,362.57
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$7,403.61	\$7,403.61
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$192.40	\$10,774.40
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$359.13	\$71,826.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	840.00 LF	\$17.43	\$14,641.20
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$2,179.86	\$2,179.86
570-1-1	PERFORMANCE TURF	4,840.00 SY	\$1.65	\$7,986.00
Drainage Component Total				\$5,136,771.88

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	\$343.91	\$1,719.55
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	50.00 AS	\$1,381.87	\$69,093.50
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	5.00 AS	\$4,457.55	\$22,287.75
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	13.00 AS	\$6,997.51	\$90,967.63
Signing Component Total				\$184,068.43

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT**Description of Work****EX-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
777777	ITS ASSSUMPTION COST	2.00 MILES	\$375,000.00	\$750,000.00
Intelligent Traffic System (ITS) Component Total				\$750,000.00

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description	Value
Multiplier (Number of Poles)	88
Pay Items	

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	17,600.00	LF	\$8.88	\$156,288.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	88.00	EA	\$693.48	\$61,026.24
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	52,800.00	LF	\$2.07	\$109,296.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	88.00	EA	\$6,359.23	\$559,612.24
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	88.00	EA	\$565.81	\$49,791.28
	Subcomponent Total				\$936,013.76
	Lighting Component Total				\$936,013.76
Sequence 1 Total					\$27,784,991.50

Sequence: 2NUR - New Construction, Undivided, Rural**Net Length:** 0.436 MI
2,300 LF**Description:** Ramp A (NOLTE), SB On Ramp from New Nolte, 1 Lane, 2,300-feet**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	0.435
Top of Structural Course For Begin Section	120.00
Top of Structural Course For End Section	101.00
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	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.17	AC	\$26,201.27	\$83,058.03
120-6	EMBANKMENT	67,378.75	CY	\$19.74	\$1,330,056.52
Earthwork Component Total					\$1,413,114.56

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,922.11	SY	\$10.71	\$84,845.80
285-709	OPTIONAL BASE,BASE GROUP 09	3,917.61	SY	\$19.57	\$76,667.63
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	527.08	TN	\$117.93	\$62,158.54
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	153.33	TN	\$159.76	\$24,496.00

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	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"	1.74	GM	\$1,021.92	\$1,778.14

Roadway Component Total

\$249,946.11

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,235.29	SY	\$15.56	\$50,341.11
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	337.33	TN	\$174.96	\$59,019.26
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	13.49	TN	\$159.76	\$2,155.16
570-1-2	PERFORMANCE TURF, SOD	1,022.21	SY	\$3.80	\$3,884.40

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,979.92	LF	\$1.80	\$10,763.86
104-11	FLOATING TURBIDITY BARRIER	108.90	LF	\$11.34	\$1,234.93
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	108.90	LF	\$6.00	\$653.40
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	5.28	AC	\$28.94	\$152.80
107-2	MOWING	5.28	AC	\$54.76	\$289.13

Shoulder Component Total

\$131,990.49

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	7.84	CY	\$1,472.56	\$11,544.87
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	352.00	LF	\$119.03	\$41,898.56
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	80.00	LF	\$153.19	\$12,255.20

430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	18.00 EA	\$2,060.86	\$37,095.48
570-1-1	PERFORMANCE TURF	306.66 SY	\$1.65	\$505.99
Drainage Component Total				\$103,300.10

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	9.00 AS	\$1,381.87	\$12,436.83
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$17,238.29

SIGNALIZATIONS COMPONENT**Signalization 1**

Description	Value
Type	2 Lane Mast Arm
Multiplier	2
Description	RAMP B1 (2 LANE MAST ARM) 2EA

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,600.00 LF	\$8.88	\$14,208.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	400.00 LF	\$19.95	\$7,980.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	2.00 PI	\$7,831.53	\$15,663.06
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	24.00 EA	\$693.48	\$16,643.52
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	2.00 AS	\$2,776.24	\$5,552.48
639-2-1	ELECTRICAL SERVICE WIRE, F&I	120.00 LF	\$5.45	\$654.00
649-21-4	STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'	8.00 EA	\$42,421.17	\$339,369.36
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	16.00 AS	\$1,064.04	\$17,024.64
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	16.00 AS	\$604.80	\$9,676.80
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	16.00 EA	\$399.17	\$6,386.72
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	16.00 AS	\$971.37	\$15,541.92
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	16.00 EA	\$238.89	\$3,822.24
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	2.00 AS	\$23,778.26	\$47,556.52
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	8.00 EA	\$315.46	\$2,523.68

Signalizations Component Total

\$502,602.94

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description****Value**

Multiplier (Number of Poles)

11

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,200.00	LF	\$8.88	\$19,536.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	11.00	EA	\$693.48	\$7,628.28
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,600.00	LF	\$2.07	\$13,662.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	11.00	EA	\$6,359.23	\$69,951.53
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	11.00	EA	\$565.81	\$6,223.91
Subcomponent Total					\$117,001.72
Lighting Component Total					\$117,001.72

Sequence 2 Total

\$2,535,194.21

Sequence: 3NUR - New Construction, Undivided, Rural**Net Length:** 0.284 MI
1,500 LF**Description:** Ramp B(OCCR), NB Off Ramp to New Nolte, 1 Lane, 1,500-feet**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	0.284
Top of Structural Course For Begin Section	120.00
Top of Structural Course For End Section	101.00
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	2.07	AC	\$26,201.27	\$54,236.63
120-6	EMBANKMENT	42,854.89	CY	\$19.74	\$845,955.53
Earthwork Component Total					\$900,192.16

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,833.49	SY	\$10.71	\$51,766.68
285-709	OPTIONAL BASE,BASE GROUP 09	2,555.08	SY	\$19.57	\$50,002.92
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	343.76	TN	\$117.93	\$40,539.62
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	100.00	TN	\$159.76	\$15,976.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
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"	0.57	GM	\$1,021.92	\$582.49
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	0.57	GM	\$4,851.66	\$2,765.45
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.57	GM	\$3,902.07	\$2,224.18
Roadway Component Total					\$163,857.34

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	6.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	4.00 / 4.00
Paved Outside Shoulder Width L/R	2.00 / 4.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,110.04	SY	\$15.56	\$17,272.22
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	110.00	TN	\$174.96	\$19,245.60
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	8.80	TN	\$159.76	\$1,405.89
570-1-2	PERFORMANCE TURF, SOD	1,333.38	SY	\$3.80	\$5,066.84

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,900.12	LF	\$1.80	\$7,020.22
104-11	FLOATING TURBIDITY BARRIER	71.03	LF	\$11.34	\$805.48
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	71.03	LF	\$6.00	\$426.18
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	3.44	AC	\$28.94	\$99.55
107-2	MOWING	3.44	AC	\$54.76	\$188.37
Shoulder Component Total					\$55,026.79

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.11	CY	\$1,472.56	\$7,524.78

430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	232.00 LF	\$119.03	\$27,614.96
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00 LF	\$153.19	\$7,353.12
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	12.00 EA	\$2,060.86	\$24,730.32
570-1-1	PERFORMANCE TURF	200.01 SY	\$1.65	\$330.02
Drainage Component Total				\$67,553.20

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	6.00 AS	\$1,381.87	\$8,291.22
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$13,092.68

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

12

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,400.00 LF	\$8.88	\$21,312.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$693.48	\$8,321.76
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	7,200.00 LF	\$2.07	\$14,904.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	12.00 EA	\$6,359.23	\$76,310.76
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	12.00 EA	\$565.81	\$6,789.72
Subcomponent Total				\$127,638.24
Lighting Component Total				\$127,638.24

Sequence 3 Total**\$1,327,360.41**

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.455 MI
2,400 LF**Description:** Ramp C(OCCR), NB ON Ramp FROM New Nolte, 2 Lanes, 2,400-feet**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	40.00 / 40.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.454
Top of Structural Course For Begin Section	125.15
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
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	4.40	AC	\$26,201.27	\$115,285.59
120-6	EMBANKMENT	119,331.30	CY	\$19.74	\$2,355,599.86
Earthwork Component Total					\$2,470,885.45

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,665.60	SY	\$10.71	\$114,228.58
285-709	OPTIONAL BASE,BASE GROUP 09	6,487.35	SY	\$19.57	\$126,957.44
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	879.91	TN	\$117.93	\$103,767.79
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	255.97	TN	\$159.76	\$40,893.77

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	61.00	EA	\$3.91	\$238.51
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.91	GM	\$1,021.92	\$929.95
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.45	GM	\$3,267.21	\$1,470.24
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.91	GM	\$4,851.66	\$4,415.01
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.91	GM	\$3,902.07	\$3,550.88
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	0.45	GM	\$1,111.66	\$500.25
Roadway Component Total					\$396,952.42

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,375.66	SY	\$15.56	\$52,525.27
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	351.96	TN	\$174.96	\$61,578.92
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	14.08	TN	\$159.76	\$2,249.42
570-1-2	PERFORMANCE TURF, SOD	1,066.56	SY	\$3.80	\$4,052.93

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,239.38	LF	\$1.80	\$11,230.88
104-11	FLOATING TURBIDITY BARRIER	113.62	LF	\$11.34	\$1,288.45
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.62	LF	\$6.00	\$681.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	5.51	AC	\$28.94	\$159.46
107-2	MOWING	5.51	AC	\$54.76	\$301.73
Shoulder Component Total					\$137,565.22

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.18 CY	\$1,472.56	\$12,045.54
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	368.00 LF	\$119.03	\$43,803.04
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	80.00 LF	\$153.19	\$12,255.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	19.00 EA	\$2,060.86	\$39,156.34
570-1-1	PERFORMANCE TURF	319.97 SY	\$1.65	\$527.95
Drainage Component Total				\$107,788.07

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	10.00 AS	\$1,381.87	\$13,818.70
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$18,620.16

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

21

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F&I, OPEN TRENCH	4,200.00 LF	\$8.88	\$37,296.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	21.00 EA	\$693.48	\$14,563.08
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO. 4-2	12,600.00 LF	\$2.07	\$26,082.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	21.00 EA	\$6,359.23	\$133,543.83
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	21.00 EA	\$565.81	\$11,882.01
Subcomponent Total				\$223,366.92
Lighting Component Total				\$223,366.92

Sequence 4 Total**\$3,355,178.24**

Sequence: 5NUR - New Construction, Undivided, Rural**Net Length:** 0.398 MI
2,100 LF**Description:** Ramp D, SB Off Ramp to New Nolte, 2 Lanes, 2,100-feet**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	40.00 / 40.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.400
Top of Structural Course For Begin Section	122.00
Top of Structural Course For End Section	101.00
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	3.86	AC	\$26,201.27	\$101,136.90
120-6	EMBANKMENT	79,905.17	CY	\$19.74	\$1,577,328.06
Earthwork Component Total					\$1,678,464.96

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,265.96	SY	\$10.71	\$109,948.43
285-709	OPTIONAL BASE,BASE GROUP 09	5,676.61	SY	\$19.57	\$111,091.26
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	769.95	TN	\$117.93	\$90,800.20
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	223.98	TN	\$159.76	\$35,783.04

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	54.00	EA	\$3.91	\$211.14
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.80	GM	\$1,021.92	\$817.54
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.40	GM	\$3,267.21	\$1,306.88
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.80	GM	\$4,851.66	\$3,881.33
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.80	GM	\$3,902.07	\$3,121.66
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	0.40	GM	\$1,111.66	\$444.66
Roadway Component Total					\$357,406.14

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	4.00 / 10.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	3,420.43	SY	\$15.56	\$53,221.89
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	359.31	TN	\$174.96	\$62,864.88
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	12.32	TN	\$159.76	\$1,968.24
570-1-2	PERFORMANCE TURF, SOD	933.27	SY	\$3.80	\$3,546.43

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,459.63	LF	\$1.80	\$9,827.33
104-11	FLOATING TURBIDITY BARRIER	99.42	LF	\$11.34	\$1,127.42
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	99.42	LF	\$6.00	\$596.52
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	4.82	AC	\$28.94	\$139.49
107-2	MOWING	4.82	AC	\$54.76	\$263.94
Shoulder Component Total					\$137,052.58

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	7.16 CY	\$1,472.56	\$10,543.53
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	320.00 LF	\$119.03	\$38,089.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	72.00 LF	\$153.19	\$11,029.68
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	16.00 EA	\$2,060.86	\$32,973.76
570-1-1	PERFORMANCE TURF	279.98 SY	\$1.65	\$461.97
Drainage Component Total				\$93,098.54

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	8.00 AS	\$1,381.87	\$11,054.96
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$15,856.42

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

18

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,600.00 LF	\$8.88	\$31,968.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	18.00 EA	\$693.48	\$12,482.64
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	10,800.00 LF	\$2.07	\$22,356.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	18.00 EA	\$6,359.23	\$114,466.14
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	18.00 EA	\$565.81	\$10,184.58
Subcomponent Total				\$191,457.36
Lighting Component Total				\$191,457.36

Sequence 5 Total**\$2,473,336.00**

Sequence: 6NUR - New Construction, Undivided, Rural**Net Length:** 0.966 MI
5,100 LF**Description:** New Nolte Extension, 6 Lanes to account for turn lanes, 5100-feet**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	0.960
Top of Structural Course For Begin Section	122.00
Top of Structural Course For End Section	101.00
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	14.05	AC	\$26,201.27	\$368,127.84
120-6	EMBANKMENT	255,530.41	CY	\$19.74	\$5,044,170.29
Earthwork Component Total					\$5,412,298.13

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	0.00 / 66.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	46,466.23	SY	\$10.71	\$497,653.32
285-709	OPTIONAL BASE,BASE GROUP 09	37,586.65	SY	\$19.57	\$735,570.74
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	5,142.45	TN	\$117.93	\$606,449.13
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	1,495.99	TN	\$159.76	\$238,999.36

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	5

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	913.00	EA	\$3.91	\$3,569.83
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.93	GM	\$1,021.92	\$1,972.31
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	4.83	GM	\$3,267.21	\$15,780.62
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	1.93	GM	\$4,851.66	\$9,363.70
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.93	GM	\$3,902.07	\$7,531.00
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	4.83	GM	\$1,111.66	\$5,369.32

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	10.00 / 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
160-4	TYPE B STABILIZATION	7,933.26	SY	\$10.71	\$84,965.21
285-701	OPTIONAL BASE,BASE GROUP 01	5,666.61	SY	\$13.62	\$77,179.23

Roadway Component Total

\$2,284,403.77

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	8.00 / 8.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	0
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	7,173.93	SY	\$15.56	\$111,626.35
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	747.99	TN	\$174.96	\$130,868.33
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	29.92	TN	\$159.76	\$4,780.02
570-1-2	PERFORMANCE TURF, SOD	2,266.65	SY	\$3.80	\$8,613.27

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,666.67 SY	\$45.11	\$255,623.48
	Comment: BASE 701 & STABILIZATION ARE INCLUDED ON ROADWAY PHERIPHERAL COMPONENT			

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	13,259.88 LF	\$1.80	\$23,867.78
104-11	FLOATING TURBIDITY BARRIER	241.48 LF	\$11.34	\$2,738.38
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	241.48 LF	\$6.00	\$1,448.88
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	11.71 AC	\$28.94	\$338.89
107-2	MOWING	11.71 AC	\$54.76	\$641.24
Shoulder Component Total				\$544,043.06

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	17.39 CY	\$1,472.56	\$25,607.82
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	776.00 LF	\$119.03	\$92,367.28
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	168.00 LF	\$153.19	\$25,735.92
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	39.00 EA	\$2,060.86	\$80,373.54
570-1-1	PERFORMANCE TURF	679.99 SY	\$1.65	\$1,121.98
Drainage Component Total				\$225,206.54

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$343.91	\$687.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00 AS	\$1,381.87	\$27,637.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,457.55	\$8,915.10
Signing Component Total				\$37,240.32

SIGNALIZATIONS COMPONENT

Signalization 1**Description**

Type

Multiplier

Description

Value

4 Lane Mast Arm

6

New Nolte Extension

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,500.00	LF	\$8.88	\$39,960.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,500.00	LF	\$19.95	\$29,925.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	6.00	PI	\$7,831.53	\$46,989.18
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	96.00	EA	\$693.48	\$66,574.08
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	6.00	AS	\$2,776.24	\$16,657.44
639-2-1	ELECTRICAL SERVICE WIRE, F&I	360.00	LF	\$5.45	\$1,962.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	24.00	EA	\$49,482.62	\$1,187,582.88
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	72.00	AS	\$1,064.04	\$76,610.88
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	48.00	AS	\$604.80	\$29,030.40
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	72.00	EA	\$399.17	\$28,740.24
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	72.00	AS	\$971.37	\$69,938.64
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	48.00	EA	\$238.89	\$11,466.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	6.00	AS	\$23,778.26	\$142,669.56
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	24.00	EA	\$315.46	\$7,571.04
Signalizations Component Total					\$1,755,678.06

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

28

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,600.00	LF	\$8.88	\$49,728.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	28.00	EA	\$693.48	\$19,417.44
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	16,800.00	LF	\$2.07	\$34,776.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	28.00	EA	\$6,359.23	\$178,058.44
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	28.00	EA	\$565.81	\$15,842.68
Subcomponent Total					\$297,822.56
Lighting Component Total					\$297,822.56

BRIDGES COMPONENT
Bridge 7.1

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	206.00
Width (LF)	56.00
Type	High Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$135.00
Factored Cost per SF	\$168.75
Final Cost per SF	\$174.91
Basic Bridge Cost	\$1,946,700.00
Description	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	124.44	CY	\$393.91	\$49,018.16
415-1-9	REINF STEEL- APPROACH SLABS	21,777.00	LB	\$1.01	\$21,994.77

Bridge 7.1 Total **\$2,017,712.93**

Bridge TBD

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	206.00
Width (LF)	56.00
Type	High Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	\$135.00
Factored Cost per SF	\$168.75
Final Cost per SF	\$174.91
Basic Bridge Cost	\$1,946,700.00
Description	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	124.44	CY	\$393.91	\$49,018.16
415-1-9	REINF STEEL- APPROACH SLABS	21,777.00	LB	\$1.01	\$21,994.77

Bridge TBD Total **\$2,017,712.93**

Bridges Component Total **\$4,035,425.86**

RETAINING WALLS COMPONENT**Retaining Wall 1**

Description	Value
Length	124.00
Begin height	23.00
End Height	23.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	5,704.00	SF	\$40.46	\$230,783.84

Retaining Walls Component Total					\$230,783.84
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Sequence 6 Total					\$14,822,902.14
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Sequence: 7WUU - Widen/Resurface, Undivided, Urban**Net Length:** 0.682 MI
3,600 LF**Description:** Old Cane Creek @ New Nolte, 4 to 6-lanes, 3,600-feet**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	0.681
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
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
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	4.00 % / 4.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	4.96	AC	\$26,201.27	\$129,958.30
Earthwork Component Total					\$129,958.30

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	6
Existing Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Widened Outside Pavement Width L/R	11.00 / 11.00
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	10,863.71	SY	\$10.71	\$116,350.33
285-709	OPTIONAL BASE,BASE GROUP 09	9,063.76	SY	\$19.57	\$177,377.78
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	19,199.49	SY	\$3.04	\$58,366.45
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,111.94	TN	\$174.96	\$369,505.02
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,451.96	TN	\$174.96	\$254,034.92
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	767.98	TN	\$159.76	\$122,692.48
337-7-25	ASPH CONC FC,INC BIT,FC-	351.99	TN	\$159.76	\$56,233.92

5,PG76-22

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	5

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	644.00 EA	\$3.91	\$2,518.04
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.73 GM	\$1,021.92	\$2,789.84
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.41 GM	\$562.72	\$1,918.88
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	2.73 GM	\$4,821.72	\$13,163.30
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.41 GM	\$1,780.98	\$6,073.14
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	2.73 GM	\$4,851.66	\$13,245.03
Roadway Component Total				\$1,194,269.13

SHOULDER COMPONENT**User Input Data**

Description	Value
Existing Total Outside Shoulder Width L/R	10.00 / 10.00
New Total Outside Shoulder Width L/R	4.92 / 4.92
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Sidewalk Width L/R	0.00 / 0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	3,599.90 LF	\$24.12	\$86,829.59
520-1-10	CONCRETE CURB & GUTTER, TYPE F	3,599.90 LF	\$24.12	\$86,829.59
570-1-1	PERFORMANCE TURF	2,135.94 SY	\$1.65	\$3,524.30

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,199.81 LF	\$1.80	\$12,959.66
104-11	FLOATING TURBIDITY BARRIER	68.18 LF	\$11.34	\$773.16
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	68.18 LF	\$6.00	\$409.08
104-15	SOIL TRACKING PREVENTION	1.00 EA	\$3,496.44	\$3,496.44

	DEVICE			
104-18	INLET PROTECTION SYSTEM	35.00 EA	\$95.13	\$3,329.55
107-1	LITTER REMOVAL	3.14 AC	\$28.94	\$90.87
107-2	MOWING	3.14 AC	\$54.76	\$171.95
Shoulder Component Total				\$198,414.19

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	25.00 EA	\$5,311.90	\$132,797.50
425-1-451	INLETS, CURB, TYPE J-5, <10'	7.00 EA	\$7,878.36	\$55,148.52
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	\$3,390.14	\$13,560.56
425-2-41	MANHOLES, P-7, <10'	4.00 EA	\$5,501.57	\$22,006.28
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,320.00 LF	\$96.92	\$127,934.40
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,416.00 LF	\$190.52	\$650,816.32
570-1-1	PERFORMANCE TURF	207.27 SY	\$1.65	\$342.00
Drainage Component Total				\$1,002,605.58

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	13.00 AS	\$343.91	\$4,470.83
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	\$1,381.87	\$2,763.74
700-1-50	SINGLE POST SIGN, RELOCATE	2.00 AS	\$187.30	\$374.60
700-1-60	SINGLE POST SIGN, REMOVE	13.00 AS	\$37.55	\$488.15
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,457.55	\$8,915.10
700-2-60	MULTI- POST SIGN, REMOVE	2.00 AS	\$623.89	\$1,247.78
Signing Component Total				\$18,260.20

Sequence 7 Total	\$2,543,507.40
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Sequence: 8 MIS - Miscellaneous Construction**Net Length:** 0.521 MI
2,750 LF**Description:** Existing KPR Ramps, Remove pavement and base, 1 Lane, 2,750-feet

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	4.80	AC	\$26,201.27	\$125,766.10
	Comment: 16'wide roadway + 30' on either side of C&G				
	Earthwork Component Total				\$125,766.10

Sequence 8 Total	\$125,766.10
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Date: 2/21/2020 10:56:28 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-2-52-01

Letting Date: 04/2022

Description: KISSIMMEE PARK ROAD INTERCHANGE IMPROVEMENTS (MP 240)

District: 08 County: 92 OSCEOLA

Market Area: 08 Units: English

Contract Class: 9 Lump Sum Project: N

Design/Build: Y Project Length: 3.500 MI

Project Manager: AMBARE

Version 14 Project Grand Total

\$84,287,130.43

Description: NOLTE ROAD INTERCHANGE. Includes markups 2-20-20

Project Sequences Subtotal **\$54,968,236.00**

102-1	Maintenance of Traffic	10.00 %	\$5,496,823.60
101-1	Mobilization	10.00 %	\$6,046,505.96

Project Sequences Total **\$66,511,565.56**

Project Unknowns	15.00 %	\$9,976,734.83
Design/Build	10.00 %	\$7,648,830.04

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal **\$150,000.00**
Version 14 Project Grand Total **\$84,287,130.43**

Date: 2/21/2020 10:51:57 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-3-52-01

Letting Date: 09/2025

Description: WIDEN TPK - KISSIMMEE PARK RD TO US 192 (MP 238.5-242.5) (4TO8)

District: 08 County: 92 OSCEOLA

Market Area: 08 Units: English

Contract Class: 7 Lump Sum Project: N

Design/Build: N Project Length: 4.000 MI

Project Manager: AMBARE

Version 5 Project Grand Total

\$53,860,437.57

Description: WIDEN TPK FROM KISSIMMEE PARK RD TO NEPTUNE RD (MP 238.5-242)(4TO8LNS).
Includes markups provided 2-20-20

Sequence: 1 NDR - New Construction, Divided, Rural

Net Length: 0.928 MI
4,900 LF

Description: RECONSTRUCTION OF MAINLINE FROM 4 TO 8 LANES 4,900 LF

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.928
Top of Structural Course For Begin Section	101.00
Top of Structural Course For End Section	101.00
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	22.50 AC	\$26,201.27	\$589,528.57
Earthwork Component Total				\$589,528.57

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	8
Roadway Pavement Width L/R	48.00 / 48.00
Structural Spread Rate	770
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	78,397.44 SY	\$10.71	\$839,636.58
285-710	OPTIONAL BASE,BASE GROUP 10	52,983.60 SY	\$41.47	\$2,197,229.89
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	20,122.01 TN	\$117.93	\$2,372,988.64
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	2,090.60 TN	\$159.76	\$333,994.26

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	8
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	877.00 EA	\$5.03	\$4,411.31
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	7.42 GM	\$1,021.92	\$7,582.65
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	5.57 GM	\$562.72	\$3,134.35
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	7.42 GM	\$4,821.72	\$35,777.16
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	5.57 GM	\$1,780.98	\$9,920.06
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	7.42 GM	\$4,851.66	\$35,999.32

Roadway Component Total

\$5,840,674.22

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	165
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	13,425.56 SY	\$15.56	\$208,901.71
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,077.96 TN	\$111.34	\$120,020.07

337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	28.75 TN	\$159.76	\$4,593.10
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	1.86 GM	\$1,455.86	\$2,707.90

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	12,739.58 LF	\$1.80	\$22,931.24
104-11	FLOATING TURBIDITY BARRIER	232.00 LF	\$11.34	\$2,630.88
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	232.00 LF	\$6.00	\$1,392.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,496.44	\$3,496.44
104-18	INLET PROTECTION SYSTEM	6.00 EA	\$95.13	\$570.78
107-1	LITTER REMOVAL	22.49 AC	\$28.94	\$650.86
107-2	MOWING	22.49 AC	\$54.76	\$1,231.55
Shoulder Component Total				\$369,126.54

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 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	13,425.56 SY	\$15.56	\$208,901.71
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	718.64 TN	\$111.34	\$80,013.38
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	28.75 TN	\$159.76	\$4,593.10
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	4,900.00 LF	\$440.63	\$2,159,087.00
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	2.00 GM	\$1,455.86	\$2,911.72
Median Component Total				\$2,455,506.91

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	16.70 CY	\$1,472.56	\$24,591.75

425-1-551	INLETS, DT BOT, TYPE E, <10'	6.00 EA	\$4,172.50	\$25,035.00
430-174-124	PIPE CULV, OPT MATL, ROUND, 24"SD	744.00 LF	\$119.03	\$88,558.32
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	320.00 LF	\$96.92	\$31,014.40
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	280.00 LF	\$153.19	\$42,893.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	38.00 EA	\$2,060.86	\$78,312.68
524-1-1	CONCRETE DITCH PAVT, NR, 3"	1,856.00 SY	\$82.34	\$152,823.04
570-1-1	PERFORMANCE TURF	653.31 SY	\$1.65	\$1,077.96
Drainage Component Total				\$444,306.35

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$343.91	\$687.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	23.00 AS	\$1,381.87	\$31,783.01
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,457.55	\$8,915.10
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	6.00 AS	\$6,997.51	\$41,985.06
Signing Component Total				\$83,370.99

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT**Description of Work****EX-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
777777	ITS ASSUMPTION COST	0.93 MILES	\$375,000.00	\$348,750.00
Intelligent Traffic System (ITS) Component Total				\$348,750.00

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

40

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	8,000.00 LF	\$8.88	\$71,040.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	40.00 EA	\$693.48	\$27,739.20
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	24,000.00 LF	\$2.07	\$49,680.00

715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	40.00 EA	\$6,359.23	\$254,369.20
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	40.00 EA	\$565.81	\$22,632.40
	Subcomponent Total			\$425,460.80
	Lighting Component Total			\$425,460.80
Sequence 1 Total				\$10,556,724.38

Sequence: 2 NDR - New Construction, Divided, Rural**Net Length:** 0.792 MI
4,180 LF**Description:** RECONSTRUCTION OF MAINLINE FROM 4 TO 8 LANES 4180 LF**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.792
Top of Structural Course For Begin Section	101.00
Top of Structural Course For End Section	101.00
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	19.20 AC	\$26,201.27	\$503,064.38
Earthwork Component Total				\$503,064.38

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	8
Roadway Pavement Width L/R	48.00 / 48.00
Structural Spread Rate	770
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	66,882.82 SY	\$10.71	\$716,315.00
285-710	OPTIONAL BASE,BASE GROUP 10	45,201.64 SY	\$41.47	\$1,874,512.01
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	17,166.59 TN	\$117.93	\$2,024,455.96
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	1,783.54 TN	\$159.76	\$284,938.35

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	8

Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	748.00 EA	\$5.03	\$3,762.44
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	6.33 GM	\$1,021.92	\$6,468.75
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	4.75 GM	\$562.72	\$2,672.92
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	6.33 GM	\$4,821.72	\$30,521.49
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	4.75 GM	\$1,780.98	\$8,459.66
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	6.33 GM	\$4,851.66	\$30,711.01
Roadway Component Total				\$4,982,817.58

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	165
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips ½No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	11,453.68 SY	\$15.56	\$178,219.26
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	919.64 TN	\$111.34	\$102,392.72
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	24.52 TN	\$159.76	\$3,917.32
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	1.58 GM	\$1,455.86	\$2,300.26

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,868.46 LF	\$1.80	\$19,563.23
104-11	FLOATING TURBIDITY BARRIER	197.92 LF	\$11.34	\$2,244.41
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	197.92 LF	\$6.00	\$1,187.52
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,496.44	\$3,496.44
104-18	INLET PROTECTION SYSTEM	5.00 EA	\$95.13	\$475.65
107-1	LITTER REMOVAL	19.19 AC	\$28.94	\$555.36

107-2	MOWING	19.19 AC	\$54.76	\$1,050.84
Shoulder Component Total				\$315,403.00

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)	0
Rumble Strips 1/2 No. of Sides	2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	11,453.68 SY	\$15.56	\$178,219.26
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	613.09 TN	\$111.34	\$68,261.44
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	24.52 TN	\$159.76	\$3,917.32
521-1-11	MEDIAN CONC BARRIER, 38" HEIGHT	4,180.00 LF	\$440.63	\$1,841,833.40
546-72-1	GROUND-IN RUMBLE STRIPS, 16"	2.00 GM	\$1,455.86	\$2,911.72
Median Component Total				\$2,095,143.14

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	14.25 CY	\$1,472.56	\$20,983.98
425-1-551	INLETS, DT BOT, TYPE E, <10'	5.00 EA	\$4,172.50	\$20,862.50
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	640.00 LF	\$119.03	\$76,179.20
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	280.00 LF	\$96.92	\$27,137.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	240.00 LF	\$153.19	\$36,765.60
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	32.00 EA	\$2,060.86	\$65,947.52
524-1-1	CONCRETE DITCH PAVT, NR, 3"	1,583.40 SY	\$82.34	\$130,377.16
570-1-1	PERFORMANCE TURF	557.36 SY	\$1.65	\$919.64
Drainage Component Total				\$379,173.20

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$343.91	\$687.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00 AS	\$1,381.87	\$27,637.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,457.55	\$8,915.10
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00 AS	\$6,997.51	\$34,987.55
Signing Component Total				\$72,227.87

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT**Description of Work****EX-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
777777	ITS ASSUMPTION COST	0.79 MILES	\$375,000.00	\$296,250.00
Intelligent Traffic System (ITS) Component Total				\$296,250.00

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

34

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,800.00 LF	\$8.88	\$60,384.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	34.00 EA	\$693.48	\$23,578.32
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	20,400.00 LF	\$2.07	\$42,228.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	34.00 EA	\$6,359.23	\$216,213.82
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	34.00 EA	\$565.81	\$19,237.54
Subcomponent Total				\$361,641.68
Lighting Component Total				\$361,641.68

BRIDGES COMPONENT**Bridge TBD****Description**

Estimate Type
Primary Estimate
Length (LF)
Width (LF)

Value
SF Estimate
YES
255.00
146.00

Type	Overpass Bridge
Cost Factor	1.20
Structure No.	
Removal of Existing Structures area	22,440.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$144.00
Final Cost per SF	\$149.91
Basic Bridge Cost	\$5,361,120.00
Description	NEW BRIDGE, INCLUDES DEMOLISH TWO BRIDGES 255 FT X 44 FT

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	22,440.00	SF	\$31.25	\$701,250.00
400-2-10	CONC CLASS II, APPROACH SLABS	324.44	CY	\$501.26	\$162,628.79
415-1-9	REINF STEEL- APPROACH SLABS	56,777.00	LB	\$1.01	\$57,344.77
Bridge TBD Total					\$6,282,343.56
Bridges Component Total					\$6,282,343.56

Sequence 2 Total	\$15,288,064.41
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Sequence: 3NUR - New Construction, Undivided, Rural**Net Length:** 0.549 MI
2,900 LF**Description:** RAMP C (OCCR), NB ON RAMP FROM OCCR, 2 LANES, 2,900 FT**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	0.550
Top of Structural Course For Begin Section	101.00
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	5 to 1 / 5 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	3.99 AC	\$26,201.27	\$104,543.07
120-6	EMBANKMENT	14,039.76 CY	\$15.00	\$210,596.40
Earthwork Component Total				\$315,139.47

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,821.08 SY	\$10.71	\$158,733.77
285-709	OPTIONAL BASE,BASE GROUP 09	7,945.39 SY	\$19.57	\$155,491.28
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	1,063.25 TN	\$117.93	\$125,389.07
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	309.31 TN	\$159.76	\$49,415.37

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	74.00	EA	\$3.91	\$289.34
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.10	GM	\$1,021.92	\$1,124.11
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.55	GM	\$3,267.21	\$1,796.97
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	1.10	GM	\$4,851.66	\$5,336.83
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.10	GM	\$3,877.91	\$4,265.70
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	0.55	GM	\$1,111.66	\$611.41
Roadway Component Total					\$502,453.85

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	10.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	7,300.99	SY	\$15.56	\$113,603.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	779.72	TN	\$174.96	\$136,419.81
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	17.01	TN	\$159.76	\$2,717.52

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,539.42	LF	\$1.80	\$13,570.96
104-11	FLOATING TURBIDITY BARRIER	137.30	LF	\$11.34	\$1,556.98
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	137.30	LF	\$6.00	\$823.80
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	6.66	AC	\$28.94	\$192.74
107-2	MOWING	6.66	AC	\$54.76	\$364.70
Shoulder Component Total					\$272,746.35

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	9.89 CY	\$1,472.56	\$14,563.62
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	440.00 LF	\$119.03	\$52,373.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	96.00 LF	\$153.19	\$14,706.24
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	22.00 EA	\$2,060.86	\$45,338.92
570-1-1	PERFORMANCE TURF	386.64 SY	\$1.65	\$637.96
Drainage Component Total				\$127,619.94

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$343.91	\$687.82
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	11.00 AS	\$1,381.87	\$15,200.57
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	\$4,457.55	\$8,915.10
Signing Component Total				\$24,803.49

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

12

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F&I, OPEN TRENCH	2,400.00 LF	\$8.88	\$21,312.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00 EA	\$693.48	\$8,321.76
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO. 4-2	7,200.00 LF	\$2.07	\$14,904.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	12.00 EA	\$6,359.23	\$76,310.76
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	12.00 EA	\$565.81	\$6,789.72
Subcomponent Total				\$127,638.24
Lighting Component Total				\$127,638.24

ARCHITECTURAL COMPONENT**X-Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
735-74-2	TOLL PLAZA, LOCATION 2	1.00 LS	\$746,000.00	\$746,000.00

Comment: 72 FT SPAN GANTRY

Architectural Component Total

\$746,000.00

Sequence 3 Total

\$2,116,401.34

Sequence: 4 NUR - New Construction, Undivided, Rural**Net Length:** 0.445 MI
2,350 LF**Description:** RAMP D (OCCR), SB OFF RAMP FROM OCCR, 2 LANES, 2,350 FT**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	0.445
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	5 to 1 / 5 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	3.24 AC	\$26,201.27	\$84,892.11
120-6	EMBANKMENT	22,309.02 CY	\$15.00	\$334,635.30
Earthwork Component Total				\$419,527.41

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	11,489.51 SY	\$10.71	\$123,052.65
285-709	OPTIONAL BASE,BASE GROUP 09	6,439.35 SY	\$19.57	\$126,018.08
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	861.71 TN	\$117.93	\$101,621.46
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	250.68 TN	\$159.76	\$40,048.64

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	60.00 EA	\$3.91	\$234.60
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.89 GM	\$1,021.92	\$909.51
710-11-231	PAINTED PAVT MARK,STD,YELLOW,SKIP,6"	0.45 GM	\$3,267.21	\$1,470.24
711-15-201	THERMOPLASTIC, STD-OP,YELLOW, SOLID, 6"	0.89 GM	\$4,851.66	\$4,317.98
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.89 GM	\$3,877.91	\$3,451.34
711-16-231	THERMOPLASTIC, STD-OTH, YELLOW, SKIP, 6"	0.45 GM	\$1,111.66	\$500.25
Roadway Component Total				\$401,624.75

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	0.00 / 0.00
Paved Outside Shoulder Width L/R	10.00 / 10.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	5,394.85 SY	\$15.56	\$83,943.87
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	574.48 TN	\$174.96	\$100,511.02
337-7-25	ASPH CONC FC,INC BIT,FC-5,PG76-22	13.79 TN	\$159.76	\$2,203.09

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,110.33 LF	\$1.80	\$10,998.59
104-11	FLOATING TURBIDITY BARRIER	111.28 LF	\$11.34	\$1,261.92
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	111.28 LF	\$6.00	\$667.68
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	5.39 AC	\$28.94	\$155.99
107-2	MOWING	5.39 AC	\$54.76	\$295.16
Shoulder Component Total				\$203,533.76

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.01 CY	\$1,472.56	\$11,795.21
430-174-124	PIPE CULV, OPT MATL, ROUND, 24" SD	360.00 LF	\$119.03	\$42,850.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36" S/CD	80.00 LF	\$153.19	\$12,255.20
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	18.00 EA	\$2,060.86	\$37,095.48
570-1-1	PERFORMANCE TURF	313.35 SY	\$1.65	\$517.03
Drainage Component Total				\$104,513.72

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	9.00 AS	\$1,381.87	\$12,436.83
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$17,238.29

SIGNALIZATIONS COMPONENT**Signalization 1****Description****Value**

Type	4 Lane Mast Arm
Multiplier	2
Description	LOCATION #1 (2 MAST ARM 4 LANES)

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F&I, OPEN TRENCH	1,500.00 LF	\$8.88	\$13,320.00
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	500.00 LF	\$22.09	\$11,045.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	2.00 PI	\$7,831.53	\$15,663.06
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	32.00 EA	\$693.48	\$22,191.36
639-1-112	ELECTRICAL POWER SRV, F&I, OH, M, PUR BY CON	2.00 AS	\$2,776.24	\$5,552.48
639-2-1	ELECTRICAL SERVICE WIRE, F&I	120.00 LF	\$5.45	\$654.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	8.00 EA	\$49,482.62	\$395,860.96
650-1-14	VEH TRAF SIGNAL, F&I ALUMINUM, 3 S 1 W	24.00 AS	\$1,064.04	\$25,536.96
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	16.00 AS	\$604.80	\$9,676.80

660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	24.00 EA	\$399.17	\$9,580.08
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	24.00 AS	\$971.37	\$23,312.88
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	16.00 EA	\$238.89	\$3,822.24
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	2.00 AS	\$32,285.74	\$64,571.48
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	8.00 EA	\$315.46	\$2,523.68
Signalizations Component Total				\$603,310.98

LIGHTING COMPONENT**Rural Lighting Subcomponent**

Description				Value
Multiplier (Number of Poles)				10
Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,000.00 LF	\$8.88	\$17,760.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00 EA	\$693.48	\$6,934.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00 LF	\$2.07	\$12,420.00
715-4-14	LIGHT POLE COMPLETE, F&I-STD, 45'	10.00 EA	\$6,359.23	\$63,592.30
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00 EA	\$565.81	\$5,658.10
Subcomponent Total				\$106,365.20
Lighting Component Total				\$106,365.20

BRIDGES COMPONENT**Bridge TBD**

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		300.00
Width (LF)		43.00
Type		Overpass Bridge
Cost Factor		1.15
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		\$120.00
Factored Cost per SF		\$138.00
Final Cost per SF		\$143.02
Basic Bridge Cost		\$1,780,200.00
Description		STEEL BRIDGE TYPICAL

Bridge Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH	95.56 CY	\$501.26	\$47,900.41

415-1-9	SLABS			
	REINF STEEL- APPROACH SLABS	16,723.00 LB	\$1.01	\$16,890.23
Bridge TBD Total				\$1,844,990.64
Bridges Component Total				\$1,844,990.64

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	22.00
Begin height	2.00
End Height	18.00
Multiplier	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	880.00	SF	\$40.46	\$35,604.80

Retaining Wall 2

Description	Value
Length	43.00
Begin height	22.00
End Height	22.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,892.00	SF	\$40.46	\$76,550.32

Retaining Walls Component Total \$112,155.12

ARCHITECTURAL COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
735-74-1	TOLL PLAZA, LOCATION 1	1.00	LS	\$592,000.00	\$592,000.00
	Comment: 44 FEET SPAN GANTRY				

Architectural Component Total \$592,000.00

Sequence 4 Total \$4,405,259.87

Sequence: 5NUR - New Construction, Undivided, Rural**Net Length:** 0.322 MI
1,700 LF**Description:** RAMP A (US 192), 1 LANE, 1,700 FT.**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	0.320
Top of Structural Course For Begin Section	101.00
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	5 to 1 / 5 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	2.34	AC	\$26,201.27	\$61,310.97
120-6	EMBANKMENT	718.71	CY	\$15.00	\$10,780.65
Earthwork Component Total					\$72,091.62

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 15.00
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	4,722.67	SY	\$10.71	\$50,579.80
285-709	OPTIONAL BASE,BASE GROUP 09	2,895.94	SY	\$19.57	\$56,673.55
334-1-54	SUPERPAVE ASPH CONC, TRAF D, PG76-22	389.62	TN	\$117.93	\$45,947.89
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	113.34	TN	\$159.76	\$18,107.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
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"	0.64	GM	\$1,021.92	\$654.03
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	0.64	GM	\$4,851.66	\$3,105.06
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.64	GM	\$3,877.91	\$2,481.86
Roadway Component Total					\$177,549.39

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	4.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	2.00 / 2.00
Paved Outside Shoulder Width L/R	2.00 / 4.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips 1/2 No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	1,258.12	SY	\$15.56	\$19,576.35
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	124.68	TN	\$174.96	\$21,814.01
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	9.97	TN	\$159.76	\$1,592.81
570-1-2	PERFORMANCE TURF, SOD	755.63	SY	\$3.98	\$3,007.41

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,420.42	LF	\$1.80	\$7,956.76
104-11	FLOATING TURBIDITY BARRIER	80.50	LF	\$11.34	\$912.87
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	80.50	LF	\$6.00	\$483.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
107-1	LITTER REMOVAL	3.90	AC	\$28.94	\$112.87
107-2	MOWING	3.90	AC	\$54.76	\$213.56
Shoulder Component Total					\$59,166.08

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.80	CY	\$1,472.56	\$8,540.85

430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	264.00 LF	\$119.03	\$31,423.92
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	56.00 LF	\$153.19	\$8,578.64
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	13.00 EA	\$2,060.86	\$26,791.18
570-1-1	PERFORMANCE TURF	226.69 SY	\$1.65	\$374.04
Drainage Component Total				\$75,708.63

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	\$343.91	\$343.91
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	7.00 AS	\$1,381.87	\$9,673.09
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$4,457.55	\$4,457.55
Signing Component Total				\$14,474.55

LIGHTING COMPONENT**Rural Lighting Subcomponent****Description**

Multiplier (Number of Poles)

Value

7

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,400.00 LF	\$8.88	\$12,432.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	7.00 EA	\$693.48	\$4,854.36
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	4,200.00 LF	\$2.07	\$8,694.00
715-4-14	LIGHT POLE COMPLETE, F&I- STD, 45'	7.00 EA	\$6,359.23	\$44,514.61
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	7.00 EA	\$565.81	\$3,960.67
Subcomponent Total				\$74,455.64
Lighting Component Total				\$74,455.64

Sequence 5 Total**\$473,445.91**

Sequence: 6 NUU - New Construction, Undivided, Urban**Net Length:** 0.114 MI
600 LF**Description:** US192@TURNPIKE RAMPS FROM 4 LANES TO 6 LANES, 600 FT**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	90.00 / 90.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.114
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	2.49	AC	\$26,201.27	\$65,241.16
120-6	EMBANKMENT	2,449.59	CY	\$15.00	\$36,743.85
Earthwork Component Total					\$101,985.01

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	23.00 / 23.00
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	3,409.58	SY	\$10.71	\$36,516.60
285-709	OPTIONAL BASE,BASE GROUP 09	3,065.69	SY	\$19.57	\$59,995.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	421.53	TN	\$174.96	\$73,750.89
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	252.92	TN	\$109.52	\$27,699.80

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	77.00	EA	\$5.03	\$387.31
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.45	GM	\$1,021.92	\$459.86
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.34	GM	\$562.72	\$191.32
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.45	GM	\$3,877.91	\$1,745.06
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	0.34	GM	\$1,069.53	\$363.64
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	0.45	GM	\$3,838.63	\$1,727.38
Roadway Component Total					\$202,837.41

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	12.25 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	599.81	LF	\$24.12	\$14,467.42
520-1-10	CONCRETE CURB & GUTTER, TYPE F	599.81	LF	\$24.12	\$14,467.42
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	666.45	SY	\$45.11	\$30,063.56
570-1-1	PERFORMANCE TURF	666.45	SY	\$1.65	\$1,099.64

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	1,199.62	LF	\$1.80	\$2,159.32
104-11	FLOATING TURBIDITY BARRIER	28.40	LF	\$11.34	\$322.06
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	28.40	LF	\$6.00	\$170.40
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
104-18	INLET PROTECTION SYSTEM	6.00	EA	\$95.13	\$570.78
107-1	LITTER REMOVAL	1.38	AC	\$28.94	\$39.94
107-2	MOWING	1.38	AC	\$54.76	\$75.57
Shoulder Component Total					\$66,932.55

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	2.04 CY	\$1,472.56	\$3,004.02
425-1-351	INLETS, CURB, TYPE P-5, <10'	5.00 EA	\$5,311.90	\$26,559.50
425-1-451	INLETS, CURB, TYPE J-5, <10'	2.00 EA	\$7,878.36	\$15,756.72
425-1-521	INLETS, DT BOT, TYPE C, <10'	1.00 EA	\$3,390.14	\$3,390.14
425-2-41	MANHOLES, P-7, <10'	1.00 EA	\$5,501.57	\$5,501.57
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	272.00 LF	\$96.92	\$26,362.24
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	24.00 LF	\$153.19	\$3,676.56
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	568.00 LF	\$190.52	\$108,215.36
570-1-1	PERFORMANCE TURF	34.53 SY	\$1.65	\$56.97
Drainage Component Total				\$192,523.08

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	\$343.91	\$1,031.73
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,381.87	\$1,381.87
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$6,997.51	\$6,997.51
Signing Component Total				\$9,411.11

LIGHTING COMPONENT**Conventional Lighting Subcomponent****Description**

Spacing

Value

MIN

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	599.81 LF	\$8.88	\$5,326.31
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	119.05 LF	\$22.09	\$2,629.81
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	4.00 EA	\$693.48	\$2,773.92
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	2,190.66 LF	\$2.07	\$4,534.67
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	4.00 EA	\$5,568.50	\$22,274.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	4.00 EA	\$565.81	\$2,263.24
Subcomponent Total				\$39,801.95
Lighting Component Total				\$39,801.95

Sequence 6 Total**\$613,491.11**

Sequence: 7 NUU - New Construction, Undivided, Urban**Net Length:** 0.284 MI
1,500 LF**Description:** US192@TURNPIKE RAMPS FROM 2 LANES TO 4 LANES, 600 FT**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
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
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	3.44	AC	\$26,201.27	\$90,132.37
120-6	EMBANKMENT	6,102.49	CY	\$15.00	\$91,537.35
Earthwork Component Total					\$181,669.72

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	23.00 / 23.00
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	8,526.94	SY	\$10.71	\$91,323.53
285-709	OPTIONAL BASE,BASE GROUP 09	7,666.91	SY	\$19.57	\$150,041.43
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,054.20	TN	\$174.96	\$184,442.83
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	632.52	TN	\$109.52	\$69,273.59

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	3

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	192.00 EA	\$5.03	\$965.76
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.14 GM	\$1,021.92	\$1,164.99
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.85 GM	\$562.72	\$478.31
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.14 GM	\$3,877.91	\$4,420.82
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	0.85 GM	\$1,069.53	\$909.10
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	1.14 GM	\$3,838.63	\$4,376.04
Roadway Component Total				\$507,396.40

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	12.25 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,500.05 LF	\$24.12	\$36,181.21
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,500.05 LF	\$24.12	\$36,181.21
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	1,666.72 SY	\$45.11	\$75,185.74
570-1-1	PERFORMANCE TURF	1,666.72 SY	\$1.65	\$2,750.09

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,000.10 LF	\$1.80	\$5,400.18
104-11	FLOATING TURBIDITY BARRIER	71.03 LF	\$11.34	\$805.48
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	71.03 LF	\$6.00	\$426.18
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$3,496.44	\$3,496.44
104-18	INLET PROTECTION SYSTEM	15.00 EA	\$95.13	\$1,426.95
107-1	LITTER REMOVAL	3.44 AC	\$28.94	\$99.55
107-2	MOWING	3.44 AC	\$54.76	\$188.37
Shoulder Component Total				\$162,141.40

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	5.11 CY	\$1,472.56	\$7,524.78
425-1-351	INLETS, CURB, TYPE P-5, <10'	11.00 EA	\$5,311.90	\$58,430.90
425-1-451	INLETS, CURB, TYPE J-5, <10'	3.00 EA	\$7,878.36	\$23,635.08
425-1-521	INLETS, DT BOT, TYPE C, <10'	2.00 EA	\$3,390.14	\$6,780.28
425-2-41	MANHOLES, P-7, <10'	2.00 EA	\$5,501.57	\$11,003.14
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	664.00 LF	\$96.92	\$64,354.88
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	64.00 LF	\$153.19	\$9,804.16
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	1,424.00 LF	\$190.52	\$271,300.48
570-1-1	PERFORMANCE TURF	86.37 SY	\$1.65	\$142.51
Drainage Component Total				\$452,976.21

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	\$343.91	\$2,063.46
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00 AS	\$1,381.87	\$1,381.87
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$6,997.51	\$6,997.51
Signing Component Total				\$10,442.84

LIGHTING COMPONENT**Conventional Lighting Subcomponent****Description**

Spacing

Value

MIN

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	1,500.05 LF	\$8.88	\$13,320.44
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	297.74 LF	\$22.09	\$6,577.08
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00 EA	\$693.48	\$6,934.80
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	5,478.58 LF	\$2.07	\$11,340.66
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	10.00 EA	\$5,568.50	\$55,685.00
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00 EA	\$565.81	\$5,658.10
Subcomponent Total				\$99,516.08
Lighting Component Total				\$99,516.08

Sequence 7 Total**\$1,414,142.65**

Sequence: 8 NUU - New Construction, Undivided, Urban**Net Length:** 0.758 MI
4,000 LF**Description:** OLD CANOE CREEK@TURNPIKE RAMPS, 4 LANES, 4,000 FT**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	0.757
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	11.03	AC	\$26,201.27	\$289,000.01
120-6	EMBANKMENT	16,272.07	CY	\$15.00	\$244,081.05
Earthwork Component Total					\$533,081.06

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	22.00 / 22.00
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	21,849.59	SY	\$10.71	\$234,009.11
285-709	OPTIONAL BASE,BASE GROUP 09	19,556.18	SY	\$19.57	\$382,714.44
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,688.97	TN	\$174.96	\$470,462.19
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	1,613.38	TN	\$109.52	\$176,697.38

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	3

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	511.00	EA	\$5.03	\$2,570.33
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.03	GM	\$1,021.92	\$3,096.42
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.27	GM	\$562.72	\$1,277.37
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	3.03	GM	\$3,877.91	\$11,750.07
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	2.27	GM	\$1,069.53	\$2,427.83
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	3.03	GM	\$3,838.63	\$11,631.05
Roadway Component Total					\$1,296,636.19

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	12.25 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,000.13	LF	\$24.12	\$96,483.14
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,000.13	LF	\$24.12	\$96,483.14
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	4,444.59	SY	\$45.11	\$200,495.45
570-1-1	PERFORMANCE TURF	4,444.59	SY	\$1.65	\$7,333.57

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,000.26	LF	\$1.80	\$14,400.47
104-11	FLOATING TURBIDITY BARRIER	189.40	LF	\$11.34	\$2,147.80
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	189.40	LF	\$6.00	\$1,136.40
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$3,496.44	\$3,496.44
104-18	INLET PROTECTION SYSTEM	39.00	EA	\$95.13	\$3,710.07
107-1	LITTER REMOVAL	9.18	AC	\$28.94	\$265.67
107-2	MOWING	9.18	AC	\$54.76	\$502.70
Shoulder Component Total					\$426,454.85

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	13.64 CY	\$1,472.56	\$20,085.72
425-1-351	INLETS, CURB, TYPE P-5, <10'	28.00 EA	\$5,311.90	\$148,733.20
425-1-451	INLETS, CURB, TYPE J-5, <10'	8.00 EA	\$7,878.36	\$63,026.88
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00 EA	\$3,390.14	\$13,560.56
425-2-41	MANHOLES, P-7, <10'	4.00 EA	\$5,501.57	\$22,006.28
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,760.00 LF	\$96.92	\$170,579.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	160.00 LF	\$153.19	\$24,510.40
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,792.00 LF	\$190.52	\$722,451.84
570-1-1	PERFORMANCE TURF	230.31 SY	\$1.65	\$380.01
Drainage Component Total				\$1,185,334.09

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	\$343.91	\$5,502.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	\$1,381.87	\$2,763.74
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00 AS	\$6,997.51	\$13,995.02
Signing Component Total				\$22,261.32

LIGHTING COMPONENT**Conventional Lighting Subcomponent****Description**

Spacing

Value

MIN

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,000.13 LF	\$8.88	\$35,521.15
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	793.96 LF	\$22.09	\$17,538.58
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	27.00 EA	\$693.48	\$18,723.96
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	14,609.56 LF	\$2.07	\$30,241.79
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	27.00 EA	\$5,568.50	\$150,349.50
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	27.00 EA	\$565.81	\$15,276.87
Subcomponent Total				\$267,651.85
Lighting Component Total				\$267,651.85

Sequence 8 Total**\$3,731,419.36**

Date: 2/21/2020 10:51:59 AM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 441224-3-52-01**Letting Date:** 09/2025**Description:** WIDEN TPK - KISSIMMEE PARK RD TO US 192 (MP 238.5-242.5) (4TO8)**District:** 08 **County:** 92 OSCEOLA**Market Area:** 08 **Units:** English**Contract Class:** 7 **Lump Sum Project:** N**Design/Build:** N **Project Length:** 4.000 MI**Project Manager:** AMBARE**Version 5 Project Grand Total****\$53,860,437.57**

Description: WIDEN TPK FROM KISSIMMEE PARK RD TO NEPTUNE RD (MP 238.5-242)(4TO8LNS).
Includes markups provided 2-20-20

Project Sequences Subtotal	\$38,598,949.03
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102-1	Maintenance of Traffic	10.00 %	\$3,859,894.90
101-1	Mobilization	10.00 %	\$4,245,884.39

Project Sequences Total	\$46,704,728.32
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Project Unknowns	15.00 %	\$7,005,709.25
Design/Build	0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal	\$150,000.00
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Version 5 Project Grand Total**\$53,860,437.57**