

Draft

LANDSCAPE AESTHETIC REPORT

Florida Department of Transportation

Florida's Turnpike Enterprise

Orlando South Ultimate Interchange

Florida's Turnpike (SR 91, MP 254) and Beachline
Expressway (SR 528, MP 4)

Orange County, Florida

Financial Project ID Number: 438547-1-22-01

ETDM Number: 14294

Date: 01/21/2020

"The PD&E Study's support documents were developed in consideration of FTE's Express Lanes Master Plan, which was in effect before October 2019. However, during design phase, the concepts will be updated to Managed Lanes criteria. Managed Lanes plan will not have additional tolls on the facility and will not affect the results of the PD&E study (please see Section A.0 – Project Addendum)."

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A. PROJECT ADDENDUM

The development of alternatives for the Orlando South Ultimate Interchange Project Development & Environment (PD&E) Study was completed in consideration of the Florida’s Turnpike Enterprise (FTE’s) Express Lane Master Plan in effect at the study Notice to Proceed which included the following:

- Two Express Lanes and three General Toll Lanes in each direction on Florida’s Turnpike, separated by a buffer with Express Lane Markers
- One Express Lane and three General Toll Lanes in each direction on the Beachline Expressway, separated by a buffer with Express Lane Markers

Incorporation of the Express Lane Plan is included in the supporting documents and analysis.

In October 2019, FTE elected to change its operational approach and will not implement dynamically tolled express lanes on these facilities. The FTE is now implementing a Managed Lane system that restricts truck usage on selected lanes on its facilities without the additional toll. Revised typical sections for Florida’s Turnpike and the Beachline Expressway are shown on **Figures A-1 and A-2**.

Figure A-1
Florida’s Turnpike Managed Lane Typical Section

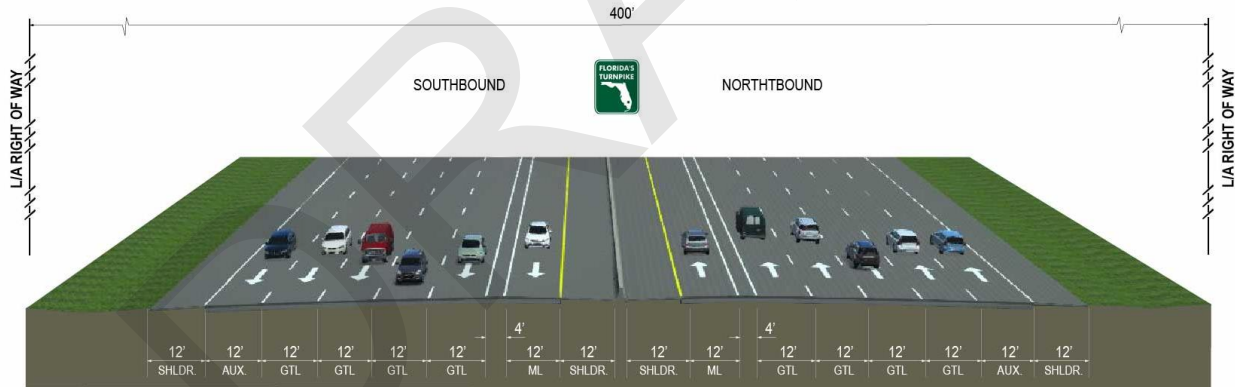
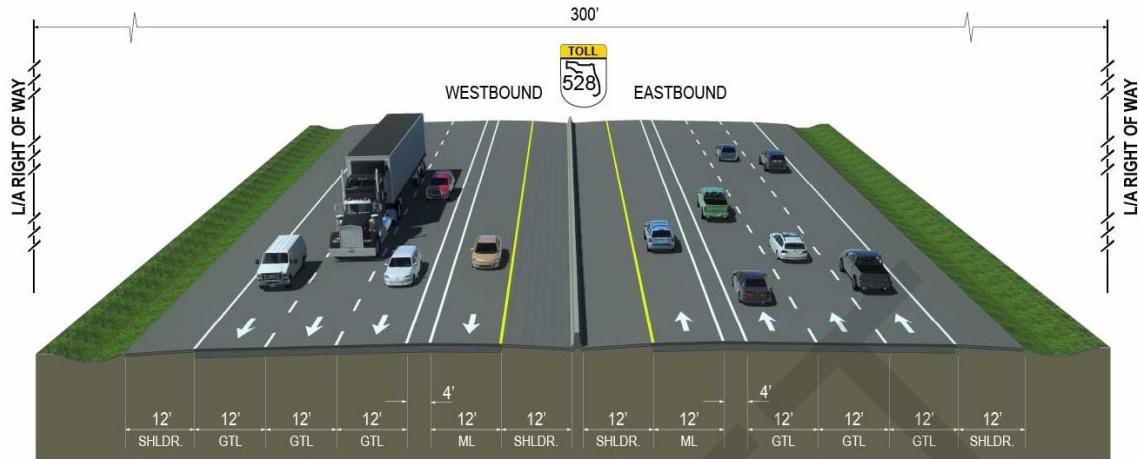


Figure A-2
Beachline Expressway Managed Lane Typical Section



This proposed change will be implemented during final design. The change does not invalidate the results of this study because the proposed footprint of the Florida’s Turnpike and the Beachline Expressway is the same as the studied typical section. Therefore, there is no increase in impacts.

DRAFT

1.0 PROJECT SUMMARY

1.1 Project Description

The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE) is conducting a Project Development & Environment (PD&E) Study for the Orlando South Ultimate Interchange at Florida's Turnpike (State Road (SR) 91, Milepost (MP) 254) and Beachline Expressway (SR 528, MP 4), in Orange County, Florida. The project limits are shown on **Figure 1-1: Project Location Map**. The specific project limits for the study are:

- Florida's Turnpike from south of Taft Vineland Road to Sand Lake Road (SR 482), and
- Beachline Expressway from John Young Parkway (County Road (CR) 423) to east of the Beachline West Toll Plaza.

Florida's Turnpike is a limited access facility with four 12-foot (-ft) lanes (two lanes in each direction) south of Taft Vineland Road and eight 12-ft lanes (four lanes in each direction) north of the Beachline Expressway. FTE is currently widening Florida's Turnpike (FPID 411406-1) south of the Beachline Expressway to continue the eight 12-ft lanes typical section. Construction for FPID 411406-1 is expected to be completed by year 2020.

The Beachline Expressway is also a limited access facility with two widening projects under construction within the project limits. Both projects, described below, are expected to be opened to traffic by the summer of 2020.

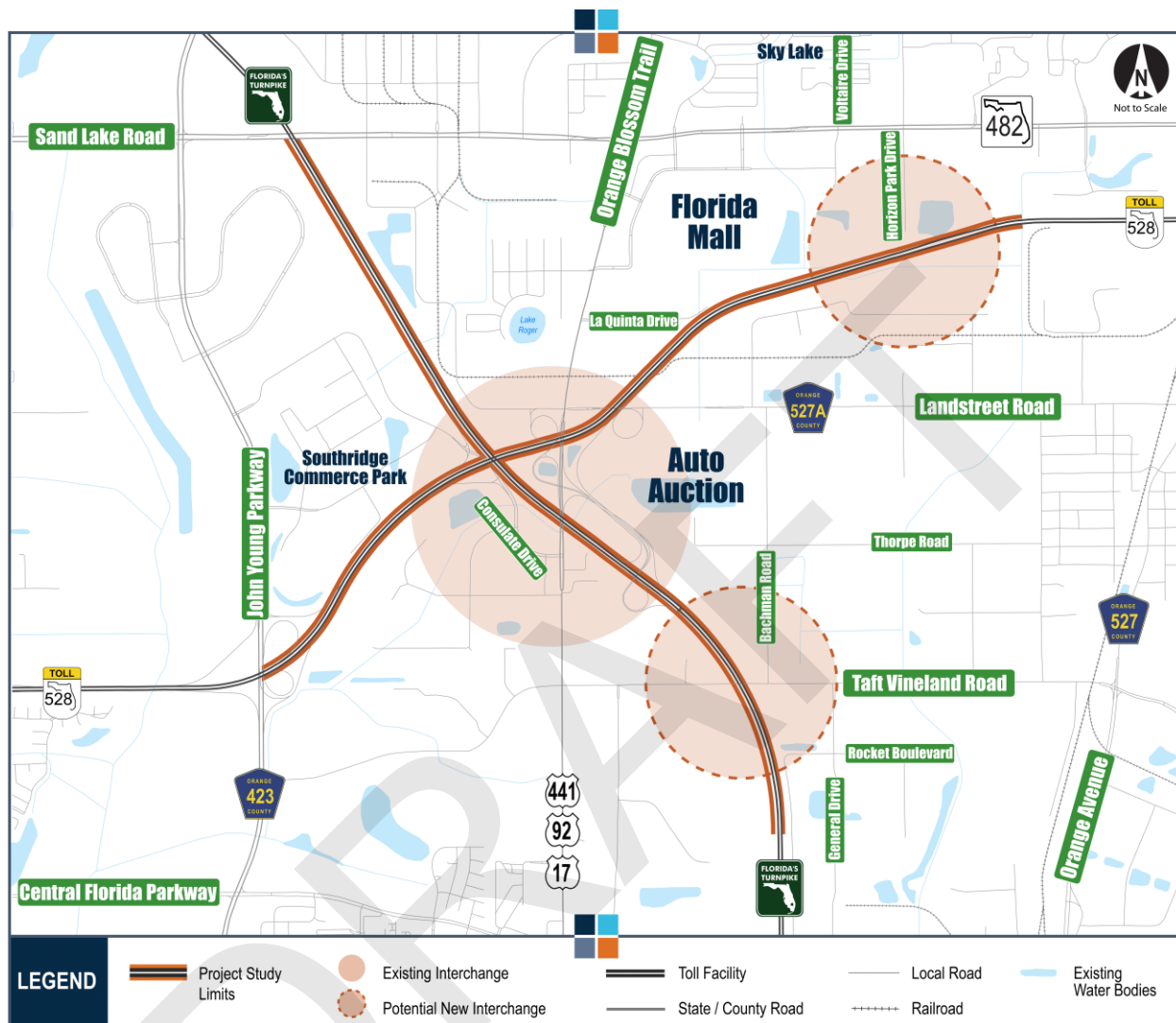
- FPID 406090-5: Widening from four to eight 12-ft lanes with a 4-ft buffer to include two General Toll Lanes (GTLs), two Express Lanes (ELs), and an auxiliary lane in each direction from I-4 (MP 0.0) to Florida's Turnpike (MP 4.3), west of the interchange.
- FPID 437156-1: Widening from six to eight 11.5-ft lanes with a 2-ft buffer to include three GTLs and one EL in each direction from Florida's Turnpike (MP 4.3) to the McCoy Road interchange (MP 8.4), east of the interchange.

Improvements are needed to address traffic needs and optimize safety at Florida's Turnpike and the Beachline Expressway. The alternatives evaluated include:

- New and improved connections between Florida's Turnpike and the Beachline Expressway
- All Electronic Toll (AET)
- Improved connections to local roads to address traffic operations
- Future express lane expansion

This PD&E Study will also include analysis of the No-Build Alternative which would result in no additional improvements except those currently programmed.

Figure 1-1
Project Location Map



1.2 Purpose & Need

The purpose of the Orlando South Ultimate Interchange improvement is to accommodate future travel demands expected along Florida’s Turnpike and Beachline Expressway due to increased population, freight demands, and employment opportunities expected in Orange County, Florida. The interchange improvements will also provide improved access to tourist centers, Orlando International Airport, Port Canaveral, and the growing industrial region surrounding the project location.

Within the Orlando South interchange, there are 13 ramp connections that directly or indirectly connect between the Beachline Expressway, Florida’s Turnpike and Orange Blossom Trail. Although the planned construction of the Florida’s Turnpike at Sand Lake Road interchange will alleviate demand at some ramps, in the study area, traffic on all facilities are still expected to

increase over time. In order to maintain an acceptable Level of Service (LOS) (LOS D for Florida's Turnpike mainline and LOS E for ramps), Florida's Turnpike will need to be widened to ten lanes by the year 2038 north of the Orlando South interchange and by the year 2040 to the south of the interchange under the No-Build scenario. Additionally, total freight movements across Orange County are expected to increase by up to 58% by 2040, which will place higher traffic demands on designated Strategic Intermodal System (SIS) corridors like Florida's Turnpike and Beachline Expressway.

The Florida Future Corridors Initiative has recommended improvements be made to Florida's Turnpike and Beachline Expressway near Orlando to accommodate future traffic demands. Currently, the Beachline Expressway is the only limited access roadway that provides a high-speed connection between Orlando and Brevard County. The interchange improvements, along with existing plans to widen Beachline Expressway to eight lanes from I-4 to McCoy Road (Financial Project Identification (FPID) #406090-5 and #437156-1) will address these needs. Currently, this area is home to Southpark Center with over 2.9 million square feet of building space.

Although not directly serviced by the interchange, the Orange County Convention Plaza Overlay District and International Drive (I-Drive) are located approximately four miles to the west of the project location. Universal Orlando has also recently acquired approximately 500 acres of vacant land between the project location and I-Drive, which has been zoned for theme park use and is expected to be developed as such in the future.

These developments will contribute to increasing traffic volumes on the limited access roadways that connect the area with other parts of the state, such as, Florida's Turnpike, Beachline Expressway and I-4. Improvements on interchanges that surround this area of future growth relieve congestion and provide efficient access to new development from multiple limited access facilities.

2.0 LANDSCAPE AESTHETICS

The evaluation of aesthetics, with respect to Landscape and natural assets within the project limits and the greater context, captures general characteristics that require attention when determining a design approach. These assets are integral to the local community and impact a greater population due to this area servicing robust tourist and commercial industries.

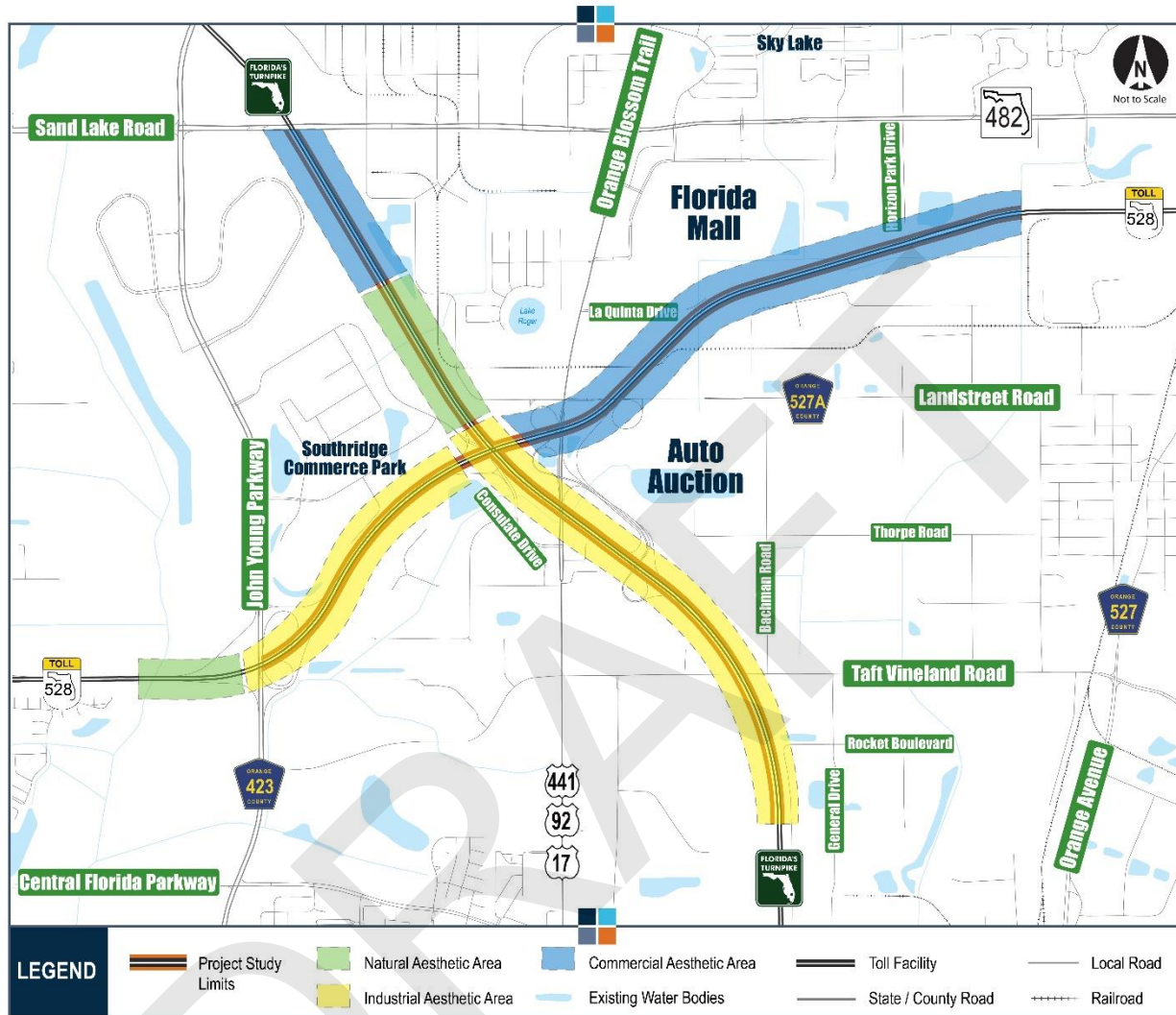
In evaluating the total project site, three general aesthetic areas have been identified in order to capture individual characteristics that are unique to each of these segments of the corridors:

- Natural Aesthetic Area: consists of natural, green spaces and views adjacent to the corridor.
- Commercial Aesthetic Area: consists primarily of commercial business land uses and views.
- Industrial Aesthetic Area: consists primarily of industrial business land uses and views.

2.1 Natural Aesthetic Area

The areas highlighted in green in **Figure 2-1 Aesthetic Area Map** identify the Natural Aesthetic Areas within the Beachline Expressway and Florida's Turnpike. These areas consist of primarily naturally vegetated, green spaces adjacent to these corridors. The Beachline Expressway runs over the Shingle Creek river bed, which is a significant contributor to the natural aesthetic in this area and requires particular consideration. Although this area within the Beachline Expressway is not within the project limits, it is within the context of the project, impacts the local community, and is therefore included in this evaluation. **Table 2-1 – Aesthetic Effects Considerations – Natural Area** provides an aesthetic evaluation of these segments of the corridor.

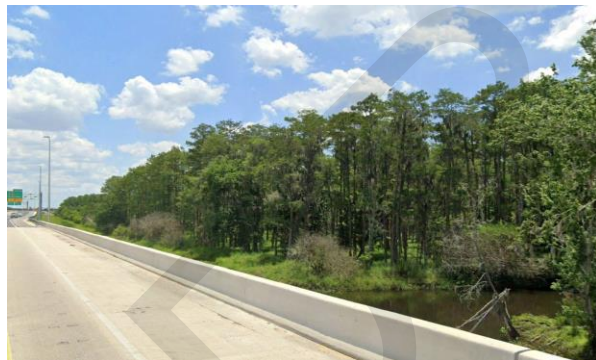
Figure 2-1
Aesthetic Area Map



**Table 2-1
Aesthetic Effects Considerations – Natural Area:**

SR 528 Beachline Expy (Sta. 330+00.00-350+50.00) / SR 91 Florida’s Turnpike (Sta. 2410+50.00-2390+00.00)

Aesthetic Effects Considerations – Natural Area		
Item No.	Aesthetic Effect	Description
1	CHARACTER	These portions of the project are primarily characterized by the undeveloped, natural environment surrounding the corridor. Beachline Expressway crosses over Shingle Creek, which is flanked by cypress and pineland. Florida’s Turnpike portion of this area has a mixture of sabal palm and ornamental grass plantings as well as Bald Cypress trees and pines.
2	COMPATIBILITY	Adjacent land uses in these segments of the corridor are sparse, allowing the naturally occurring vegetation and forested areas to remain proliferous and healthy. A cohesive synergy exists between the greater context and the green roadside conditions that must be carefully considered during future design.
3	COMMUNITY VALUES	The communities within this area have limited open, natural green spaces. The Shingle Creek river bed provide one of the few natural habitats the community can enjoy.
4	SENSITIVE AREAS	Along the Florida’s Turnpike segment, a wetland adjacent to the southbound lanes is a sensitive area that requires particular consideration during design efforts. The Shingle Creek river bed crosses under the Beachline Expressway and is another significant sensitive area to be preserved.
5	VISUAL FEATURES	The Shingle Creek river bed provides a vista that looks out over the river along the Beachline Expressway. These portions of the corridor are lined with views of naturally occurring forest and some pockets of enhanced landscape, which contribute to a pleasing aesthetic and unique vistas.



2.2 Industrial Aesthetic Area

The areas highlighted in yellow in **Figure 2-1 Aesthetic Area Map** identify the Industrial Aesthetic Areas within the Beachline Expressway and Florida’s Turnpike. These areas consist of primarily Industrial business land uses and views adjacent to the corridors. **Table 2-2 – Aesthetic Effects Considerations – Industrial Area** provides an aesthetic evaluation of these segments of the corridor.

Table 2-2
Aesthetic Effects Considerations – Industrial Area:

SR 528 Beachline Expy (Sta. 350+50.00-410+50.00) / SR 91 Florida’s Turnpike (Sta. 2390+00.00-2260+00.00)

Aesthetic Effects Considerations – Industrial Area		
Item No.	Aesthetic Effect	Description
1	CHARACTER	Views throughout this portion of the corridor primarily include drainage swales, limited natural vegetation and industrial warehouses and office space in the adjacent properties. Some of the properties have matured vegetative buffers that provide visual screening from the roadside however, most do not.
2	COMPATIBILITY	The lack of vegetative buffers allow for direct views to the industrial buildings and warehouses adjacent to the roadway. This creates a visually harsher environment. Although this condition is not in contrast with the adjacent land uses, enhancing this portion of the corridor by screening unwanted views and providing a cohesive aesthetic throughout will improve the user’s experience.
3	COMMUNITY VALUES	The adjacent communities are heavily impacted by tourism. Their proximity to the existing theme parks and traffic produced by them, as well as other commercial activity, is of particular focus for the community. The roadway evaluation should take into account these impacts when determining improvements.
4	SENSITIVE AREAS	Areas of particular value to the community are adjacent to the project site and not a part of it. Due to a lack of direct connectivity to these areas, the project does not impact them.
5	VISUAL FEATURES	This portion of the project features views to existing ponds, which can be enhanced to further improve the vistas.



SR 528 Beachline Expy – Eastbound



SR 91 Florida’s Turnpike – Southbound

2.3 Commercial Aesthetic Area

The areas highlighted in blue in **Figure 2-1 Aesthetic Area Map** identify the Commercial Aesthetic Areas within the Beachline Expressway and Florida’s Turnpike. These areas consist of primarily Commercial business land uses adjacent to the corridors. The views are mostly buffered by a combination of natural and landscaped vegetation, providing an enhanced level of aesthetic.

Table 2-3: Aesthetic Effects Considerations – Commercial Area provides an aesthetic evaluation of these segments of the corridor.

**Table 2-3
Aesthetic Effects Considerations – Commercial Area:**

SR 528 Beachline Expy (Sta. 410+50.00-530+50.00) / SR 91 Florida’s Turnpike (Sta. 2460+00.00-2410+50.00)

Aesthetic Effects Considerations – Commercial Area		
Item No.	Aesthetic Effect	Description
1	CHARACTER	In these segments of the corridors, views of primarily commercial properties flank the roadside. Along Beachline Expressway the views are kept open, with vegetative buffers screening views of building in some limited areas. Views along Florida’s Turnpike are mostly buffered with mature landscape or natural vegetation on both private property and Florida’s Turnpike right of way, limiting direct views of adjacent buildings and parking lots.
2	COMPATIBILITY	The corridor does not provide direct access to the adjacent land uses, which allows for separate and distinct sense of space between the right of way and private property.
3	COMMUNITY VALUES	The adjacent communities are heavily impacted by tourism and commercial activity. Their proximity to the existing theme parks and traffic produced by them, as well as other commercial activity, is of particular focus for the community. The roadway evaluation should take into account these impacts when determining improvements.
4	SENSITIVE AREAS	Areas of particular value to the community are adjacent to the project site and not a part of it. Due to a lack of direct connectivity to these areas, the project does not impact them.
5	VISUAL FEATURES	The vegetative buffers that consist of enhanced mature landscape have a cohesive aesthetic and provide an engaging visual complement to the neighboring commercial land-use.



SR 528 Beachline Expy – Eastbound



SR 91 Florida’s Turnpike – Northbound