



**District Seven**

# **Final Preliminary Engineering Report**

**Tampa Interstate Study  
Supplemental Environmental Impact Statement**

**I-275 from Howard Frankland Bridge to  
North of Dr. Martin Luther King, Jr. Boulevard  
and**

**I-4 from I-275 to East of 50th Street with New Alignment from I-4 South to  
the Existing Selmon Expressway and Improvements to the Selmon  
Expressway from the Kennedy Boulevard Overpass East to Maydell Drive**

**Hillsborough County, Florida**

**Work Program Item Segment Number 258337-2**

**Segments 2B, 3A & 3B**

**July 2020**

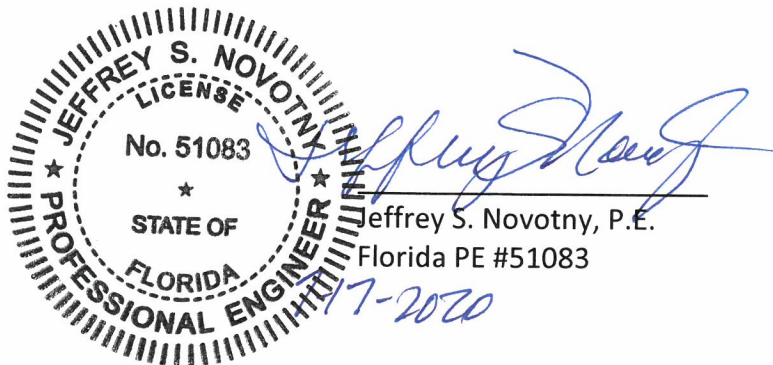
This Preliminary Engineering Report contains engineering information  
that fulfills the purpose and need for:

Tampa Interstate Study - Supplemental Environmental Impact Statement  
I-275 from Howard Frankland Bridge to North of Dr. Martin Luther King, Jr. Boulevard  
and  
I-4 from I-275 to East of 50th Street with New Alignment from I-4 South to the Existing Selmon  
Expressway and Improvements to the Selmon Expressway  
from the Kennedy Boulevard Overpass East to Maydell Drive

Hillsborough County, Florida  
Work Program Item Segment Number 258337-2  
Segments 2B, 3A & 3B

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  
American Consulting Engineers of Florida, LLC, and that I have prepared or approved the evaluation,  
findings, opinions, conclusions or technical advice for this project.



This item has been signed and  
sealed by Jeffrey S. Novotny on  
the date adjacent to the seal.

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

July 2020



## Table of Contents

<b>1</b>	<b>PROJECT DESCRIPTION.....</b>	<b>1</b>
1.1	Commitments and Recommendations .....	1
1.2	Description of Preferred Alternative.....	7
<b>2</b>	<b>INTRODUCTION.....</b>	<b>15</b>
2.1	Project Development and Environment Study Process .....	15
2.2	Project History and Background .....	15
2.3	Purpose of Report .....	16
<b>3</b>	<b>PURPOSE AND NEED FOR PROJECT .....</b>	<b>19</b>
3.1	Project Purpose.....	19
3.2	Summary of Needs and Goals for the TIS SEIS Project .....	19
<b>4</b>	<b>EXISTING CONDITIONS.....</b>	<b>21</b>
4.1	Completed Projects within the Segments 2B, 3A & 3B.....	21
4.1.1	The Downtown Interchange (DTI) Operational Improvements Project .....	21
4.1.2	I-4 from 14 <sup>th</sup> Street to 50 <sup>th</sup> Street .....	24
4.1.3	I-275 Northbound Lanes from Himes Avenue to the Hillsborough River .....	24
4.1.4	I-4/Selmon Expressway Connector .....	25
4.1.5	I-275 Southbound Lanes from SR 60 to the Hillsborough.....	25
4.1.6	I-275 Bridge and Shoulder Widening project.....	25
4.2	Existing Roadway Characteristics.....	25
4.2.1	Roadway Classification and Access Management .....	25
4.2.2	Typical Sections and Posted/Design Speeds .....	26
4.2.3	Pedestrian and Bicycle Facilities .....	26
4.2.4	Right-of-Way .....	26
4.2.5	Horizontal Alignment.....	26
4.2.6	Vertical Alignment.....	31
4.2.7	Drainage and Floodplains.....	31
4.2.8	Geotechnical Data.....	39
4.2.9	Crash Data and Safety Analysis .....	41
4.2.10	Intersections and Signalization .....	44
4.2.11	Lighting.....	49
4.2.12	Utilities and ITS .....	49
4.2.13	Pavement Conditions.....	50
4.2.14	Railroads and Multimodal Facilities.....	51
4.2.15	Aesthetic Features .....	55

4.3	Existing Structures.....	57
4.4	Environmental Characteristics .....	61
<b>5</b>	<b>PLANNING PHASE/CORRIDOR ANALYSIS.....</b>	<b>65</b>
5.1	Early Efforts-The TIS Master Plan.....	65
5.2	EIS, FEIS and Section 4(f) Evaluation .....	68
5.3	Reevaluations.....	69
5.4	The TBX Master Plan .....	69
5.5	Supplemental EIS (SEIS).....	73
5.6	Preliminary Alternatives Screening Evaluation .....	73
5.7	Preliminary Alternatives Screening Results .....	75
5.8	Public Involvement for the Preliminary Alternatives Screening .....	75
<b>6</b>	<b>DESIGN CONTROLS AND CRITERIA .....</b>	<b>77</b>
<b>7</b>	<b>TRAFFIC DATA .....</b>	<b>82</b>
7.1	Existing Traffic Volumes and Traffic Characteristics .....	82
7.2	CORSIM Model Development .....	84
7.3	Existing Traffic Conditions.....	84
7.4	Assumptions and Methodology for Future Traffic Projections.....	86
7.5	Future Traffic Projections.....	89
7.6	Design Year (2045) Traffic Measures of Effectiveness.....	91
<b>8</b>	<b>ALTERNATIVES ANALYSIS .....</b>	<b>94</b>
8.1	No Further Action Alternative.....	94
8.2	Transportation System Management and Operations (TSM&O) .....	94
8.3	1996 TIS FEIS Long-Term Preferred Alternative (Non-Tolled) .....	95
8.4	Build Alternatives .....	96
8.4.1	2018 Express Lanes Alternative (Tolled or Non-Tolled Build Alternative).....	96
8.5	Downtown Interchange Design Options.....	97
8.5.1	Descriptions of the Five Downtown Interchange Design Options.....	97
8.5.2	Comparisons among the Downtown Interchange Design Options.....	108
8.6	Comparative Alternatives Evaluation and Evaluation Matrix.....	116
8.7	Recommended Locally Preferred Alternative and Next Steps.....	119
8.7.1	Basis for the Recommended LPA .....	119
8.7.2	Effectiveness at Meeting the Purpose and Need.....	121
8.7.3	Comparative Evaluation Matrix of No Further Action and the LPA.....	122






<b>9</b>	<b>PUBLIC INVOLVEMENT/PROJECT COORDINATION .....</b>	<b>124</b>
9.1	Open Houses/Library Tours and Charrettes .....	124
9.2	Small Group Meetings/Community Working Groups .....	124
9.3	Metropolitan Planning Organization (MPO)/Local Governments .....	125
9.4	Project Website.....	126
9.5	Citizens Transportation Academy and Community Events.....	126
9.6	Community Engagements Presentations and Small Group Meetings.....	126
9.7	Coordination with Minority, Low-Income, and Limited English Proficient Populations.....	127
9.8	Public Workshops.....	128
9.8.1	October 2017 Public Workshop and Historic Resources Meeting.....	128
9.8.2	May 2019 Alternatives Public Workshop.....	129
9.9	Public Hearing .....	129
<b>10</b>	<b>DESIGN DETAILS OF PREFERRED ALTERNATIVE .....</b>	<b>131</b>
10.1	Refinements following the Public Hearing.....	131
10.2	Design Traffic Volumes.....	135
10.3	Horizontal and Vertical Alignment.....	135
10.4	Typical Sections.....	136
10.5	Drainage and Stormwater Management .....	136
10.6	Structures.....	136
10.7	Right of Way Needs and Relocations.....	136
10.8	Utility and Railroad Impacts.....	136
10.9	Special Features .....	138
10.10	Recycling and Salvageable Materials .....	138
10.11	User Benefits (Safety, Etc.).....	138
10.12	Cost Estimate .....	138
10.13	Potential Construction Segments and Phasing .....	139
10.14	Work Program Schedule .....	139
10.15	Design Variations and Exceptions .....	139
<b>11</b>	<b>LIST OF TECHNICAL REPORTS.....</b>	<b>141</b>

## Appendices

Appendix A	Concept Plans and Typical Sections for the Preferred Alternative
Appendix B	Existing Roadway Typical Sections
Appendix C	Correspondence Regarding Florida High Speed Rail
Appendix D	TIS FEIS Preliminary Alternatives Screening Evaluation Technical Memo
Appendix E	Downtown Interchange Concept Options Access Details
Appendix F	Long Range Estimating System Cost Estimates
Appendix G	Colorized Exhibits of the Plans for the TIS FEIS Long Term Preferred Alternative
Appendix H	Concept Plans including the Downtown Interchange Design Options A, B, C & D
Appendix I	Traffic-Related Data and Figures
Appendix J	Straight Line Diagram Inventory
Appendix K	Bridge Rehabilitation Recommendations Memo

## List of Figures

**Graphics color scheme note for certain figures:** Some figures in this report were derived from the Concept Plans shown in **Appendix A** and **Appendix H**. The color scheme shown in those figures enables differentiation of lane types. The color scheme is consistent with the legend on those appendices which is shown to the right.

<b>LEGEND</b>		<b>PROPOSED EXPRESS LANE</b>
		<b>PROPOSED EXPRESS LANE - BRIDGE</b>
		<b>PROPOSED GENERAL USE LANE</b>
		<b>PROPOSED GENERAL USE LANE - BRIDGE</b>
		<b>PROPOSED NON-INTERSTATE FACILITY</b>

Figures using this color scheme include **Figures 1-2 to 1-7; 8-1 to 8-5; 8-7; 8-8; and 10-1 to 10-3**

Figure 1-1	TIS SEIS Overall Project Study Area .....	2
Figure 1-2	Preferred Alternative for TIS Segments 2B and 3A.....	7
Figure 1-3	I-275 Improvements Rome Avenue to Ashley Drive/Tampa Street .....	8
Figure 1-4	Downtown Tampa Connections - Ashley Drive/Tampa Street .....	9
Figure 1-5	Downtown Tampa Connection – Scott Street/Orange Avenue .....	10
Figure 1-6	Improvements Southbound I-275 to Eastbound I-4 .....	11
Figure 1-7	Improvements Westbound I-4 to Northbound I-275 .....	12
Figure 1-8	Improvements Westbound I-4 to Southbound I-275.....	13
Figure 2-1	TIS Completed Improvement Projects .....	17
Figure 2-2	Tampa Bay Next vs. TIS Study Segments Limits .....	18
Figure 4-1	Completed Interstate Projects within Segments 2B, 3A & 3B .....	22
Figure 4-2	Tampa Heights Greenway .....	27
Figure 4-3	Existing Right of Way.....	28
Figure 4-4	Existing Horizontal Curve Locations .....	30
Figure 4-5	FDEP Waterbody IDs Map (WBIDs) .....	32
Figure 4-6	Existing Drainage Basins.....	33
Figure 4-7	FEMA Floodplain and Cross Drains Map .....	37
Figure 4-8	NRCS Soil Survey Map .....	40

Figure 4-9	Traffic Crashes “Heat Maps” .....	42
Figure 4-10	Existing Mainline and Intersection Laneage .....	45
Figure 4-11	HART Bus Routes within the TIS SEIS Study Area.....	52
Figure 4-12	HART Downtown Network of Services.....	53
Figure 4-13	TIS Urban Design Guidelines/Aesthetics - Implemented Mitigation .....	56
Figure 4-14	Bridge Numbers and Locations Key Sheet .....	58
Figure 4-15	Existing Community Features Inventory .....	63
Figure 5-1	Tampa Interstate Study Milestones.....	65
Figure 5-2	TIS Master Plan Typical Section .....	68
Figure 5-3	Previously Approved Design Change Reevaluations.....	71
Figure 5-4	TBX Projects Map .....	72
Figure 7-1	Existing Mainline AADTs.....	83
Figure 7-2	Methodology used in the CORSIM Simulation.....	85
Figure 7-3	Existing Areas of Congestion (2018) .....	87
Figure 7-4	Subarea Model Coverage Area .....	88
Figure 7-5	ELToD Model Input Network.....	89
Figure 7-6	Design Year 2045 Mainline AADTs .....	90
Figure 7-7	AM/PM Peak Hour Average Speed Summary for 2045 Design Year .....	92
Figure 7-8	AM/PM Peak Hour Total Travel Delay Summary for 2045 Design Year .....	93
Figure 7-9	AM/PM Peak Hour Delay per Vehicle-Mile Summary for 2045 Design Year .....	93
Figure 8-1	Downtown Interchange Design Option A .....	100
Figure 8-2	Downtown Interchange Design Option B .....	101
Figure 8-3	Downtown Interchange Design Option C .....	103
Figure 8-4	Downtown Interchange Design Option D .....	104
Figure 8-5	Downtown Interchange Design Option E.....	107
Figure 8-6	Proposed Changes to Access for Ybor City/East Tampa .....	109
Figure 8-7	Comparison of ROW Needs for the Design Options A-D .....	110
Figure 8-8	Reconnection of Local Streets North of Floribaska Avenue .....	113
Figure 8-9	Alternatives Evaluation Matrix Shown at Public Hearing .....	123
Figure 10-1	I-275 Improvements Rome Avenue to Ashley Drive/Tampa Street .....	132
Figure 10-2	Downtown Tampa Connections – Ashley Drive/Tampa Street.....	133
Figure 10-3	Downtown Tampa Connection – Scott Street/Orange Avenue .....	134
Figure 10-4	Preferred Alternative for Segments 2B and 3A.....	135

## List of Tables

Table 1-1	Preliminary Cost Estimate of Preferred Alternative .....	14
Table 4-1	Existing Horizontal Alignment Curves .....	29
Table 4-2	I-275 North of I-4 Existing Vertical Alignment Data .....	31
Table 4-3	Existing Stormwater Management Facilities .....	34
Table 4-4	Summary of Existing Cross Drains .....	38
Table 4-5	NRCS Soils Information.....	39
Table 4-6	TIS Segments 2B, 3A and 3B Crashes by Year and Type .....	43
Table 4-7	TIS Segments 2B, 3A and 3B Crashes by Year and Severity .....	43
Table 4-8	TIS Segments 2B, 3A and 3B Crashes by Roadway Conditions and Year .....	44
Table 4-9	TIS Segments 2B, 3A and 3B Crashes by Lighting Condition and Year .....	44
Table 4-10	Statistical Crash Analysis for TIS Segments 2B, 3A and 3B.....	44
Table 4-11	Existing Utilities in Segments 2B, 3A & 3B .....	49
Table 4-12	2018 Pavement Condition Survey Results .....	50
Table 4-13	Planned and Proposed Mobility Services in the TIS SEIS Study Area.....	54
Table 4-14	Existing Bridges in the Segments 2B, 3A & 3B .....	60
Table 5-1	Tampa Interstate Master Plan Recommendations .....	66
Table 5-2	Summary of TIS Tiered Alternatives Analysis.....	67
Table 5-3	Previous TIS Reevaluations .....	70
Table 6-1	Design Criteria for I-275/I-4 Operational Interchange Improvements .....	78
Table 6-2	General Interstate Design Criteria .....	79
Table 7-1	2045 Design Year MOE– No Further Action Alternative and Build Alternative Design Options. ....	92
Table 8-1	Comparison of Estimated ROW Costs for the DTI Design Options .....	111
Table 8-2	Preliminary Construction Cost Estimates.....	111
Table 8-3	Sociocultural Effects – Connectivity.....	112
Table 8-4	Comparison of Estimated Remaining Relocations for Different Design Options .....	114
Table 8-5	Potential Wetland and Surface Water Impact Summary.....	115
Table 8-6	Potential Effects to Cultural Resources.....	116
Table 8-7	Preliminary Alternatives Evaluation Matrix – Segment 2B.....	117
Table 8-8	Preliminary Alternatives Evaluation Matrix – Segment 3A and 3B.....	118
Table 10-1	Proposed Bridges and Bridge Improvements with the Preferred Alternative.....	137
Table 10-2	Preliminary Cost Estimate of Preferred Alternative .....	138
Table 10-3	Potential Design Variations and Exceptions with the Preferred Alternative .....	140

## Acronyms

3R	Resurfacing, Restoration, and Rehabilitation
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ac	Acre(s)
APE	Area of Potential Effect
CARS	Crash Analysis Reporting System
CBC	Concrete Box Culvert
CBD	Central Business District
CCTV	Closed Circuit Television
C/D	Collector-Distributor Road
CDMS	Crash Data Management System
CF	Cost Feasible
CFR	Code of Federal Regulations
CIP	Cast in Place
CN	Curve Number
CRA	Community Redevelopment Agency
CRAS	Cultural Resources Assessment Survey
CRC	Cultural Resources Committee
CSER	Contamination Screening Evaluation Report
D/B	Design/Build
dB(A)	A-weighted decibels
DDHV	Directional Design Hour Volume
DHT	Design Hour Trucks
DHV	Design Hour Volume
DMS	Dynamic Message Signs
DTI	Downton Interchange
EETC	Engineering and Environmental Technical Compendium
ELToD	Express Lane Time of Day
EIS	Environmental Impact Statement
ERP	Environmental Resource Permit
FDEP	Florida Department of Environmental Protection
FDM	FDOT Design Manual
FDOT	Florida Department of Transportation (also "Department")
FEMA	Federal Emergency Management Agency
FEIS	Final Environmental Impact Statement
FHSR	Florida High Speed Rail
FHWA	Federal Highway Administration
FIB	Florida I-Beam
FIRM	Flood Insurance Rate Map
FPID	Financial Project Identification
FPN	Financial Project Number
FRA	Federal Rail Administration
F.S.	Florida Statutes



FT(ft)	Feet (foot)
FTI	Florida Traffic Information
FUB	Florida U-Beam
GULS	General Use Lanes
HFB	Howard Frankland Bridge
HART	Hillsborough Area Rapid Transit Authority
HOV	High Occupancy Vehicle
I	Interstate
ITS	Intelligent Transportation Systems
KM/H(kph)	Kilometers per Hour
LDCA	Location and Design Concept Acceptance
LHR	Location Hydraulics Report
LOS	Level of Service
LPA	Locally Preferred Alternative
LRE	Long Range Estimate
LRFD	Load and Resistance Factor Design
LRTP	Long Range Transportation Plan
LTPA	Long Term Preferred Alternative
MIS	Major Investment Study
MLK	Martin Luther King
MOA	Memorandum of Agreement
MOCF	Model Output Conversion Factor
MOE	Measures of Effectiveness
MOT	Maintenance of Traffic
MOU	Memorandum of Understanding
MPH(mph)	Miles per Hour
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxins
MVDS	Microwave Vehicle Detection System
N/A(n/a)	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAUR	Noise Analysis Update Report
NB	Northbound
NBI	National Bridge Inspection
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRE	Natural Resource Evaluation
NRHP	National Register of Historic Places
NWE	Northwest Expressway
ODME	Origin-Destination Matrix Estimation
OFW	Outstanding Florida Waters
PD&E	Project Development and Environment

PER	Preliminary Engineering Report
PHF	Peak Hour Factor
PIE	St Pete-Clearwater International Airport (airport call name)
PPM	Plans Preparation Manual
PSTA	Pinellas Suncoast Transit Authority
PSWADT	Peak Season Weekday Average Daily Traffic
PTAR	Project Traffic Analysis Report
RCP	Reinforced Concrete Pipe
RFP	Request for Proposals
ROD	Record of Decision
ROW	Right-of-Way
S4	Signal Four
SB	Southbound
SCE	Socio-Cultural Effects
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Officer
SHWT	Seasonal High Water Table
SIMR	System Interchange Modification Report
SIS	Strategic Intermodal System
SMF	Stormwater Management Facilities
SR	State Road
SWFWMD	Southwest Florida Water Management District
TBARTA	Tampa Bay Area Regional Transit Authority
TBN	Tampa Bay Next
TBRPM	Tampa Bay Regional Planning Model
TBX	Tampa Bay Express
TDM	Transportation Demand Management
TIA	Tampa International Airport
TIS	Tampa Interstate Study
TPO	Transportation Planning Organization
TSM	Transportation Systems Management
TSM&O	Transportation System Management and Operations
UAO	Utility/Agency Owners
UDG	Urban Design Guidelines
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USF	University of South Florida
VMT	Vehicle Miles Traveled or Vehicle Miles of Travel
VPD(vpd)	Vehicles per Day
WBID	Water Body Identification
WPIS	Work Program Item Segment
YR(yr)	Year

## 1 PROJECT DESCRIPTION

The proposed Tampa Interstate Study (TIS) Supplemental Environmental Impact Statement (SEIS) Project is located in the City of Tampa in Hillsborough County, Florida. The TIS SEIS overall study area comprises approximately 11 miles of Interstate (I) 275 and I-4, an approximate 4.4-mile segment of the Selmon Expressway, and an approximate 0.8-mile segment of the I-4/Selmon Expressway Connector (previously known as the Crosstown Connector). The overall project limits span I-275 from east of Howard Frankland Bridge (HFB) to North of State Road (SR) 574 (Dr. Martin Luther King (MLK) Jr. Boulevard), and I-4 from I-275 to east of 50th Street. The improvements include the full reconstruction of the Westshore Area Interchange including the addition of two tolled express lanes in each direction. Two tolled express lanes in each direction will also be added along the I-275 corridor with direct connections from the Howard Frankland Bridge (HFB) to the Veterans Expressway, Tampa International Airport (TIA), Westshore Business District, and Downtown Tampa. The Preferred Alternative includes improvements to the Downtown Tampa Interchange (I-275/I-4) to enhance safety and improve traffic operations. Operational improvements to the Downtown Tampa Interchange (I-275/I-4) will address the existing bottlenecks and high crash rates experienced within the I-275/I-4 interchange. The proposed improvements are located in the 1996 TIS Final EIS (FEIS) Segments 1A, 2A, 2B, 3A, 3B and 3C (**Figure 1-1**).

This *Preliminary Engineering Report (PER)* only addresses TIS Segments 2B, 3A and 3B, which encompass I-275 from Rome Avenue to north of SR 574 and I-4 from I-275 to east of 50<sup>th</sup> Street. A separate *PER* is being prepared for TIS Segments 1A and 2A. TIS Segment 3C has already been constructed and is not being evaluated as part of this SEIS.

### 1.1 Commitments and Recommendations

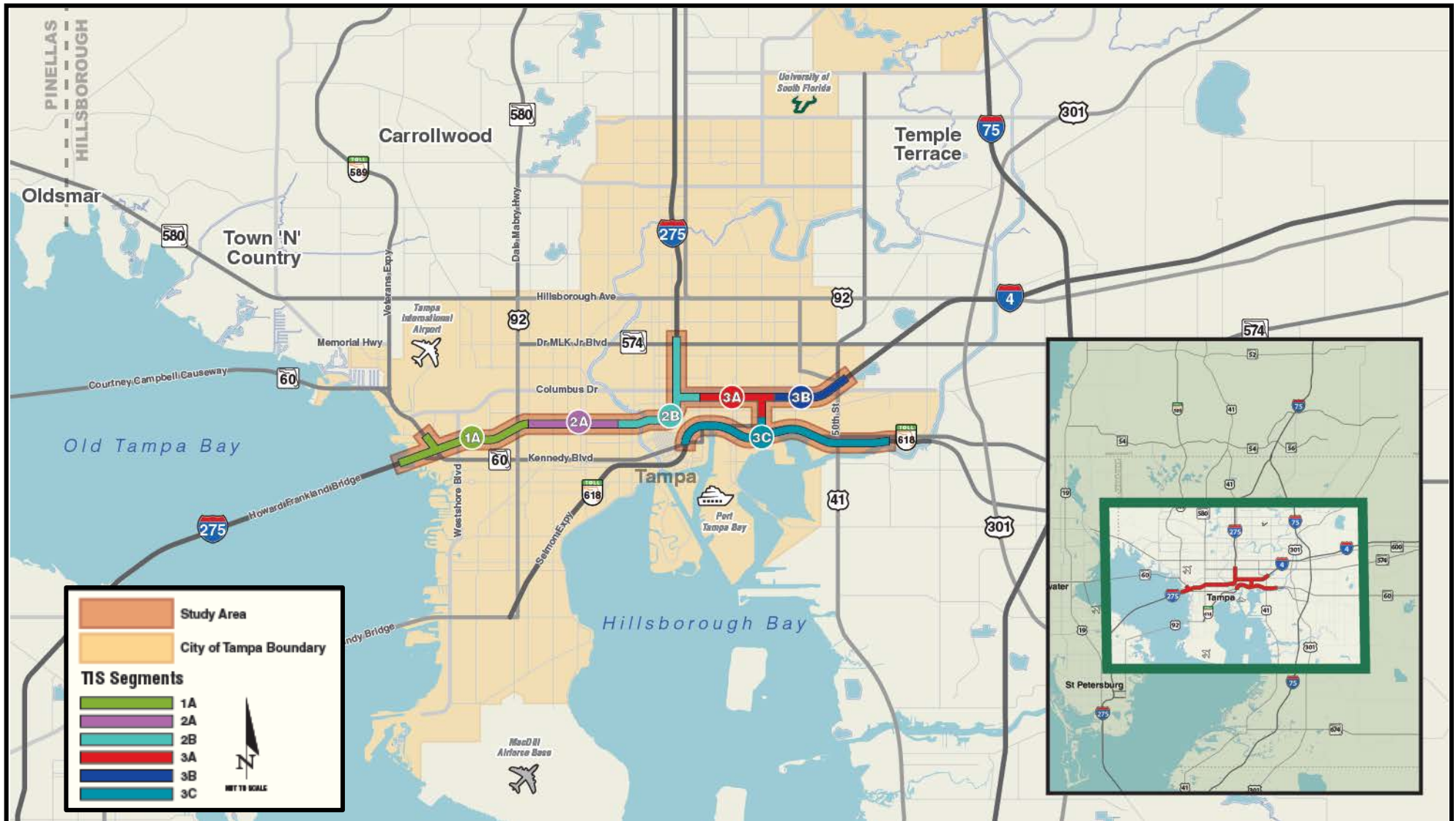
This section summarizes the Florida Department of Transportation's (FDOT's) commitments to minimize and mitigate impacts on the natural and built environment during the design, construction, and operation of the Preferred Alternative. The original commitment is described in plain text and then provides the status of each of these commitments in *italicized text*. Two new commitments specific to the SEIS are included at the end of the section in *italics*.

#### *Pedestrian and Bicycle Facilities*

**1996 TIS FEIS Commitment:** The planned interstate improvements include provisions for the future development of pedestrian and bicycle accommodations on cross streets beneath the interstate. FDOT is committed to developing new interstate overpasses, which ensure that all cross streets have sufficient room to accommodate bicycles and pedestrians during future local road improvement projects.

**Status:** *To date, provisions at all cross streets have been made where bridge structures have been added or replaced. In TIS Segment 1A and 2A, the Preferred Alternative will reconstruct and add new bridges that accommodate pedestrian and bicycle facilities. In TIS Segments 2B and 3A, where many of the structures will be widened, sloped embankment at underpasses with constrained ROW will be cut back, and vertical walls constructed to provide a wider and better connection to accommodate pedestrian and bicycle facilities.*

*In TIS Segments 1A and 2A, a new HFB Shared Use Path will link to Reo Street/Cypress Point Park and FDOT will fill trail gaps within the West Tampa Greenway where existing FDOT right-of-way (ROW) allow. In TIS Segments 2B and 3A, the trail located within the Tampa Heights Greenway will be extended within existing FDOT ROW, if feasible, south to Perry Harvey Sr. Park and north to Robles Park. Parallel trails, adjacent to I-4 and within existing FDOT ROW, connecting Tampa Heights Greenway to Ybor, East Tampa and the City of Tampa's Green Spine will be evaluated in final design. FDOT will continue to work closely with the City of Tampa on the interstate connections to local roadways; potential bicycle, pedestrian, and trail connections; interstate underpasses; and local streetscape and traffic calming.*



Source: Florida Department of Transportation. Tampa Interstate Study (TIS), Supplemental Environmental Impact Statement (SEIS). Project Segment Limits Map. March 7, 2018



#### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

#### Tampa Interstate Study SEIS Overall Project Study Area

Figure 1-1

## Construction

**1996 TIS FEIS Commitment:** Activities will result in temporary air, noise, water quality, traffic flow, and visual impacts for those residents, businesses, and travelers within the immediate vicinity of the project. The impacts will be effectively controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction*. FDOT committed to implementing six specific construction impact mitigation measures listed below in addition to FDOT's *Standard Specification for Road and Bridge Construction*.

1. The Contractor will use static rollers for compaction of embankment, subgrade, base, asphalt, etc.
2. Pile driving operations will be restricted to the hours of 7:00 a.m. to 9:00 p.m. to avoid interfering with any adjacent noise sensitive land uses or a different foundation design will be considered (i.e., drilled shaft).
3. Preformed pile holes will be required where they are in proximity to vibration sensitive land uses to minimize vibration transfer.
4. Back-up alarm noise from heavy equipment and trucks will be minimized by requiring the Contractor to operate in forward passes or a figure-eight pattern when dumping, spreading, or compacting materials.
5. Restriction of operating hours for lighting the construction areas will be determined and required of the Contractor prior to beginning construction activities requiring lighting.
6. Coordination with the local law enforcement agencies will be undertaken prior to commencing construction activities to ensure that construction-related impacts are minimized or adequately mitigated when work during non-daylight hours is required.

**Status:** *Since 1996, many of the above construction commitments have been incorporated as a standard part of FDOT's Standard Specifications for Road and Bridge Construction. Consequently, the 1996 commitment language will be replaced with language that goes beyond the standard specifications.*

*FDOT will continue to implement the following the measures outlined in FDOT's Standard Specifications for Road and Bridge Construction.*

1. *To avoid interfering with any adjacent noise sensitive land uses, pile driving operations will be restricted to the hours of 7 a.m. to 9 p.m. or a different foundation design will be considered, i.e. drilled shaft.*
2. *Back-up alarm noise from heavy equipment and trucks will be minimized in areas with noise sensitive land uses by requiring the Contractor to operate in forward passes or a figure-eight pattern when dumping, spreading or compacting materials.*

## Noise Barriers

**1996 TIS FEIS Commitment:** Due to the high number of noise sensitive sites identified and evaluated and in response to public comments received throughout the study, FDOT and the FHWA are committed to providing noise barriers as part of the project. FDOT is committed to providing noise barriers that meet both the acoustic and aesthetic goals of the project as identified in the *TIS Master Plan Report* and the *TIS Urban Design Guidelines* and the *Noise Study Report*. Specific noise abatement measures will be reevaluated during final design.

**Status:** *FDOT continues to be committed to provide noise barriers that meet both acoustic and aesthetic goals for the project and to reevaluate noise abatement measures during final design.*

*FDOT will reconstruct noise barriers that would be altered in length or location as a result of the Preferred Alternative in locations similar to where they currently exist. FDOT will construct a visual barrier on the south side of I-275 between Westshore Boulevard and Lois Avenue and at the southern end of Church Street along the*



entrance ramp from Dale Mabry Highway. In addition, ROW barriers (not shoulder barriers) will be evaluated for feasibility of early construction phasing to buffer residential areas from construction activities.

### Historic Resources

**1996 TIS FEIS Commitment:** A Section 106 Memorandum of Agreement (MOA) has been prepared to address mitigation measures for direct and indirect impacts to historic resources. The MOA includes FDOT commitments for the mitigation of impacts to historic structures within the Area of Potential Effect (APE) including the proposed moving and rehabilitation of certain historic structures and numerous design amenities defined in the *TIS Urban Design Guidelines*.

**Status:** A CRAS Update (FDOT, 2018, j), CRAS Update Addendum (FDOT, 2020, e) and Section 106 Effects Analysis Report (FDOT, 2020, f) have been prepared for the SEIS and both SHPO and FHWA have concurred with their findings. Although the Preferred Alternative directly impacts five contributing resources within the Ybor City NHL District (TIS Segment 2B), these five contributing resources were impacted by the 1996 TIS FEIS Long-Term Preferred Alternative. In addition, the number of resources impacted has been significantly reduced with the Preferred Alternative. There are no new adverse effects that fall outside of the original 1996 analysis and that were not already being mitigated in the TIS FEIS Section 106 MOA. The Stipulations in the MOA continue to be implemented.

### Urban Design Guidelines

**1996 TIS FEIS Commitment:** FDOT developed the *TIS Urban Design Guidelines*, approved by FHWA in December 1994, to minimize indirect adverse visual and auditory impacts to land uses adjacent to the system and to users of the freeway. The *TIS Urban Design Guidelines* will serve as guidelines and mitigation measures for the Section 106 process by providing design standards for unique areas within the corridor including West Tampa, Ybor City, Seminole Heights, Tampa Heights, Downtown Tampa, and the Westshore area. In addition, the *TIS Urban Design Guidelines* specify mitigation measures for indirect adverse effects to historic properties and communities in the vicinity of the project. The *TIS Urban Design Guidelines* provide guidance on specific aesthetic design requirements for bridge structures; retaining walls and embankments; noise barriers; lighting, fencing, and sign supports; stormwater and surface water management areas; landscaping; public art; utilities; mounds and grading; and recreation facilities.

**Status:** FDOT has implemented the *TIS Urban Design Guidelines* on all reconstruction projects to date and continues to be committed to implementing the *TIS Urban Design Guidelines*. In TIS Segment 1A and 2A, the Preferred Alternative will reconstruct and add new bridges that can accommodate all provisions within the *TIS Urban Design Guidelines*. FDOT will clear span over Westshore Boulevard, retain Lemon Street extension between Westshore Boulevard and Occident Street, provide openings under I-275 for Occident and Trask Streets, and provide a two-way extension of Reo Street to Kennedy Boulevard.

In TIS Segments 2B and 3A where many of the structures will be widened instead of reconstructed as part of the Preferred Alternative, sloped embankment at underpasses with constrained ROW will be cut back, and vertical walls constructed to provide a wider more open underpass area and better connection to accommodate pedestrian and bicycle facilities. In addition, during design, a feasibility analysis will be undertaken for additional east-west connection within FDOT ROW (remainder parcels) evaluating connections between Tampa Heights Greenway to Ybor, East Tampa, and the City of Tampa's Green Spine.

### HART North Transit Terminal and Maintenance Facility on 21st

**1996 TIS FEIS Commitment:** In the 1996 TIS FEIS, FDOT committed to providing a new facility as part of the Selected Alternative.

**Status:** This commitment has been completed and fulfilled. The North Transit Terminal has been relocated.

### *Parks and Recreational Facilities*

**1996 TIS FEIS Commitment:** The 1996 TIS FEIS Long-Term Preferred Alternative will involve the “use” of land from one City of Tampa Park requiring a Section 4(f) Evaluation, and FHWA determined that there was no feasible and prudent alternative to the use of a limited amount of land from Perry Harvey Park for public transportation purposes. Conceptual mitigation plans were prepared for the park, coordinated with the City of Tampa and presented to the community for input. Mitigation includes berms, landscape materials, a noise barrier, realignment of walkways and paths, replacement of the skateboard facility at a location to be designated by the City, and relocation of the Kid Mason Fendall Center into the Perry Harvey Park.

**Status:** *The Preferred Alternative will not impact the Perry Harvey Sr. Park.*

*The SEIS Preferred Alternative will require a temporary occupancy of the northeastern corner of the Julian B Lane Riverfront Park for the construction of a bridge that spans a 0.017-acre portion of the northeastern corner of the park. FDOT will comply with 23 CFR 774.13(d) to ensure that the temporary occupancy does not constitute a “use” of the resource as outlined in the City of Tampa letter dated May 12, 2020. FDOT is committed to:*

- 1. FDOT’s use of the area is only necessary to construct the express lane exit to Ashley Drive. There will be no change in ownership of the park property.*
- 2. The scope and nature of the temporary work is minor and aerial in nature; it includes placing a bridge superstructure over 0.017 acre of the northeastern corner of the 25-acre park. Temporary occupancy will occur during less than 50 percent of the project construction duration.*
- 3. The temporary occupancy for construction activities will not interfere with any temporary or permanent activities, features, or attributes of the park.*
- 4. The area will be returned to its existing or better condition. Any impacted landscape will be replanted/relocated within the vicinity per direction of the City of Tampa’s Parks and Recreation Department. The bat house adjacent, adjacent to the construction area, will remain in place and be properly protected per coordination with City of Tampa’s Park and Recreation Department.*
- 5. Specific to the City’s concern related to the living shoreline expressed in the February 27, 2019 letter, the westernmost pier located in the Hillsborough River will be constructed north of the City of Tampa/Southwest Florida Water Management District (SWFWMD) conservation easement and appropriate construction best management practices will be implemented to ensure any short term or long term impacts are avoided.*

### *Tampa Heights Greenway*

**1996 TIS FEIS Commitment:** Incorporating existing open space into the proposed project will provide visual linkages to isolated pockets of open space along the corridor. Opportunities to link open space areas will be evaluated during the design phase of the project. FDOT is committed to developing the Tampa Heights Greenway located north of I-275 from the Ashley Street exit ramp to Columbus Drive. The proposed greenway includes both active and passive recreation facilities, bike paths, and pedestrian walkways providing links to Downtown Tampa and other recreation facilities.

**Status:** *The ultimate greenway plan, developed as a commitment, for the 1996 TIS FEIS will not be implemented because the Preferred Alternative will not impact the NRHP-listed Tampa Heights Historic District. The interim buffer space, referred to as the interim Tampa Heights Greenway will remain in place and the trail located within the greenway will be extended within existing ROW, if feasible, south to Perry Harvey, Sr. Park and north to Robles Park.*



### Multi-Modal Terminal/Parking Garage

**1996 TIS FEIS Commitment:** The 1996 TIS FEIS Long-Term Preferred Alternative provides for the construction of a large downtown multi-modal terminal/HOV parking garage, transit connected, to accommodate buses and cars and provide commuters with convenient access to existing and future mass transit options. The structure will accommodate the future development of high-speed rail, electric streetcars, and people mover connections.

**Status:** *The 1996 TIS FEIS Long-Term Preferred Alternative consisted of the full reconstruction of the I-275/I-4 interchange, which is no longer being considered as a part of the SEIS Preferred Alternative. The SEIS does not require additional ROW acquisition in the vicinity of the previously proposed multi-modal terminal/parking garage and does not identify nor provide for a transit corridor within the interstate footprint in Segment 2B, the I-275/I-4 Interchange. Therefore, this commitment is no longer applicable. However, the SEIS Preferred Alternative will not preclude future transit projects or a future downtown multi-modal terminal/parking garage in this location. Environmental impacts associated with the proposed multi-modal terminal/parking garage were evaluated by separate projects through the Federal Transit Administration's (FTA's) approved Finding of No Significant Impact (FONSI) for the Tampa Bay Intermodal Centers and the Federal Rail Administration's (FRA's) High-Speed Rail FEIS and approved ROD. FDOT will continue to partner with our local transit partners to site a multi-modal center in the downtown area through an ongoing FDOT-sponsored study, the Intermodal Center South Study: Downtown, Westshore and Pinellas Gateway.*

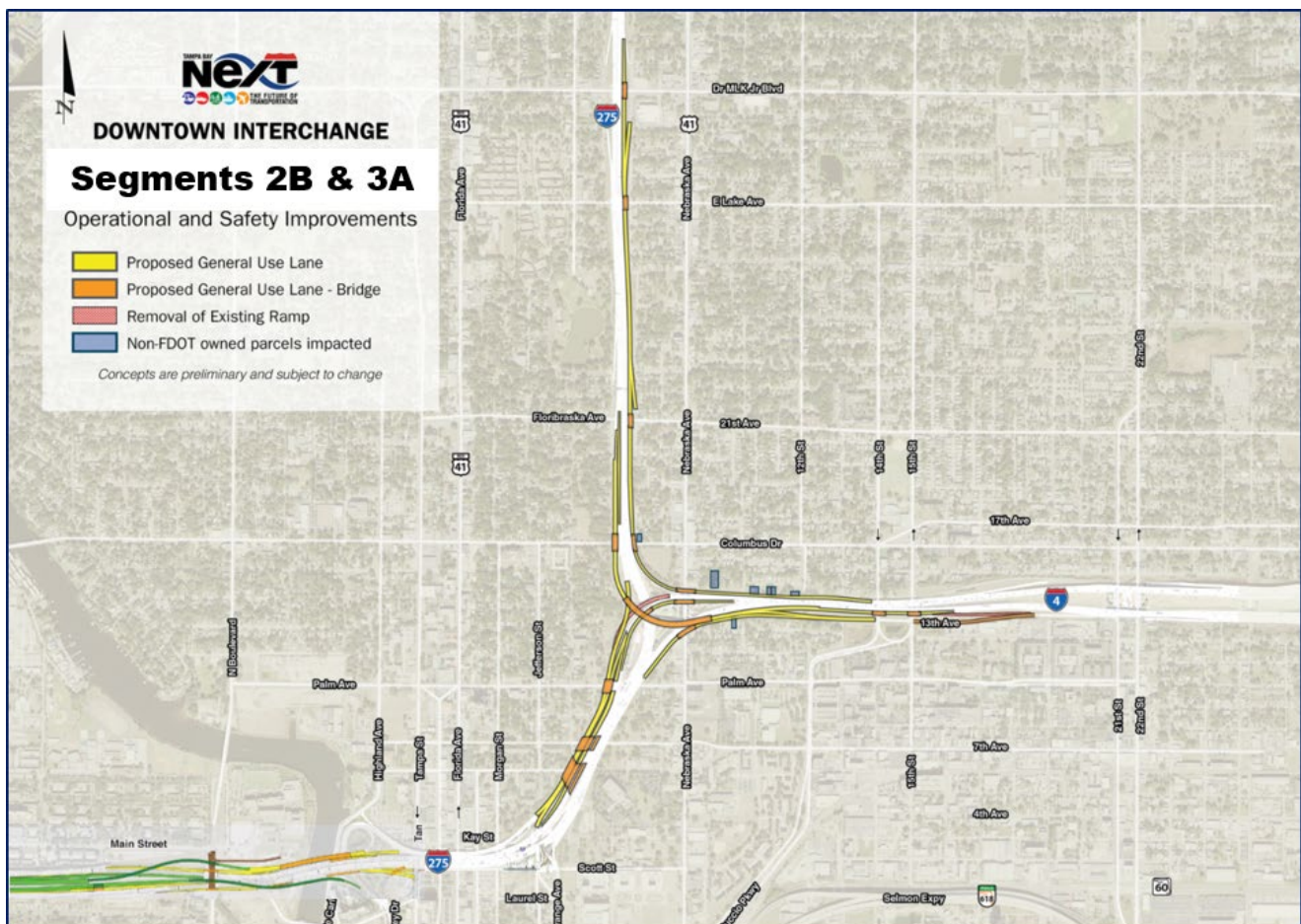
### High-Speed Rail

On April 16, 2020, in response to the Draft SEIS, FRA acknowledged that currently there is no apparent conflict between the SEIS Preferred Alternative and the approved High Speed Rail FEIS. FDOT is committed to coordinating with the FRA on a future reevaluation of the FRA Florida High-Speed Rail FEIS to ensure both projects are viable.

The Preferred Alternative as described in **Section 1.2** is recommended for implementation.

## 1.2 Description of Preferred Alternative

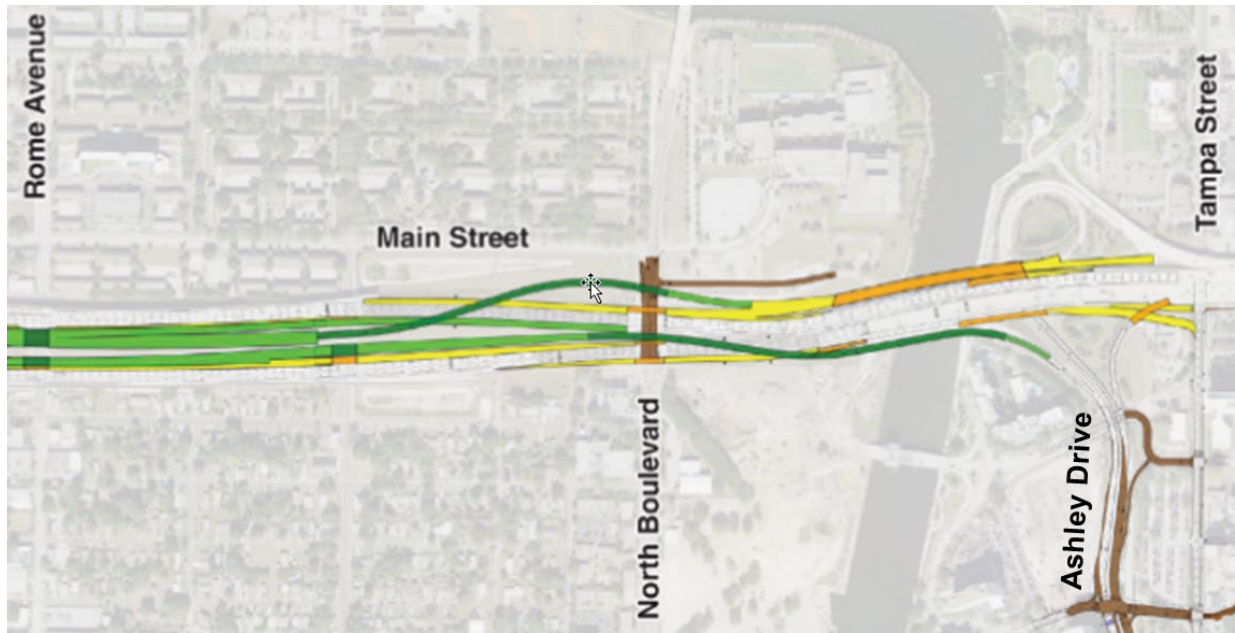
The traffic operation and safety improvements in TIS Segments 2B and 3A will address existing bottlenecks and high crash rates experienced within the I-275/I-4 interchange. These operational improvements will be completed almost entirely within the existing FDOT owned ROW. The Preferred Alternative will include the beginning and the end of the proposed express lanes that are a continuation from the HFB/Westshore area extending to Ashley Drive and three safety and operational improvements within the I-275/I-4 interchange. There will be no interstate access to North Boulevard. In addition, the Preferred Alternative will remove, replace, and widen some of the existing bridges within the Downtown Interchange of I-275 and I-4. The bridges that will be affected are shown in **Appendix K**. All the existing bridges to be widened, or to remain, will be reviewed for rehabilitation measures to improve the superstructure and substructure rating. Some bridges that have low deck ratings will have the bridge decks replaced and/or full shoulders will be added where currently there is minimal to no shoulder width. The bridges that will remain will maintain the existing shoulder width. **Figure 1-2** shows the Preferred Alternative for TIS Segments 2B and 3A. This same figure and details below are also shown in. Elements of this Preferred Alternative are shown in more detail in the following subsections and on the Concept Plans in **Appendix A**.



**Figure 1-2 Preferred Alternative for TIS Segments 2B and 3A**

### I-275 from Rome Avenue to Ashley Drive

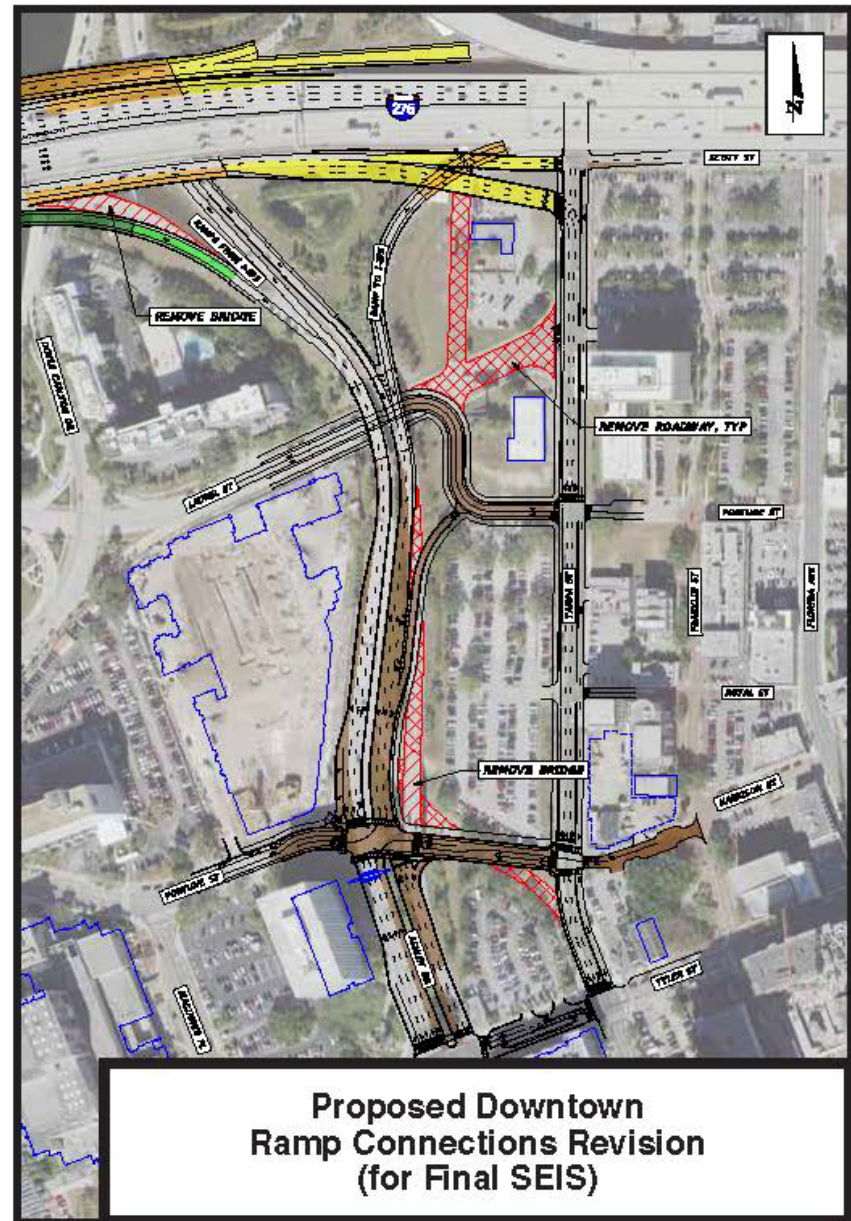
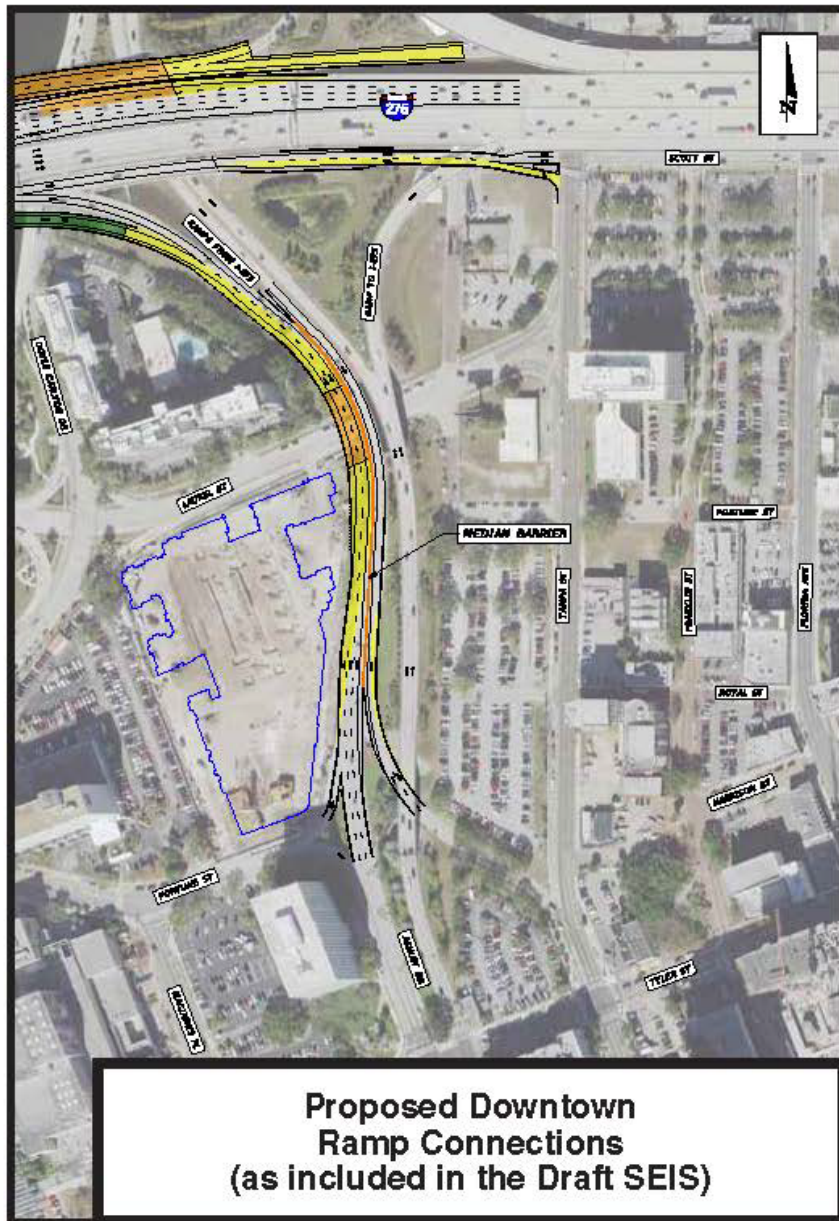
The City of Tampa requested FDOT reconsider the existing and proposed interchange connections of I-275 to Ashley Drive and Tampa Street, just east of the Hillsborough River. The City of Tampa also would like to remove the southbound free-flow style ramp connections to Tampa Street as this higher speed geometry is not conducive to safe pedestrian crossings. Northbound, the two express lanes will merge to one lane in the vicinity of North Boulevard and continue as a new single-lane flyover ramp to the outside (south) of northbound I-275 and bridge over the Hillsborough River (see **Figure 1-3**).



**Figure 1-3 I-275 Improvements Rome Avenue to Ashley Drive/Tampa Street**

The express lane ramp will then connect to the existing Ashley Drive off-ramp to provide direct access to Downtown. The northbound general purpose ramp to Ashley Drive will be re-signed to the exit ramp to Tampa and Scott Streets. To address added traffic, the Ashley Drive ramp will be widened to two-lanes at the exit with multiple through and turn lanes at its terminus. To accommodate the additional ramp lanes, the northbound I-275 on-ramp bridge from Ashley Drive will be reconstructed. Southbound, a new two-lane bridge will be constructed north of the existing southbound I-275 lanes over the Hillsborough River for the downtown on-ramps from Tampa Street and Ashley Drive. The existing general use lanes will shift outward and allow for the development of a southbound express lane with a buffer separation beginning in the vicinity of the Hillsborough River. A single-lane express lane ramp from the Ashley Drive/Tampa Street on-ramp will flyover from the outside of I-275 to the median of I-275 between North Boulevard and Willow Avenue. (See **Figure 1-4** for the configuration presented at the public hearing and depicted in the *Draft SEIS* and refinements made after the public hearing and depicted in the *Final SEIS*.)





Source: FDOT 2020 - See **Appendix A** – Concept Plans for the Preferred Alternative for more details



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

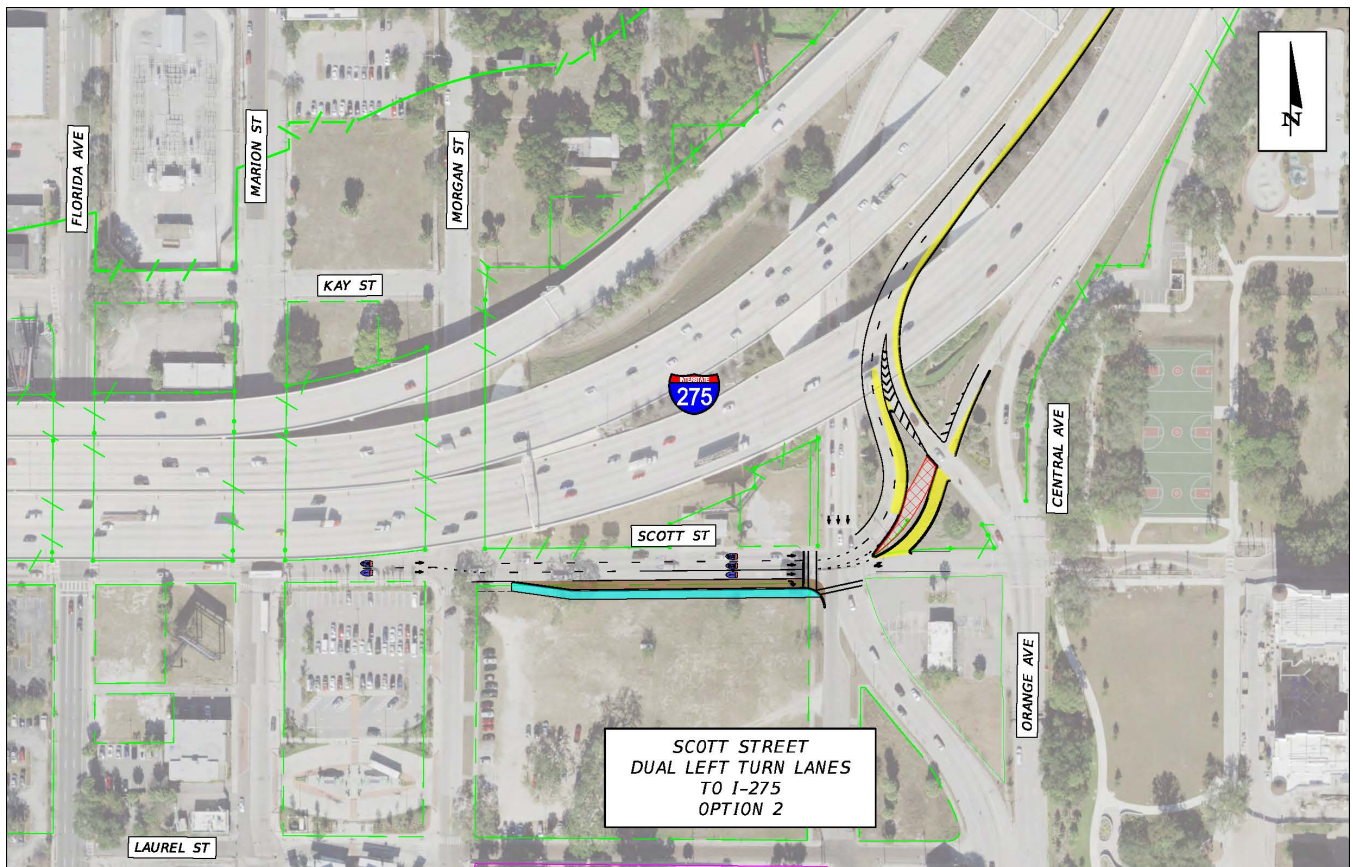
**Downtown Tampa Connection  
Ashley Drive/Tampa Street**

**Figure 1-4**



## Scott Street

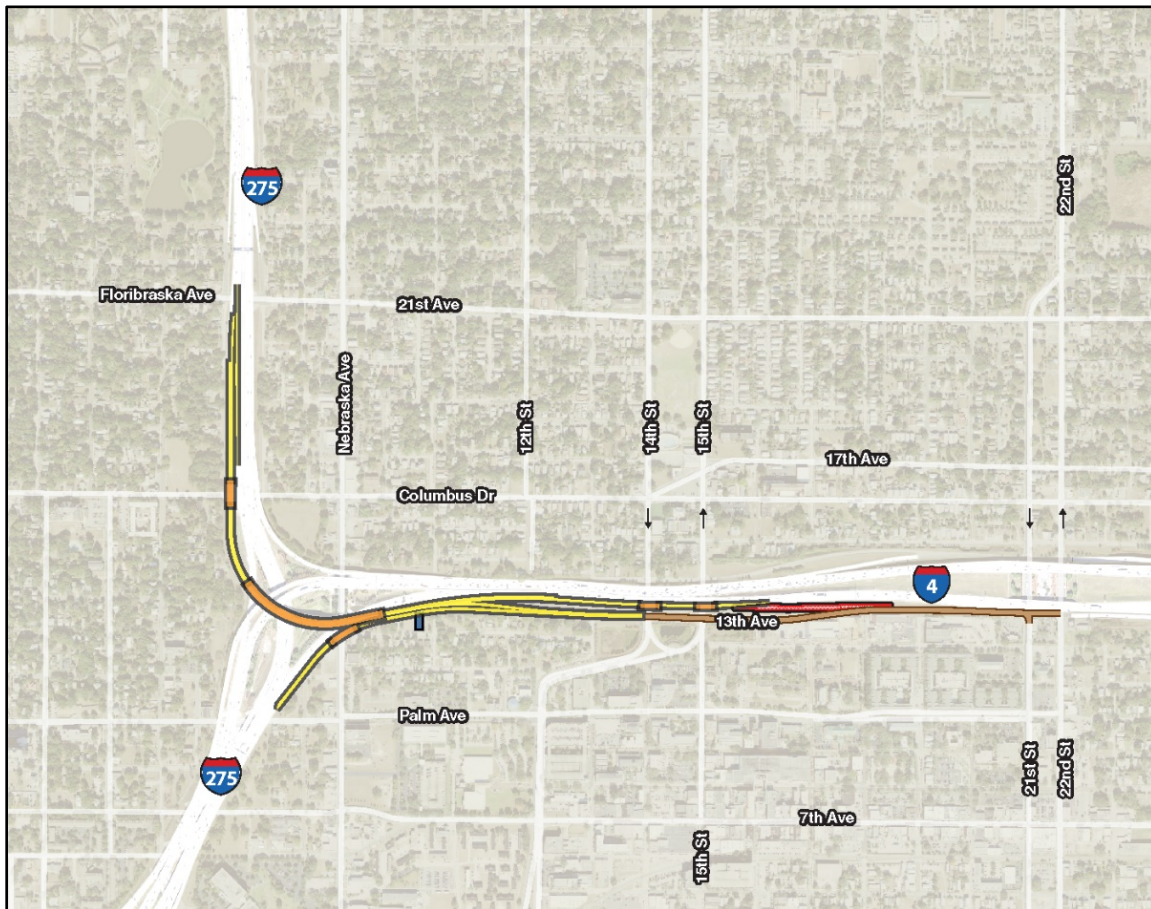
To accommodate the extensive growth that has recently occurred, and is projected to continue, in the Channel District in Tampa's east side, FDOT will widen Scott Street by 12 feet to the south for an additional lane for the one block between Morgan Street and Jefferson/Orange Streets. This will create four lanes, allowing for two entry lanes to northbound I-275, one lane combined to eastbound I-4/through lane, and one exclusive right turn lane to Jefferson/Orange Streets. The entrance ramp to northbound I-275 will be widened for several hundred feet, before tapering to a single lane. See **Figure 1-5**.



**Figure 1-5 Downtown Tampa Connection – Scott Street/Orange Avenue**

### Southbound I-275 (and Northbound I-275) to Eastbound I-4

The southbound I-275 to eastbound I-4 improvements include widening the existing flyover ramp to two lanes. The existing southbound auxiliary lane that begins at the entrance ramp from Dr. MLK, Jr. Boulevard will continue to provide drivers access to the I-4 flyover ramp without changing lanes. The existing exit ramp to Floribaska Avenue will remain. The northbound I-275 exit to I-4 will be modified by adding a split of traffic separating traffic heading east on I-4 and traffic intending to exit to Ybor City and East Tampa. The ramp to I-4 east is braided with the southbound I-275 exit to Ybor City. This will eliminate a weave of vehicles that otherwise would be mixing with traffic between this northbound I-275 exit ramp and the southbound I-275 exit flyover ramp. The exit ramp improvements will also include relocating the exit ramp to Ybor City and East Tampa from the existing location at 21<sup>st</sup>/22<sup>nd</sup> Street to 14<sup>th</sup>/15<sup>th</sup> Street. The existing single-lane frontage road, East 13<sup>th</sup> Avenue, will be widened to two lanes to better facilitate access to 21<sup>st</sup>/22<sup>nd</sup> Street. These operational improvements will be completed almost entirely within the existing FDOT owned ROW. Only one additional vacant parcel impact is anticipated. See Figure 1-6.



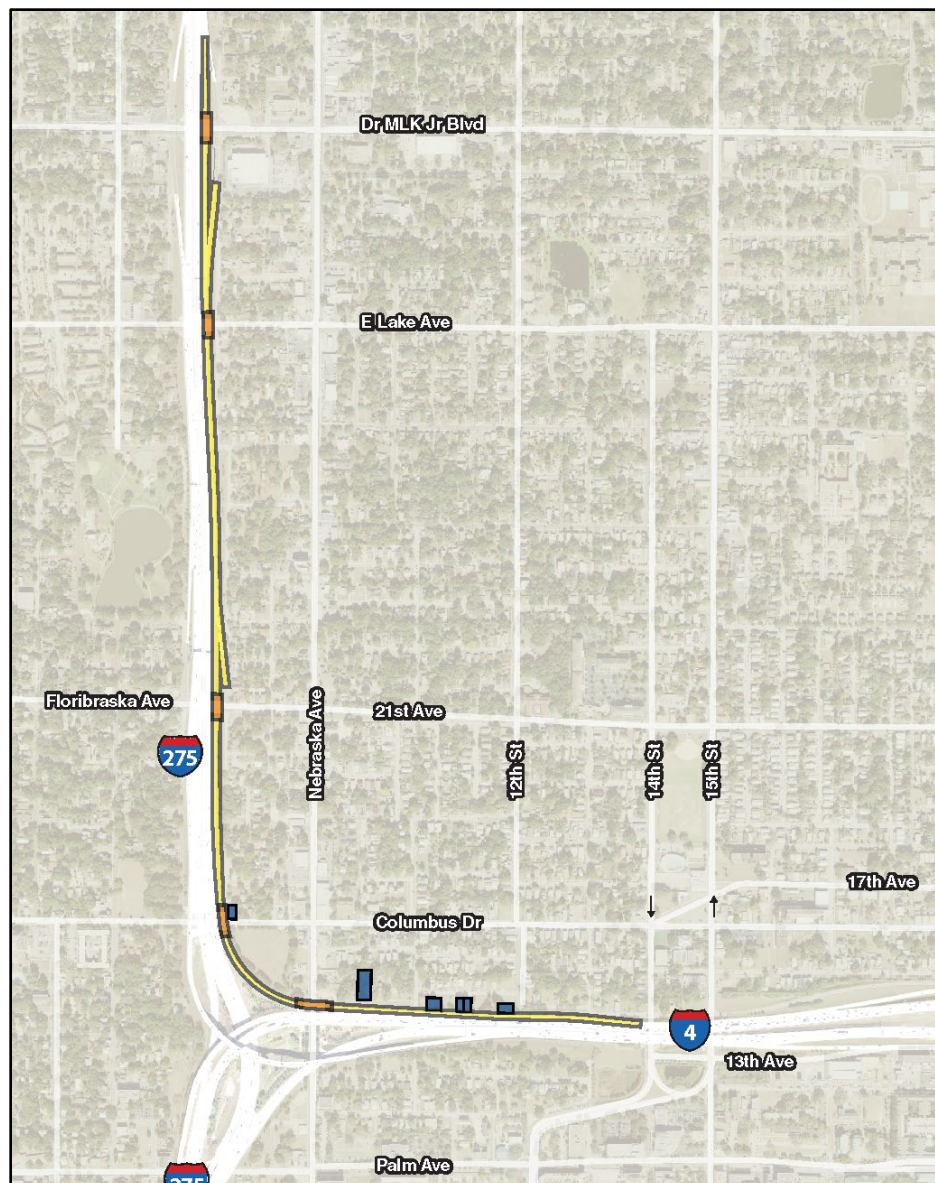
**Figure 1-6 Improvements Southbound I-275 to Eastbound I-4**

### Westbound I-4 to Northbound I-275

The westbound I-4 to northbound I-275 operational improvement will include widening the existing exit to northbound I-275. An additional lane will be provided by widening westbound I-4 beginning just west of 14<sup>th</sup> Street. The entrance ramp from 21<sup>st</sup> Street that currently merges onto I-4 in the vicinity of 16<sup>th</sup> Street will become an add lane, utilizing existing pavement and not requiring any widening of existing pavement until west of 14<sup>th</sup> Street. The additional lane will continue along the off-ramp to northbound I-275 by widening the off-ramp to two lanes.



The additional widened lane will continue north along I-275 to provide five lanes from I-4 to the Floribraska Avenue on-ramp. Between the Floribraska Avenue on-ramp and the Dr. MLK, Jr. Boulevard exit ramp, a sixth auxiliary lane will be added connecting the existing Floribraska Avenue on-ramp to the Dr. MLK, Jr. Boulevard exit ramp. The existing single-lane exit ramp to Dr. MLK, Jr. Boulevard will be widened to two lanes. From the exit ramp to Dr. MLK, Jr. Boulevard north, the five lanes will continue and then reduce to four lanes prior to the on-ramp from Dr. MLK, Jr. Boulevard and continue to Hillsborough Avenue. The on-ramp from Dr. MLK, Jr. Boulevard will merge prior to Osborne Avenue. Drivers in the innermost lane from the ramp to I-275 northbound will be able to continue in this lane to Hillsborough Avenue. On the northeast side of Downtown Tampa, the Scott Street intersection with Jefferson/Orange streets and the ramps to/from I-275 and I-4 will be improved. By widening to the south, an additional lane on Scott Street east of Morgan Street will facilitate two entry lanes to northbound I-275, one lane combined to eastbound I-4/through lane, and one exclusive right turn lane to Jefferson/Orange Streets. The entrance ramp to northbound I-275 will be widened for several hundred feet, before tapering to a single lane. These operational improvements will be completed mostly within the existing FDOT-owned ROW. Six parcels would need to be acquired. See **Figure 1-7**.

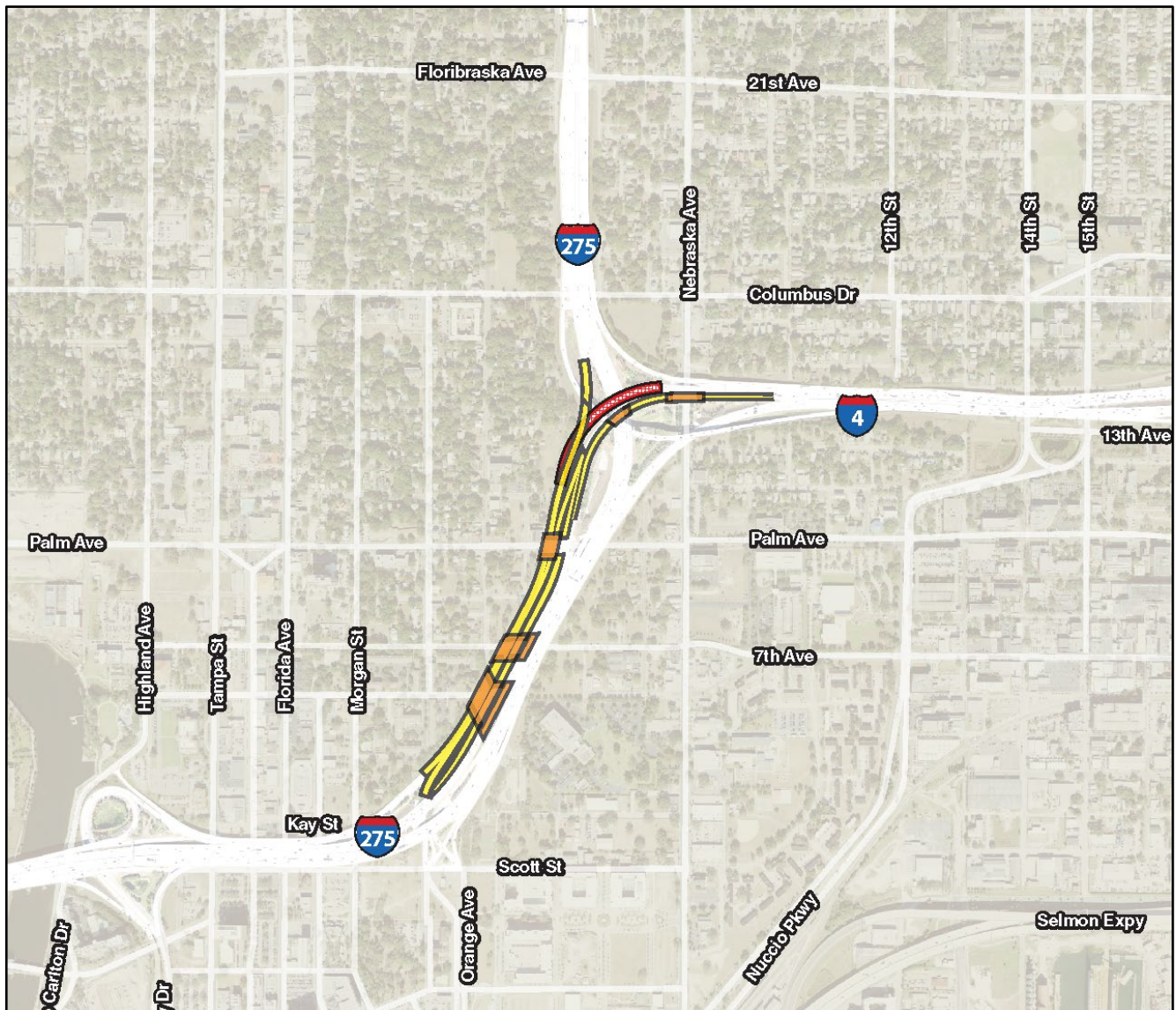


**Figure 1-7 Improvements Westbound I-4 to Northbound I-275**



### Westbound I-4 to Southbound I-275

The westbound I-4 to southbound I-275 operational improvements will include widening the southbound I-275 ramp from two lanes to three lanes. The three lanes will join the two lanes from southbound I-275 to provide five lanes. The five lanes will then merge to four lanes near Jefferson Street. The exit ramps to Downtown Tampa will be adjusted to improve spacing so drivers can more efficiently exit to downtown. The exit ramps will still serve Orange Avenue, Jefferson Street, Ashley Drive, and Doyle Carlton Drive. The improvements will remove the existing ramp bridge structure over I-275 as part of the ramp relocations. The existing shoulders will be widened on I-275 from Palm Avenue to Jefferson Street. These proposed operational improvements will be completed entirely within the existing FDOT-owned ROW. See **Figure 1-8**.



**Figure 1-8 Improvements Westbound I-4 to Southbound I-275**

### TIS Segment 3B and 3C

There are no improvements proposed in TIS Segment 3B and 3C under the Preferred Alternative. However, within the TIS SEIS study limits, there is work proposed as part of the improvements associated with I-4 eastward to the Polk County Line (Tampa Bay Next [TBNNext] Section 8), which was determined to be appropriate to evaluate the environmental impacts independent of this SEIS. To make a seamless transition to I-4, FDOT prepared an Engineering and Environmental Technical Compendium (EETC) for I-4 from the Selmon Connector to east of 50<sup>th</sup> Street. FDOT prepared the EETC in support of the I-4 Type 2 Categorical Exclusion prepared for TBNNext Section 8, which was approved on October 5, 2019. (see study website: <https://archived.fdotd7studies.com/i4/50th-to-polk-parkway/>).

### Preliminary Costs and Programming

Preliminary cost estimates for the Preferred Alternative (\$millions, rounded) for Segments 2B, 3A and 3B are included in **Table 1-1**. Construction costs are based on FDOT's Long Range Estimating (LRE) cost estimating system prepared in February-April 2020, and include temporary traffic control, mobilization and an initial contingency. The LRE estimates are split into several projects. The LREs and summary of these costs is shown in **Appendix F**.

**Table 1-1 Preliminary Cost Estimate of Preferred Alternative**

Component	Total Estimated Cost for Segments 2B, 3A & 3B (nearest \$1 million)
Construction of Roadways, Bridges, Ponds and Other Elements	\$254,000,000
Right of Way	\$3,000,000
Design*	\$18,000,000
Construction Inspection	\$19,000,000
Total	\$294,000,000

\* Includes portion of the LRE for the Design aspect of Design/Build or design estimate for Design-Bid-Build project

Sources: FDOT Long Range Estimate system estimates dated Feb-Apr 2020

The FDOT has programmed future phases of a portion of the Preferred Alternative in the current Five-Year work program for FY 2020-2024. The portion funded includes the portion along I-275 from Rome Avenue across the Hillsborough River and the Downtown Tampa Connections to Ashley Drive/Tampa Street (as shown in **Figures 1-2 and 1-3**). These portions are intended to be programmed with improvements to TIS Segments 1A and 2A. Below is a list of work program milestones for this portion.

- Begin Fiscal Year 2020
- Advertise Design-Build – Fiscal Year 2023
- Execute Design-Build – Fiscal Year 2024
- Construction Notice to Proceed – Fiscal Year 2024

No future phases are currently programmed in the FDOT's current Five-year work program for the remainder of the Preferred Alternative

## 2 INTRODUCTION

### 2.1 Project Development and Environment Study Process

The FHWA and FDOT have initiated an environmental review process for the TIS in Tampa, Hillsborough County, Florida. The study is a supplement to the 1996 FEIS. FHWA issued the Records of Decision (ROD) in 1997 and 1999. FDOT and FHWA are conducting this study based on a proposed design change that includes new alternatives not previously considered, as well as modified alternatives presented in the 1996 TIS FEIS to accommodate tolled express lanes and other capacity and mobility improvement alternatives, some of which are being considered by FDOT in separate studies. FDOT, in coordination with FHWA, is preparing a SEIS in accordance with the National Environmental Policy Act (NEPA) and other regulatory requirements. All work is being conducted in accordance with FDOT's *PD&E Manual (2017)* to ensure compliance with all state and federal requirements.

### 2.2 Project History and Background

The TIS Project has been under consideration since the early 1980s. These earlier planning and engineering studies are described in **Section 5** of this report.

Previous FHWA approved environmental documents have governed the development of all improvements to I-275 and I-4 providing a roadway system that will ultimately include general use lanes and separated express lanes in each direction, as well as accommodation for a future transit corridor. The intent of the FHWA and the FDOT is to ultimately construct the TIS Long-Term Preferred Alternative (as it has been modified) as funding becomes available through the Hillsborough County Metropolitan Planning Organization (MPO). Since issuance of the 1997 and 1999 RODs, FDOT has taken several major steps to advance the Project to full implementation. The TIS Project has been reevaluated several times (see **Section 5**) to advance various elements of the project, many of which FDOT has already constructed, including portions of Segment 1A, Segment 2A, Segment 3A, Segment 3B, and Segment 3C. The following briefly describes the projects that FDOT has already constructed; the third one below is described in greater detail in **Section 4.1**. The limits of these projects are shown in **Figure 2-1**.

- **I-4/I-275 Interchange Operational Improvements (Downtown Tampa Interchange)** - Corridor Length: 2.7 miles, Construction Cost: \$81 million, Start: October 2002 – Completion: December 2006. Capacity and safety improvements to the Downtown Tampa Interchange, which widened both interstates to four lanes in each direction. Improvements also included: extending the Ashley Street entrance ramp, providing a local auxiliary exit ramp system, improving weaving movements related to the I-275 southbound to I-4 eastbound flyover ramp, shoulder-mounted 8-foot noise walls near densely developed residential areas, landscaping within infield area and aesthetic treatments.
- **I-4 from West of 14<sup>th</sup> Street to East of 50<sup>th</sup> Street** – Corridor Length: 3.2 miles, Construction Cost: \$185 million, Start: February 2004 – Completion: Fall 2007. Reconstruction of a 4-lane roadway into a 6-lane roadway (three lanes in each direction with auxiliary lanes) to tie into the Downtown Tampa Interchange improvement project completed in December 2006. Improvements also included: providing an increased median width reserved for future transportation needs, new bridges with improved height clearances, shoulder-mounted 8-foot noise walls near densely developed residential areas, aesthetic treatments, and improved lighting and drainage.
- **I-275 Northbound from Himes Avenue to the Hillsborough River** – Corridor Length: 2 miles, Construction Cost: \$109 million, Start: August 2007 – Completion: Spring 2010. Reconstruction of a 3-lane roadway into a 4-lane roadway primarily south of the existing alignment. Improvements also included: providing an

increased median width reserved for future transportation needs, new bridges with improved height clearances, shoulder-mounted 8-foot noise walls near densely developed residential areas, aesthetic treatments, and improved lighting and drainage.

- **I-4/Lee Roy Selmon Expressway Interchange** – Corridor Length: 1 mile, Construction Cost: \$425 million, Start: March 2010 – Completion: Spring 2014. Construction of a new north-south toll interchange, which connects I-4 with the Lee Roy Selmon Expressway (SR 618). The elevated roadway with an all-electronic toll collection system links these two, major east-west corridors, and provides “truck-only” lanes for direct access to the Port Tampa Bay to reduce heavy truck traffic from local roads in Ybor City. Aesthetic treatments were also included in this project.
- **I-275 Widening Southbound and Remainder of Northbound from east of SR 60 to Downtown Tampa** – Corridor length: 4.2 miles, Construction Cost: \$217.3 million, Start: July 2012 – Completion: Fall 2016. Reconstruction and roadway widening. Improvements included: providing four through lanes in each direction, flattening the profile of the roadway at bridges over the crossroads, aesthetic treatments, improved interchanges, and increased median width for future improvements.

In 2011, FDOT released the *Florida Transportation Vision for the 21<sup>st</sup> Century*. The vision focused on innovative financing alternatives, advancing projects, and accommodating economic growth. While the 1996 TIS FEIS always included express lanes along the region’s interstates, tolling was not a consideration at the time. As a result of the 2011 Vision, FDOT initiated a master plan study in 2012 to determine the feasibility of dynamically tolling the proposed express lanes on the interstate. FDOT’s 2015 *Tampa Bay Express (TBX) Master Plan*, which included the TIS Project limits, established a system-wide framework for implementation of dynamically-tolled express lanes within the Tampa Bay Region. As part of the development of the *TBX Master Plan*, FDOT conducted extensive outreach, beginning with focus groups, to better understand public perceptions of the express lanes concept.

Due to funding constraints for the implementation of the ultimate capacity improvements envisioned in the *TBX Master Plan* for the Tampa Bay Region, FDOT identified a series of express lane projects in the five-year work program that could be advanced. FDOT could build each of these smaller-scale projects within a five-year window. FDOT considers these shorter-term improvements the “Starter Projects”. The Hillsborough County MPO formally added the Starter Projects to the fiscally-constrained Transportation Improvement Program (TIP) in 2015. The Tampa Bay Regional Transit Authority (TBARTA) also included the Starter Projects in the 2015 *Regional Transportation Master Plan Update*. Additional discussion on the development of alternatives is included in **Section 8**. **Figure 2-2** shows the TBX Master Plan sections (4, 5, and 6) in relation to the TIS Segments. Within the limits of the TIS FEIS, the starter projects included the ultimate reconstruction of the Westshore and Downtown Interchanges and the addition of 2 express lanes in each direction.

## 2.3 Purpose of Report

The purpose of this *PER* is to document all of the engineering-related aspects associated with the TIS SEIS work efforts, specifically for TIS Segments 2B, 3A and 3B (TBN Section 6). Separate reports are being prepared to document engineering elements, environmental effects, and public involvement efforts (see **Section 11** for list).





## Tampa Interstate Study Completed Improvement Projects

### Limits of Completed Projects

	I-275 Widening Southbound and Remainder of Northbound East of SR60 to Downtown Tampa
	I-275 Northbound from Himes Avenue to the Hillsborough River
	I-4/I-275 Interchange Operational Improvements (Downtown Tampa Interchange)
	I-4 from west of 14th Street to east of 50th Street
	I-4/Lee Roy Selmon Expressway Interchange



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Tampa Interstate Study Completed Improvement Projects

Figure 2-1

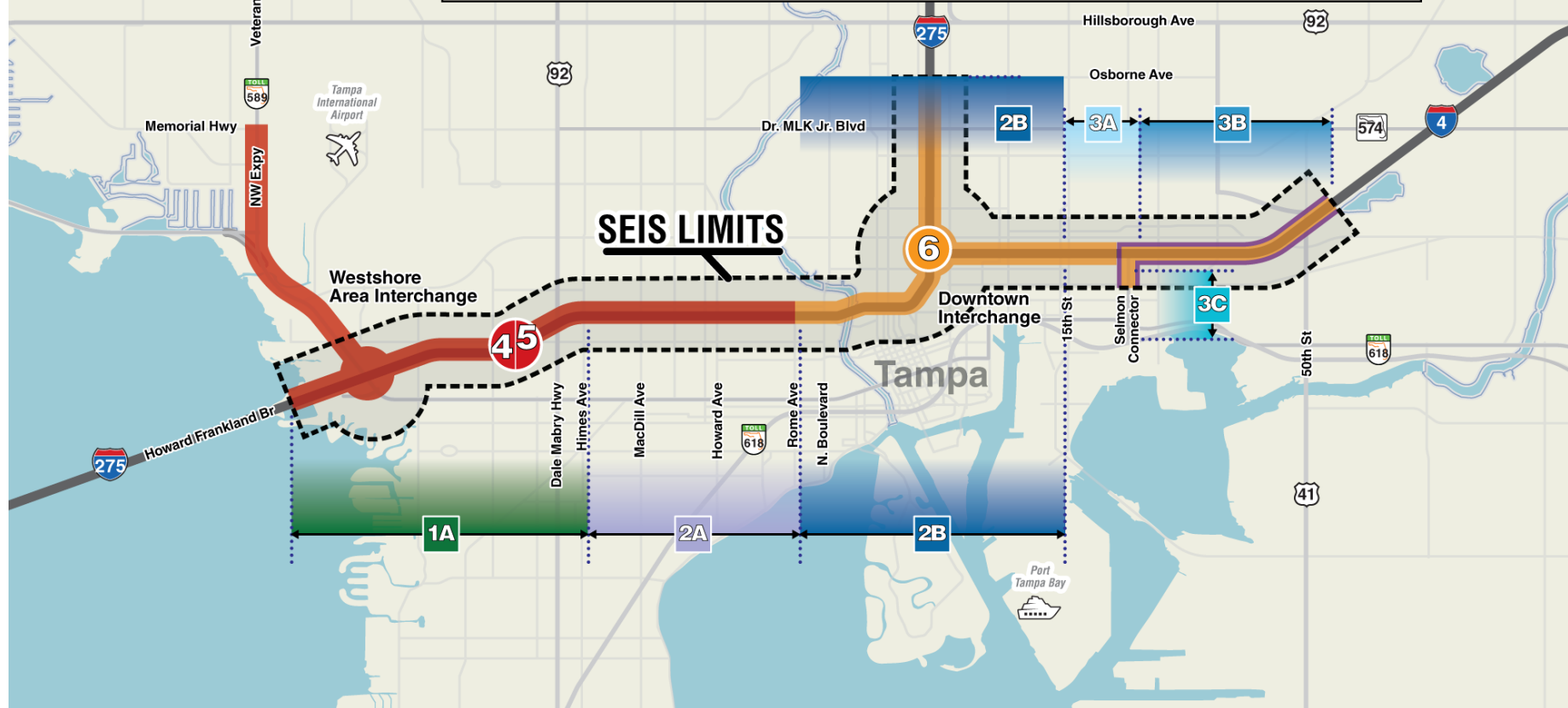


## ■ Tampa Interstate Study (TIS) Segments

- |   |  |
|---|--|
| <b>1A</b> I-275 from west of SR 60 to east of Himes Avenue                          | <b>3A</b> I-4 from east of 14th Street to 36th Street          |
| <b>2A</b> I-275 from east of Himes Avenue to east of Rome Avenue                    | <b>3B</b> I-4 from 36th Street to East of 50th Street          |
| <b>2B</b> I-275 from Rome to north of MLK and I-4 from I-275 to east of 14th Street | <b>3C</b> I-4/Selmon Expressway Connector to Selmon Expressway |

## ● Tampa Bay Next Sections

- |  |  |
|--|--|
| <b>45</b> Westshore Area Interchange and I-275 from the Howard Frankland Bridge to east of Rome Avenue FPID 4335357; 4340452 | <b>6</b> Downtown Interchange FPID 4338212 |
|--|--|



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Tampa Bay Next Vs. TIS Study Segments Limits

Figure 2-2

### 3 PURPOSE AND NEED FOR PROJECT

The information in this section is based on the 2017 Purpose and Need document prepared as part of the SEIS. Refer to Chapter 1 of the SEIS document.

#### 3.1 Project Purpose

As stated in the 1996 TIS FEIS, the purpose of the TIS proposed improvements was to upgrade the safety and efficiency of the existing I-275 and I-4 transportation corridors while improving access to the surrounding communities and the need to meet existing and projected traffic demands, provide for multimodal opportunities in the corridor, and improve the efficiency of this important regional and local transportation link.

The current SEIS Purpose and Need is consistent with the 1996 TIS FEIS Purpose and Need and expands upon the originally identified purpose and need to include congestion relief that improves accessibility, mobility, travel times, and system linkages and multimodal connections, while supporting regional economic development goals and enhancing quality of life for Tampa Bay residents and visitors.

#### 3.2 Summary of Needs and Goals for the TIS SEIS Project

Goals were developed based on the transportation needs and issues that have been identified for the TIS SEIS Project. The goals were used to develop screening criteria to evaluate the alternatives being considered to address the transportation needs in the TIS SEIS Project study area as measured against the established Purpose and Need. The evaluation of alternatives is a key component of the environmental process and should contain sufficient information to distinguish between the costs and benefits of the alternatives and to understand the relationships among alternatives, including possible trade-offs. The evaluation of the transportation improvement alternatives for the TIS SEIS Project will draw on the information and analyses gathered for the TIS SEIS and input from stakeholders. It will provide the qualitative and quantitative material needed for decision making in a manner that will successfully build a consensus among those concerned with the selection and implementation of a Locally Preferred Alternative. The goals of the TIS SEIS Project are as follows:

- **Meet regional goals and objectives and demonstrate consistency with long range plans:** The *Strategic Intermodal System (SIS) Policy Plan*, *Imagine2040: Hillsborough Long Range Transportation Plan (LRTP)* (Hillsborough MPO), and *2015 Regional Transportation Master Plan Update* (TBARTA) identified improvements to I-4 and I-275 as critical to support projected population and employment growth.
- **Provide a vital link to the regional transportation network:** There exists a need to provide key connections to other recently improved, under construction, or planned highway improvements and to portions of Hillsborough County that are expected to continue to experience significant growth through the next 20 years. Without improvements to the primary interstate system, other freeways, expressway, and arterials as provided for in Hillsborough MPO's *Imagine 2040: LRTP* (2014) will fail to provide the necessary capacity to relieve congestion and system connectivity.
- **Provide a multimodal transportation corridor that complements the surrounding community from a transportation, economic, and social aspect:** Several multimodal transportation activities converge within the limits of the TIS SEIS Project study area. These transportation facilities include, or are planned to include, streetcar, express buses, local bus routes, park-and-ride lots, and rail transit. Sufficient capacity to accommodate existing and future transit demand is needed in the TIS SEIS Project study area.
- **Meet future travel demand generated by population and employment growth:** Population in Tampa Bay Region is projected to grow 48 percent by 2040, and employment is projected to increase by approximately 56 percent. This growth would result in a substantial increase in the traffic demand for the facility, with an



increase in Vehicle Miles Traveled (VMT) projected at 44 percent by 2040. The proposed improvements are needed to improve freeway capacity in the TIS SEIS Project study area to accommodate the increasing travel demand.

- **Improve regional and interstate travel and mobility through the TIS SEIS Project study area by reducing travel times and duration of congestion:** Freeway Annual Average Daily Traffic (AADT) volumes are projected to increase by 66 percent throughout the TIS SEIS Project study area by 2040. At the major chokepoints in the TIS SEIS Project study area, the Downtown and Westshore interchanges, AADT is expected to increase by 109 percent and 61 percent, respectively. Regional travel times to Downtown are projected to increase from an average of 52 minutes to 62 minutes in 2040, a 19 percent increase. Regional travel times to Westshore are projected to increase from an average of 51 minutes to 61 minutes in 2040, a 20 percent increase. The duration of congestion could last more than two to three hours per day within the entire study area. Improvements are needed to move traffic more efficiently and provide travelers with a faster and more predictable trip.
- **Provide a safer, more efficient transportation system for the increased traffic volumes in the existing transportation corridor:** Future travel demand resulting from projected population and employment growth will create further need for improving the transportation system. Congestion in the study corridors is demonstrated by poor levels of service of the existing freeways, with most the corridors failing. Congestion levels are expected to increase, further deteriorating the levels of service for the future projected travel demand. Study of historic safety data also indicates that the project study area interstates experience crash rates that are well above the statewide average crash rate for similar facilities, demonstrating that there is a need to improve safety in the TIS SEIS Project study area.
- **Provide efficient and convenient access to economic activity centers in the TIS SEIS Project study area:** I-275, I-75, and I-4 provide a vital regional link between several counties including Pasco, Polk, Pinellas, Hillsborough, and Manatee within the Tampa Bay area. The TIS SEIS Project study area along I-275 and I-4 represents the spine of the transportation network for the City of Tampa and Hillsborough County and provides access to employment, residential neighborhoods, tourist and recreational destinations, and services. The location of the proposed improvements through the core downtown area of Tampa, Westshore Business District, and the surrounding key activity centers with areas of high concentration of employment and commercial developments demonstrates the need for accessibility and connectivity to key economic centers to keep and attract businesses and development and support the economic vitality of the region.
- **Allow for improved access to regional facilities and efficiently accommodate regional and interstate movement of people and goods:** I-275, I-75, and I-4 also provide important connections to Port Tampa Bay and the Tampa International Airport (TIA). Port Tampa Bay is the largest port in the state of Florida handling handled more than 37 million tons of cargo in 2016. The efficient movement of people and goods throughout the Tampa Bay Region relies on the integration of freight and transportation infrastructure, equipment, personnel, and information systems. These components must work together in order to sustain the regional economy. Therefore, the movement of goods by improving access and travel times, as it relates to economic development, is an important factor in the need for improvements in the TIS SEIS Project study area.

In summary, the purpose of and need for the proposed action in the TIS SEIS is to relieve congestion for a rapidly growing region in a manner that improves various aspects of the transportation system as outlined in the preceding sections of this discussion. These improvements are needed to meet future travel demand that will occur with projected population and employment growth, provide access to economic activity centers, enhance existing and future travel safety, address local arterial traffic congestion, and provide system linkages and multimodal connections, while improving regional and interstate travel and mobility.

## 4 EXISTING CONDITIONS

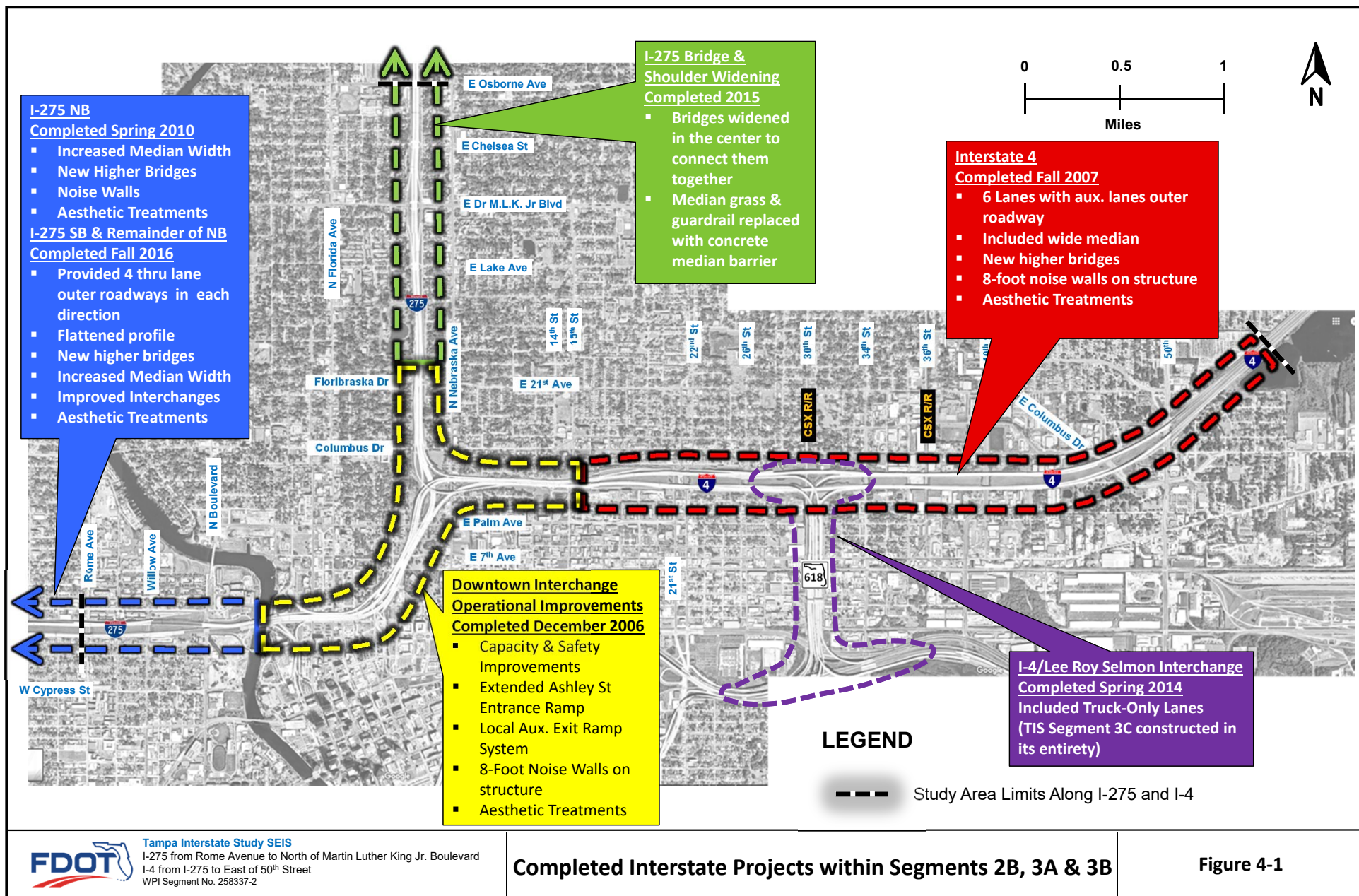
### 4.1 Completed Projects within the Segments 2B, 3A & 3B

Several major interstate improvement projects have already been completed within TIS Segments 2B, 3A and 3B, as mentioned earlier. Completed projects are summarized in **Figure 4-1**. These projects are listed chronologically in the following subsections.

#### 4.1.1 The Downtown Interchange (DTI) Operational Improvements Project

The **DTI Operational Improvements Project (Financial Project Number [FPN] 258643)** was one of the first projects to be implemented from the 1997 ROD which included operational and safety improvements to the I-275/I-4 interchange, also known as the Downtown Tampa Interchange, and referred to in the TIS as Segment 2B. The I-275/I-4 Interchange is located immediately to the north of the Tampa Central Business District (CBD) and provides direct access to/from the downtown area. The project included work on I-275 from the Hillsborough River north to Floribrasca Avenue and on I-4 from east of 15th Street into the interchange (see graphic below). This interchange, originally constructed in the early 1960's, was designed to accommodate traffic volumes in the range of 40,000 to 60,000 vehicles per day (vpd); however, in 2017, the AADT on I-275 within the interchange was 226,000 vpd.





Tampa Interstate Study SEIS  
I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
I-4 from I-275 to East of 50th Street  
WPI Segment No. 258337-2

Completed Interstate Projects within Segments 2B, 3A & 3B

Figure 4-1



This project was begun in October 2002 and completed in December 2006 at a cost of approximately \$81 million. It was intended as an interim improvement as much of it was considered “throwaway” when compared to the 1996 TIS FEIS long term preferred alternative. The improvements were documented in a reevaluation (approved January 2000) and *System Interchange Modification Report (SIMR)*, dated February 2001.

The improvements completed for this interchange included revising the geometry at merge areas, providing auxiliary lanes, replacing left-side on-ramps with right-side on-ramps, providing better lane continuity, providing lane balance at exit gore areas, relocating major diverges from the mainline to a local collector/distributor roadway, and providing standard shoulders in areas where improvements were proposed. As part of these operational improvements, 8 new bridges were constructed, 18 existing bridges were widened, and 4 lanes in each direction were constructed to tie into the then proposed four lane projects on each side of this project.

The improvements associated with this project were expected to result in a more uniform distribution of volume across travel lanes, higher overall travel speeds, smaller disparities in vehicle speeds across the travel lanes and in adjacent roadway segments, and fewer weaving movements. These improvements were intended to provide drivers with increased horizontal sight distance as well as increased time and distance to execute merge, diverge, and weaving maneuvers, thus improving safety and reducing congestion.

**Improvement highlights for the interchange included:**

- Increased to four-lanes in each direction.
- The Ashley Drive entrance ramp was extended - continuing along I-275 to eastbound I-4
- Downtown-trips are now physically separated from through-trips by a local auxiliary exit ramp system
- The flyover ramp from southbound I-275 to eastbound I-4 was relocated from the left side to the right side of the highway to reduce weave movements
- Structure-mounted eight-foot noise walls were built adjacent to densely developed residential areas
- Landscaping was done in the infield area of the interchange and aesthetic treatments were incorporated into the design of underpass areas and street ends
- A portion of the Tampa Heights Greenway was also constructed as a part of this project.

**Shoulder Construction**

In order to preserve the greatest amount of existing pavement to best facilitate Maintenance of Traffic (MOT), some final design shoulders occupied portions of existing concrete roadway pavement and therefore were widened where necessary with concrete at slopes that matched the existing roadway. All other shoulders were constructed of asphaltic concrete.

**Design Variations and Exceptions**

Three design variations and two design exceptions were prepared for this project during the PD&E study. The design variations addressed vertical clearances, superelevation, and stopping sight distance (horizontal alignment). The design exceptions addressed vertical curve lengths and inside and outside roadway and bridge shoulder widths. The following excerpt from the DTI PD&E study’s 1996 report explains the rationale for the variations and exceptions:

*The initial design of the I-275/I-4 interchange occurred in the early 1960's. The plans were prepared with design speeds of 80 kilometers per hour (km/h) (50 miles per hour [mph]) for mainline and connecting ramps for I-4 and I-275 and 60 km/h (35 mph) for the local C/D roadway. The current minimum American*

*Association of State Highway and Transportation Officials (AASHTO) design speeds for urban freeways are 80 km/h (50 mph) and 55 km/h (35 mph) for direct connecting ramps. The Preferred Alternative concept proposes improvements utilizing most of the existing vertical geometrics on I-275 and I-4. In most cases, the existing vertical curve lengths on mainline segments are below current AASHTO standards. Therefore, a design exception is requested to construct improvements to the existing facility.*

*The proposed improvements will tie into existing sections of I-275 to the west and north and I-4 to the east that currently provide substandard vertical curve lengths. At this time, there is no funding for the ultimate construction segments on I-275 to the west (Segment 2A) or to the north (Segment 2B). Interim improvements to the segment on I-4 to the east (Segment 3A) are under design with ROW acquisition scheduled for the years 2000/2001. There is no construction funding at this time. The proposed improvements are compatible to transitioning into the existing facility and to the proposed interim improvements to Segment 3A.*

*An alternative solution of providing vertical geometry to current standards was explored with the complete replacement of the facility (Alternative 3). This concept constructs the outside lanes of the ultimate Tampa Interstate Study EIS improvement. As stated previously, this alternative was eliminated from consideration due to its high construction and ROW costs. Alternative 3 is estimated to cost approximately \$350 million to construct as compared to approximately \$80 million for the Preferred Alternative.*

*Finally, the purpose of the operational improvement is to enhance safety and operation. Although some design aspects of the proposed improvements will not meet current minimum standards, safety and operations will be improved from the existing conditions.*

Similar justification was used as the basis for design variations and exceptions for roadway and bridge shoulder widths, vertical clearances, superelevation and stopping sight distances (horizontal alignment).

Additionally, during the design phase, two design exceptions and four variations were prepared. The design exceptions were for horizontal clearance, involving existing 9 inch curb along a section of I-4 eastbound that was to be removed during the I-4 Segment 3A reconstruction project, and horizontal sight distance for northbound I-275 between Palm Avenue and Columbus Drive. The variations addressed the clear width of Ramp B under the Ramp EW-2 bridge, horizontal curve lengths, and median/inside shoulder cross slopes, and median widths for I-275 from the Begin Project point to Morgan Street and from 7<sup>th</sup> Avenue to South of Columbus Drive.

#### 4.1.2 I-4 from 14<sup>th</sup> Street to 50<sup>th</sup> Street

**I-4 from 14<sup>th</sup> Street to 50<sup>th</sup> Street** – After completion of the DTI operational improvement project described in **Section 4.1.1**, the next project to be constructed was I-4 from 14th Street to 50th Street under the 1997 ROD. This project built the outside lanes that were shown in the TIS Segment 3A and 3B. FHWA authorized construction in 2003 and FDOT completed construction in 2008. A great majority of the historic resource relocations were in this segment. In addition, aesthetic treatments were included based upon the community input received during the Urban Design Guidelines process. There is room for additional lanes and a transit envelope.

#### 4.1.3 I-275 Northbound Lanes from Himes Avenue to the Hillsborough River

**I-275 NB Lanes from Himes Avenue to the Hillsborough River** – The next project was covered under the 1999 ROD for TIS Segment 2A. This project built the northbound outer roadway lanes from Himes Avenue to the Hillsborough River. FHWA authorized construction in 2006 and FDOT completed construction in 2010. Throughout this corridor, noise barriers were constructed where they were determined feasible to not only provide a visible and auditory barrier to the interstate, but also fit the visual style of the community. Landscaping

was added along the noise barriers in many areas to further improve the visual appeal. Two historic homes were relocated in this project. To supplement the multimodal centers, FDOT also left space for a future premium transit envelope throughout the median of the interstate.

#### **4.1.4 I-4/Selmon Expressway Connector**

**I-4/Selmon Expressway Connector** – The next project to be constructed was the I-4/Selmon Expressway Connector, TIS Segment 3C and portions of Segments 3A and 3B under the 1997 ROD. This project was a new alignment along the 30<sup>th</sup> Street corridor in Ybor City providing direct access to Port Tampa Bay from I-4. FHWA authorized construction in 2008 and FDOT completed construction in 2014. This project had a community work committee, selected by the neighborhood, to work with the design team on selecting aesthetic treatments for this project. FDOT also assisted the Palmetto Beach community in preparing documentation for their application as a national historic district. By removing the trucks from 21st and 22nd Streets through Ybor City, FDOT worked with the City of Tampa to retrofit them with a complete streets project that was completed in 2018.

#### **4.1.5 I-275 Southbound Lanes from SR 60 to the Hillsborough**

**I-275 SB Lanes from SR 60 to the Hillsborough River** – The last TIS project that was constructed is I-275 from SR 60 to the Hillsborough River. This project built the southbound outer roadway lanes that were shown in the TIS Segment 2A and a portion of 1A and the remainder of the northbound lanes from north of Westshore Boulevard to the Hillsborough River. FHWA authorized construction in 2009 and FDOT completed construction in 2016. In addition to applying the Urban Design Guidelines throughout the project, FDOT built a new trail adjacent to the interstate and preserved the wide median for future lanes and a transit envelope.

#### **4.1.6 I-275 Bridge and Shoulder Widening project**

**I-275 Bridge and Shoulder Widening project (FPN 58660-2 and 258642-3)** – A project not mentioned earlier is the I-275 Bridge and Shoulder Widening project completed in 2015. The limits extended from south of Floribaska Avenue to north of Yukon Street in Tampa. This project widened shoulder areas to create a more consistent shoulder width (inside shoulders now typically about 21-feet wide; outside shoulders typically 10-feet wide) for northbound and southbound I-275 to allow vehicles to pull all the way out of travel lanes for breakdowns and accidents. The major work was done in the median to the inside shoulders. Partial demolition and widening was done on 13 pairs of bridges (for a total of 26 bridges). These bridges were widened to connect in the center and four of the bridges were also widened to the outside. Widening on the roadway (non-bridge) shoulder portions of the highway was also completed. The existing grass and guardrail in the median were replaced by a concrete barrier wall to match up with median conditions on the north and south ends outside the project limits. Drainage, sign and signal work was also included in the project. Three overhead dynamic message signs—part of the Intelligent Transportation Systems (ITS) network — were also replaced by improved signs with color displays.

### **4.2 Existing Roadway Characteristics**

FDOT Straight Line Diagram Inventory sheets are included in **Appendix F** which summarizes many of the existing roadway characteristics.

#### **4.2.1 Roadway Classification and Access Management**

The existing interstate system thru Tampa is classified as an urban principal arterial, and it also part of the state's SIS. The access management classification is Class 1 – Limited Access Facilities, based on FDOT's Rule 14-97 which sets forth an access control classification system and access management standards to implement the State Highway System Access Management Act of 1988 (F.S. 335.18).



## 4.2.2 Typical Sections and Posted/Design Speeds

Existing roadway typical sections are included in **Appendix B**, obtained from various as-built plan sets. Posted speed limits are 55 mph outside of the DTI and 50 mph within the DTI. The approximate limits of the 50 mph speed limit on I-275 extend from the Hillsborough River to south of Floribruska Avenue, and along I-4 from the DTI to west of 21<sup>st</sup> Street. The estimated design speed on I-275 west of the DTI varies from 65 mph to 50 mph; within the DTI, the design speed is 50 mph for the mainline and 40 mph for the ramps. The design speed for I-275 north of the DTI is 60 mph, and the design speed for I-4 east of the DTI is 60 mph or higher.

## 4.2.3 Pedestrian and Bicycle Facilities

There are no provisions for pedestrians or bicyclists on the interstate system since they are currently prohibited by law. Adjacent City of Tampa surface streets include sidewalks and bike lanes. In addition, as part of the construction of the DTI operational improvements completed in 2006 (as a commitment from the original TIS FEIS/Record of Decision), an interim segment (from 7<sup>th</sup> Avenue/Central to Amelia) of the Tampa Heights Greenway was constructed as shown on **Figure 4-2**. The City of Tampa has been working with FDOT on plans to extend this greenway to eventually run between Columbus Drive and Tampa's Water Works Park with a connection to Tampa's Riverwalk on the Hillsborough River. In addition, FDOT is looking for opportunities to connect gaps through West Tampa and the Westshore Business District, beyond to the Courtney Campbell Trail.

## 4.2.4 Right-of-Way

Existing ROW widths vary substantially throughout Segments 2B, 3A & 3B, as depicted in **Figure 4-3**. In general, between Rome Avenue and Downtown Tampa, the ROW varies from about 350 to 600 feet in width. The ROW along I-4 varies from about 300 to 600 feet in width, and the ROW along I-275 between Downtown Tampa and Osborne Avenue vary from about 250 to 350 feet in width. The FDOT was purchasing parcels near the DTI since the late 1990s to accommodate projects constructed as listed in **Sections 4.1.1** and **4.1.2**, and from willing sellers in anticipation of the future need for widening the interstate in this area in addition to parcels in anticipation of the Florida High Speed Rail Project.

## 4.2.5 Horizontal Alignment

The existing horizontal alignment has a variety of curves through Segments 2B, 3A, and 3B as summarized in **Table 4-1** and shown on **Figure 4-4**. The existing alignment is bi-furcated throughout much of the Segments 2B, 3A & 3B, so there are multiple alignments for northbound I-275, southbound I-275, westbound I-4, and eastbound I-4. There are multiple ramp connections, with horizontal alignments that have differing design speeds, throughout the length of the study.

The mainline posted speed limit varies from 50 mph to 55 mph, with most curves meeting the current design criteria for posted speed, and some that are above the current FDOT maximum degrees of curvature. Some of the existing horizontal curves are also below the current design requirements for length of curve. These requirements are based on design speed, noting that the preferred minimum curve length should be 30 times the design speed, with 15 times the design speed being a minimum.

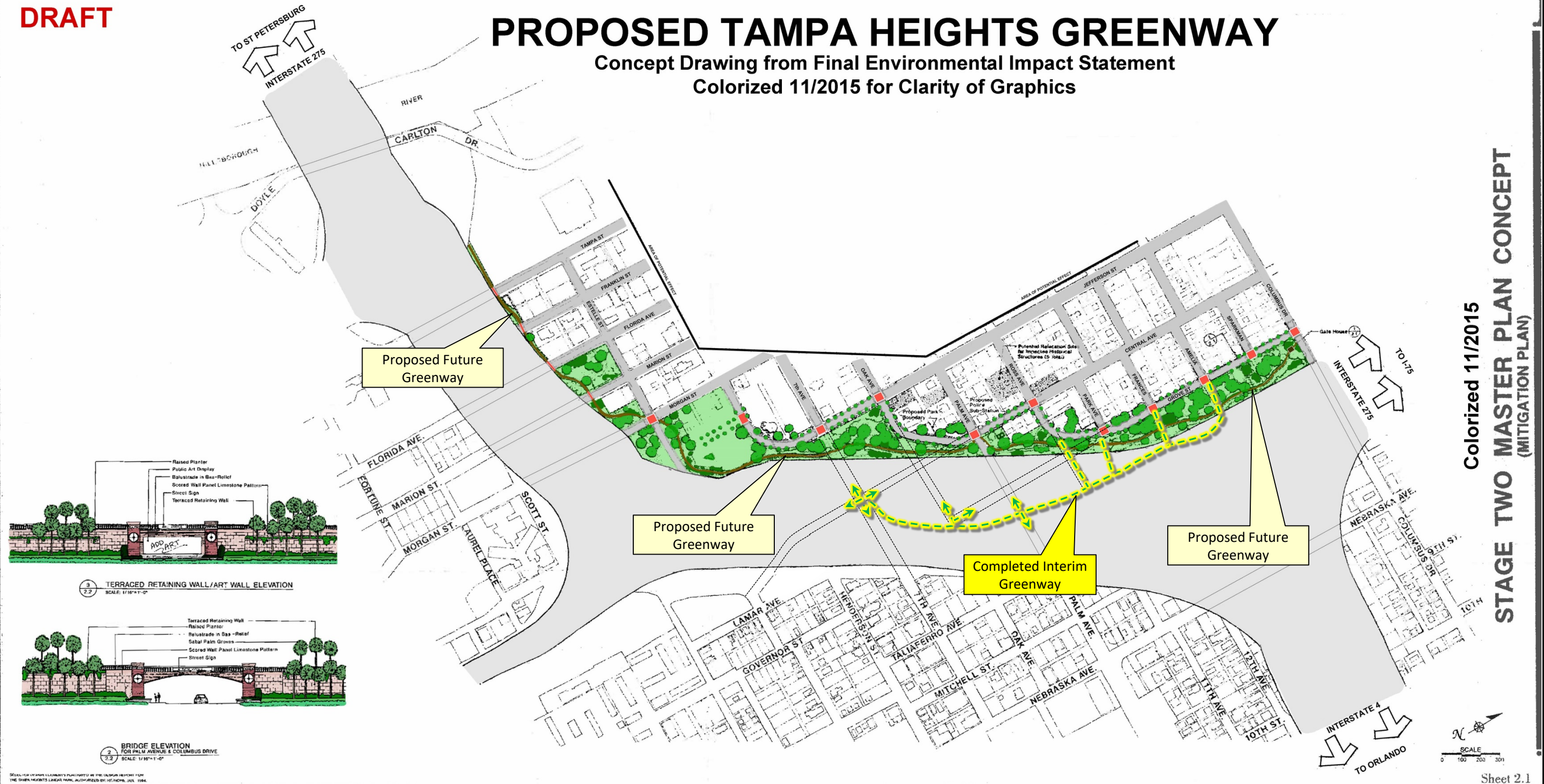
The sections of I-275 and I-4 included in Segments 2B, 3A & 3B were designed in many phases, and several have been improved from the original designs that dated back in to the early '60's. Design exceptions and variations for the existing DTI are described above in **Section 4.1.1**. Within the Segment 2B limits (up to Osborne Avenue), I-275 includes four horizontal curves, all of which are based off the existing centerline. For a 60 mph design speed, FDOT requires a minimum horizontal curve length of 900 feet on freeways. Two of the existing horizontal curves, with required superelevation rates, meet the current minimum FDOT design criteria for a design speed of 60 mph. Two curves do not meet the current minimum design criteria (located north of Dr. MLK Boulevard and North of Chelsea Street).

**DRAFT**

# PROPOSED TAMPA HEIGHTS GREENWAY

Concept Drawing from Final Environmental Impact Statement

Colorized 11/2015 for Clarity of Graphics



Colorized 11/2015  
**STAGE TWO MASTER PLAN CONCEPT**  
(MITIGATION PLAN)

Sheet 2.1

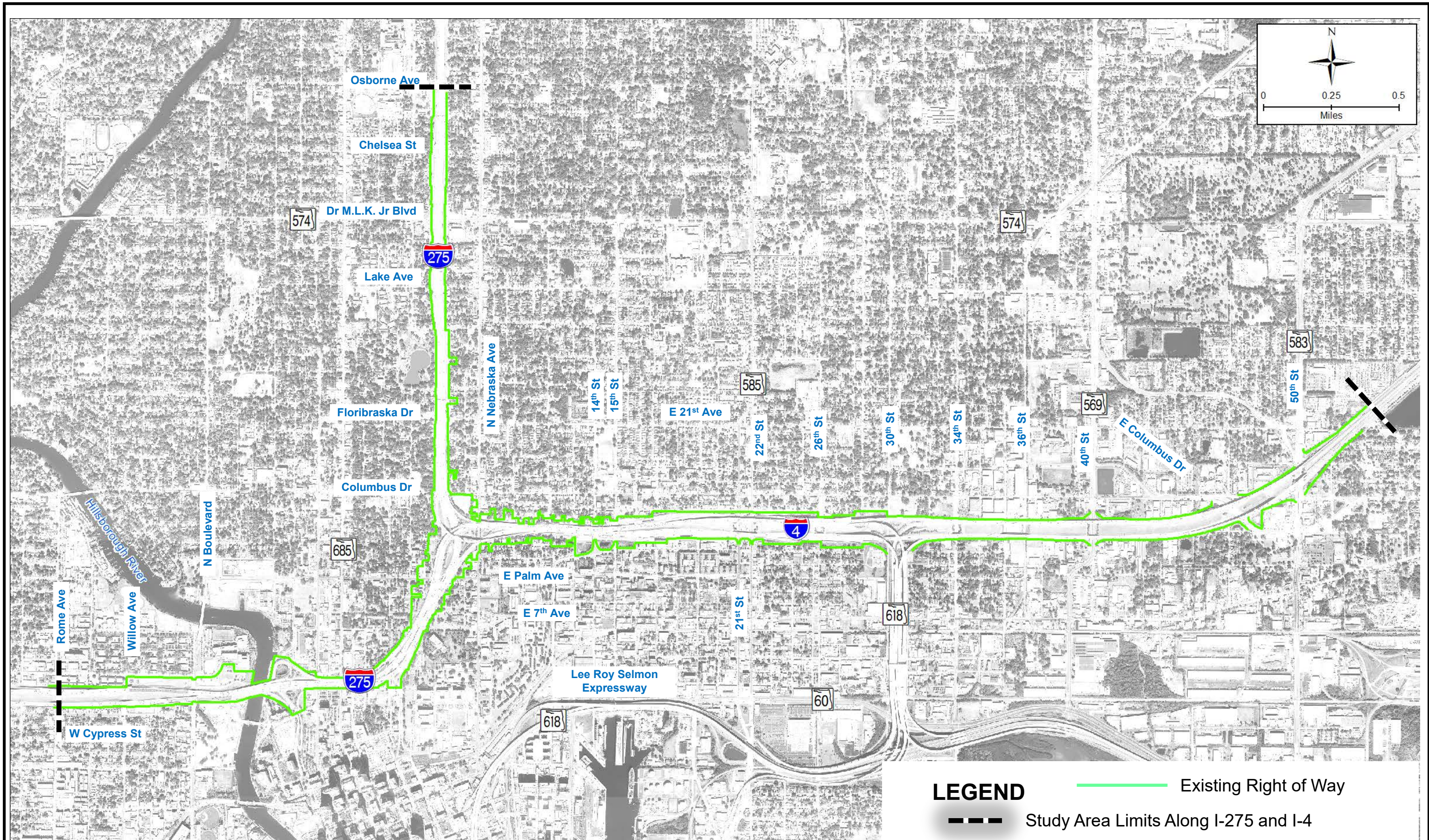


**Tampa Interstate Study SEIS**  
I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Tampa Heights Greenway**

**Figure 4-2**





**Tampa Interstate Study SEIS**  
 I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
 I-4 from I-275 to East of 50th Street  
 WPI Segment No. 258337-2

Existing Right of Way

Figure 4-3



Table 4-1 Existing Horizontal Alignment Curves

Temp. # for Map	Roadway Name / Identifier	Roadway Segment & Data Source	Curve Number	PC Station	Direction	Mainline / Ramp	Horizontal Degree of Curvature	Deflection	Radius (ft)	Curve Length (ft)	Design Speed (MPH)	Posted Speed (MPH)	Meets Criteria
	I-275	2B											
C1		258398-5	ISBCD-4	20096+43.97	SB	Mainline	00°07'59"	01°30'53"	43089.83	1139	65	60	Yes
C2		"	ISBCD-5	20107+83.09	SB	Mainline	00°20'08"	05°41'30"	17070.73	1647	65	60	Yes
C3		"	ISBCD-6	20124+30.00	SB	Mainline	00°35'00"	06°49'56"	9822.13	1171	50	50	Yes
C4		"	ISBCD-7	20143+98.63	SB	Mainline	03°00'00"	16°14'31"	1909.86	541	50	50	Yes
C5		"	ISBCD-8	20154+57.09	SB	Mainline	02°00'00"	12°32'06"	2864.79	627	50	50	Yes
C6		258643-1	I-275NB-1A	299+04.304m	NB	Mainline	1°30'	04°47'53"	3749.02	314	60	50	Yes
C7		"	I-275NB-1	300+43.956m	NB	Mainline	2°15'	06°17'23"	2624.68	288	60	50	Yes
C8		"	I-275NB-2	304+24.199m	NB	Mainline	4°00'	25°08'10"	1449.35	636	55	50	Yes
C9		"	I-275NB-3	306+18.004m	NB	Mainline	6°00'	40°21'05"	956.4	674	50	50	No
C10		"	I-275NB-4	310+73.642m	NB	Mainline	0°40'	04°19'10"	8366.41	631	60	50	Yes
C11		"	I-275NB-5	313+91.406m	NB	Mainline	5°45'	50°42'54"	998.93	884	50	50	No
C12		"	I-275NB-6	317+83.191m	NB	Mainline	6°00'	21°52'44"	960.93	367	50	50	No
C13		"	I-275SB-6	197+33.205m	SB	Mainline	2°00'	12°17'04"	2952.75	633	60	50	Yes
C14		"	I-275SB-11	202+59.230m	SB	Mainline	5°15'	42°52'26"	1110.52	831	50	50	No
C15		"	I-275SB-12	205+12.517m	SB	Mainline	3°30'	19°39'35"	1655.14	568	60	50	Yes
C16		"	I-275SB-3	208+98.484m	SB	Mainline	0°30'	01°21'56"	11477.14	274	60	50	Yes
C17		"	I-275SB-4	212+11.836m	SB	Mainline	6°00'	50°42'42"	966.93	856	50	50	No
C18		"	I-275SB-5	215+94.742m	SB	Mainline	5°00'	21°52'33"	1170.68	447	55	50	Yes
C19	RAMP W-E	"	RAMP W-E-1	400+00.139m		RAMP	0°45'	04°07'17"	9246	665.07		50	
C20		"	RAMP W-E-2	402+92.550m		RAMP	4°45'	37°49'39"	1215.98	802.81		50	
C21	RAMP E-W	"	RAMP E-W-1	100+20.280m		RAMP	6°00'	16°39'17"	954.72	277.52		50	No
C22		"	RAMP E-W-2	102+88.641m		RAMP	9°00'	78°16'16"	639.76	873.97		50	No
C23	RAMP E-W2	"	RAMP E-W2-1	41+52.611m		RAMP	8°15'	83°04'37"	701.11	1018.92		50	No
C24		"	RAMP E-W2-2	46+22.692m		RAMP	2°45'	16°31'50"	2099.73	605.80		50	
C25	RAMP E-N	"	RAMP E-N-3	72+60.078m		RAMP	1°00'	01°15'09"	5741.46	125.50		50	
C26			RAMP E-N-4	72+98.331		RAMP	9°15'	43°50'52"	623.36	477.05		50	No
C27			RAMP E-N-5	74+43.736		RAMP	1°45'	36°24'23"	3953.18	427.22			
C28			RAMP E-N-6	70+20.723		RAMP	0°45'	05°16'29"	8530.17	785.28			
C29	RAMP N-E	"	RAMP N-E-1	22+01.883m		RAMP	0°45'	04°08'39"	8165.99	590.63		50	
C30		"	RAMP N-E-2	25+02.848m		RAMP	8°15'	101°40'59"	688.97	1222.72		50	No
	I-275	2B (North)											
C31		258642-3	C22REV	729+79.16		Mainline	00°20'	03°00'00"		900.01	60	55	Yes
C32		"	C23REV	742+21.75		Mainline	00°20'	03°12'29"		962.42	60	55	Yes
C33		"	C24REV	768+94.60		Mainline	01°00'	02°20'22"		233.94	60	55	No
C34		"	C25REV	777+02.54		Mainline	01°00'	02°18'51"		231.42	60	55	No
	I-4	3A											
C35		258643-1	I-4WB-3	110+48.627m	WB	Mainline	1°45'	05°40'50"	3292.83	326.47	60	55	Yes
C36		"	I-4EB-4	409+16.079m	EB	Mainline	2°00'	05°18'38"	2939.63	272.46	60	55	Yes
C37		"	I-4WB-4	112+02.014m	WB	Mainline	2°15'	10°35'52"	2789.83	516.03	60	55	Yes
C38		"	I-4EB-5	410+97.173m	EB	Mainline	2°00'	10°36'54"	2828.08	523.95	60	55	Yes
	I-4	3B											
C39		SLD		8.789		Mainline	0°20'	2°13'56.00"		671	60+	55	Yes
C40		SLD		9.003		Mainline	1°06'	2°19'59.00"		702	60+	55	Yes
C41		SLD		9.187		Mainline	0°33'	1°13.39.00"		739	60+	55	Yes
C42		SLD		9.879		Mainline	03°17'	40°09'04"		4018	60+	55	Yes

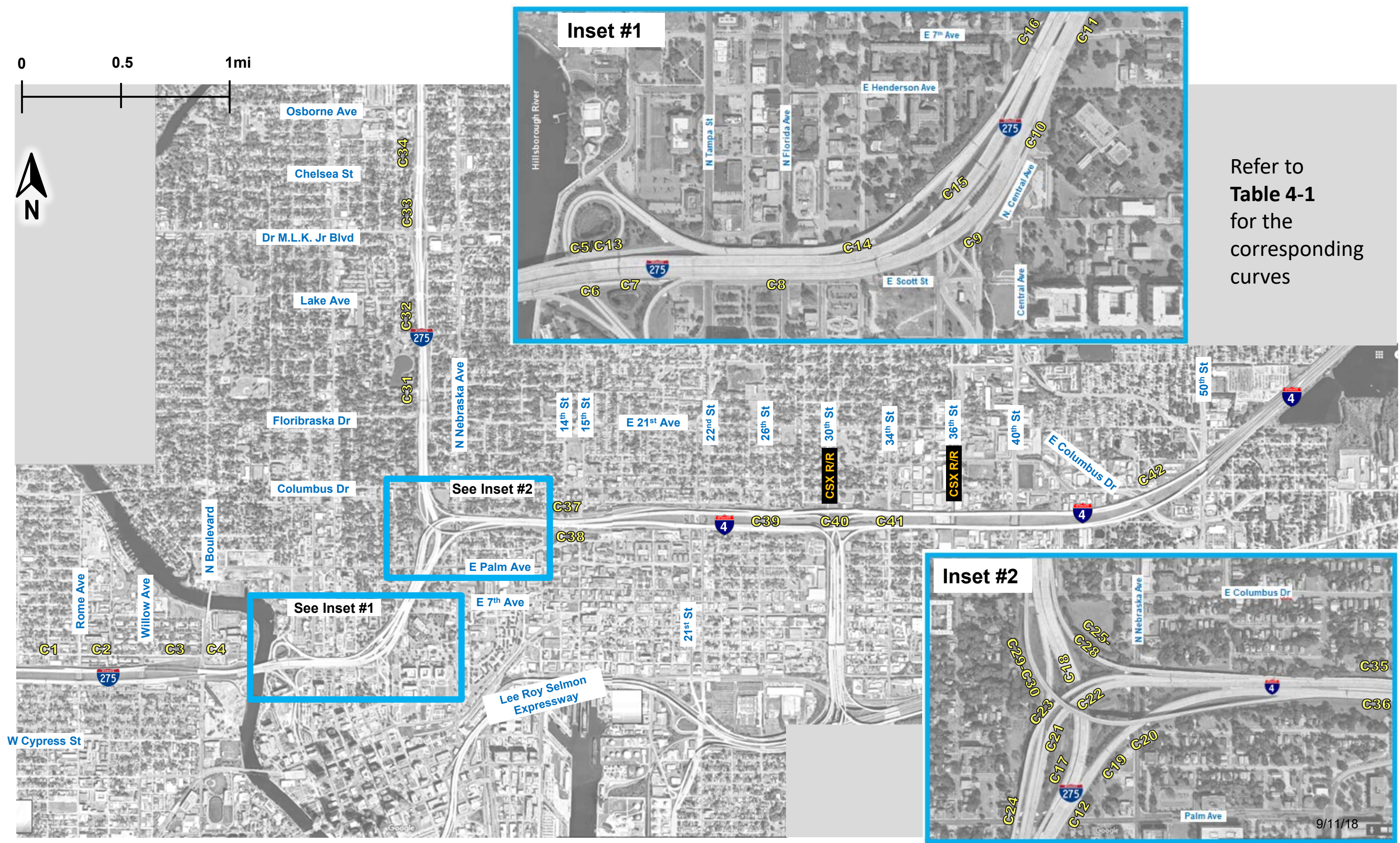
Notes: *Italic numbers are in metric units*

SLD=Straight Line Diagram Inventory

= Does not meet Criteria

9/18/2018







#### 4.2.6 Vertical Alignment

Only limited vertical alignment data was available for I-275 west of downtown and I-4 east of downtown; however, both of these areas have been reconstructed which included flattening of the original vertical curves from the 1960s construction to correct any deficiencies.

For I-275 north of downtown, the existing vertical alignment was obtained from I-275 as-built plans. Within Segment 2B limits, I-275 contains 10 vertical curves. The existing vertical alignment within Segment 2B is summarized in **Table 4-2**. For a 60 mph interstate design speed, FDOT requires a minimum vertical curve length of 1,800 feet for crest vertical curves within an interchange and 1,000 feet for crest vertical curves outside an interchange. None of the existing crest vertical curves meets the current minimum standard. In addition, only one curve meets current design standards for the K value ( $K = \text{Curve Length} / \text{Algebraic difference in grades}$ ).

For a 60 mph design speed, FDOT requires a minimum vertical curve length of 800 feet for sag vertical curves regardless of location. Only one vertical sag curve meets the 800-foot length standard.

**Table 4-2 I-275 North of I-4 Existing Vertical Alignment Data**

Curve Type	Begin Station	End Station	Profile Grade Line	Curve Length	Back Grade	Forward Grade	K Value	Req'd K	Cross Street Name
Crest	719+40	724+80	LT	540'	3.000%	-3.000%	90	313	Floribraska Ave
	719+40	724+80	RT	540'	3.000%	-3.000%	90	313	Floribraska Ave
Sag	729+30	739+30	LT	1,000'	-3.000%	3.000%	167	157	NA
	727+30	741+30	RT	1,400'	-3.000%	3.000%	233	157	NA
Crest	744+90	750+30	LT	540'	3.000%	-3.000%	90	313	Lake Ave
	744+90	750+30	RT	540'	3.000%	-3.000%	90	313	Lake Ave
Sag	750+30	756+10	LT	580'	-3.000%	3.000%	97	157	NA
	750+30	756+08	RT	578'	-3.000%	3.000%	96	157	NA
Crest	758+20	763+60	LT	540'	3.000%	-3.000%	90	313	Dr. MLK Jr Blvd
	758+20	763+60	RT	540'	3.000%	-3.000%	90	313	Dr. MLK Jr Blvd
Sag	763+60	770+10	LT	650'	-3.000%	3.000%	108	157	NA
	763+60	770+10	RT	650'	-3.000%	3.000%	108	157	NA
Crest	771+45	776+85	LT	540'	3.000%	-3.000%	90	313	E Chelsea St
	771+45	776+85	RT	540'	3.000%	-3.000%	90	313	E Chelsea St
Sag	778+10	784+70	LT	660'	-3.000%	3.000%	110	157	NA
	778+10	784+70	RT	660'	-3.000%	3.000%	110	157	NA
Crest	784+70	790+10	LT	540'	3.000%	-3.000%	90	313	Osborne St
	784+70	790+10	RT	540'	3.000%	-3.000%	90	313	Osborne St
Sag	792+60	795+60	LT	300'	-3.000%	-0.400%	115	157	NA
	792+60	795+60	RT	300'	-3.000%	-0.400%	115	157	NA

Source: WSP August 2018 ("based on as-built plans") Required K values based on Table 211.9.2 in FDOT's 2018 Design Manual.

Yellow highlighted cells do not meet current 60 mph design criteria.

#### 4.2.7 Drainage and Floodplains

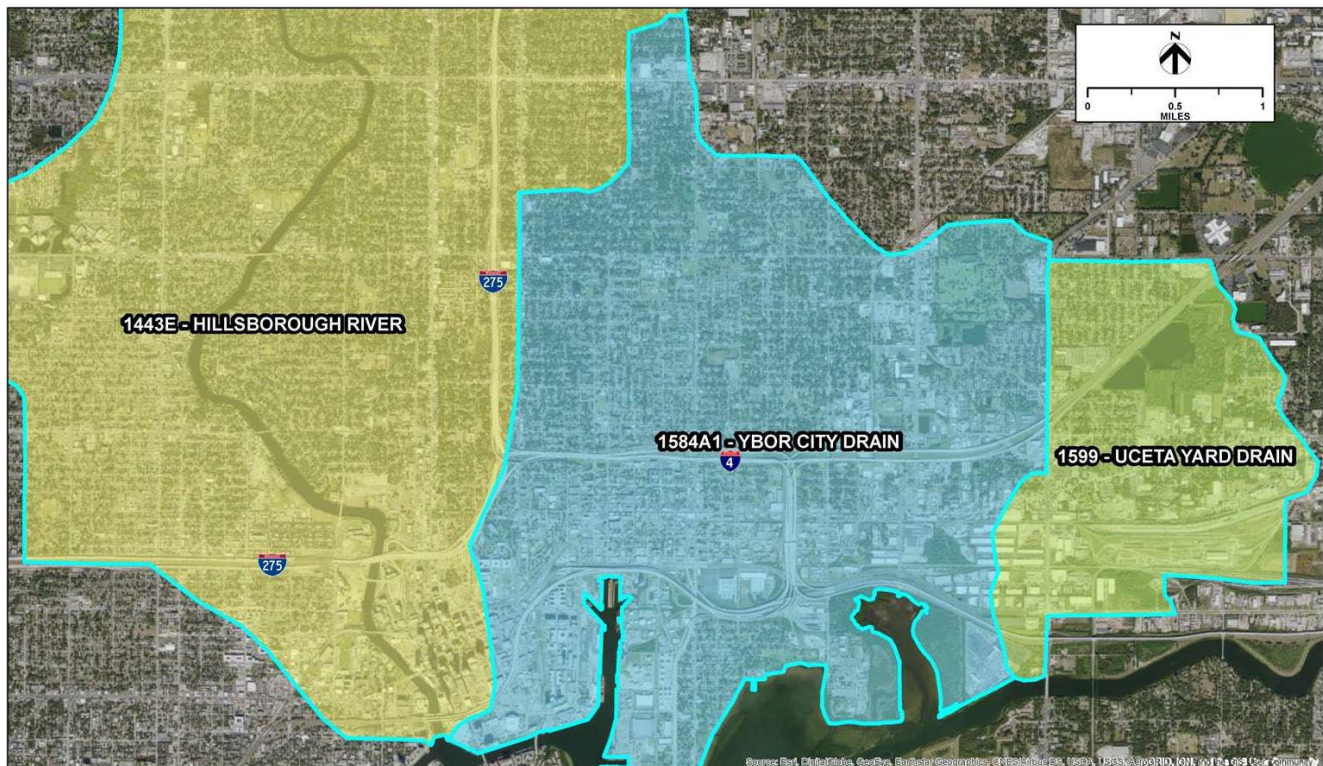
Information in this section is from the *Pond Sizing Report*. The following Environmental Resource Permits (ERPs) are on file with the Southwest Florida Water Management District (SWFWMD):

- SWFWMD ERP #445619.005 – FDOT - I-275, Himes Avenue to Hillsborough River (Issued 7/11/2013)
- SWFWMD ERP #4320690.001 – DOT-SR 400 (I4) SEC 3 W 14TH TO E 50TH (Issued 9/25/2001)

- SWFWMD ERP #4420690.004 – DOT I-275 & I-4 Interchange Modification (Issued 4/21/2005)
- SWFWMD ERP #4420690.007 – SR400 I-4 Lee Roy Selmon Interchange (Issued 12/4/2007)

### Watersheds

The TIS SEIS Segments 2B, 3A & 3B drain to three watersheds – Hillsborough River Water Body Identification (WBID) 1443E, Ybor City Drain WBID 1584A1, and Uceta Yard Drain WBID 1599 (**Figure 4-5**). Uceta Yard Drain is verified impaired for fecal coliform and bacteria; Ybor City Drain is verified impaired for dissolved oxygen, fecal coliform, and bacteria per the Florida Department of Environmental Protection (FDEP). Hillsborough River is not impaired. The TIS SEIS Project study area does not discharge to an Outstanding Florida Water (OFW).



Source: Pond Siting Report for WPI #258337-2 for TIS Segments 2B, 3A & 3B

**Figure 4-5 FDEP Waterbody IDs Map (WBIDs)**

### Existing Drainage Patterns

The TIS SEIS Segments 2B, 3A & 3B are located within a gently sloped (1-5 percent slope) terrain, with a predominant Urban and Built-Up land use classification. In general, runoff within the Hillsborough River WBID will flow inwards west and east towards the Hillsborough River, largely through closed storm sewer systems. Runoff within the Ybor City Drain drainage basin flows south into the Ybor Channel and McKay Bay, and runoff within the Uceta Yard Drain drainage basin flows south into the mouth of the Palm River / Tampa Bypass Canal. Refer to the Existing Conditions **Figure 4-6** that shows the basins described below. A summary of the existing stormwater management facilities (SMFs) is provided in **Table 4-3**.



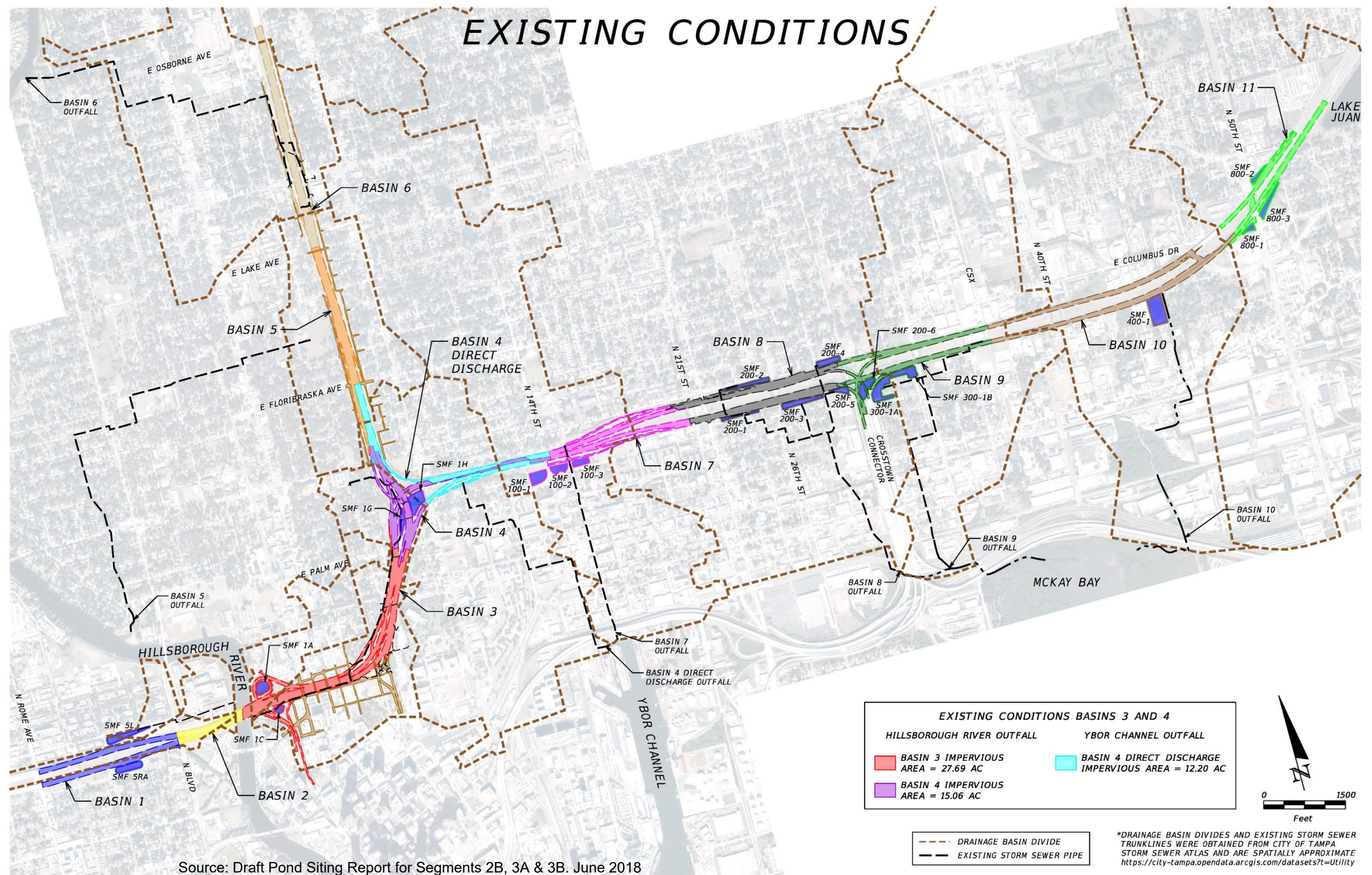




Table 4-3 Existing Stormwater Management Facilities

Basin	Existing SMF	Permitted for the Ultimate Condition	Permitted Treatment Volume Required (ac-ft)	Permitted Treatment Volume Provided (ac-ft)	Excess Treatment Volume (ac-ft)	Treatment Type
1	SMF 5L	Yes	2.80	2.90	0.10	Effluent Filtration
	SMF 5RA	Yes	1.06	1.34	0.28	Effluent Filtration
2	None	No	N/A	N/A	N/A	N/A
3	SMF 1A	No	1.07	0.72	0.70	Wet Detention
	SMF 1C	No		0.34		Wet Detention
4	SMF 1G	No		0.12		Wet Detention
	SMF 1H	No		0.58		Wet Detention
5	None	No	N/A	N/A	N/A	N/A
6	None	No	N/A	N/A	N/A	N/A
7	SMF 100-1	Yes	1.68	1.85	0.17	Wet Detention
	SMF 100-2	Yes				Wet Detention
	SMF 100-3	Yes	0.64	0.65	0.01	Wet Detention
8	SMF 200-1	Yes	0.54	0.52	-0.02	Effluent
	SMF 200-2	Yes	0.54	0.54	0.00	Wet Detention
	SMF 200-3	Yes	1.03	1.05	0.02	Wet Detention
	SMF 200-4	Yes	0.72	0.73	0.01	Wet Detention
	SMF 200-5	Yes	0.56	0.54	-0.02	Wet Detention
9	SMF 200-6	Yes	0.59	0.62	0.03	Wet Detention
	SMF 300-1A	Yes	0.90	1.37	0.47	Wet Detention
	SMF 300-1B	Yes	1.35	0.94	-0.41	Wet Detention
10	SMF 400-1	Yes	2.89	2.96	0.07	Wet Detention
11	SMF 800-1	Yes	0.41	0.00	-0.41	None Provided
	SMF 800-2	Yes	0.55	0.00	-0.55	None Provided
	SMF 800-3	Yes	1.03	0.00	-1.03	None Provided

Source: Pond Siting Report for WPI #258337-2 for TIS Segments 2B, 3A & 3B, November 2019.

The I-275 portion of Segment 2B has six separate basins. The basins are summarized below:

- **Basin 1** spans from North Rome Avenue to North Boulevard and contains two existing SMFs: SMF 5L and SMF 5RA. SMF 5L was designed to treat runoff for the entirety of the westbound lanes and median from North Himes Avenue to North Boulevard; SMF 5RA treats runoff for the eastbound lanes. Both SMFs discharge directly to the Hillsborough River and do not provide any attenuation. This basin has been permitted under SWFWMD ERP 5619.001 and ERP 5619.005.
- **Basin 2** spans from North Boulevard to the Hillsborough River. Runoff from this area does not drain to an existing SMF and discharges directly to Hillsborough River untreated.

- **Basin 3** spans from the Hillsborough River to south of the I-275 / I-4 interchange and contains two SMFs: SMF 1A and SMF 1C. Both SMFs provide treatment for a partial amount I-275 impervious area and provides attenuation so that the storm sewer outfall that was already in place would not be overloaded with any additional runoff from the previous project. This permitted portion of the basin was approved under SWFWMD ERP 20690.004.
- **Basin 4** encompasses the I-275 / I-4 interchange, from south of the interchange at East Palm Avenue, to East Floribaska Avenue to the north and North 14th Street to the east. Two existing SMFs are located within the basin limits: SMF 1G and SMF 1H. Both SMFs provide treatment for a partial amount I-275 impervious area and provides attenuation so that the storm sewer outfall that was already in place would not be overloaded with any additional runoff from the previous project. An existing 60-inch diameter pipe routes the runoff that drains to these SMFs southwest to SMF 1C. The runoff from the pair of ramps between North Nebraska Avenue to North 14th Street and E. Columbus Drive to East Floribaska Avenue is not currently treated, and instead is directly discharged south to the Ybor Channel. Previously permitted increases in impervious area within these limits were treated within SMFs 1A, 1C, 1G, and 1H. This permitted portion of the basin was approved under SWFWMD ERP 20690.004.
- **Basin 5** spans from East Floribaska Avenue to East Lake Avenue. The basin runoff drains north and south towards the midpoint of the basin limit where it is then routed westward to the pond at Robles Park. This pond connects to a closed storm sewer system via a pump station that routes stormwater southwest where it discharges to the Hillsborough River at Ridgewood Park. The basin is considered a volume sensitive closed basin due to the limit capacity of the pumped outfall. No formal treatment or attenuation has been permitted for this basin.
- **Basin 6** spans from East Lake Avenue to East Osborne Avenue. Runoff drains north and south towards the center of the basin, where it is discharged westwards through a closed storm sewer system down East Emma Street, ultimately discharging directly to the Hillsborough River at Rivercrest Park. No formal treatment or attenuation has been permitted for this basin. This basin was previously referred to as Sunshine Park Basin in the TIS *Drainage Master Plan* (FDOT 1991, pp. 14).

The I-4 limits of Segments 3A and 3B involve five separate basins, all of which contain existing SMFs. These SMFs were designed for the full build-out design condition. This included sizing the SMFs for treatment and attenuation of the entire contributing drainage area for each SMF (typically includes eastbound lanes, westbound lanes, median, and pond sites). A runoff curve number (CN) of 98 was used for the entirety of these areas.

The existing stormwater management provides attenuation and treatment volume for the first 1 inch of runoff from the contributing drainage area. This Pond Siting Report documents the existing SMFs that are permitted through SWFWMD and assesses the need for modification to the existing ponds or the addition of proposed ponds. The basins and SMFs are summarized below:

- **Basin 7** spans from North 14th Street to North 21st Street along I-4. Runoff is routed to the three existing ponds SMF 100-1, SMF 100-2, and SMF 100-3 for treatment and attenuation. These SMFs connect to a closed storm sewer system which drains south down North 15th Street and discharges directly to the Ybor Channel. This basin has been permitted under SWFWMD ERP 20690.001, previously referred to as Basin 100.
- **Basin 8** spans from North 21st Street to the Selmon Expressway Connector. Runoff is routed to the five existing ponds SMF 200-1, SMF 200-2, SMF 200-3, SMF 200-4, and SMF 200-5 for treatment and attenuation. These SMFs connect to a closed storm sewer system that routes stormwater south and parallel to the Selmon Expressway Connector, and underneath Adamo Drive to a channel at the south end of the Selmon

Expressway Connector. This channel then directly discharges to McKay Bay. This basin has been permitted under SWFWMD ERP 20690.001, previously referred to as Basin 200.

- **Basin 9** encompasses the interchange of I-4 and the Selmon Expressway Connector, and I-4 from the interchange to the CSX. Runoff is routed to the three existing ponds SMF 200-6 and the connected SMF 300-1A and SMF 300-1B for treatment and attenuation. SMF 300-1A and SMF 300-1B connect to a closed storm sewer system that routes stormwater south to a ditch that is located south of East 2nd Avenue between the Selmon Expressway Connector and North 34th Street. The ditch connects to the same channel that Basin 8 discharges to before discharging to McKay Bay. SMF 200-6 is routed south through a ditch underneath the Selmon Expressway Connector, before connecting to the same storm sewer system as SMF 300-1A and SMF 300-1B. This basin has been most recently permitted under SWFWMD ERP 20690.007.
- **Basin 10** spans from the CSX to East 14th Avenue. A portion of the basin from the CSX to North 40th Street is collected and routed to the same storm sewer system as SMF 300-1A and SMF 300-1B without any formal treatment or attenuation. The rest of the basin from the CSX to North 40th Street is collected and directly discharged to a wetland on the northeast quadrant of I-4 and North 40th Street. From North 40th Street to East 14th Avenue, runoff drains east and west to existing SMF 400-1 near the intersection of North 45th Street and East 12th Avenue where it is treated and attenuated. SMF 400-1 discharges to a ditch that routes water south to a wetland. This wetland then discharges south through a ditch directly to McKay Bay. This basin has been permitted under SWFWMD ERP 20690.001, previously referred to as Basin 400.
- **Basin 11** spans from North 50th Street to East 26th Avenue adjacent to Lake Juan. Runoff is routed to three existing SMFs for attenuation only: SMF 800-1, SMF 800-2, and SMF 800-3. Stormwater treatment was not provided in these SMFs. However, compensatory treatment for this basin was provided in Basins 7 through 10 (100- 400), as well as 6.27 acres (ac) of local roadway impervious area. This basin has been permitted under SWFWMD ERP 20690.001, previously referred to as Basin 800.

### Floodplains

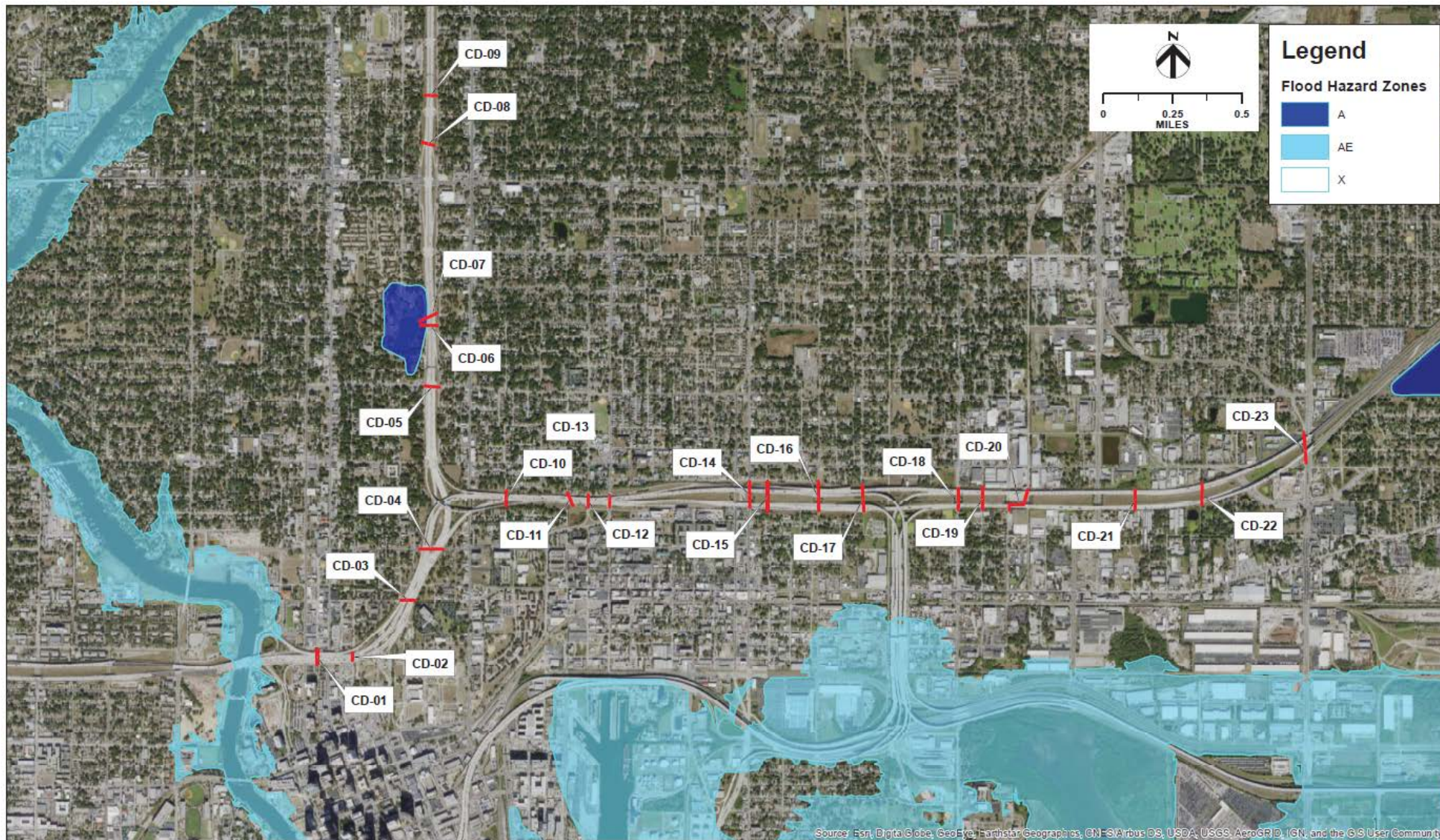
The following information is taken from the *Location Hydraulics Report* for WPI #258337-2 for TIS Segments 2B, 3A & 3B. The portion of Segment 2B in the vicinity of the I-275 Bridge over the Hillsborough River is located within the floodplain limits shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel 12057C0354H, effective August 28, 2008. The Hillsborough River is within a designated Zone AE (Elevations 9.0 and 10.0 NAVD88).

The west side of I-275 from north of East Floribaska Avenue to south of James Street is within the vicinity of the Robles Park pond, which is located within the designated floodplain limits shown on the FIRM Community Panel 12057C0352H, effective August 28, 2008. The existing lake and surrounding park area is within a designated Zone A (no base flood elevation determined). The rest of Segments 2B, 3A & 3B is located in Zone X, outside of the 100-year floodplain limits. According to the current FEMA FIRMs, there are no regulatory floodways within the study limits. Existing floodplains and cross drains are shown in **Figure 4-7**.

### Cross Drains

Cross drains within the Segments 2B, 3A & 3B were identified utilizing existing as-built plan sets, the City of Tampa drainage atlas, and the previous *Tampa Interstate Study Location Hydraulics Report* (LHR), dated 1991. Refer to **Table 4-4** for a summary of cross drains.





Source: Location Hydraulics Report for Segments 2B, 3A and 3B. October 2018



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**FEMA Floodplain and Cross Drains Map**

**Figure 4-7**



**Table 4-4 Summary of Existing Cross Drains**

Cross Drain No.	Location	Size / Type	Enclosed?
CD-01	N Franklin St.	36" RCP	Yes
CD-02	N Morgan St.	60" RCP	Yes
CD-03	E Henderson Ave.	18" RCP	Yes
CD-04	E Palm Ave.	24" RCP	Yes
CD-05	E Floribaska Ave.	24" RCP	Yes
CD-06	Robles Park Pond	36" RCP	Partially
CD-07	E 26th Ave.	36" RCP	Yes
CD-08	E North Bay St	48" RCP	Partially
CD-09	E Emma St.	36" x 36" CBC	No
CD-10	N 10th St.	60" x 60" CBC	Yes
CD-11	N 13th St.	55" x 61" CBC	Yes
CD-12	N 14th St.	18" RCP	Yes
CD-13	N 15th St.	42" RCP	Yes
CD-14	N 22nd St.	30" RCP	Yes
CD-15	N 23rd St.	108" x 72" CBC	Yes
CD-16	N 26th St.	84" RCP	Yes
CD-17	N 28th St.	120" x 72" CBC	Yes
CD-18	N 34th St.	18" RCP	Yes
CD-19	N 35th St.	72" x 60" CBC	Yes
CD-20	CSX	30" RCP	Yes
CD-21	Between N 40th St. & N 43rd St.	36" RCP	Partially
CD-22	N 45th St.	144" x 48" CBC	No
CD-23	N 50th St.	42" RCP	Yes

Source: Location Hydraulics Report for WPI #258337-2 for TIS Segments 2B, 3A & 3B, dated October 2018.

RCP=Reinforced Concrete Pipe CBC= Concrete Box Culvert

As noted in **Table 4-4**, many of the historical cross drains have been enclosed and no longer function as traditional cross drains. The cross drains that have not been enclosed would need to be modified to accommodate the requirements of the widened roadway. Based upon visual observations it appears that the existing cross drains, if hydraulically suitable, are candidates for extension. However, it is recognized that some existing culverts may need to be replaced with hydraulically equivalent structures when they are analyzed in more detail (hydraulically and structurally) in the design phase or replaced due to age and condition.

## Floodplains Risk Assessment

Hydraulic impacts will be determined in the future when a preferred alternative has been selected. However, based on currently known conditions, the following statement is expected to apply:

This project involves construction within the base floodplain and is described as a “PROJECT ON EXISTING ALIGNMENT INVOLVING REPLACEMENT OF EXISTING DRAINAGE STRUCTURES WITH NO RECORD OF DRAINAGE PROBLEMS”. The impacts to a tidally influenced floodplains will require no floodplain storage compensation as required by the SWFWMD or local water management district. The longitudinal impacts at Robles Park will be mitigated utilizing bridges for the I-275 mainline and the reconstruction of local roads at existing grade. Any minor impact to existing ditches will be replaced in-kind. *The proposed structures will perform hydraulically in a manner equal to or greater than the existing structures, and backwater surface elevations are not expected to increase. Additionally, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant. (Standard Statement Source: FDOT PD&E Manual, 2017, Part 2, Chapter 13)*

### 4.2.8 Geotechnical Data

The Soil Survey of Hillsborough County prepared by Natural Resources Conservation Service (NRCS), obtained from the United States Department of Agriculture (USDA) website indicates several soil types within the TIS SEIS Segments 2B, 3A & 3B and contributing drainage areas. The soil information is summarized in **Table 4-5** and shown in **Figure 4-8**.

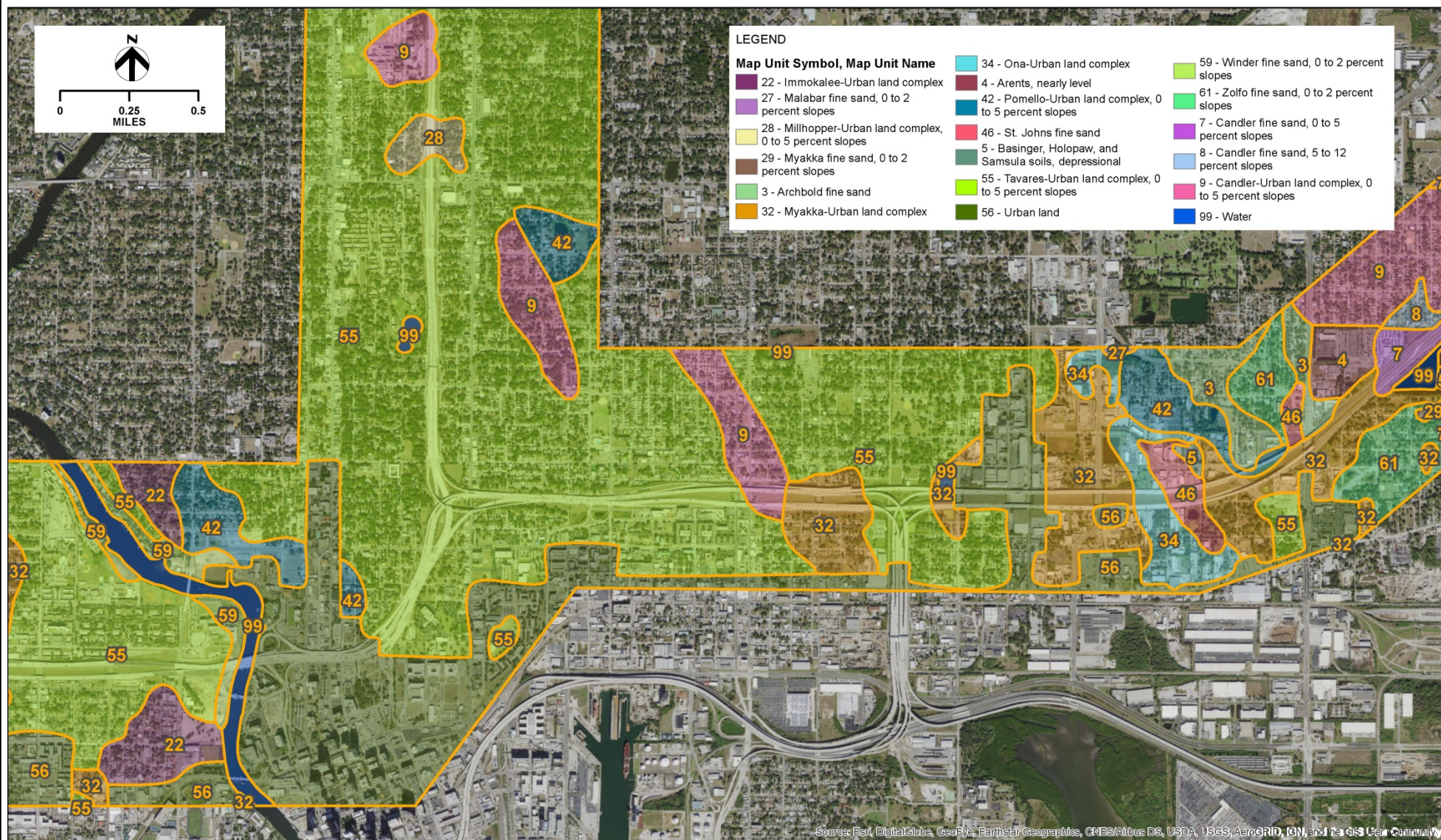
**Table 4-5 NRCS Soils Information**

Unit Name	Unit Symbol	Drainage Class	Depth to SHWT (inches)	Hydrologic Soil Group
Archbold fine sand	3	Moderately Well	42 –	A
Candler fine sand	7	Excessively Drained	> 80	A
Candler-Urban land complex	9	Excessively Drained	> 80	A
Millhopper-Urban land complex	28	Moderately Well	42 –	A
Myakka-Urban land complex	32	Poorly Drained	6 – 18	A/D
Ona-Urban land complex	34	Poorly Drained	6 – 18	B/D
Pomello-Urban land complex	42	Moderately Well	24 –	A
St. Johns fine sand	46	Poorly Drained	0 – 12	B/D
Tavares-Urban land complex	55	Moderately Well	42 –	A

SOURCE: USDA, 2018

Notes: SHWT: Seasonal High Water Table





Source: Pond Siting Report for TIS Segments 2B, 3A and 3B, November 2019.



#### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

#### NRCS Soil Survey Map

#### Figure 4-8



## 4.2.9 Crash Data and Safety Analysis

A detailed crash analysis is included in the *Project Traffic Analysis Report* (PTAR) and is summarized below. Crash data were collected and analyzed for the I-275, SR 60, and I-4 corridors within TIS Segments 2B, 3A and 3B limits. Historical crash data were obtained from the Crash Data Management System (CDMS), Crash Analysis Reporting System (CARS), and Signal Four analytics (S4) databases between January 1, 2012 and December 31, 2016. The crash data were used to determine areas of potential safety concerns and identify crash patterns and possible mitigation strategies. The data obtained from these three databases were compared against each other and the duplicates were removed. The data were combined and then filtered to remove alcohol and drug related crashes, as well as distracted driver crashes and crashes involving animals. **Figure 4-9** shows “heat maps” indicating concentration of crashes for the northbound/eastbound and southbound/westbound directions. In the northbound/eastbound directions, areas of high crash concentration occur around interchange areas, specifically at SR 60, Westshore Boulevard, Dale Mabry Highway, Downtown, and I-4. This high number of crashes is most likely due to the effects of on and off ramps that result in lane changes, high speed differentials between the ramp and the freeway, and potential queuing requiring sudden, unexpected breaking. In the southbound/westbound directions, high crash locations occur as vehicles enter the I-275/I-4 interchange area. This area experiences high congestion, excessive queuing, and sudden stops, which all contribute to the high number of rear end crashes in the Downtown Interchange area.

Within TIS Segments 2B, 3A and 3B (covering the limits of this PER), there were 3,693 crashes throughout the 7.55-mile stretch of I-275 and I-4. Of these crashes, 2,308 occurred on I-275 and 1,385 occurred on I-4. The primary crash type experienced on both roadways was rear-end crashes, followed by sideswipes. Hitting a fixed object and run off the road crash types also account for a higher percentage of crashes. The speed limit traveling on I-275 decreases from 55 mph prior to the downtown area to 50 mph within the downtown area and then increases back to 55 mph north of the I-4 interchange. The speed limit on I-4 also increases to 55 mph in the eastbound direction after the 21st Street ramps. The geometry of I-275 within the downtown area experiences several on/off-ramps in close succession while also navigating sharp curvature. There is a southbound collector-distributor (C/D) road that exhibits a short weaving segment. Drivers unfamiliar with the area may also experience some confusion with signage as they attempt to navigate between I-275 and I-4. All of these factors can cause an increased risk of crashes, especially rear ends and sideswipes, as drivers navigate through reduced speeds, road curvature, queuing, and lane changing throughout the downtown interchange area. **Table 4-6** shows the crashes that occurred in Section 6 by year and type.

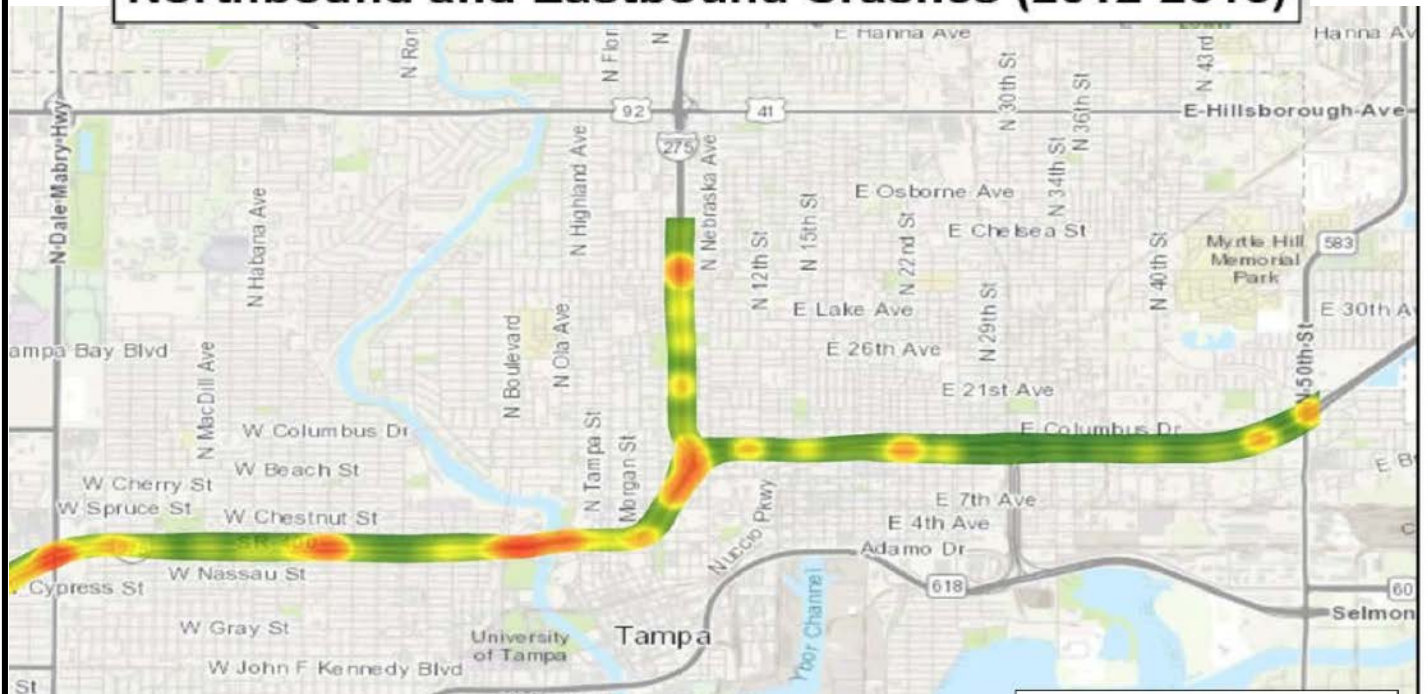
Six fatal crashes occurred within TIS Segments 2B, 3A and 3B; all six crashes occurred on I-275. One of these crashes involved a pedestrian, three involved running off the road and hitting a concrete barrier, another, the result of a rear-end collision, and lastly a wrong way driver that resulted in a head on collision. Four of these crashes occurred at night; five of them occurred under clear weather conditions. **Table 4-7** shows the crash severity by year for the portions of I-275 and I-4.

**Table 4-8** shows crashes by year and roadway condition. Approximately 82 percent of the crashes within TIS Segments 2B, 3A and 3B occurred while the roadway was dry, while 17 percent of crashes occurred under wet roadway conditions. **Table 4-9** shows crashes by year and lighting conditions. Crashes occurring at night account for 18 percent of all crashes.

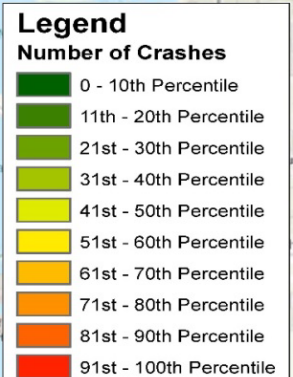
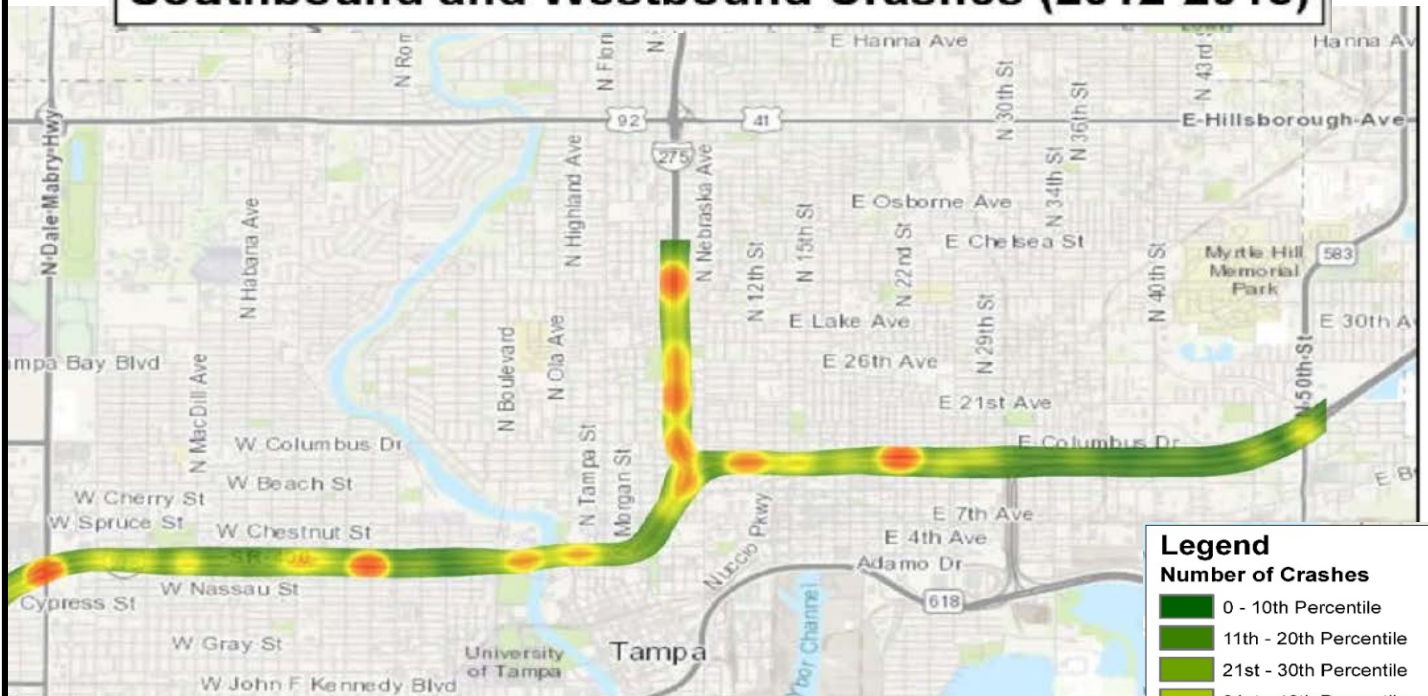
**Table 4-10** is a statistical crash analysis for the portions of I-275 and I-4, which are urban interstate segments, which has an average statistical crash rate of 0.924 crashes per million vehicle miles. The historic AADT was obtained from Florida Traffic Information (FTI) traffic counts; the count station used for I-275 is 102016, while the count station used for I-4 is 102028. Both segments of I-275 and I-4 experience more crashes than the statistical average for similar roadway facilities in the state of Florida. The economic loss was also calculated for these two segments based on crash costs per severity type. The total crash cost of both roadway segments over the five-year period is approximately \$349,909,400.



## Northbound and Eastbound Crashes (2012-2016)



## Southbound and Westbound Crashes (2012-2016)



Source: Project Traffic Analysis Report,, November 2019.



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd

I-4 from I-275 to East of 50<sup>th</sup> Street

WPI Segment No. 258337-2

**Figure 4-9 Traffic Crashes Heat Maps**

Table 4-6 TIS Segments 2B, 3A and 3B Crashes by Year and Type

Roadway	Crash Type	2012	2013	2014	2015	2016	Total Crashes
I-275	Angle	1	5	3	8	7	24
	Bike	0	0	0	0	1	1
	Head On	1	3	3	5	4	16
	Hit Fixed Object	21	32	23	37	51	164
	Hit Non-Fixed Object	3	1	5	0	4	13
	Left Turn	1	1	5	0	1	8
	Off Road	19	16	25	10	20	90
	Other	8	4	8	12	12	44
	Pedestrian	1	0	3	0	1	5
	Rear End	200	264	269	321	446	,1500
	Rollover	1	2	1	2	0	6
	Sideswipe	49	59	95	78	119	400
	Single Vehicle	6	6	6	2	6	26
	Unknown	1	0	5	1	4	11
	Roadway Total	312	393	451	476	676	2,308
I-4	Angle	1	6	6	3	12	28
	Bike	1	1	0	0	1	3
	Head On	0	4	4	1	2	11
	Hit Fixed Object	20	14	22	20	22	98
	Hit Non-Fixed Object	4	1	2	1	3	11
	Left Turn	0	1	1	1	1	4
	Off Road	18	19	12	14	18	81
	Other	12	12	14	10	6	54
	Pedestrian	3	1	0	0	1	5
	Rear End	104	183	117	113	226	743
	Rollover	1	1	3	1	2	8
	Sideswipe	55	55	57	53	98	318
	Single Vehicle	3	1	6	3	4	17
	Unknown	1	0	0	2	1	4
	Roadway Total	223	299	244	222	397	1,385
Total Crashes		535	692	695	698	1,073	3,693

Source: Project Traffic Analysis Report, November 2019

Table 4-7 TIS Segments 2B, 3A and 3B Crashes by Year and Severity

Roadway	Crash Severity	2012	2013	2014	2015	2016	Total Crashes
I-275	Fatality	1	1	0	0	4	6
	Incapacitating Injury	8	15	11	6	10	50
	Non-Incapacitating Injury	26	23	26	35	51	161
	Possible Injury	65	80	79	102	149	475
	Property Damage Only	212	274	335	333	462	1,616
I-4	Fatality	0	0	0	0	0	0
	Incapacitating Injury	7	12	12	4	5	40
	Non-Incapacitating Injury	17	24	21	19	34	115
	Possible Injury	42	63	45	36	86	272
	Property Damage Only	157	200	166	163	272	958
Total Crashes		535	692	695	698	1,073	3,693

Source: Project Traffic Analysis Report, November 2019

**Table 4-8 TIS Segments 2B, 3A and 3B Crashes by Roadway Conditions and Year**

Years	Dry	Wet	Unknown	Total Crashes
2012	448	87	0	535
2013	581	111	0	692
2014	549	146	0	695
2015	572	125	1	698
2016	894	177	2	1,073
<b>Total Crashes</b>	<b>3,044</b>	<b>646</b>	<b>3</b>	<b>3,693</b>

Source: Project Traffic Analysis Report, November 2019

**Table 4-9 TIS Segments 2B, 3A and 3B Crashes by Lighting Condition and Year**

Years	Night			Day			Unknown	Total Crashes
	Dark-Lighted	Dark-Not Lighted	Dark-Unknown Lighting	Dawn	Daylight	Dusk		
2012	126	2	0	11	370	26	0	535
2013	118	2	1	10	537	24	0	692
2014	120	5	0	13	515	42	0	695
2015	102	1	0	10	534	51	0	698
2016	183	5	1	16	809	58	1	1,073
<b>Total Crashes</b>	<b>649</b>	<b>15</b>	<b>2</b>	<b>60</b>	<b>2,765</b>	<b>201</b>	<b>1</b>	<b>3,693</b>

Source: Project Traffic Analysis Report, November 2019

**Table 4-10 Statistical Crash Analysis for TIS Segments 2B, 3A and 3B**

Statistic	I-275	I-4
AADT	158,800	172,800
Length of Segment (Miles)	3.968	3.554
Number of Reported Crashes	2,308	1,385
FDOT Statistical Crash Rate Per Million Vehicle Miles	0.924	0.924
Actual Crash Rate Per Million Vehicle Miles	2.007	1.236
Total Economic Loss (Thousand Dollars)	\$244,508.00	\$105,401.40

Source: Project Traffic Analysis Report, November 2019

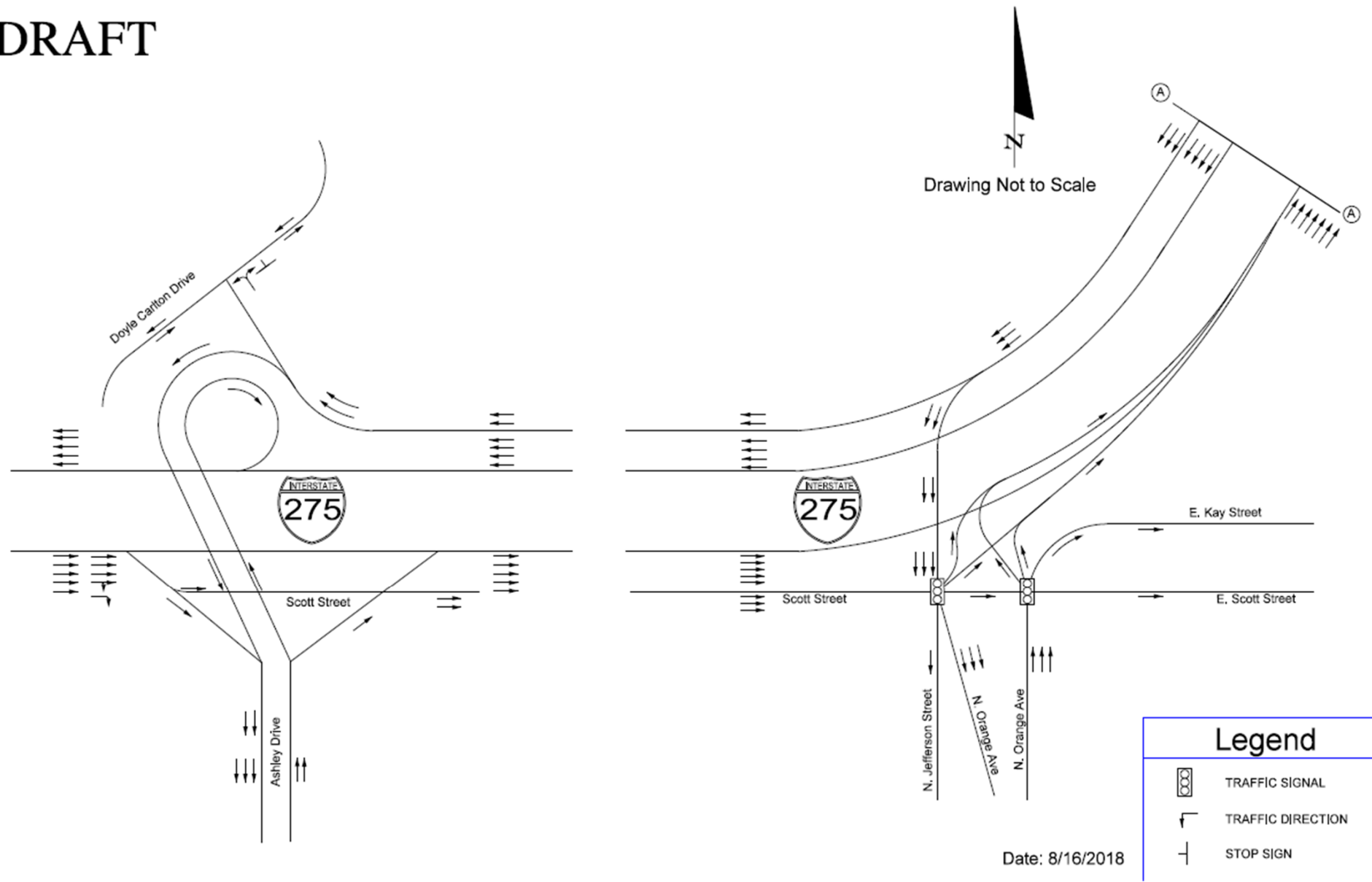
\*5 Year Crash Rate Average for Interstates in Urban Segments from the Statewide Average Crash rates 2012-2016

#### 4.2.10 Intersections and Signalization

Existing geometry for intersections at the interchange ramp termini is shown in **Figure 4-10**. The majority of these intersections are signalized, as shown in the figure.



# DRAFT

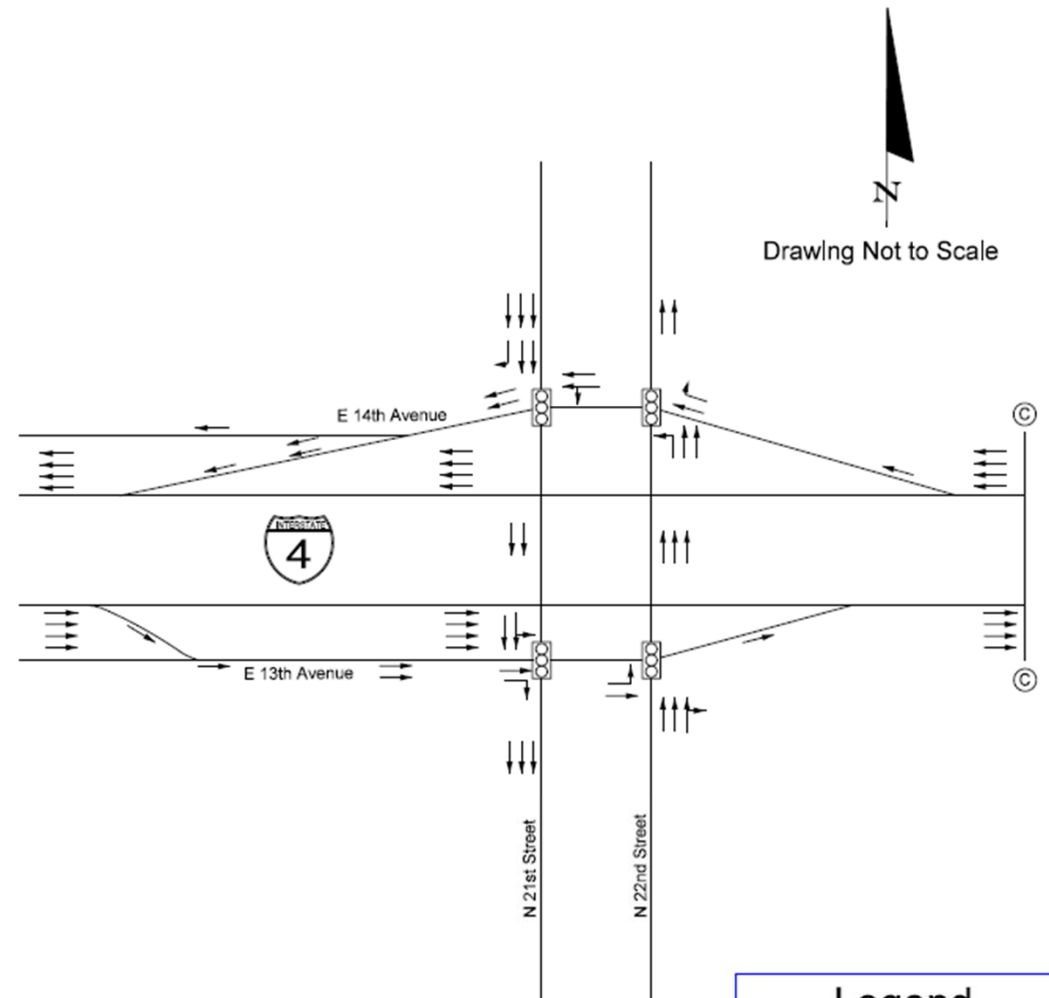
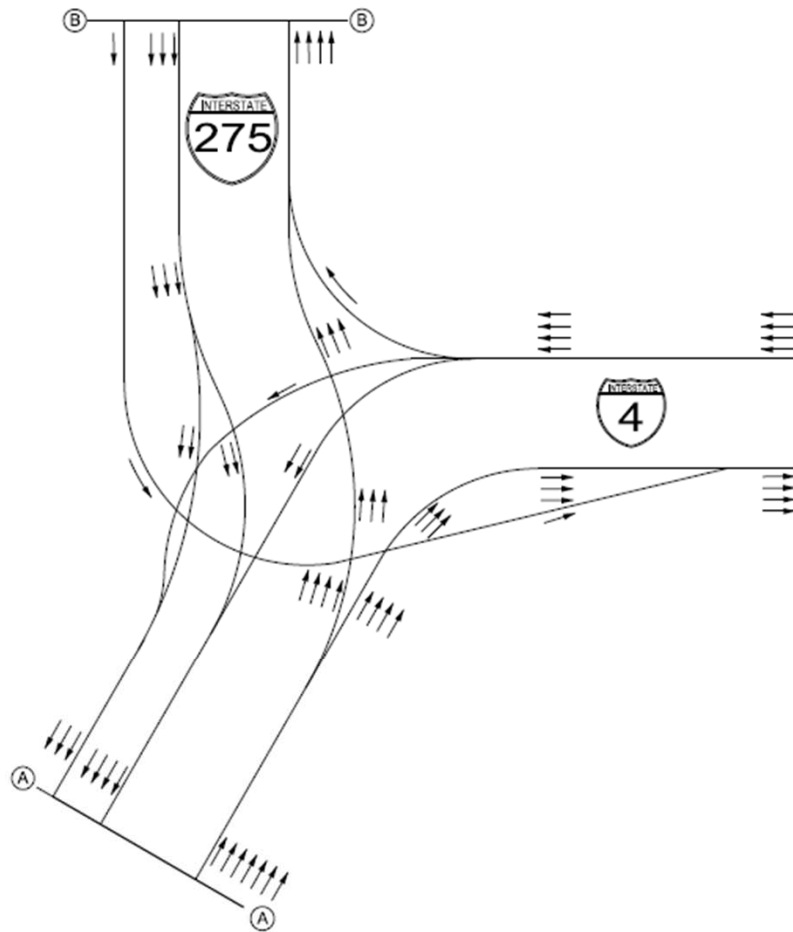


**Tampa Interstate Study SEIS**  
 I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
 I-4 from I-275 to East of 50<sup>th</sup> Street  
 WPI Segment No. 258337-2

**Existing Mainline and Intersection Laneage**

**Figure 4-10**  
**Sheet 1 of 4**

# DRAFT



## Legend

-  TRAFFIC SIGNAL
-  TRAFFIC DIRECTION
-  STOP SIGN

Date: 8/16/2018



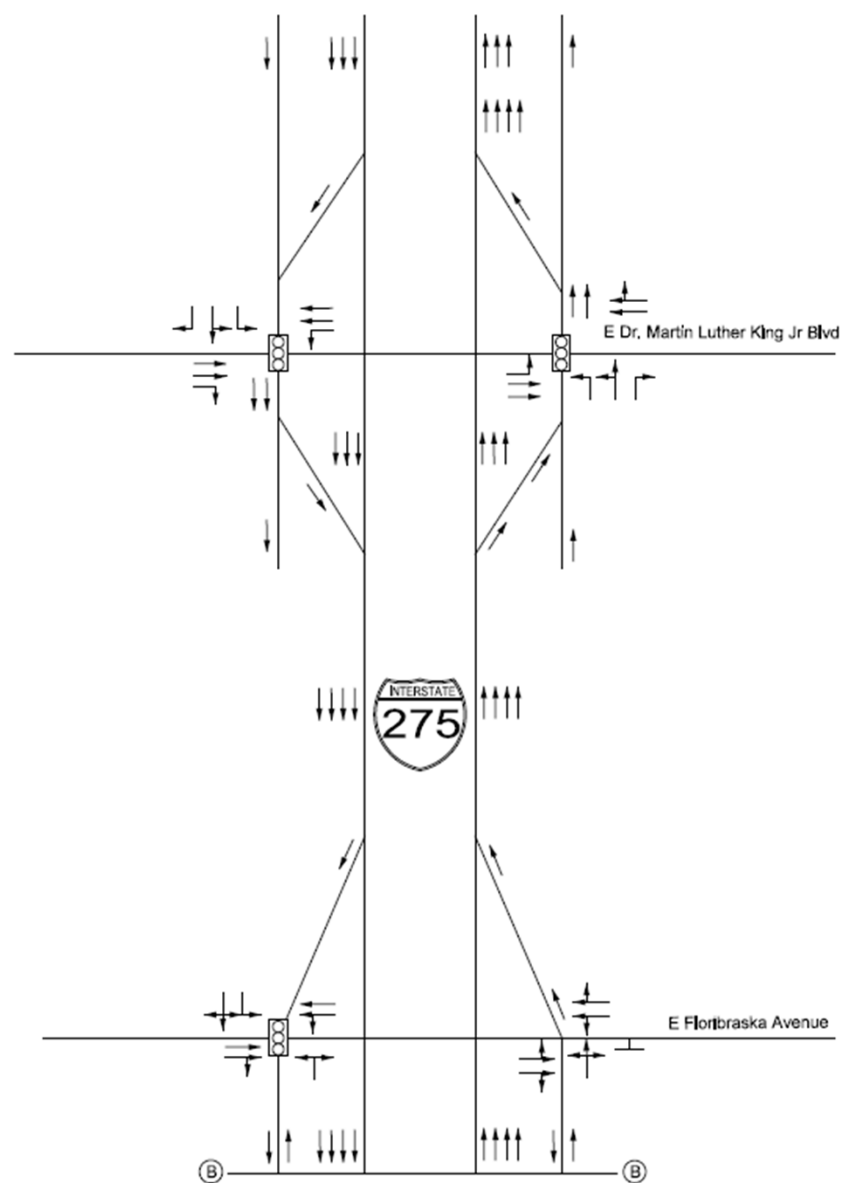
### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

Existing Mainline and Intersection Laneage

Figure 4-10  
Sheet 2 of 4

DRAFT



Drawing Not to Scale

### Legend

-  TRAFFIC SIGNAL
-  TRAFFIC DIRECTION
-  STOP SIGN

Date: 8/16/2018



#### Tampa Interstate Study SEIS

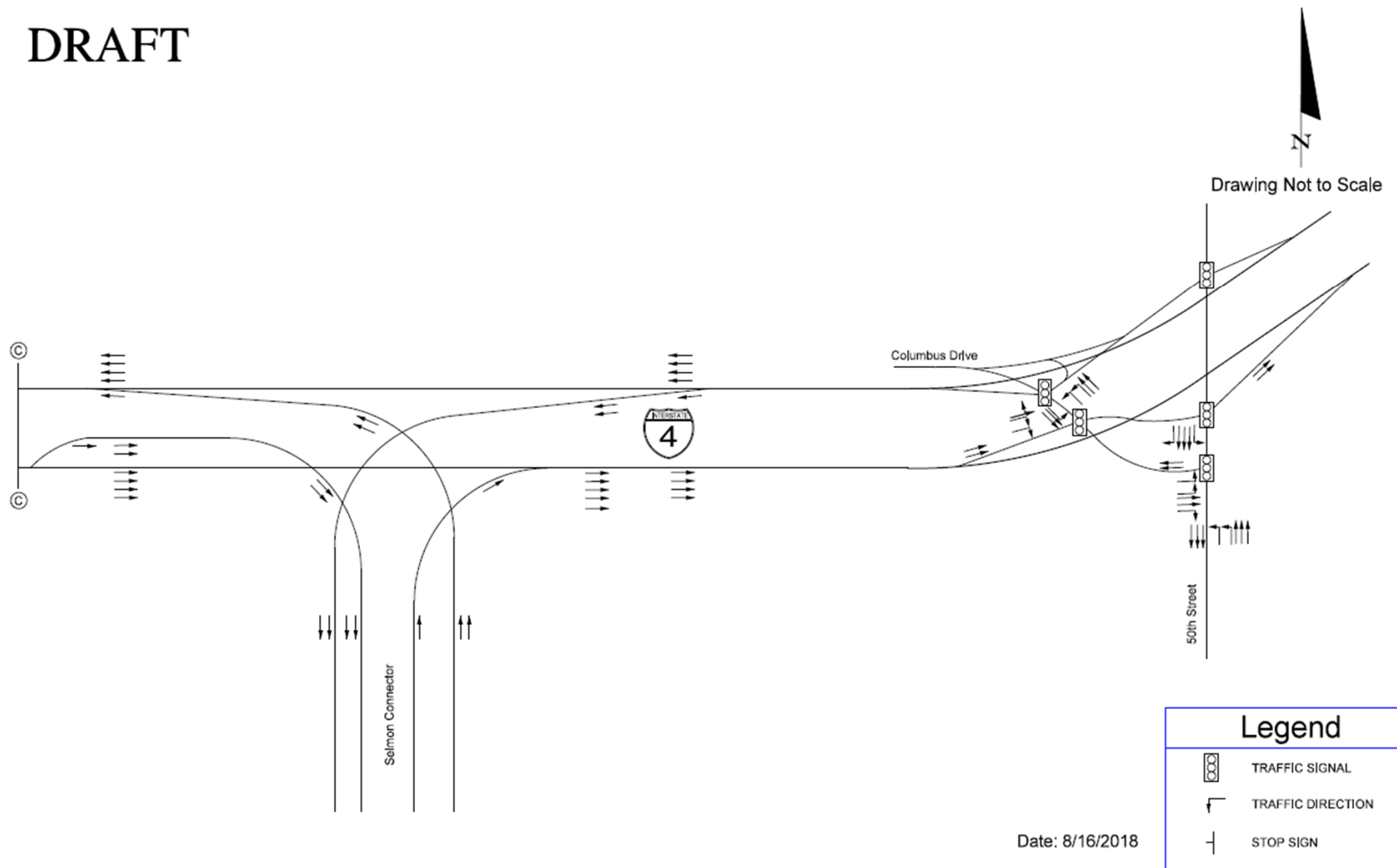
I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

Existing Mainline and Intersection Laneage

Figure 4-10  
Sheet 3 of 4



DRAFT



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Existing Mainline and Intersection Laneage**

**Figure 4-10  
Sheet 4 of 4**

#### 4.2.11 Lighting

The entire interstate system within the study limits for TIS segments 2B, 3A and 3B is lighted with modern high-pressure sodium lighting luminaires and poles.

#### 4.2.12 Utilities and ITS

Existing utilities within the Segments 2B, 3A and 3B are listed in **Table 4-11**. Eighteen utility agencies/owners (UAO) were identified within the study area through a Sunshine One Call design ticket. Coordination with utilities is ongoing throughout the project development process.

**Table 4-11 Existing Utilities in Segments 2B, 3A & 3B**

Utility Name/Owner	Original Contact	Phone Numbers	Facility
FIBERLIGHT LLC.	CHRIS PANCIONE	Day: (954) 596 - 2559 Alt: (540) 903 - 5144	FIBER OPTIC
TW TELECOM- TAMPA	JAMES MCVEIGH	Day: (813) 316 - 7763 Alt: (813) 309 - 1171	FIBER
AT T	NANCY SPENCE	Day: (770) 918 - 5424	COMM/F.O.
FPL FIBERNET LLC	DANNY HASKETT	Day: (305) 552 - 2931 Alt: (786) 246 - 7827	FIBER
VERIZON FLORIDA INC	DAVID WYNNS	Day: (813) 978 - 2164	CABLE/FIBER/PHONE
HILLSBOROUGH COUNTY TRAFFIC SERVICE UNIT	GEORGE AUBEL	Day: (813) 927 - 6751	COMM/F.O., ST LIGHTS/ TRAFFIC SIGNALS, TRAF. SIGNAL CABLE/ CONDUIT
LEVEL 3 COMMUNICATIONS	NETWORK RELATIONS	Day: (877) 366 - 8344 x2	FIBER OPTIC
MCI	BRYAN LANTZ	Day: (813) 740 - 1231	COMMUNICATIONS / FIBER OPTIC
CROWN CASTLE NG	BRYANT LOWE	Day: (724) 416 - 2193 Emerg: (408) 954 - 1580 x155	FIBER
TECO PEOPLES GAS- TAMPA	LUIS CASTELLANO	Day: (813) 275 - 3743	GAS
SSOCOF TEST CODE - Do not read to caller	DATABASE DEPARTMENT	Day: (000) 000 - 0000	SSOCOF TEST CODE
C/O TAMPA TRANSPORT	MIKE SCANLON (Transportation)	Day: (813) 274 - 8105	TRAFFIC SIGN & SIGNAL INFRASTR
CITY OF TAMPA WATER	JANICE DAVIS (Water)	Day: (813) 274 - 7096	WATER
CITY OF TAMPA SEWER	JACK FERRAS (Sewer)	Day: (813) 274 - 8095	SEWER
TAMPA ELECTRIC COMPANY	JASON COOPER	Day: (813) 275 - 3037	ELECTRIC
TECO FIBER	JASON COOPER	Day: (813) 275 - 3037	FIBER
BRIGHT HOUSE NETWORKS, LLC	RANDY LYLE	Day: (813) 684 - 6100 x32143	CABLE TV
XO COMMUNICATIONS - TAMPA	JEFF SBROCCO	Day: (813) 301 - 4047 Alt: (801) 330 - 8300	FIBER OPTIC

Source: IRTM One Call Design Ticket, November 2014.

**Intelligent Transportation Systems (ITS)** -The existing ITS infrastructure includes 12 Closed Circuit Television (CCTV) cameras, 5 Dynamic Message Signs (DMS), 19 Microwave Vehicle Detection Systems (MVDS), 72 count fiber optic cable backbone, conduit, fiber pull boxes, fiber splice vaults, electrical pull boxes, electrical wire, cabinets and transmission equipment's. The field elements are managed and controlled from the Tampa Bay SunGuide® Center.

An FDOT let D/B project is scheduled for installation of advanced warning signs (FPN 254677-4-05-92) in the spring of 2019. This D/B project is making safety improvements by adding advanced warning signs to alert drivers on southbound I-275 and westbound I-4 approaching the interchange to slow/stopped vehicles around the curve.

#### 4.2.13 Pavement Conditions

Except for short transition segments near North Boulevard, most of the existing pavement on I-4 and I-275 is concrete. Pavement condition surveys were conducted by the FDOT in 2018, with pavements rated for cracking and ride quality. Ratings run from 0 to 10, and any rating of 6.0 or less is considered deficient pavement and marked with an asterisk in **Table 4-12**. Based on the latest pavement condition surveys the existing pavement is in good condition except for a segment of I-4 east of 50<sup>th</sup> Street. As noted at the bottom of the table, this segment is scheduled for resurfacing in late 2018 with completion expected in the summer of 2020.

**Table 4-12 2018 Pavement Condition Survey Results**

	Begin Milepost	End Milepost	Side	Condition Category	2018 Ratings	Year 2023 Projection**	Year Const./Rehab.
I-275 W. of I-4	3.070	6.030	Right (NB)	Cracking	9.4	--	2016 Pvt. Rehab
				Ride	8.6	--	
	6.030	7.362	Right (NB)	Cracking	9.4	8.9	2016 Pvt. Rehab
				Ride	7.6	7.6	
I-4	7.671	9.900	Composite	Cracking	9.2	8.6	2007
				Ride	7.7	7.7	
	9.900	10.578	Composite	Cracking	9.4	9.3	2007
				Ride	7.8	7.8	
	10.578	11.098	Composite	Cracking	6.5	4.0	2007
				Ride	7.6	7.3	
	11.098	12.332	Composite	Cracking	4.5*	2.8	2009
				Ride	7.5	7.4	
I-275 N. of I-4	0.171	0.472	Composite	Cracking	9.4	--	2016
				Ride	8.2	--	
	0.472	0.729	Composite	Cracking	9.4	--	2016
				Ride	8.3	--	
	0.729	1.203	Composite	Cracking	7.7	6.6	2007
				Ride	8.2	7.9	
	1.203	4.979	Composite	Cracking	8.8	8.7	2015
				Ride	8.1	8.1	

Source: FDOT All System Pavement Condition Forecast, extracted on 8/10/2018.

\* Currently deficient; repairing under FPID 436588-1-52-01 is scheduled to begin in the fall of 2018 and be complete in summer of 2020.

\*\* Based on linear regression



#### 4.2.14 Railroads and Multimodal Facilities

##### CSX Railroad Lines

CSX Transportation operates and maintains freight service on railroad lines that cross under I-4 at two locations. One crossing is located in Segment 3A and consists of a single track line that crosses under I-4 in the Selmon Connector interchange and then parallels and runs along the west side of the Selmon Connector. The second crossing is located in Segment 3B and consists of a single track line that crosses under I-4 just east of 36<sup>th</sup> Street. In both crossing locations, the outer roadways of I-4 have been constructed.

##### Multi-modal Freight

I-275 and I-4 within the study area provide access to Port Tampa Bay, the largest port in the state of Florida. In 2016, it handled more than 37 million tons of cargo— nearly one-third of all cargo moving in and out of the state of Florida. At the same time, the Port Tampa Bay has emerged among the top eight U.S. cruise ports, handling nearly 900,000 passenger moves a year (Port Tampa Bay 2017). The Port has collaborated with FDOT, the City of Tampa, Hillsborough County, Hillsborough MPO, CSXT Railroad (CSX), and others to develop and implement a long- term, comprehensive landside transportation access strategy for Port Tampa Bay. The new I-4/Selmon Expressway Connector and I-4/Lee Roy Selmon Expressway Interchange recently constructed exclusive truck ramps into and out of Port Tampa Bay to improve intermodal goods movement at the port.

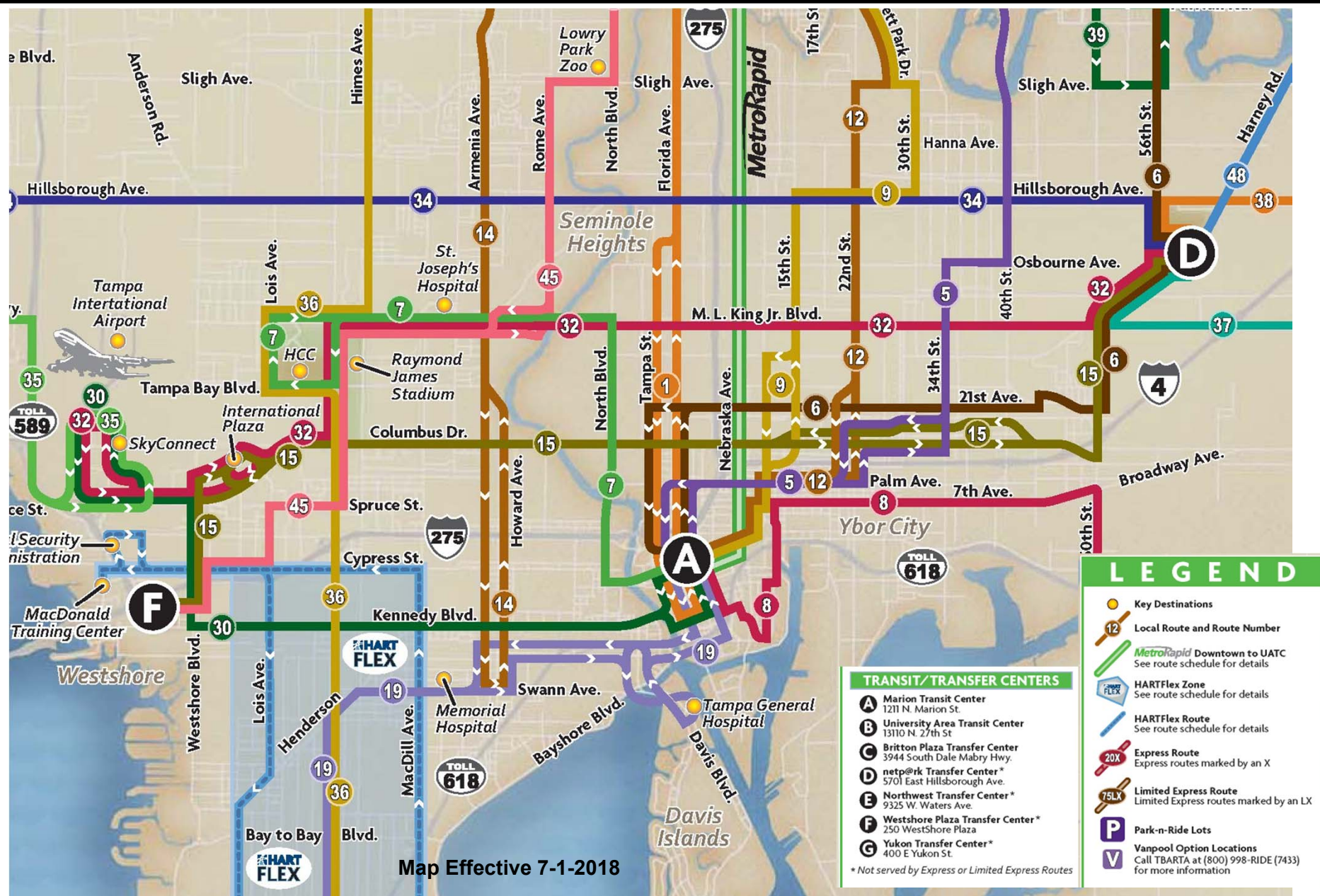
In addition to Port Tampa Bay, I-275 to the west of Segment 2B provides a limited access connection to TIA, which had 18.9 million annual passengers in 2016, six airside terminals, 7,500 employees onsite and more than 81,000 jobs in the community. The TIA Airport Master Plan (2013) outlines three phases of expansion, which is expected to create nearly 9,000 construction-related jobs.

I-275 and I-4 also provide important access to numerous freight activity centers located in Hillsborough County. The freight transportation system is a critical component of the regional economy that encompasses the trucking industry, maritime shippers and supportive trades, air cargo providers, freight rail carriers, intermodal terminals, warehousing facilities, and distribution centers. Truck traffic currently ranges from two to nine percent of the traffic in the TIS SEIS Project study area.

##### Multi-modal Transit

Several mobility choices operate within the limits of the TIS SEIS Project study area. These transit facilities include, or are planned to include, streetcar, express buses, local bus routes, park-and-ride lots, and rail transit. Both the HART and Pinellas Suncoast Transit Authority (PSTA) operate express transit routes that travel along I-275 between SR 60 and Dr. MLK, Jr. Boulevard in the TIS SEIS Project study area (**Figure 4-11**). HART operates multiple transportation modes and services in the downtown Tampa area, in cooperation with the Downtown Partnership and other organizations and companies, as shown in **Figure 4-12**. In addition, the Tampa Bay Area Regional Transit Authority (TBARTA) offers several commuter services in Hillsborough, Pinellas, Pasco, Hernando, and Citrus counties, including carpools, vanpools, and emergency ride home..

There are several transit and other mobility projects that are currently being planned or proposed in the TIS SEIS study area. They are listed in **Table 4-13**. One of the largest proposed transit project is the potential addition of Virgin Trains USA fixed guideway route from Orlando to Tampa that may utilize a portion of the median of I-4 that was previously identified as the preferred alignment for the Florida High Speed Rail in 2010. In addition to the proposed fixed guideway project, the region is studying a regional bus rapid transit (BRT) system that would connect Pinellas, Hillsborough, and Pasco counties along I-275. In addition, there are several bus projects including the Downtown Circular, which would improve the route between downtown St Petersburg and Downtown Tampa, a critical commuter route, as well as expanded services to the TIA, MacDill Air Force Base, and Pasco County.



#### Tampa Interstate Study SEIS

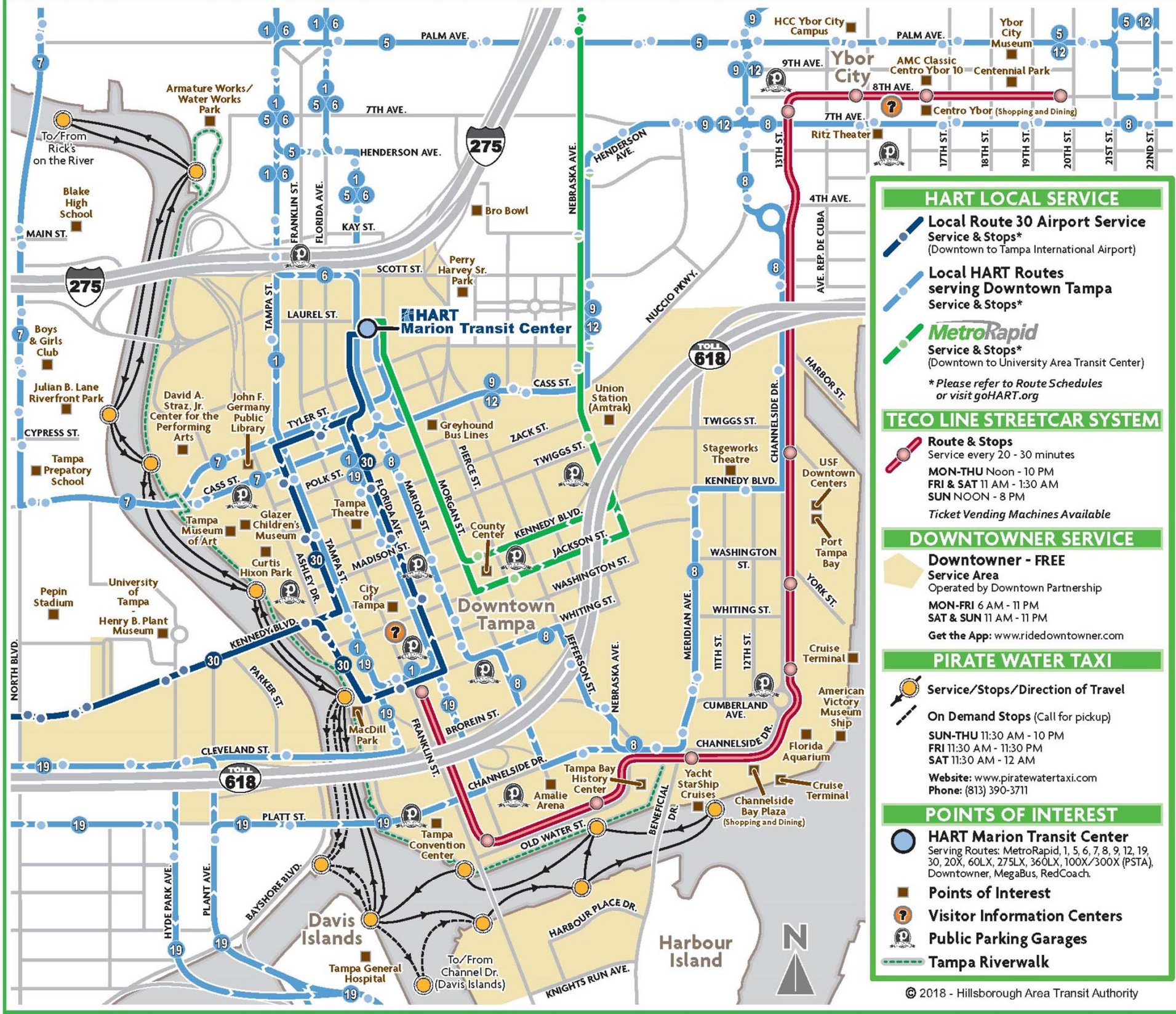
I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

#### HART Bus Routes Within the TIS SEIS Study Area

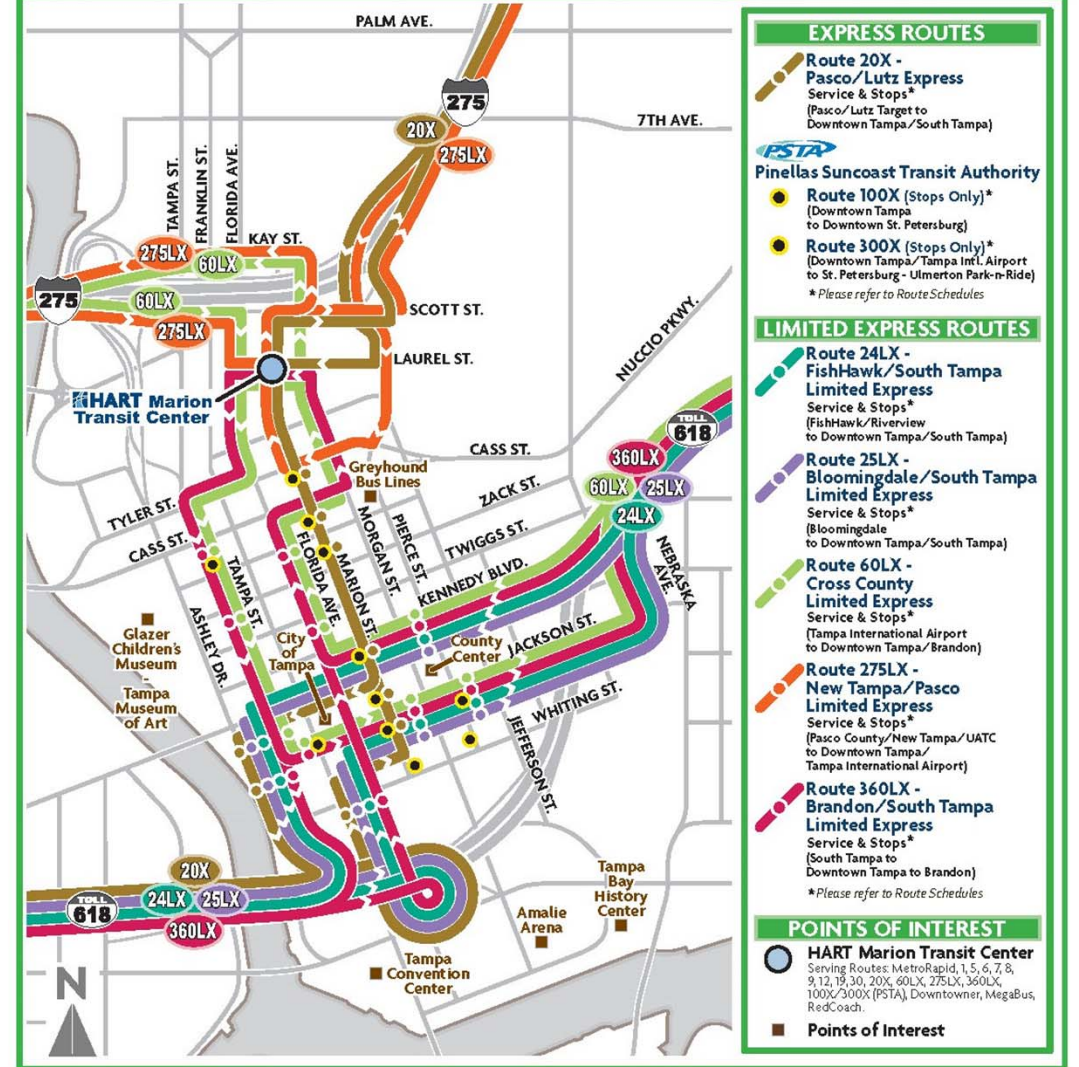
Figure 4-11



# HART LOCAL SERVICE AND TECO LINE STREETCAR SYSTEM



# HART EXPRESS AND LIMITED EXPRESS SERVICE



**HART**  
Hillsborough Area Regional Transit Authority  
[www.goHART.org](http://www.goHART.org)



HART Downtown Network of Services

Figure 4-12



**Table 4-13 Planned and Proposed Mobility Services in the TIS SEIS Study Area**

Service	Status	Description
Brightline Fixed Guideway Project (Virgin Trains USA)	Proposed	Rail service from Orlando to Tampa in the I-4 Corridor on similar alignment to the Florida High Speed Rail
Florida High Speed Rail	Approved ROD May 2010	Rail service from Orlando to Tampa in the I-4 Corridor
Tampa Streetcar Extension Project	Planned	2.6-mile extension that would serve North Franklin St and in Tampa Heights, Water St Tampa, and the Channel District, Harbour Island, and Ybor City
Downtown Autonomous Circulator	Planned	Service that would connect the Marion Transit Center and Downtown Tampa
Bus Rapid Transit	Proposed	HART has 7 proposed BRT projects that would operate in or near the TIS SEIS study area called MetroRapid
TPA-FL Arterial Bus Rapid Transit	Under Study	The purpose of this upcoming BRT study is to look at opportunities for transit improvements, operational improvements, safety and accessibility improvements, improvements on the Florida-Nebraska corridor from Downtown Tampa to the University area.
TBARTA Regional Transit Feasibility Plan	Under Study	Study is evaluating regional transit services from Pinellas to Pasco County along I-275
Heights Mobility Study	Under Study	Pedestrian/Bicycle safety and mobility improvements in the Greater Seminole Heights/ Tampa Heights area, along the Florida Ave and Tampa St/Highland Ave corridor between downtown Tampa and the Hillsborough River
Intermodal Center Studies	Under Study	The Westshore location has been selected; they are now evaluating what the site should include and configuration of the site plan. Downtown Tampa site is still under study.

SOURCES: FDOT 2018; TBARTA 2018; HART 2018

### Florida High Speed Rail (FHSR)

FDOT is coordinating with the Federal Railroad Administration (FRA) regarding potential overlap between the TIS SEIS and the 2010 FHSR ROD noted in **Table 4-13**. For reference, the following bullets summarize the timeline of activities regarding this coordination:

- 1996-FHWA approved the TIS FEIS (included ultimate Downtown Tampa Interchange)
- 1997 and 1999-FHWA issued the TIS FEIS RODs (did not include ultimate Downtown Tampa Interchange)
- 2003-FDOT completed I-275/I-4 Operational Improvements (interim condition)
- 2005-FRA approved the FHSR FEIS (shared TIS ROW in downtown Tampa)
- 2006-FDOT completed I-4 outer roadways from 14th Street to 50th Street
- 2008-FDOT purchased the former county jail site for a future multimodal center
- 2009-FRA completed FHSR FEIS Reevaluation
- 2010-FRA issued FHSR ROD and won a federal grant for \$1.25 billion
- 2011-State of Florida declined the federal grant for \$1.25 billion
- 2013-FDOT completed the I-4/Selmon Expressway Connector

Throughout the years, FDOT and FRA have worked together as their transportation plans have evolved, always with the intent of minimizing social and environmental impacts. This is especially applicable in the downtown Tampa area, where the TIS and the FHSR corridors overlap. The TIS FEIS Long-Term Preferred Alternative included an HOV/Transitway in the median of the interstate, as well as accommodations for a park-and-ride/multimodal center in downtown Tampa and Westshore. At the time the FHSR corridor was under development, there was no funding to reconstruct the ultimate I-275/I-4 interchange, as identified in the 1996 TIS Long-Term Preferred Alternative. As a result, FRA and FDOT agreed that the FHSR corridor would parallel the south side of the interstate between the Tampa station and the crossing into the I-4 median within the ultimate TIS right of way, because it appeared that FHSR would be constructed first. FRA also coordinated with FDOT to accommodate various roadway design changes and appropriate commitments in the 2009 FHSR Reevaluation and 2010 ROD. Unfortunately, funding for the FHSR project was never received.

In May 2018, the FHWA made several comments on the relationship of the SEIS to the Florida High Speed Rail proposal. A copy of the comments and FDOT's responses are included in **Appendix C**.

#### **4.2.15 Aesthetic Features**

A set of Urban Design Guidelines (UDG) was developed in 1994 and approved by FHWA in February 1995. These guidelines were included as part of a multi-party Memo of Understanding (MOU) approved in 1996 as mitigation for adverse impacts from the original Tampa interstate construction through the neighborhoods located near downtown Tampa, West Tampa and Ybor City. The Urban Design Guidelines were developed as a part of the original TIS in collaboration with the local community. FDOT applies these guidelines to each section of the interstate to achieve a consistent look throughout the downtown Tampa area, in terms of aesthetic treatments and landscaping that match the character of the adjacent community. These guidelines were intended to minimize secondary impacts to land uses adjacent to the system as well as users to the interstate.

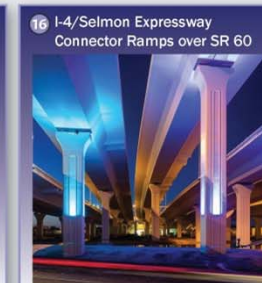
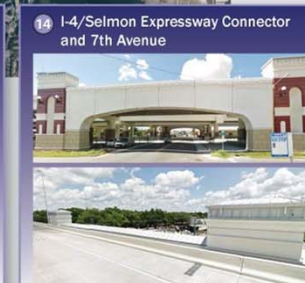
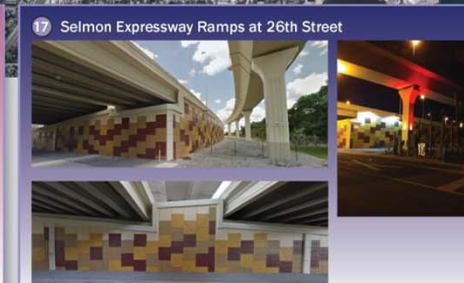
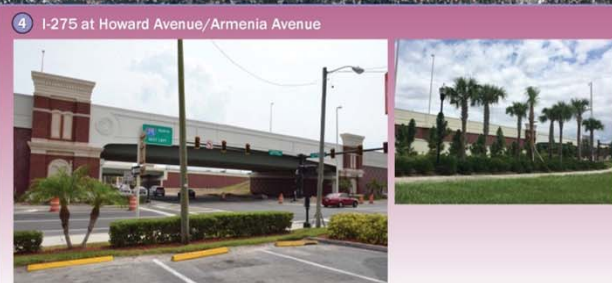
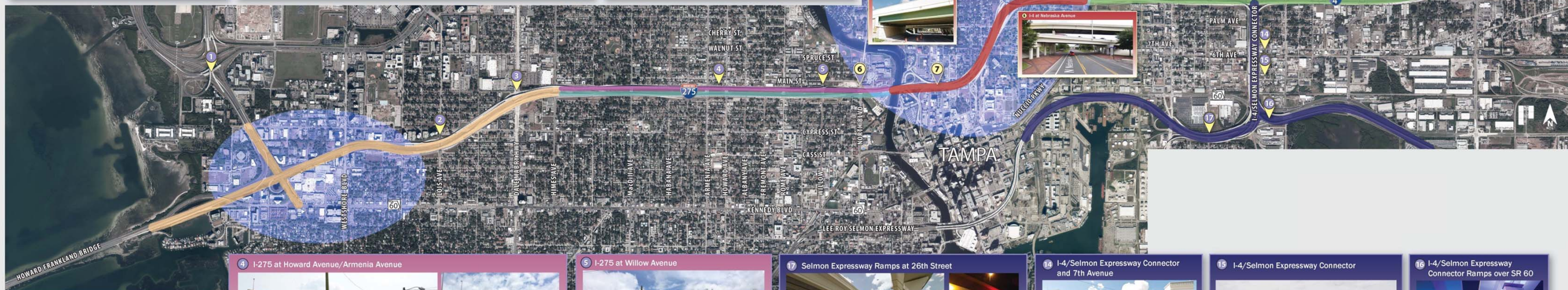
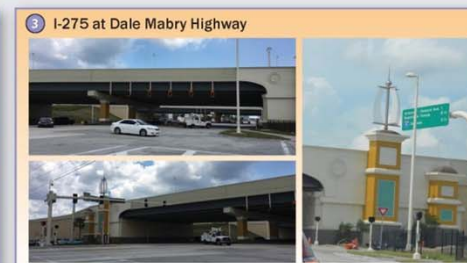
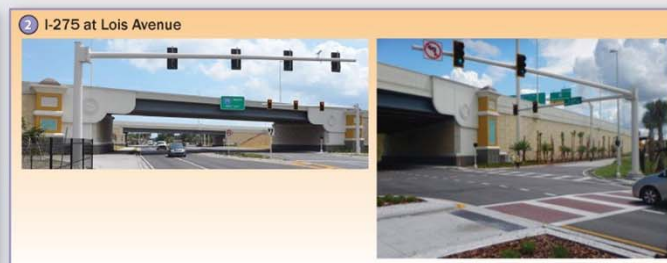
The Guidelines address the following 13 design elements: bridge structures, retaining walls and embankments, noise walls, lighting, fencing, sign supports, stormwater management areas, landscaping, pavement and streetscape, opportunities for public art, utilities, mounds and grading, recreation areas and architectural elements.

Special Design Areas were designated for the CBD, West Tampa, Tampa Heights and Ybor City. Urban Level 3 Aesthetics were applied to bridges and walls, and special aesthetic treatments were developed for the Tampa Heights Greenway and Perry Harvey Sr. Park.

Aesthetic treatment commitments have been fulfilled or nearly fulfilled for I-4 through Ybor City, I-4/Selmon Expressway Connector and I-275 through West Tampa (**Figure 4-13**). Aesthetic treatments are yet to be fulfilled for Downtown Tampa, Tampa Heights, Seminole Heights and Westshore, as shown in **Figure 4-13**.



- LEGEND
- Areas where the Urban Design Guidelines (UDG) have Not been fully Implemented
  - Sample Locations of the Implemented TIS Urban Design Guidelines
  - Existing conditions where UDG have Not yet been fully implemented
  - 1A = construction completed 2016
  - 2A, SB = construction completed 2010
  - 2A, NB = construction completed 2016
  - 2B = construction completed 2006 (operation/safety improvements)
  - 3A/3B = construction completed 2007
  - 3C = construction completed 2014



**Tampa Interstate Study SEIS**  
I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**TIS Urban Design Guidelines/Aesthetics - Implemented Mitigation**

**Figure 4-13**



### 4.3 Existing Structures

There are currently 58 existing bridge structures located within Segments 2B, 3A & 3B, as shown in **Figure 4-14** and summarized in **Table 4-14**. As shown in the table, superstructure types include cast-in-place (CIP) beams, prestressed concrete beams, post-tensioned segmental concrete box girders and structural steel girders. A variety of prestressed concrete beam shapes such as AASHTO I beams, and Florida I-Beams (FIB), and Florida U-Beams (FUB). Existing bridge typical sections vary from 29.7 feet to 170.8 feet wide and carry between 1 to 7 lanes. The FDOT further evaluated the existing bridges for the potential for rehabilitation with more recent inspection data that what is shown in **Table 4-14**. Refer to **Appendix K, Bridge Rehabilitation Recommendations Memo**, dated September 26, 2019.

Condition and Year of Construction – The existing bridges were built between 1962 and 2014 with approximately half being reconstructed between 1966 and 2014, as indicated in the table. The sufficiency ratings range from 64 to 100 with most rating in the 90's. None of the existing bridges are classified as “structurally deficient” by the National Bridge Inspection (NBI) program. Four (4) of the bridges are classified as “functionally obsolete” by NBI primarily due to inadequate shoulder and lane widths.

Historical Significance – None of the existing bridges on I-275 or I-4 within Segments 2B, 3A & 3B are known to have any historical significance; however, the Laurel Street Bascule Bridge located directly south of I-275 on the Hillsborough River is either on or considered eligible for listing on the National Register of Historic Places (NRHP). No impacts or effects to this bridge are expected as a result of construction of any of the build alternatives.

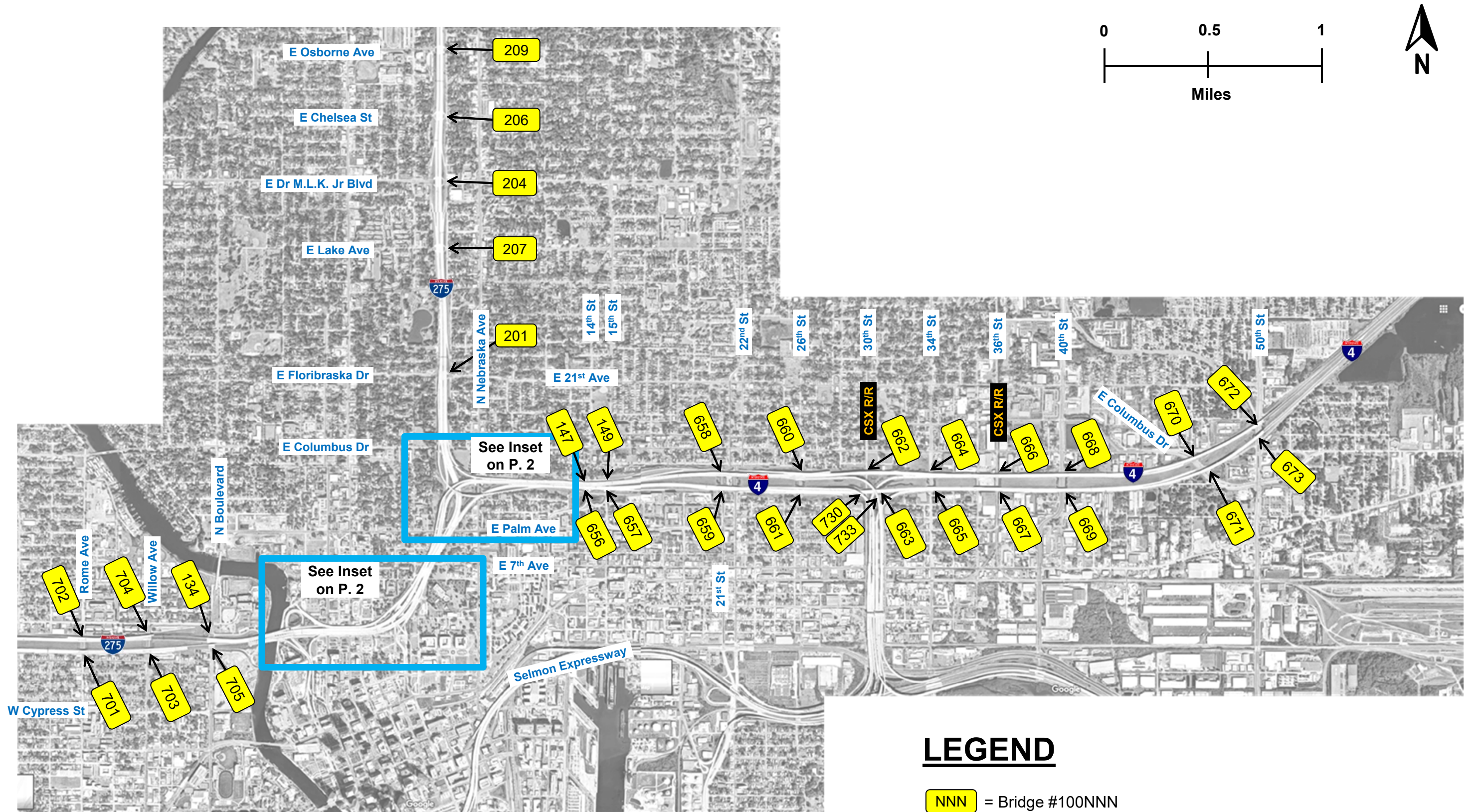
Horizontal and Vertical Alignment and Clearances – Vertical clearances of the existing bridges is summarized in **Table 4-14** and **Appendix K**. The existing clearances range from 14 feet to over 32 feet. Any clearance less than 16.5 feet is considered substandard. FDOT's 2018 Design Manual calls for 16.5 feet vertical clearance for new structures or 16 feet for construction affecting existing bridges. For Resurfacing, Restoration and Rehabilitation (3R) projects, a minimum 14.5 feet clearance is required over collector and arterial roadways and 16 feet is required over limited access facilities.

Span Arrangement – Existing bridges consist of both single span and multi-span configurations resulting in bridge lengths that range from 61.8 feet to 1,120.7 feet.

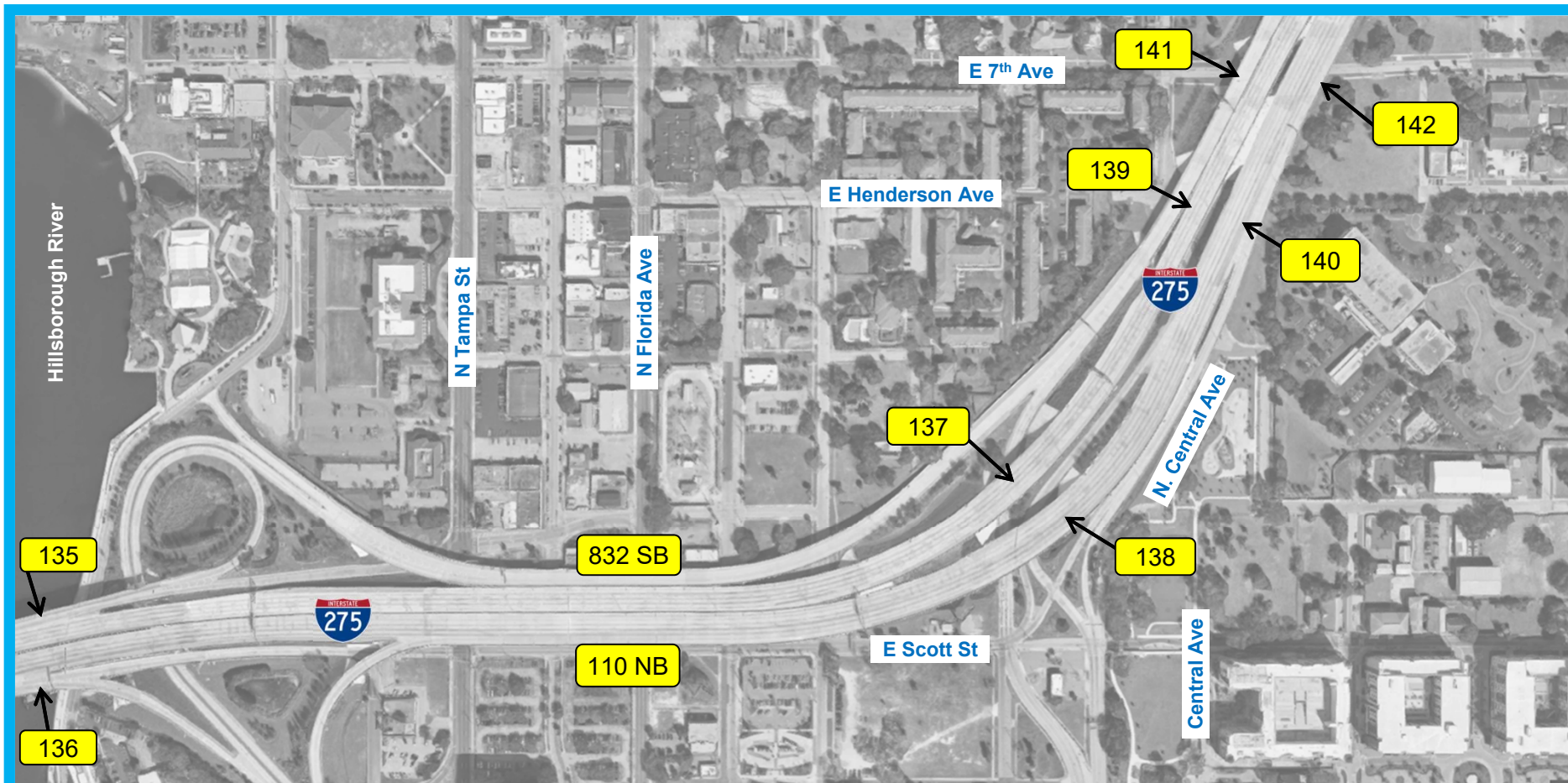
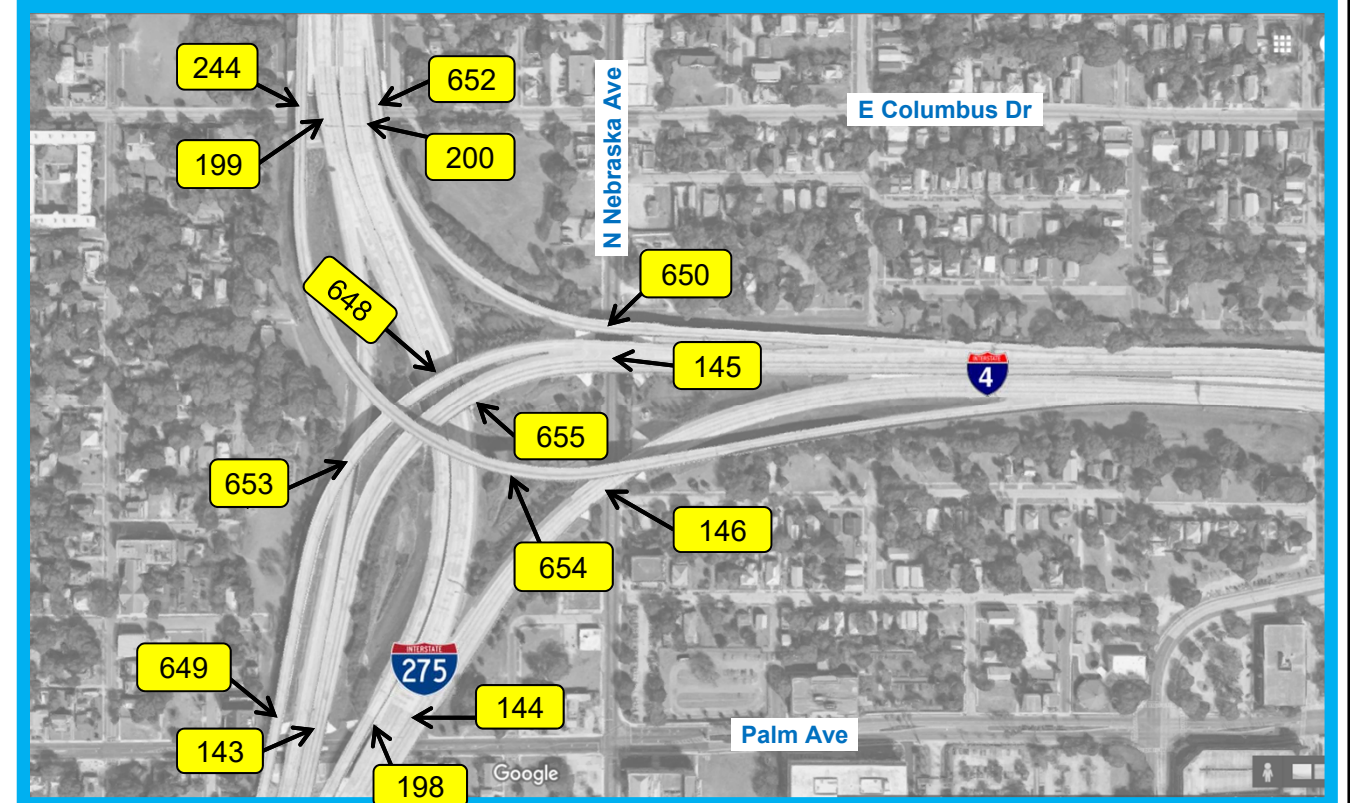
Channel Data – The only bridges over water are the ones over the Hillsborough River between North Boulevard and Ashley Street/Doyle Carlton Drive. Navigational channel clearances at this location are 75 feet horizontal and 40.1 feet vertical. The U.S. Army Corps of Engineers maintains a portion of the channel from the confluence of the Hillsborough River and the Hillsborough Bay to Columbus Drive (2.8 miles) in Segment 2B. While maintenance of this section is still an authorized project, no dredging of the channel has occurred recently.

Vessels navigating the river in the vicinity of the bridges include row boats, small motorboats, cabin cruisers, houseboats and small to medium size commercial vessels. Most of the river traffic appears to be small recreational vessels and tourism-related boats such as the Pirate Water Taxi. The east bank of the river also includes the Tampa Riverwalk which runs along the east side of the river from the Tampa Bay History Center in downtown Tampa to Water Works Park, located north of I-275.









## LEGEND

**NNN** = Bridge #100NNN



**Tampa Interstate Study SEIS**  
I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Bridge Numbers and Locations Key Sheet**

**Figure 4-14**  
**Page 2 of 2**



Table 4-14 Existing Bridges in the Segments 2B, 3A & 3B

(Arranged by Bridge Number, lowest to highest)

Bridge No.	Structure Name	Year Built	Year Reconstructed	Superstructure Type	Vert. Clr.*	Lanes	Width (ft)	Length (ft)	Area (SF)	Last Inspection	Sufficiency Rating	NBI** Rating
100110	I-275 NB / BUSINESS US-41	1964	2006	AASHTO/Steel/Precast Box	14.00	5			F)	7/14/2016	90.2	
100134	I-275 SB OVER NORTH BLVD	1963	2014	AASHTO	14.50	4	96.62	162.00	15652.44	8/16/2017	89.8	
100135	I-275 SB (SR-93) OVER HILLSBOROUGH RIVER	1964	2009	AASHTO	27.60	6			76525.97	2/1/2018	89	
100136	I-275 NB (SR-93) OVER HILLSBOROUGH RIVER	1964	2009	AASHTO	28.70	6			97597.53	8/25/2016	86.9	
100137	I-275 (SR-93) SB M/L / OFF-RAMP TO JEFFERSON ST.	1963	2005	AASHTO	24.00	4			14770.10	8/18/2016	91.2	
100138	I-275 NB (SR-93) M/L / JEFFERSON ST RAMPS	1963	2005	AASHTO	15.18	5			23452.19	8/24/2016	84.2	
100139	I-275 SB/CENTRAL & HENDERSON AVE	1963	1966	AASHTO	14.94	3	54.96	327.75	18012.58	8/24/2016	69.8	FO
100140	I-275 NB/CENTRAL & HENDERSON AVE	1963	2006	AASHTO	14.01	6			55470.33	8/18/2016	77.4	
100141	I-275 SB (SR-93) OVER 7TH AVE	1964	2005	AASHTO	14.58	3	46.17	166.25	7675.76	8/17/2016	70.8	FO
100142	I-275 (SR-93) NB OVER 7TH AVE	1964	2005	AASHTO	14.55	7	97.60	163.17	15924.90	8/17/2016	90.2	
100143	I-4 WB RAMP TO I-275 SB/PALM AVE	1963	2006	AASHTO	14.10	2			13063.35	7/27/2016	82	
100144	I-275 NB (SR-93) OVER PALM AVE	1963	2006	AASHTO	14.12	4			17741.95	7/7/2016	89.1	
100145	I-4 WB RAMP OVER NEBRASKA	1963	2005	AASHTO	15.75	4			14250.10	6/8/2016	85.7	
100146	I-275 NB RAMP TO I-4 EB OVER NEBRASKA	1963	2005	AASHTO	14.52	3			12160.96	6/8/2016	84.9	
100147	I-4 WB OVER 14TH STREET	1962	2005	AASHTO	15.20	5			10818.27	6/22/2016	91.8	
100149	I-4 WB OVER 15TH STREET	1962	2007	AASHTO	14.78	5			11211.67	6/22/2016	91.2	
100198	I-275 SB (SR-93) OVER PALM AVE.	1963	2005	AASHTO	14.00	2			5398.33	7/7/2016	64	FO
100199	I-275 SB OVER COLUMBUS DRIVE	1963	2005	AASHTO	14.73	3	58.72	180.90	10623.15	8/17/2016	96	
100200	I-275 NB OVER COLUMBUS DRIVE	1963	2005	AASHTO	14.59	4	69.64	180.18	12548.41	8/29/2016	96	
100201	I-275 OVER FLORIBASKA AVE	1966	2014	AASHTO	14.75	4	170.75	140.00	23905.00	8/11/2016	83	
100204	I-275 OVER MLK BLVD.	1966	2006, 2014	AASHTO	14.42	3	138.08	170.00	23474.17	8/11/2016	96	
100206	I-275 OVER CHELSEA STREET	1966	2006, 2014	AASHTO	14.70	4	150.58	145.00	21834.58	8/9/2016	92.6	
100207	I-275 OVER LAKE AVE	1966	2006, 2014	AASHTO	14.40	4	157.01	139.04	21831.05	8/17/2016	84	
100209	I-275 OVER OSBORNE AVE	1966	2006, 2014	AASHTO	14.67	3	138.08	140.00	19331.67	8/9/2016	90.2	
100244	I-275 SB RAMP TO I-4 EB OVER COLUMBUS DRIVE	1963	2005	AASHTO	14.59	1	29.69	182.10	5406.80	8/11/2016	88.5	
100648	I-4 WB RAMP E-W2 over I-275	2006		Steel	17.03	1	35.60	151.10	5378.57	7/26/2016	94.1	
100649	I-4 WB (I-275 SB) over Palm Ave.	2004		AASHTO	17.47	1			4268.72	6/29/2016	97.5	
100650	I-4 WB RAMP E OVER NEBRASKA AVE	2005		AASHTO	16.59	1	35.60	169.63	6038.45	6/8/2016	92.7	
100652	I-4 TO I-275 NB RAMP/COLUMBUS DR	2005		AASHTO	16.64	1			6432.15	6/1/2016	97.3	
100653	I-4 WB TO DWNTWN over I-275 RMP	2005		Steel	16.56	1	35.60	195.14	6946.52	7/26/2016	94.7	
100654	I-275 SB TO I-4 EB FLYOVER	2004		Steel	32.30	1			37376.63	7/27/2017	84.8	
100655	I-4 RAMP E-W OVER I-275	2005		Steel	16.78	3	60.20	162.64	9791.19	7/26/2016	79.7	
100656	I-4 EB OVER 14TH STREET	2006		Steel	16.00	4			9497.24	6/8/2016	93.9	
100657	I-4 EB OVER 15TH STREET	2006		AASHTO	20.84	5			10808.27	6/8/2016	91.8	
100658	I-4 WB / 21ST & 22ND STREETS	2005		Steel	28.97	4	80.93	357.63	28944.64	6/8/2016	98	
100659	I-4 EB OVER 21ST & 22ND ST	2006		Steel	17.20	3	81.74	357.68	29235.64	6/8/2016	98	
100660	I-4 WB OVER 26TH STREET	2005		Steel	19.44	5	104.17	98.43	10253.22	6/8/2016	94.6	
100661	I-4 EB OVER 26TH STREET	2006		Steel	17.38	5	95.01	98.40	9348.15	6/8/2016	94.6	
100662	I-4 WB OVR CSX RR	2005		AASHTO	23.65	4	70.05	80.04	5606.63	6/9/2016	94.6	
100663	I-4 EB OVER XTOWN CONN. & CSX RR	2005		AASHTO	23.56	4	70.05	262.92	18416.72	6/9/2016	90.5	
100664	I-4 WB OVER 34TH STREET	2006		AASHTO	17.99	4	101.47	98.33	9977.69	6/9/2016	97	
100665	I-4 EB OVER 34TH STREET	2005		AASHTO	17.27	4	85.16	98.43	8381.90	6/9/2016	94.6	
100666	I-4 WB OVER 36TH ST & CSX RR	2006		AASHTO	24.51	4		467.41	34715.40	6/7/2016	92.5	
100667	I-4 EB OVER 36TH ST & CSX RR	2006		AASHTO	23.35	4		467.41	34269.68	6/7/2016	94.6	
100668	I-4 WB OVER 40TH ST (SR-569)	2006		AASHTO	17.29	4	70.05	125.00	8755.74	6/1/2016	97	
100669	I-4 EB OVER 40TH ST (SR-569)	2006		AASHTO	16.90	4	72.28	125.00	9035.45	6/1/2016	93.1	
100670	I-4 WB / COLUMBUS DRIVE	2007								6/1/2016	97	
100671	I-4 EB OVER COLUMBUS DRIVE	2005								6/1/2016	94.6	
100672	I-4 WB OVER 50TH ST (US-41)	2007								6/1/2016	98	
100673	I-4 EB OVER 50TH ST (US-41)	2005								6/1/2016	98	
100701	I-275 OVER ROME AVE.	2009		FUB	18.91	5	87.08	108.00	9405.00	5/17/2017	88.5	
100702	I-275 SB OVER ROME AVENUE	2014								5/17/2017	92.9	
100703	I-275 NB OVER WILLOW AVE	2009		FUB	16.50	5	96.59	108.00	10431.18	5/17/2017	88.5	
100704	I-275 (SR-93) SB OVER WILLOW AVE	2014		FIB / FUB	18.8 1/4	5	106.61	108.00	11513.88	11/10/2016	93.5	
100705	I-275 NB OVER NORTH BLVD.	2009		AASHTO	17.20	5	91.57	125.62	11502.03	8/16/2017	92.9	
100730	I-4 EB RAMP B TO SR-618	2013		Segmental Box	19.10	2	45.29	1120.67	50756.87	11/29/2017	96.2	
100733	L.R.S.E. RAMP C TO I-4 WB	2013		Segmental Box	22.8 3/4	2	45.29	940.25	42585.46	11/30/2017	94.1	FO
100832	I-275 SB (SR-93) OVER BUS. US-41 (SR-685)	1964	2005	AASHTO					72876.73	7/26/2016	93.8	

\*FDOT Design Manual: 16.5' vertical clearance for new structures, 16' for construction on existing bridges, and min. 14.5' for 3R projects over collectors and arterials and 16' over freeways.

\*\*NBI=National Bridge Inspection Program    FO=Functionally Obsolete

Refer to **Appendix K**, Bridge Rehabilitation Recommendations Memo, September 26, 2019 for additional information on existing bridges

Ship Impact Data – Per Section 2.11 of the Structural Design Guidelines, the design of all bridges over navigable waters must include consideration for possible vessel collision. I-275 southbound (Bridge No. 100135) and I-275 northbound (Bridge No. 100136) are located over the Hillsborough River. The U.S. Army Corps of Engineers maintains a 9-foot deep navigational channel at this location. Piers 5 and 6 and 7 of these bridges are located within the river; the remaining piers are located on land. Pier 5 is located near the concrete bulkhead which forms the west bank of the river. Piers 6 and 7 flank the navigational channel. A fender system composed of timber elements supported by concrete piling separate the channel from these piers. The position of the fender system allows for 75 feet of horizontal clearance within the river while the vertical clearance is 40.10 feet for vessels traveling under the bridges. Concrete dolphins are positioned at the leading edges of Piers 6 and 7 as additional vessel impact countermeasures.

As part of the reconstruction/widening of I-275, a full vessel risk analysis will need to be conducted to determine the required ship impact loading as well as the most economical method for protecting the bridges. The importance classification for this bridge vessel collision design is considered critical per Load and Resistance Factor Design (LRFD) 3.14.5, since they are located on the Interstate highway system. As such, the return period in for the Acceptable Risk of Bridge Collapse changes for 1 in 1,000 years required for regular bridges to 1 in 10,000 years.

The marine vessel traffic characteristics for this section of the Hillsborough River are needed to perform the vessel collision risk analysis and this information is provided in the “Synthesizing Commercial Shipping (Barge/Tug Trains) from Available Data for Vessel Collision Design”. The Past Point for this section of the Hillsborough River is number 19. The table is broken down by vessel draft, and includes barges (commercial vessels) and self-propelled (recreational vessels). The data in the table is for the year 2000, and includes an escalation factor to calculate the number of vessels for subsequent years. A total of 1,496 commercial vessels and 2,836 recreational vessels traversed this section of the river in 2000. Using an escalation factor of 1.014, 4,393 vessels, 1,517 commercial and 2,876 recreational are expected to pass through in 2019.

Note that the number of recreational vessels is much greater than the number of commercial vessels, and the total number of vessels using the river is not increasing dramatically. This is consistent with the characteristics of this section of the Hillsborough River and the surrounding land uses. This area is urban in nature and little, if any, land is available for future development. Large scale industrial enterprises are not located on the river. Therefore, vessel impact countermeasures similar to the fender system and concrete dolphins currently in place are expected to be adequate for the reconstructed/widened I-275 bridges.

Geotechnical Information – Boring logs and other geotechnical data for specific bridges are available in the bridge plans on file. In addition, general soils data for the Segments 2B, 3A & 3B are summarized in **Section 4.1.8**.

Security Issues – No security-related issues have been identified to date. All of the existing bridges are easily accessible by the public.

## **4.4 Environmental Characteristics**

Existing environmental characteristics are being documented in the following reports:

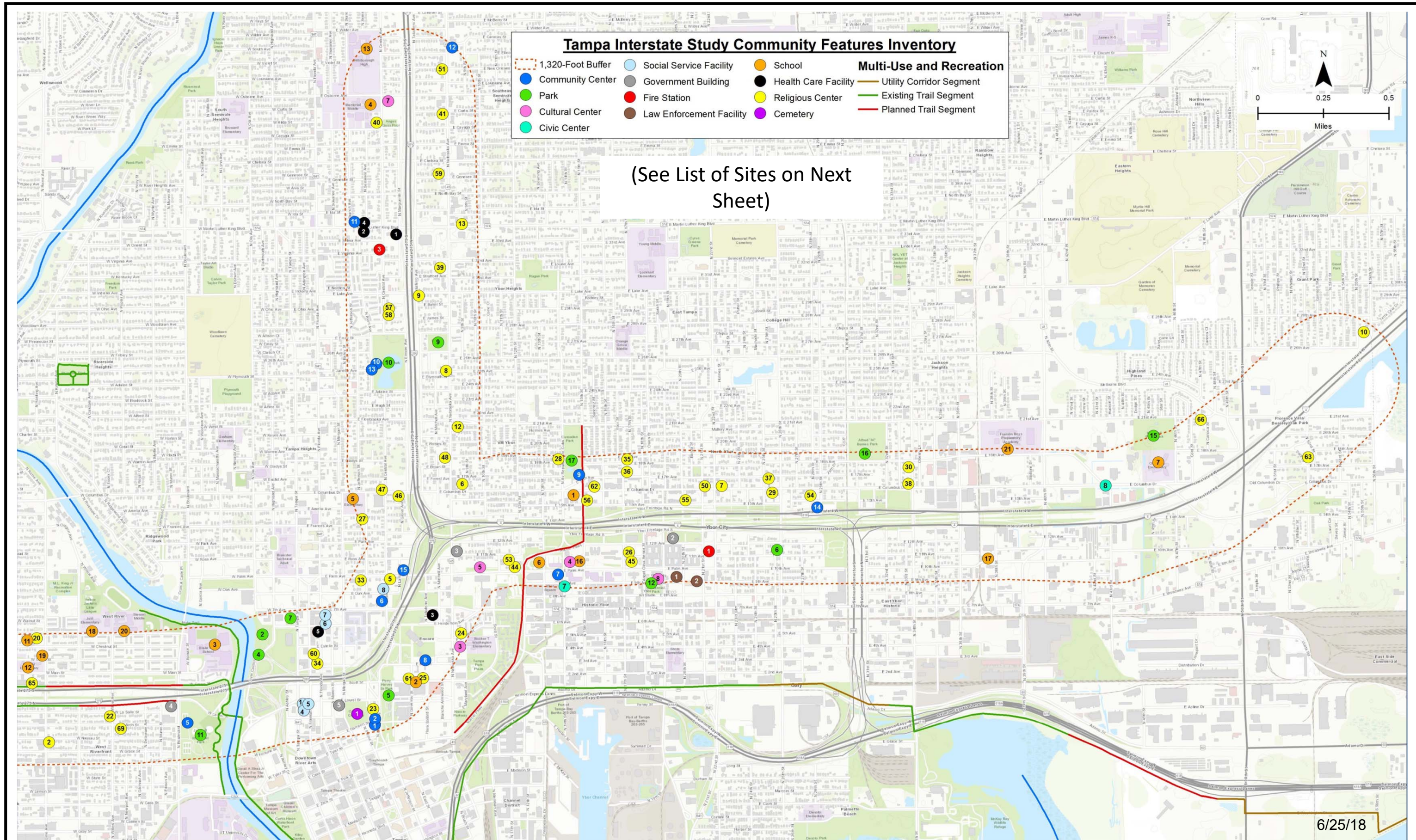
- *Natural Resource Evaluation Report*
- *Cultural Resource Assessment Survey Update*
- *Cultural Resource Assessment Survey Update Addendum*
- *Contamination Screening Evaluation Report*
- *Sociocultural Effects Evaluation Report*



- *Economic and Fiscal Impact Analysis*
- *Conceptual Stage Relocation Plan*
- *Noise Study Report*
- *Air Quality Technical Memorandum*
- *Location Hydraulics Report*
- *Section 106 Case Study Report*
- *Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation*
- *Final Supplemental Environmental Impact Statement/Record of Decision/Section 4(f) Use Determination*

An Existing Community Features Inventory included in the *Socio-Cultural Effects (SCE) Evaluation Report* is shown **Figure 4-15**.





**Tampa Interstate Study SEIS**  
 I-275 from Rome Avenue to North of Martin Luther King Jr. Boulevard  
 I-4 from I-275 to East of 50<sup>th</sup> Street  
 WPI Segment No. 258337-2

**Existing Community Features Inventory**



SCHOOLS		
MAP ID #	SEGMENT #	FACILITY
1	2B	ACADEMY PREP CENTER OF TAMPA INC.
2	2B	SAINT PETER CLAVER CATHOLIC SCHOOL
3	2B	BLAKE HIGH SCHOOL
4	2B	MEMORIAL MIDDLE SCHOOL
5	2B	LEE ELEMENTARY MAGNET SCHOOL
6	2B	ESE BIRTH THRU AGE 5
7	3B	OAK PARK ELEMENTARY SCHOOL
11	2A	LEGACY PREPARATORY ACADEMY
12	2A	DUNBAR ELEMENTARY MAGNET SCHOOL
13	2B	HILLSBOROUGH HIGH SCHOOL
16	2B	HILLSBOROUGH COMMUNITY COLLEGE - YBOR CITY CAMPUS
17	3B	HILLSBOROUGH COUNTY SCHOOL DISTRICT
18	2A	JUST ELEMENTARY SCHOOL
19	2A	TAMPA HOUSING AUTHORITY BRIDGES COLLABORATIVE
20	2B	STEWART MIDDLE SCHOOL
21	3B	FRANKLIN MIDDLE MAGNET SCHOOL

RELIGIOUS CENTERS		
MAP ID #	SEGMENT #	FACILITY
2	2A	THE HOLINESS CHURCH OF JESUS IN UNITY, INC.
5	2B	SADLER GEORGE W CHURCH
6	2B	EBEN-EZER BAPTIST HAITIAN CHURCH, CORP.
7	3A	NEW BEGINNING TABERNACLE MISSIONARY BAPTIST CHURCH
8	2B	DEEPER LIFE MINISTRIES
9	2B	CHAMPAIGNING FOR JESUS CHRISTIAN CENTER
10	3B	TRINITY CHAPEL
12	2B	MT SINAI AME ZION CHURCH
13	2B	IGLESIA MERC
20	2A	MT PLEASANT BAPTIST CHURCH
22	2A	FIRST BAPTIST CHURCH OF WEST TAMPA
23	2B	GREATER BETHEL BAPTIST CHURCH
24	2B	GREATER NEW SALEM PRIMITIVE BAPTIST
25	2B	EBENEZER MISSIONARY BAPTIST
26	3A	CURSILLO CATHOLIC CENTER
27	2B	GOOD NEWS BAPTIST CHURCH
28	3A	OPEN ARMS URBAN MINISTRIES
29	3A	NEW MT ZION MISSIONARY BAPTIST
30	3B	JOY TABERNACLE CATHEDRAL
33	2B	SANATAN MANDIR
34	2B	GRACE EVANGELICAL CHURCH
35	3A	NEW HARMONY MISSIONARY BAPTIST CHURCH
36	3A	CORNERSTONE FAMILY MINISTRIES
37	3A	ST LUKE AME CHURCH
38	3A	CHRIST UNITED METHODIST CHURCH
39	2B	TRUE HOLINESS CHURCH DELIVERANCE CENTER
40	2B	METROPOLITAN COMMUNITY CHURCH
41	2B	CHURCH OF CHRIST NEBRASKA AVENUE
44	2B	ALLEN TEMPLE AFRICAN METHODIST EPISCOPAL CHURCH
45	3A	OUR LADY OF PERPETUAL HELP CHURCH
46	2B	ST PAUL PENTECOSTAL CHURCH OF GOD, INC.
47	2B	SAINT JAMES HOUSE OF PRAYER EPISCOPAL CHURCH
48	2B	TABERNACULO LA FE DE TAMPA
50	3A	GREATER GRACE APOSTOLIC CHURCH
51	2B	IGLESIA MIEL DE LA PENA / HONEY FROM THE ROCK
53	2B	UNIVERSITY HAITIAN BAPTIST CHURCH
54	3A	REVIVAL POWER JESUS
55	3A	COMMUNITY HOLINESS CHURCH
56	3A	CHRISTIAN PRAISE AND WORSHIP
57	2B	TEMPLE OF THE APOSTLES
58	2B	GLORIOUS CHURCH OF GOD WITH DELIVERANCE
59	2B	BLESSED HOPE BIBLE COLLEGE
60	2B	CHURCH WOMEN UNITED OF TAMPA
61	2B	PARADISE MISSIONARY BAPTIST CHURCH
62	3A	3MGM CHRISTIAN CHURCH
63	3B	FREEDOM MISSIONARY BAPTIST CHURCH
65	2A	MOUNT VERNON PRIMATIVE BAPTIST CHURCH
66	3B	FIRST MISSIONARY BAPTIST CHURCH OF HIGHLAND PINES
69	2B	4000 MINISTRY'S INC.

PARKS AND RECREATION FACILITIES		
MAP ID #	SEGMENT #	FACILITY
2	2B	TAMPA WATER WORKS PARK
4	2B	DOYLE CARLTON DRIVE PARK
5	2B	PERRY HARVEY PARK
6	3A	EAST YBOR PARK
7	Park Closed/2B	PHIL BOURQUARDEZ PARK
9	2B	BORRELL PARK (NEBRASKA AVENUE PARK)
10	2B	ROBLES PARK AND PLAYGROUND
11	2B	JULIAN B LANE RIVERFRONT PARK
12	3A	YBOR CITY MUSEUM STATE PARK (MAIN ENTRANCE)
15	3B	HIGHLAND PINES PARK
16	3A	ALFRED "AL" BARNES PARK
17*	2B/3A	CUSCADEN PARK PLAYGROUND
18*	3B	OAK PARK CENTER PLAYGROUND
19*	3A	YBOR CENTENNIAL PARK
23	2B	HILLSBOROUGH RIVER PADDLING TRAIL
24	2B	HILLSBOROUGH RIVER TRAIL
25	2B	TAMPA RIVERWALK TRAIL
26*	2B	HERMAN MASSEY PARK
27*	2B	FERNANDO MESA PARK (Formerly Morgan St Mini-Park)
28	2B	TAMPA PARK PLAZA
29	Park Closed/2B	ANGUS GOSS MEMORIAL POOL
30*	2B	RAGAN PARK
31	2B	EAST-WEST GREEN SPINE (Proposed)

\*Outside SEIS limits, but shown as it was in the FEIS and shown on the map.

CEMETERY		
MAP ID #	SEGMENT #	FACILITY
1	2B	OAKLAWN AND ST LOUIS CATHOLIC CEMETERY

LAW ENFORCEMENT FACILITIES		
MAP ID #	SEGMENT #	FACILITY
1	3A	HILLSBOROUGH COUNTY SHERIFF'S OFFICE
2	3A	HILLSBOROUGH COUNTY SHERIFF'S OFFICE - RECORDS SECTION

FIRE STATIONS		
MAP ID #	SEGMENT #	FACILITY
1	3A	TAMPA FIRE DEPARTMENT AND RESCUE STATION NO 4
3	2B	TAMPA FIRE DEPARTMENT AND RESCUE STATION NO 5

GOVERNMENT BUILDINGS		
MAP ID #	SEGMENT #	FACILITY
2	3A	U S POST OFFICE - YBOR CITY
3	2B	TAMPA UTILITY DEPARTMENT (GERMAN AMERICAN CLUB BUILDING)
4	2B	CITY OF TAMPA CONSTRUCTION SERVICES CENTER
5	2B	MARION TRANSIT CENTER (HART)

HEALTH CARE FACILITIES		
MAP ID #	SEGMENT #	FACILITY
1	2B	CHILDREN'S MEDICAL CLINIC
2	2B	PATEL, MAHESH R MD PA
3	2B	YBOR CITY HEALTH CARE & REHABILITATION CENTER
4	2B	SYNERGY HEALTH CENTERS
5	2B	TAMPA FAMILY HEALTH CENTERS

CULTURAL CENTERS		
MAP ID #	SEGMENT #	FACILITY
3	2B	ROBERT W SAUNDERS SR BRANCH LIBRARY - YBOR CITY LIBRARY
4	2B	YBOR CITY CAMPUS LIBRARY - HILLSBOROUGH COMMUNITY COLLEGE
5	2B	CHILDREN'S BOARD OF HILLSBOROUGH COUNTY LIBRARY
7	2B	SEMINOLE HEIGHTS BRANCH LIBRARY
8	3A	YBOR CITY MUSEUM SOCIETY & YBOR CITY STATE MUSEUM

CIVIC CENTERS		
MAP ID #	SEGMENT #	FACILITY
7	2B	DON VICENTE DE YBOR HISTORIC INN
8	3B	SKATE PARK OF TAMPA

SOCIAL SERVICE FACILITIES		
MAP ID #	SEGMENT #	FACILITY
1	2B	TAMPA UNITS 15B AND 15D (Florida Division of Vocational Rehabilitation)
4	2B	AGENCY FOR PERSONS WITH DISABILITIES (APD) SUNCOAST REGION OFFICE
5	2B	AGENCY FOR PERSONS WITH DISABILITIES SUNCOAST FIELD OFFICE
6	2B	TAMPA SALVATION ARMY
7	2B	THE SALVATION ARMY CORRECTIONAL SERVICES
8	2B	HELPING HOMELESS

COMMUNITY CENTERS		
MAP ID #	SEGMENT #	FACILITY
1	2B	INTERNATIONAL LONGSHOREMEN'S ASSOCIATION LOCAL 1402 AF OF L-CIO
2	2B	KID MASON COMMUNITY CENTER
5	2B	BOYS & GIRLS CLUB - TAMPA BAY
6	2B	ALPHA KAPPA ALPHA SORORITY
7	2B	CUBAN CLUB
8	2B	BOYS & GIRLS CLUB - TAMPA BAY
9	3A	BOYS & GIRLS CLUB - TAMPA BAY
10	2B	ROBLES PARK ACTIVITY CENTER
11	2B	NAACP HILLSBOROUGH COUNTY BRANCH
12	2B	MASONIC LODGE - A W WINDHORST 185 F & AM
13	2B	BOYS & GIRLS CLUB - TAMPA BAY
14	2B	AMERICAN LEGION POST 167
15	2B	TAMPA HEIGHTS JUNIOR CIVIC ASSOCIATION (LEASING FROM FDOT)
16	2B	BOYS & GIRLS CLUB - WEST TAMPA

6/25/18





## 5 PLANNING PHASE/CORRIDOR ANALYSIS

### 5.1 Early Efforts-The TIS Master Plan

The TIS Project has been under consideration for many years. The Tampa interstate system is the spine of the Tampa Bay Region's surface transportation system, and improvements to the system have been a priority to the State since the 1980's. The proposed improvements to the interstate system are found in the Hillsborough MPO 2035 LRTP (2009) and the *Imagine 2040: Hillsborough Long Range Transportation Plan* (2014). An overall timeline with TIS-related milestones is in **Figure 5-1**.



Source: FDOT 2020

**Figure 5-1 Tampa Interstate Study Milestones**

In 1983, FDOT began to identify potential improvements to the Tampa interstate system, which was constructed in the early 1960's. These improvements included potential short-term safety solutions and design changes, and long-term high-occupancy vehicle (HOV) related improvements to accommodate growing traffic volumes and congestion. The 1983 study considered all transportation needs within the TIS study area, including concurrent highway, rail, and/or transit improvements.

Using the 1983 study as a documented base, FDOT began Phase I of the TIS in 1987. The purpose of the Phase I study was to produce a Master Plan to identify alternatives and make recommendations regarding the preferred type and location of multi-lane improvements, potential HOV facilities, transit facilities, traffic management techniques, and traffic surveillance and control systems. Based on the work performed, FDOT published the



TIS Master Plan Report in 1989. The Hillsborough County MPO adopted the Tampa Interstate Master Plan Concept into the 2010 LRTP in November 1989.

As part of the Master Plan development, in order to effectively analyze a potentially overwhelming number of alternatives, FDOT used a Tiered Analysis to screen the alternatives and “window down” the vast array of competing designs to the few viable alternatives. Tier 1 used key factors to evaluate the alternatives and eliminate “fatally flawed” concepts. Tier 2 provided a more detailed analysis to quantify and rank the impacts of each of the remaining alternatives. Tier 3 included preparing geometric layouts of all the remaining alternatives and evaluating more stringent standards and detailed analysis. The tiered analysis yielded 30 White Papers, 11 technical reports, 6 Technical Memos and 3 Concept Reports. The tiered analysis evaluated no build, Transportation System Management (TSM) and potentially hundreds of build alternatives. A table summarizing the tiered analysis is included in **Table 5-1**.

The master plan recommended a 4-roadway system with express lanes separated from the general purpose lanes and an HOV/Transitway in the median. Recommended improvements from the Master Plan are included in **Table 5-2**, and **Figure 5-2** shows a general TIS Master Plan typical section applicable to many areas.

**Table 5-1 Tampa Interstate Master Plan Recommendations**

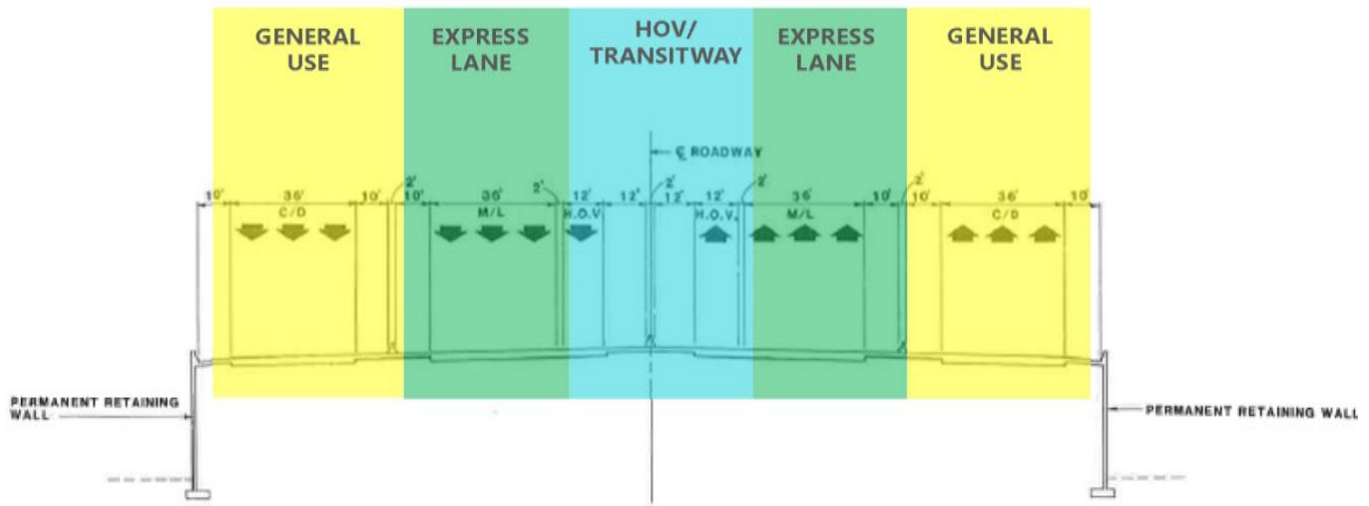
TIS Segment	Limits	Length (miles)	Recommended Improvements
1A	I-275 from Howard Frankland Bridge to Himes Ave.	3.8	4-roadway system with express lanes separated from general purpose lanes; HOV/transitway; wide median for rail platform near Trask Street
2A	I-275 from Himes Ave. to Rome Ave.	1.6	4-roadway system with express lanes separated from general purpose lanes; HOV/transitway
2B	I-275 from Rome Ave. to Martin Luther King Jr. Blvd. and I-4 from I-275 to 14 <sup>th</sup> St.	3.9	4-roadway system with express lanes separated from general purpose lanes; HOV/transitway
3A & 3B	I-4 from 14 <sup>th</sup> St. to 50 <sup>th</sup> St.	3.3	4-roadway system with express lanes separated from general purpose lanes; HOV/transitway; New Interchange at 14 <sup>th</sup> /15 <sup>th</sup> St. with frontage roads to 21 <sup>st</sup> /22 <sup>nd</sup> ; new I-4/Selmon Expressway Connector near 30 <sup>th</sup> St. corridor

Source: FDOT 2017



Table 5-2 Summary of TIS Tiered Alternatives Analysis

Alternative Description	Tier 1 Alternatives November 1988	Tier 2 Alternatives February 1989	Tier 3 Viable Alternatives March 1989	Tampa Interstate Study Master Plan November 1989
<b>Westshore - Segment 1A - I-275 Howard Frankland Bridge to E of Himes Ave</b>				
4 Roadway System - 50:1 FAA flight path	Six alternatives with various connector ramp and interchange configurations	Two additional alternatives with HOV/ Transitways having different access ramps and interchanges	Adds HOV/Transitway lanes with HOV priority ramps to/ from Trask St east side and adds interchanges and frontage roads east of Himes	Express lanes and separated local access freeway lanes; HOV/ Transitway lanes within interstate alignment with priority ramps to/ from Trask St, direct connection to Northwest Expressway (Veterans Expressway), from Kennedy Blvd and Memorial Hwy and adds interchange to/ from Himes Ave with new Sherrill St extension under I-275 and new Lemon St Connector to Westshore Blvd
2 Roadway System - 62.5:1 HCAA flight path	Two alternatives	Transitions to 4-lanes at Lois with HOV/ Transitway lanes from Howard Frankland Bridge east	Two alternatives with HOV lanes beginning at Howard Frankland Bridge with one alternative elevated, no frontage roads east of Himes	Dropped
<b>West Tampa - Segment 2A - I-275 E of Himes to E of Rome Ave</b>				
4 Roadway System with HOV lanes and connector ramps	Three alternatives involving different ramps and frontage roads	Three new alternatives add interchange ramps and transitions to 6-lanes at different locations	Three additional alternatives of which two transition to 2-lanes near MacDill and HOV/ Transitway lanes that are both within I-275 alignment and elevated	Express lanes and separated local access freeway lanes; HOV/ Transitway lanes within interstate alignment new interchange at Himes; split interchange ramps at Howard and Armenia; frontage roads maintained on north side frontage between Himes and Rome Ave; alignment shift to avoid MacFarlane Park
2 Roadway System	One alternative with split interchange at Howard/ Armenia and no frontage roads between Himes and North Blvd	Carried forward	One additional alternative with elevated HOV/ Transitway lanes; split Howard/Armenia interchange and new ramps to/from east of Himes Ave	Dropped
<b>Central Business District - Segment 2B - I-275 East of Rome Ave to North of Buffalo Ave (MLK Blvd)</b>				
2 Roadway System with HOV/ Transitways within I-275 alignment	Not identified this Tier	Not identified this Tier	Adds 2-lane configurations that transition to 4-lanes at North Blvd and back to 2-lanes at Buffalo Ave (MLK Blvd)	Keeps Tier 3 features and at-grade interstate alignment of HOV/Transitway lanes and relocated planned Marion St Transit Parkway North Terminal to south of Scott St
4 Roadway System HOV lanes in middle	Three alternatives involving different ramps and frontage roads	Two additional alternatives that explore interchanges to/from downtown at Ashley/Tampa and Jefferson/Orange streets	Two additional alternatives that explore interchanges and access ramps	Dropped
6 Roadway System no HOV lanes	One alternative without HOV lanes and simplified connections at junction with I-275/I-4	Carried forward	Carried forward	Dropped
<b>Ybor City - Segment 3A and 3B - I-4 E of 14th to E of 50th St</b>				
4 Roadway System Crosstown Connector (I-4/Selmon Expressway Connector) HOV lanes in middle	Six different alignments to limit right of way and variations on ramp connectors and braided ramps	Two additional variations exploring split interchanges at Columbus/50th St with and without transitions to 2-lanes at 50th and keeping HOV/Transitways within interstate alignment	HOV lanes in interstate alignment; transitions from 4-lanes to 2-lanes at 50th St, adds split interchange at 14th/15th Sts and full interchange at Crosstown Connector (I-4/Selmon Expressway Connector), split interchange at Columbus Dr/50th St and removes I-4 ramps at 21st/22nd and 40th St	Keeps Tier 3 features and adds new directional freeway-to-freeway interchange with Crosstown Expressway Connector (I-4/Selmon Expressway Connector) on I-4 at 30th St
4 Roadway System Split HOV lanes Express lanes on outside	Two alternatives with braided ramps and split HOV lanes west of Crosstown Connector (I-4/Selmon Expressway Connector)	Carried forward	Carried forward	Dropped
4 Roadway System Diamond interchange Access changes	Two alternatives involving changes in access to/from Columbus Drive and 50th St	Carried forward	Carried forward	Dropped



Source: TIS Master Plan Executive Summary, 1989.

Figure 5-2 TIS Master Plan Typical Section

## 5.2 EIS, FEIS and Section 4(f) Evaluation

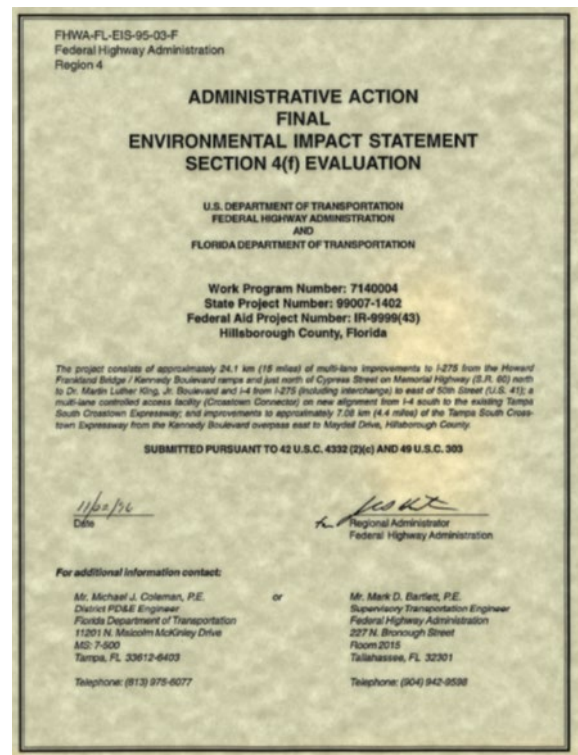
Following completion of the *TIS Master Plan Report*, FHWA, in cooperation with FDOT, began the preparation of an Environmental Impact Statement (EIS) and the supporting documentation necessary for state and federal approvals and subsequent funding of the *TIS Master Plan Report* concepts. The EIS evaluated impacts associated with a Selected Alternative, a Long-Term Preferred Alternative, and a No-Action Alternative, addressed agency and community concerns, and identified ways to minimize impacts.

FHWA approved the EIS in November 1996, issued the ROD for the 1996 TIS FEIS in 1997, and an amended ROD in June 1999.

The first ROD signed in 1997 covered the cost reasonable sections of the TIS, while acknowledging the need for a future ROD to cover the additional areas in the preferred long term alternative not covered in that first document. The 1997 ROD covered TIS Segments 3A, 3B, and 3C, as well as portions of 1A and operational improvements to 2B.

In 1999, FHWA signed the second ROD adding TIS Segment 2A and previous gaps in 1A.

The 1997 and 1999 RODs are the documents that have governed the development of all improvements to I-275 and I-4 providing a roadway system that includes general use lanes and separated express lanes in each direction, as well as a future transit corridor.





### 5.3 Reevaluations

The intent of the FHWA and the FDOT is to ultimately construct the Long-Term Preferred Alternative as projects are identified in the Hillsborough County MPO LRTP and as funding becomes available. Since issuance of the 1997 and 1999 RODs, FDOT has taken several major steps to advance the Project to full implementation. The TIS Project has been reevaluated several times to advance various elements of the project, many of which FDOT has already constructed including portions of Segment 1A, Segment 2A, Segment 3A, Segment 3B, and Segment 3C. Previous TIS reevaluations are listed in **Table 5-3**. A summary of previous *design change* reevaluations is included in **Figure 5-3**. All of the earlier TIS-related documents are available for downloading on the project's website: <http://tampainterstatestudy.com/project-documents/>.

### 5.4 The TBX Master Plan

In January 2015, FDOT published the *Tampa Bay Express Draft Master Plan* report. The purpose of this plan was to evaluate the use of express lanes within interstate corridors in the Tampa Bay Region to achieve two primary objectives: provide drivers with a new mobility choice and improve regional mobility by reducing congestion on the Tampa Bay Region interstate system.

According to the report, multiple statewide and regional transportation plans and studies had identified the need for interstate system improvements. Solutions identified included express lanes that are managed in response to changing conditions using accessibility, vehicle eligibility, and dynamic pricing. The TIS FEIS Approved Alternative provided for a roadway system that included general use lanes (GULs), separated express lanes, and a dedicated transit envelope.

Eighteen segments of I-275, I-4, and I-75 were analyzed by comparing 2012 traffic volumes with 2040 traffic projections developed from the regional traffic model. Seven of the 18 segments required two additional interstate lanes immediately in order to provide an acceptable FDOT Level of Service (LOS) of D. Four of these seven segments were already operating at LOS F, the worst level for mobility from a driver's perspective:

- I-275 from the HFB into Tampa
- I-275 north of Tampa
- I-4 from Tampa to the Polk County Parkway, and
- I-75 north of U.S. Highway 301 (US 301)

<b>1996 TIS FEIS Long-Term Preferred Alternative</b>	15 miles of multi-lane improvements to I-275 from the HFB/Kennedy Blvd ramps and SR 60 just north of Cypress St. north to Dr. MLK Jr. Blvd, and I-4 from I-275 to east of 50th St.; a multi-lane-controlled access facility on new alignment connecting I-4 to the Selmon Expressway; and improvements to 4.4 miles of the Selmon Expressway					
<b>TIS FEIS 1996 ROD</b>	Segments 1A (operational improvements), 2A (outer roadways), 2B (operational and safety improvements), 3A (outer roadways and Connector), 3B (outer roadways and Connector), and 3C (Connector and Selmon)					
<b>TIS FEIS 1999 ROD</b>	Segments 1A (remainder of interchange and outer roadways) and 2A (outer roadways)					
<b>TIS Segment</b>	<b>1A</b>	<b>2A</b>	<b>2B</b>	<b>3A</b>	<b>3B</b>	<b>3C</b>
<b>Approved Record(s) of Decision</b>	1997 & 1999 (Outer Roadways)	1999 (Outer Roadways)	1997 (Operational Improvements)	1997 (Outer Roadways, Connector, and Selmon Expressway)		
<b>Approved Re-Evaluations</b>	258398-1: I-275 from HFB to Himes Ave. – ROW Reeval-6/11/2002	258399-1: I-275 from Himes Ave to the Hillsborough River – ROW Reeval-1/5/2000	258643-1: I-275/I-4 from N of Hillsborough River to Downtown ROW Reeval-1/5/2000	258401-1: I-4 from W of 14th St. to E of 50th St. – ROW Reeval-1/5/2000		
	258398-1: I-275 from HFB to Himes Ave – Construction Reeval-1/24/2006	258399-1: I-275 from Himes Ave to the Hillsborough River – ROW Reeval-6/11/2002	258643-1: I-275/I-4 from N of Hillsborough River to Downtown– Construction Reeval-6/26/2001	258402-1: I-4 from W of 14th St to E of 50th St. – ROW Reeval-1/5/2000		
	412531-3: I-275 NB Exit Ramp to SR 60 – Construction Reeval-11/13/2008	258398-2: I-275 from Himes Ave to Hillsborough River (including drainage improvements) – Construction Reeval-1/24/2006		258401-1: I-4 from W of 14th St to E of 50th St. – Construction Reeval-6/26/2001		
	258398-5: I-275 from SR 60 to Himes Ave – Construction Reeval-11/19/2009	258399-2: I-275 from Himes Ave to Hillsborough River – Construction Reeval-11/19/2009		258401-1: I-4 from W of 14th St to E of 50th St. – ROW & Construction Reeval-6/11/2002		
	258399-2: I-275 from SR 60 to Himes Ave – Advance to Construction - 9/28/2011	258399-2: I-275 from Himes Ave to Hillsborough River – Advance to Construction-9/28/2011		258401-1: I-4 from W of 14th St to E of 50th St. – ROW & Construction Reeval-6/11/2002		
	258398-5: I-275 from SR 60 to Himes Ave – Design Change (For Noise Walls) - 10/17/2013	258399-2: I-275 from Himes Ave to Hillsborough River – Design Change (For Removal of Noise Walls over Hillsborough River) - 02/20/2015		258415-1: I-4 Connector from Lee Roy Selmon Expressway to 7th Ave – Construction Reeval- 11/13/2008		
				258415-2: I-4 Connector from 7th Ave to I-4 – Construction Reeval-11/13/2008		
				258415-3: I-4 Connector (Z-Movement) – Construction Reeval-11/13/2008		
<b>TBNext Section</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>N/A</b>	
<b>Record of Decision still needed for:</b>	Inner Roadway (Express Lanes)	Inner Roadway (Express Lanes)	Inner Roadway (Express Lanes); Ultimate Downtown Tampa Interchange	Inner Roadway (Express Lanes)		

Source: FDOT, 2017



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Previous  
TIS Revaluations**

**Table 5-3**





## Design Change Reevaluations

WPIS: 258399-3  
FAP No.: Not yet known  
I-275 from West Grace Street to West Arch Street  
Status: **DESIGN CHANGE AND ADVANCE TO ROW REEVALUATION**

WPIS: 258399-4  
FAP No.: Not yet known  
I-275 from West Grace Street to West Arch Street  
Status: **DESIGN CHANGE AND ADVANCE TO ROW REEVALUATION**

WPIS: 258398-5  
FAP No.: 2757 398 I  
I-275 from S.R. 60 (Memorial Highway) to Himes Avenue northbound and southbound (Segment 1A)  
Status: Construction Complete

FPN: 258399-2  
FAP No.: 2757 399 I  
I-275, from Himes Avenue to Hillsborough River southbound (Segment 2A)  
Status: Construction Complete

WPIS: 258415-1, 258415-2, 258415-3  
FAP No.: NCPD 008 B, S112 331 R, 0041 218 I  
I-4 Connector, I-4/Lee Roy Selmon Expressway Interchange south of 7th Avenue (Segment 3C) and I-4/Lee Roy Selmon Expressway Interchange north of 7th Avenue (Segment 3A/3B)  
Status: Construction Complete



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

## Previously Approved Design Change Reevaluations

Figure 5-3

Based on the needs assessment, the limits for the TBX Master Plan were defined as: I-275 from south of Gandy Boulevard to Bearss Avenue; I-4 from the I-4/I-275 junction to Polk Parkway; and I-75 from south of State Road 674 (SR 674) to Bruce B. Downs Boulevard. Within the I-275, I-4, and I-75 corridors, nine TBX segments were identified based on the needs assessment as potential express lane projects, as listed below and shown in **Figure 5-4**.

- Gateway
- I-275 from Gandy Boulevard to HFB
- HFB
- I-275 from HFB to Westshore Boulevard
- I-275 from Westshore Boulevard to DTI
- I-275/I-4 DTI
- I-275 from DTI to Bearss Avenue
- I-4 from Selmon Expressway Connector to Polk Parkway
- I-75 from US 301 to Bruce B. Downs Boulevard

For each of the candidate projects, the Master Plan included typical sections, stakeholders, access points, challenges, details on the project environment, and cost estimates.



Source: FDOT Tampa Bay Express Planning Level Traffic and Revenue Study, February 2017; modified 3/26/19.

**Figure 5-4 TBX Projects Map**



The TBX Master Plan Projects were subdivided into seven Starter Projects, or projects that could have been implemented in the next 3-5 years, with more consideration given to those projects that are within the previously approved TIS study limits. There were five Starter Projects within the limits of the TBX Master Plan for the I-275 corridor and one each within the limits of the I-4 and I-75 corridors. The report provided details on the typical section, interchanges, express lane access points, and forecast traffic for each Starter Project as well as a preliminary cost estimate. For the TBX Master Plan segments, the planned express lane projects were separated into Starter (or Interim) and Master Plan (or Ultimate) projects. The Starter Projects included these five segments of I-275 and one segment each of I-4 and I-75. The master plan also included an extensive, comprehensive public involvement program.

## 5.5 Supplemental EIS (SEIS)

On January 17, 2017, FHWA published a *Notice of Intent* (NOI) to prepare a SEIS/Section 4(f) Evaluation. The SEIS evaluates changes in the project since FHWA approved the TIS FEIS in November 1996. According to the NOI, the SEIS addresses changes in environmental impacts, new information and circumstances relevant to the proposed project, and changes to preliminary engineering criteria identified since FEIS approval. FHWA determined that the changes could result in significant impacts to the human and natural environment that were not evaluated in the 1996 TIS FEIS; therefore, an SEIS is the appropriate level of documentation.

The NOI stated that alternatives under consideration include: (1) Taking no further action; (2) the improvements shown for the Long-Term Preferred Alternative in the 1996 TIS FEIS; and (3) alteration of the 1996 TIS FEIS Long-Term Preferred Alternative to collect tolls for the express lanes; add more connectivity between the express lanes and the general use lanes; add express lane access to the local street network in downtown Tampa; and alter lane configuration slightly for improved future traffic operations. The NOI also listed opportunities for public input and public availability of documents.

Since FHWA published the NOI, FDOT has conducted a preliminary alternatives screening evaluation, which included alternatives suggested by the public; evaluated potential design options; and refined the alternatives. This section describes the steps that FDOT has taken to further develop the alternatives.

## 5.6 Preliminary Alternatives Screening Evaluation

FDOT completed a preliminary screening in 2017 to narrow the range of alternatives that will be evaluated in the SEIS. This section provides a summary of the methodology and results of the alternatives screening evaluation. Further details of the analysis can be found in the *Preliminary Alternatives Screening Evaluation Technical Memo* (FDOT, 2017, f), which FHWA concurred with in March 2018. FDOT presented the results publicly in October 2017 to the community in a public workshop.

FDOT evaluated four alternatives listed below in the Initial Screening:

**No Further Action Alternative:** Portions of the Short-Term Selected Alternative from the 1997 and 1999 RODs have been constructed, so the No-Action Alternative that was evaluated in previous studies is no longer applicable. Therefore, FDOT evaluated a new No Further Action Alternative. The No Further Action Alternative is defined as the existing transportation system, including any reasonably foreseeable operational improvements that will be constructed along the corridor, plus any improvement provided for in the previously approved 1997 and 1999 RODs. It provides a baseline against which the Build alternatives can be compared.

**Updated 1996 TIS FEIS Long-Term Preferred Alternative (Non-Tolled Express Lanes):** Proposed improvements on I-275 consist of a four-roadway system (local access freeway lanes and non-tolled express lanes in each

direction of travel) throughout the study limits and the preservation of a HOV/Transitway corridor within the interstate alignment. Proposed interchange improvements include:

- a fully directional interchange for the I-275 connection to the SR 60/ Veterans Expressway;
- modifications to the existing West Shore Boulevard, Lois Avenue, and Dale Mabry Highway interchanges;
- split interchange ramps remaining at Howard and Armenia Avenues (already existing);
- a new half interchange west of the Hillsborough River with ramps to and from the west on I-275 at North Boulevard;
- a fully directional interchange for the I-4/I-275 connection;
- removal of the existing ramps to and from the north at Floribaska Avenue;
- a full interchange at Dr. MLK, Jr. Boulevard;
- reconfiguration of the split interchange at Columbus Drive and 50<sup>th</sup> Street;
- removal of the interchange ramps at 40<sup>th</sup> Street;
- a new directional freeway-to-freeway interchange with the proposed I-4/Selmon Expressway Connector on I-4 near 31<sup>st</sup> Street; and
- a new Ybor City/east side CBD split interchange on I-4 at 14<sup>th</sup> and 15<sup>th</sup> Streets (with extension of the ramps at 14<sup>th</sup> and 15<sup>th</sup> Streets as parallel frontage roads to 21<sup>st</sup> and 22<sup>nd</sup> Streets to replace the existing access from I-4 to these streets).

Other new non-interstate improvements include the following:

- the removal of the 19<sup>th</sup> Street overpass and the maintenance of the 26th Street overpass;
- the extension of Sherrill Street from Memorial Highway (SR 60) and Kennedy Boulevard under I-275 to Spruce Street;
- the extension of Trask Street under I-275;
- a Lemon Street Connector to West Shore Boulevard from Occident Street;
- park-n-ride lots to provide access to HOV lanes located at the Florida State Fairgrounds, Yukon Street, Sinclair Hills Road, and SR 56;
- overpass width to accommodate pedestrian and bicycle facilities on cross street; and
- a multi-modal terminal/HOV parking garage at the northern end of Marion Street.

Numerous special features are proposed as part of the 1996 FEIS Long-Term Preferred Alternative. They include park-and-ride lots at several locations along the interstate corridor in proximity to the priority HOV ramps to provide convenient access to the HOV lanes and encourage HOV ridership. In addition, multi-modal terminal/HOV parking garage was proposed for the Downtown CBD to accommodate buses and cars and provide commuters with convenient access to existing and future mass transit options. The structure was proposed to accommodate the future development of high-speed rail and streetcar.

**Beltway Alternative:** The Beltway Alternative was originally identified in the *West Central Florida New Corridor Study*, which FDOT conducted in 2009. As a result of public comments, FDOT considered a Beltway Alternative. In the study, a new transportation corridor was proposed to serve West Central Florida, which includes ten counties: Charlotte, DeSoto, Hardee, Hernando, Hillsborough, Manatee, Pasco, Pinellas, Polk, and Sarasota. The proposed new transportation corridor would provide an alternative to I-75 and would serve to connect the Tampa Bay area to the southwest and southeast regions. While the alternative did not include a separate transit



envelope, the study considered whether the new corridor would have the potential to serve multiple modes of transportation, including transit, freight (rail, truck, and air cargo), and bicycle and pedestrian, and to accommodate regional utility operations. No improvements would be made to I-275 or I-4 as part of the Beltway Alternative.

**Boulevard Alternative:** The Boulevard Alternative is a community idea that was originally suggested for application on I-275 north of the Downtown Tampa interchange. However, to explore the option fully, FDOT applied the Boulevard Alternative within the I-275 portion of the TIS SEIS study area. The Boulevard Alternative would convert portions of the interstate to a 6/8-lane (3/4 lanes in each direction), at-grade boulevard. Main intersections would be signal controlled with pedestrian and bicycle crossings. Where ROW allows, frontage roads could be provided to aid in access management. A transit envelope is incorporated into the Boulevard Alternative. This envelope could either be in the median or on the outside of the roadway section.

**2018 Tolloed Express Lanes Alternative:** The 2018 Tolloed Express Lanes Alternative has the same proposed interchange improvements as the 1996 TIS FEIS Long-Term Preferred Alternative with the following exceptions (see **Figure 2-11**):

- Tolling of the express lanes.
- Instead of a new Ybor City/east side split interchange on I-4 at 14<sup>th</sup> and 15<sup>th</sup> Streets, the existing split interchange at 21<sup>st</sup> and 22<sup>nd</sup> Streets would remain with the exception of the eastbound exit ramp. The eastbound exit ramp to 21<sup>st</sup> and 22<sup>nd</sup> Streets would be relocated to 14<sup>th</sup> and 15<sup>th</sup> Streets with a connecting parallel frontage road to 21<sup>st</sup> and 22<sup>nd</sup> Streets.
- The extension of Sherrill Street from Memorial Highway (SR 60) and Kennedy Boulevard under I-275 to Spruce Street has been removed. However, an extension of Reo Street from Kennedy Boulevard to Executive Drive under I-275 and an extension of Occident Street from the south side of I-275 to Lemon Street is proposed.
- Direct Connections to Westshore and Downtown.

Within the fully directional interchanges at SR 60/Veterans Expressway and I-4, horizontal and vertical alignments were modified to meet changes in design criteria that have occurred since 1996 and to minimize impacts to adjacent properties. The modifications would maintain the fully directional interchange concept and design intent.

## 5.7 Preliminary Alternatives Screening Results

Preliminary information indicated that the Updated 1996 TIS FEIS Long-Term Preferred Alternative and the Tolloed Express Lanes Alternative meet the Purpose and Need Screening criteria; therefore, they were carried further for more detailed analysis in the SEIS, along with design options at Himes Avenue and the Downtown Interchange under the Tolloed Express Lanes Alternative. While preliminary information indicates that the No Further Action Alternative would not meet the Purpose and Need Screening Criteria, it serves as an important baseline for comparison purposes and was also carried forward into the TIS SEIS for evaluation.

Two alternatives do not meet the TIS SEIS Purpose and Need, the Beltway Alternative and the Boulevard Alternative, and were dropped from further consideration. FDOT recommended the 1996 FEIS Long-Term Preferred Alternative (Non-Tolloed) and the Tolloed Express Lanes Alternative were retained for further study in the SEIS along with the No Further Action Alternative.

## 5.8 Public Involvement for the Preliminary Alternatives Screening

FDOT provided opportunities for the public to become engaged with the study and to provide input on the alternatives being evaluated. FDOT hosted two public workshops in October 2017 in Tampa, as noted later in

**Section 9.7.1.** Those that commented on the study overwhelmingly agreed that something needs to be done to address the traffic congestion problems in the TIS SEIS study area. Many favored the Express Lanes Alternatives, both tolled and non-tolled. Several commenters were opposed to the Boulevard Alternative; they felt that it would not address congestion issues in the study area. Rather, they thought that the Boulevard Alternative would worsen existing conditions. There were a few comments on the Beltway Alternative. While those that commented thought that the Beltway Alternative was a good idea, it would not address congestion issues because it is outside of the TIS SEIS study area.

## 6 DESIGN CONTROLS AND CRITERIA

Design criteria for the preferred build alternative will follow the latest edition of FDOT's Design Manual (FDM), first published in 2018. Prior to 2018, FDOT's design criteria and controls were documented in the FDOT's *Plans Preparation Manual* (PPM). The FDM now includes criteria for express lanes which will be utilized for this project. In general, reconstruction areas will utilize a 60 mph design speed wherever feasible; however, for Interchange Design Options C, D and E, existing features to remain will be based on the original design speed of 50 mph. All design elements not meeting FDM and AASHTO requirements will require a design variation or exception.

*Design Exceptions* are required when proposed design elements are below both the Department's governing criteria and AASHTO's new construction criteria for the Controlling Design Elements. The 10 Controlling Design Elements for high speed (Design Speed  $\geq 50$  mph) roadways are:

1. Design Speed
2. Lane Width
3. Shoulder Width
4. Horizontal Curve Radius
5. Superelevation Rate
6. Stopping Sight Distance
7. Maximum Grade
8. Cross Slope
9. Vertical Clearance
10. Design Loading Structural Capacity

*Design Variations* are required when proposed design elements are below the Department's criteria and where a Design Exception is not required.

Design criteria utilized for the constructed I-275/I-4 Interim Operational Improvements project is included in **Table 6-1**. Note that a number of design variations were required due to the need to utilize existing ramps and other features; these were described in **Section 4.1.1**. General interstate design criteria applicable to any alternative are included in **Table 6-2**, based on the 2020 FDM.



Table 6-1 Design Criteria for I-275/I-4 Operational Interchange Improvements

Design Element	Design Standard	English Dimensions	Sources	Remarks
<b>Design Year</b>	<b>2010</b>		<b>FDOT</b>	
<u>Design Speed:</u> I-275/I-4 Interchange Ramps Ramp Terminals	80 kph 60 kph 30 kph	50 mph 40 mph 20 mph	PD&E Documents PD&E Documents PD&E Documents	Influenced by existing geometrics to remain and stop conditions of approaching crossroads.
<u>Desirable Length of Horizontal Curve:</u> I-275/I-4 Interchange Ramps	480m 360m	1570 ft 1180 ft	PPM Table 2.8.2A	*
<u>Minimum Length of Horizontal Curve:</u> I-275/I-4 Interchange Ramps	240m 180m	787 ft 590 ft	PPM Table 2.8.2A	
<u>Maximum Deflection without Horizontal Curve</u>	0°45'00"		PPM Table 2.8.1A	
<u>Stopping Sight distance:</u> I-275/I-4 Interchange Ramps	113 to 139m 74m to 85m	370-456 243-279	AASHTO Figure III-24(A&B)	*
<u>Superelevation Transition:</u> Tangent Curve	80% 20%	-- --	PPM Page 2-11	Per PPM Pages 2-13, 50% may be placed on the curve in special situations
Maximum e	0.10	--	PPM Table 2.9.1	*
<u>Cross Slope:</u> Maximum algebraic difference between adjacent through lanes	0.04	--	PPM Figure 2.1.1	
<u>Maximum Grade:</u> I-275/I-4 Interchange Ramps	4% 4% to 6%	-- --	PPM Table 2.6.1	
<u>Maximum change in grade without vertical curve:</u> I-275/I-4 Interchange Ramps	0.60% 0.80%	-- --	PPM Table 2.6.2	
<u>Minimum Crest Vertical Curve:</u> I-275/I-4 Interchange Ramps	K=49 K=18	K=160 K=59	AASHTO Table III-35	*
<u>Minimum Sag Vertical Curve:</u> I-275/I-4 Interchange Ramps	K=32 K=18	K=105 K=59	AASHTO Table III-37	*
<u>Median Widths:</u> I-275/I-4 with Barrier	7.8m	26 ft	PPM Table 2.2.1	
<u>Lane Widths:</u> I-275/I-4 Single Lane Ramp Dual Lane Ramp	3.6m 4.5m 7.2m	12 ft 15 ft 24 ft	PPM Table 2.1.1 Table 2.1.3	Additional ramp width as needed for sight distance
<u>Shoulder Widths:</u> I-275/I-4 Median or Single Lane Ramp Outside Outside Median Two Lane Ramp Outside Median	3.6m 1.8m 1.8m 3.6m 2.4m	12 ft 6 ft 6 ft 12 ft 8 ft	PPM Table 2.3.1	*
<u>Typical Roadway Cross Slopes</u>	0.02 to 0.03	--	PPM Figure 2.1.1	
<u>Minimum Radius without Superelevation:</u> I-275/I-4 Interchange Ramps	2600m 1600m	8530 ft 5250 ft	PPM Table 2.9.1	
<u>Minimum Radius with Full Superelevation (0.10):</u> I-275/I-4 Interchange Ramps	210m 115m	689 ft 377 ft	PPM Table 2.8.3	
<u>Vertical Clearances:</u> Roadway over Roadway Signs over Roadway	5.05m 5.35m	16.5 ft 17.5 ft	PPM Figure 2.10.1 Table 2.10.2	*

Source: Contract plans for FPID 258643-1-52-01, January 2002

\* See Appendix B of Project Design Report for Design Variation Requirements.

Table 6-2 General Interstate Design Criteria

DESIGN ELEMENT	DESIGN CRITERIA	REFERENCE
<b>General Controls</b>		
Functional Classification	Urban Principal Arterial Interstate	FDOT Straight Line Diagram
Posted Speed	Varies	N/A
Design Speed	50 – 70 mph; 60 mph minimum for SIS	FDM Table 201.5.1
Design Vehicle	WB-62FL	FDM Section 201.6.2
Design Period	20 yr (New/reconstruction), 0-10 yrs (Safety and Operational Improvements)	FDM Section 201.3
Number of Through Lanes	Varies by Location	
<b>Cross Section Data</b>		
Lane Widths	12 FT (Travel and Aux. Lane) 15 FT (One Lane Ramp) 24 FT (Two Lane Ramp)	FDM Section 211.2 FDM Section 211.2.1
Median Width	26 FT with Barrier	FDM Table 211.3.1
Inside Shoulder Width w/o Shoulder Gutter	12 FT (10 FT Paved) 3-Lane Travel Lanes 12 Ft (12 FT Paved) 2-Lane Express Lanes 6 FT (2 FT Paved) 1 Lane Ramp 8 FT (4 FT Paved) 2 Lane Ramp 8 FT (4 FT Paved) Aux Lane	FDM Table 211.4.1
Outside Shoulder Width w/o Shoulder Gutter	12 FT (10 FT Paved) 3-Lane Travel Lanes 12 Ft (12 FT Paved) 2-Lane Express Lanes 6 FT (4 FT Paved) 1-Lane Ramp 12 FT (10 FT Paved) 2-Lane Ramp 12 FT (10 FT Paved) Aux Lane	FDM Table 211.4.1
Outside Shoulder Width with Shoulder Gutter	15.5 FT (8 FT Paved) 3-Lane Travel Lanes 13.5 Ft (10 FT Paved) 2-Lane Express Lanes 11.5 FT (4 FT Paved) 1-Lane Ramp 15.5 FT (8 FT Paved) 2-Lane Ramp 15.5 FT (8 FT Paved) Aux Lane	FDM Table 211.4.1
Shoulder Width- Bridge (inside & outside)	10 FT	FDM Figure 260.1.1
Clear Zone	36 FT (Travel Lane and Multi Lane Ramp) 24 FT (Aux. Lane and One Lane Ramp)	FDM Table 215.2.1
Border Width - Limited Access Facilities	94 FT Min.	FDM Section 211.6
Cross Slopes (travel lanes)	0.02 FT/FT (Inside Lanes) 0.03 FT/FT (Outside Lane)	FDM Figure 211.2.1
Cross Slopes (shoulders)	0.05 FT/FT (Median) 0.06 FT/FT (Outside)	FDM Section 211.4.2
Front Slope	1:6	FDM Table 215.2.3
Back Slope	1:4 or 1:3 with a Std. Trapezoidal Ditch and 1:6 Front Slope	FDM Table 215.2.3
Maximum Algebraic Difference in Cross Slope at Turning Roadway Terminal	5.0%	FDM Table 211.2.2

DESIGN ELEMENT	DESIGN CRITERIA	REFERENCE
Limit of Friction Course on Paved Shoulder	8 IN	FDM Section 211.4.3
Max change in cross slope between adjacent through lanes	0.04	FDM Section 211.2.2
<b>Vertical Geometry</b>		
Minimum Lengths of Crest Vertical Curves	1000 FT, 1800 FT within interchange	FDM Table 211.9.3
Minimum Lengths of Sag Vertical Curves	800 FT	FDM Table 211.9.3
Minimum "K" Value (Crest) New Construction	506 (70 mph) 313 (60 mph)	FDM Table 211.9.2
Minimum "K" Value (Sag) New Construction	206 (70 mph) 157 (60 mph)	FDM Table 211.9.2
Stopping Sight Distance	820 FT (2% grade or less) 70 mph 780 FT (3% upgrade) 70 mph 861 FT (3% downgrade) 70 mph  645 FT (2% grade or less) 60 mph 613 FT (3% upgrade) 60 mph 673 FT (3% downgrade) 60 mph	FDM Table 211.10.1
Mainline Clearance for Base Above Base Clearance Water Elevation	3 FT	FDM Section 210.10.3 (2)
Ramp Clearance for Base Above Base Clearance Water Elevation	2 FT	FDM Section 210.10.3 (2)(a)
Maximum Profile Grades	3% (Flat) 4% (Rolling)	FDM Table 211.9.1
Maximum Change in Grade Without a Vertical Curve	0.2% (70 mph) 0.4% (60 mph)	FDM Table 210.10.2
Vertical Clearance for Bridges	16'-6" (New Construction)	FDM Table 260.6.1
<b>Horizontal Geometry</b>		
Maximum Deflection Without Curve (DMS)	0° 45' 00"	FDM Section 211.7.1
Length of Horizontal Curves	2100 FT (70 mph); 1800 FT (60 mph) 1050 FT (70 mph); 900 FT (60 mph) min	FDM Table 211.7.1
Maximum Curvature of Horizontal Curves (using Normal Cross Slope)	0° 15' 00"	FDM Table 210.9.1
Superelevation Transition	80% tangent, 20% curve	FDM Section 210.9.1
Superelevation Transition Rate	1:200 (3-Lanes in one direction) 1:190 (≥ 4-Lanes in one direction) 0.5% Longitudinal Slope (Min)	FDM Table 210.9.3 FDM Section 210.9.1
e (max)	0.10	FDM Section 211.8
Desirable Radius of Curve (N.C.)	22,918 FT	FDM Table 210.9.1



DESIGN ELEMENT	DESIGN CRITERIA	REFERENCE
Minimum Radius of Curve (R.C.)	11,459 FT	FDM Table 210.9.1
Horizontal Clearance for Traffic Control Signs	Per Design Standards	FDM Table 215.2.2
Horizontal Clearance for Light Poles	20 FT (Min) from the travel lane (Overhead Lighting) 14 FT (Min) from an Aux lane (Overhead Lighting) Located outside the CZ unless shielded (High Mast Lighting)	FDM Table 215.2.2
Horizontal Clearance for Aboveground Fixed Utilities	Located outside of the clear zone and as close to the ROW as possible	FDM Table 215.2.2 and FDM Section 215.2.8
Horizontal Clearance to Traffic Infraction Detectors, Signal Poles and Controller Cabinets for Signals	Located outside of the clear zone	FDM Table 215.2.2
Horizontal Clearance to Trees	Located outside of the clear zone	FDM Table 215.2.2
Horizontal Clearance to Bridge Piers and Abutments	Located outside of the clear zone	FDM Table 215.2.2
Horizontal Clearance to Railroad Grade Crossing Traffic Control Device	Per Design Standards	FDM Table 215.2.2
Horizontal Clearance to Canal and Drop-off Hazards	60 FT (canal-from travel lane) 36 FT (drop off-from travel lane unless shielded)	FDM Section 215.3
Horizontal Clearance to Other Roadside Obstacles	Located outside of the clear zone	FDM Table 215.2.2
Horizontal Clearance for ITS Poles and Related Items	Located outside of the clear zone	FDM Table 215.2.2

Legend: FDM=FDOT Design Manual (2020)

## 7 TRAFFIC DATA

The information in this section has been extracted from the PTAR prepared for the TIS SEIS. After the initial draft which evaluated Design Options A-D, the PTAR was updated to include Design Option E. Additional relevant information and figures from the PTAR are included in **Appendix I** of this report.

### 7.1 Existing Traffic Volumes and Traffic Characteristics

The existing year 2018 volumes were developed using the following:

- Obtained traffic volume information from I-275 Operational Improvements “Punch Through” project
- Expanded the project study from Himes Avenue with the above project to cover the entire SEIS study area limits and obtained new traffic counts
- Applied the seasonal and axle correction factors to the recent counts and developed peak hour and daily volumes
- Developed AM and PM peak hour and daily AADT volumes for Existing Year (2018) conditions and balanced them across the SEIS study area, and
- Developed traffic volume diagrams and utilized the volumes for existing conditions calibration

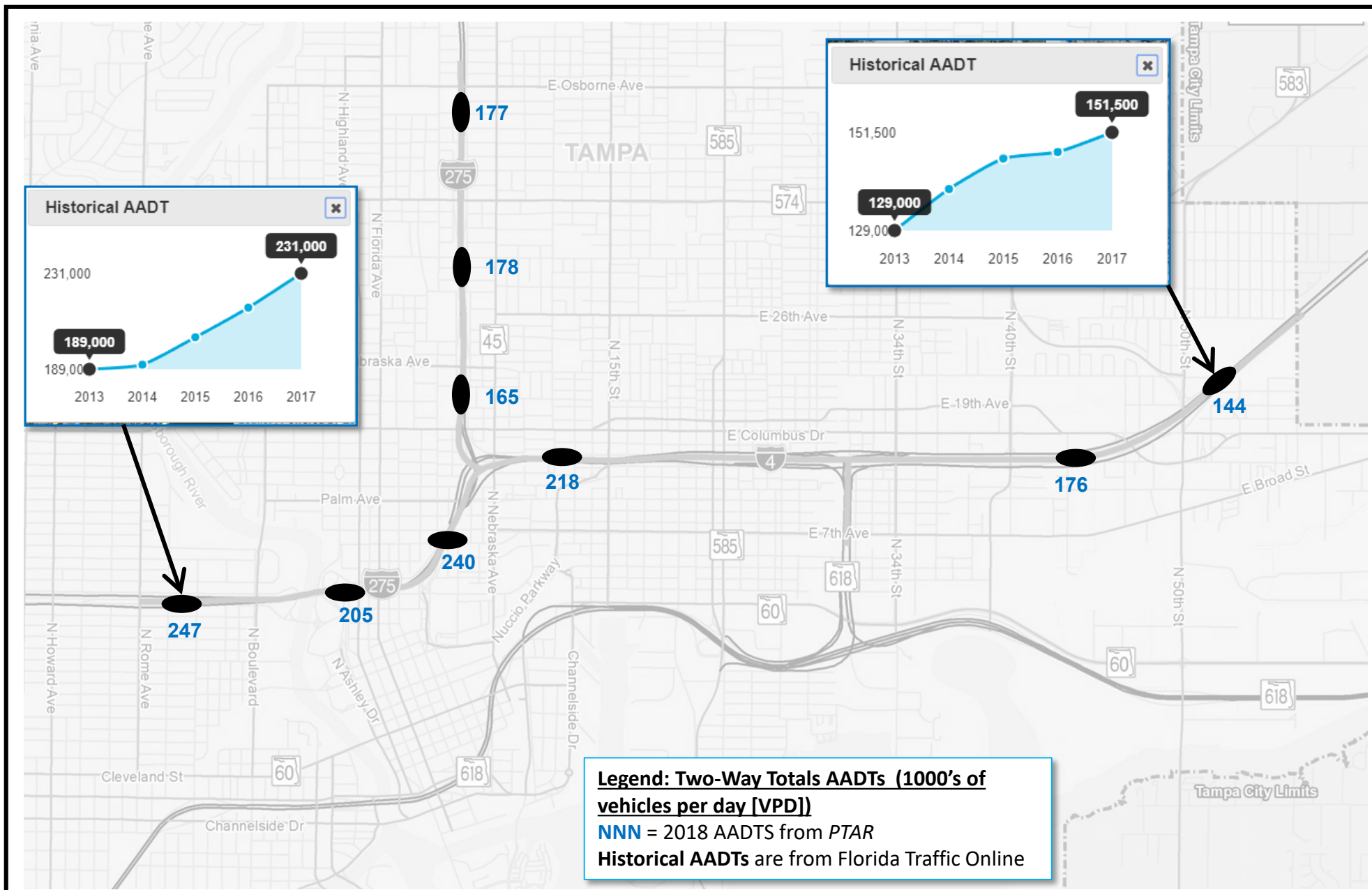
The D-Factor, T-Factor and Design Hour Truck (DHT) Factors were developed using the most recent five years of historic data from the FTI online tool and by coordinating with adjacent on-going studies. Below are the recommended values for use with the SEIS traffic analysis:

- **K-factor = 9%** - Statewide standard K per Project Traffic Forecasting Handbook 2.6.2.1.
- **D-factor = 57% for I-275 and SR 60, 53.5% for I-4** - Based on available count data.
- **T24-factor = 4.5%** - The existing counts and 5-year average T24-factor average resulted a value of 4.4%, rounded to 4.5% to maintain consistency with TB Next Section 7.
- **Design Hour Truck (DHT) factor = 3.0%** - Per the Project Traffic Forecasting Handbook, DHT = T24/2, which yields a value of 2.25%; however, based on comments from central office on the I-275 Punch Through Methodology Letter of Understanding, it was rounded to 3.0% for operational evaluation.
- **Peak Hour Factor (PHF) = 0.95** - The PHF of 0.95 is the recommended default value for urban areas, per guidance from the FDOT Traffic Analysis Handbook, March 2014.

The existing year 2018 DHV were developed using the following data and process.

- Based on the balanced existing year AADT count information, the standard K-factor of 0.09 and respective D-factors for each corridor were applied to the ramp volumes to estimate the Peak hour demand traffic during 2018
- Existing peak direction information was utilized based on the counts to estimate the AM and PM peak hour ramp volumes following the procedure outlined above, and
- AM and PM peak hour volumes for Existing Year 2018 Demand conditions were balanced across the SEIS study area

The 2018 Existing Demand Directional Design Hourly Volumes (DDHV's) for the SEIS study area will be shown in **Appendix I**. Existing AADT will also be included in **Appendix I**. A simplified existing mainline AADT figure is included in **Figure 7-1**.



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
 I-4 from I-275 to East of 50<sup>th</sup> Street  
 WPI Segment No. 258337-2

**Year 2018 Mainline AADTs**

**Figure 7-1**



## 7.2 CORSIM Model Development

Microsimulation analysis was conducted using CORSIM (TSIS) 6.3 software. The existing (2018) traffic operational characteristics were assessed utilizing existing data such as traffic counts, truck percentages, speeds, geometry, capacity, and signal timings. Input data for the existing conditions analysis included field-verified Google maps for roadway geometry, traffic signal inventories from FDOT to recreate field signal timings in the CORSIM model, and synthesis of observed demand into 15-minute flows.

The peak hour (AM - 7:30-8:30, PM - 4:30-5:30) was determined based on raw traffic counts, and the existing conditions were modeled for 3 hours for both AM and PM peak periods. Additionally, 1-hour loading period was utilized for both AM and PM peak hour models to load the CORSIM network with vehicular traffic to reach equilibrium. The PTAR includes the CORSIM model files, calibration results and the signal timing plans. Signal timing and phasing data for the AM and PM peak periods were obtained from the City of Tampa and Hillsborough County. For the signalized intersections, field visits were used to verify signal phasing information, left-turn phasing, phase overlaps, etc.

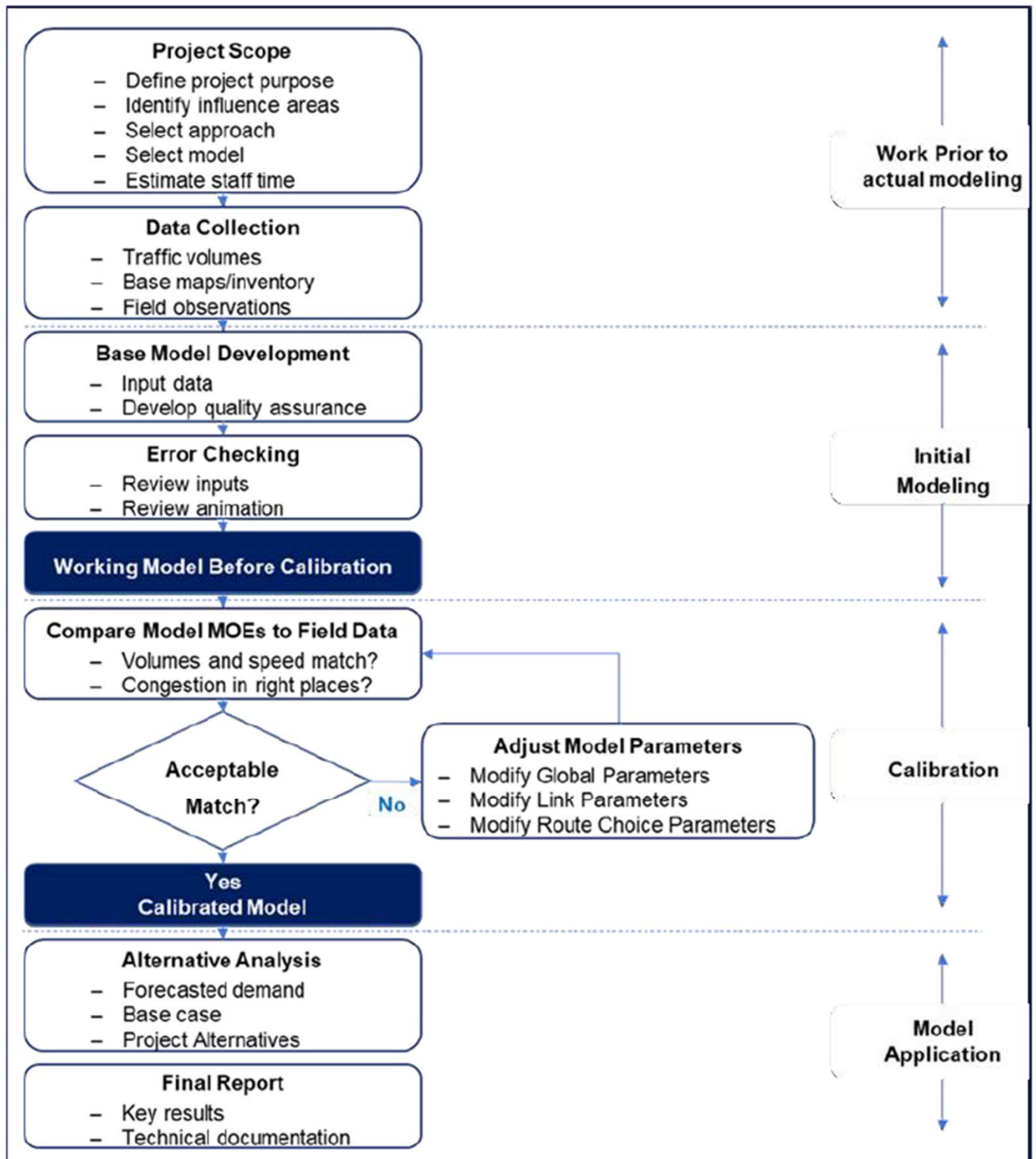
Model calibration is the process used to achieve validity of the model by establishing suitable parameter values so that the model replicates local traffic conditions as closely as possible. Calibration is achieved by iteratively adjusting model parameters to replicate observed traffic patterns, congestion, bottlenecks, and driver behavior observed within the SEIS study area. The CORSIM models were calibrated to replicate existing traffic operating conditions, including vehicle counts and speeds on mainline and ramp sections.

A step-by-step procedure that was defined in FHWA's Traffic Analysis Toolbox Volume IV: Guidelines for Applying CORSIM Microsimulation Modeling Software was followed to develop CORSIM models for the existing conditions. The methodology used in the CORSIM simulation is illustrated in **Figure 7-2**. CORSIM models need to be run multiple times with different random seeds to account for the stochastic nature of the analysis tool. A total of 10 runs were executed with varying random seed values for both AM and PM peak-hour models to validate the results. The measures of effectiveness (MOEs) used for the calibration included traffic volumes, speed, and queue lengths. The calibrated model results were summarized and compared to observed data and are provided in the PTAR.

The calibration process required a combination of visual examination and evaluation of statistical model outputs. The existing conditions model calibration primarily focused on replicating the traffic volume data, travel speed data, and existing bottleneck/congestion locations along I-275, I-4 and SR 60 based on field observations. The AM and PM peak-hour traffic volumes and travel speeds from the model were compared to the existing conditions data collected to verify the corresponding criteria outlined by the FHWA and FDOT reference documents and detailed below. The calibration results indicated that the individual link flows, sum of all link flows, and GEH statistic (an empirical formula used to compare two sets of traffic volumes) complied with the FHWA/FDOT criteria during the AM and PM peak hours. Additionally, the model animation replicated the AM and PM peak hour congestion and bottlenecks that were observed during field visits within the SEIS study area. The calibrated CORSIM models reflect the existing traffic operations during AM and PM peak hours within the SEIS study limits.

## 7.3 Existing Traffic Conditions

The study area that was adopted for microsimulation modeling is comprised of 18 interchanges and 69 signalized intersections. The study limits were extended to incorporate the adjacent signalized intersections along the arterial on each side of the interchange ramp terminals. The existing conditions simulation models yielded the following results:



Source: FHWA Traffic Analysis Toolbox

- Travelers experience heavier congestion during the PM peak hour compared to the AM peak hour
- I-275 northbound experiences higher delays compared to I-275 southbound during both AM and PM peak hours
- I-275 northbound, south of SR 60, was observed to be a critical bottleneck segment for both AM and PM peak hours, leading to higher delays due to high exiting traffic volumes to SR 60 off-ramp and due to vehicle slowdowns on SR 60 northbound off-ramp curve. In addition, heavy congestion is experienced during the PM peak hour along I-275 northbound, north of SR 60, primarily due to the downstream congestion. The traffic queues from I-275 and I-4 merge extend beyond Westshore Boulevard interchange.
- Overall, traffic delays for the I-4 westbound segment were higher than the I-4 eastbound segment during both the AM and PM peak hours. In the I-4 westbound segment, average traffic flow speeds were slower during the AM peak hour than during the PM peak hour.
- Critical bottleneck leading to congestion was experienced on the I-4 westbound segment from the Selmon Expressway Connector to the I-4 off-ramp to I-275 southbound caused by high exiting traffic volumes and vehicle slowdown on the off-ramp curve.

Existing areas of congestion (2018) are illustrated in **Figure 7-3**.

## 7.4 Assumptions and Methodology for Future Traffic Projections

The proposed improvements would involve the reconstruction/widening of I-275 from north (east) of the HFB to north of SR 574 (MLK. Boulevard), and I-4 from I-275 to east of 50th Street. As part of the 2018 Express Lane Build Alternative, four design options are being evaluated for the DTI along with the No Further Action Alternative. The four Build design options are described in **Section 8** and illustrated in **Figures 8-1** thru **8-4**.

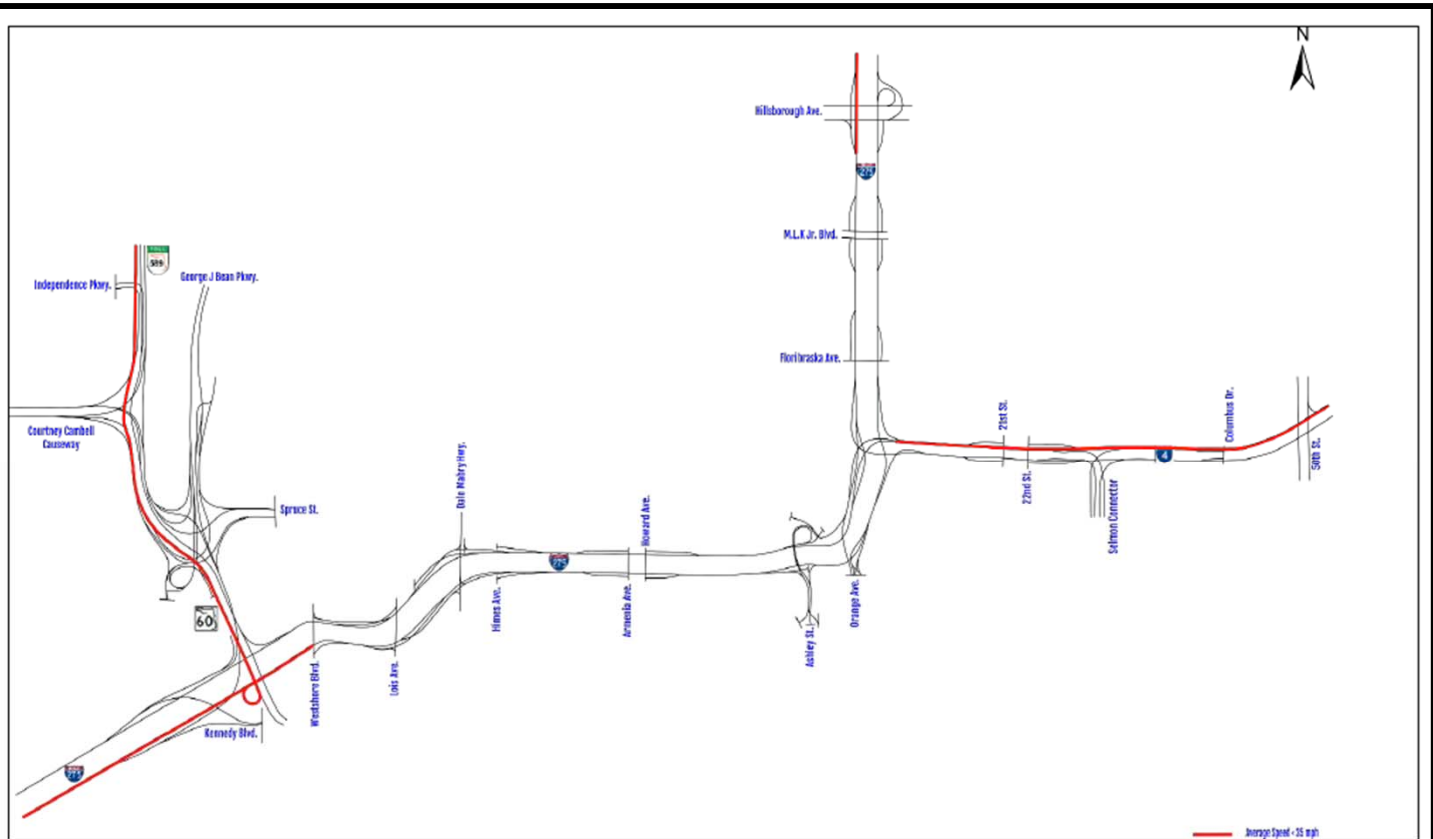
Year 2040 cost-feasible (CF) model socio-economic data was extrapolated to the 2045 design year to develop the 2045 No Further Action and Build models and was adjusted to include development that is currently under construction and not accounted for in the socio-economic data. The Build model includes all the projects proposed with the Tampa Bay Next program for all the sections.

The analysis period includes AM peak period from 6:30 am – 9:30 am and for the PM peak period from 3:30 pm – 6:30 pm. The MOEs used for the operational analysis include speed, density for individual links, and VMT, Delay, Move-Time and Travel Time as part of the system-wide MOEs.

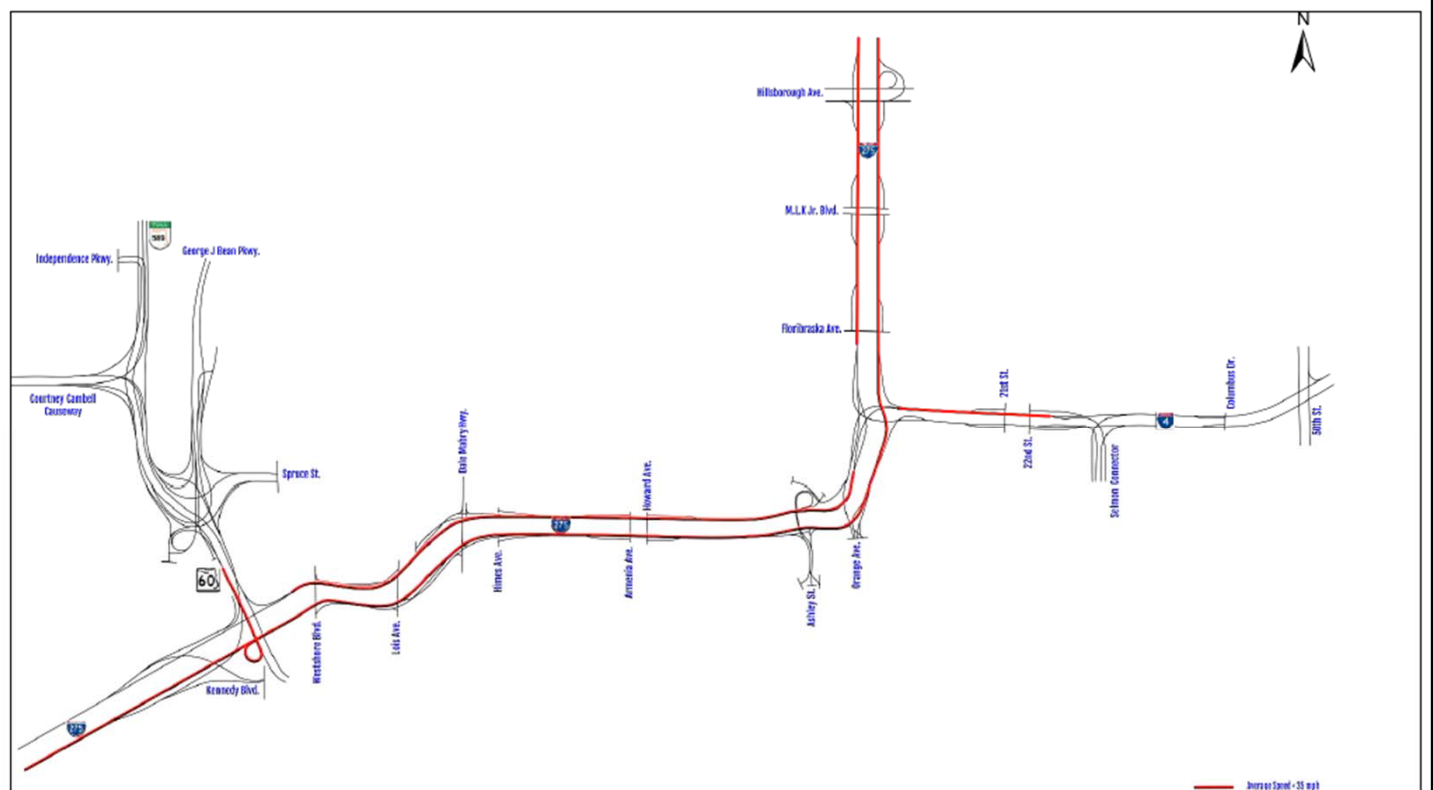
### Future Year Forecasting for the No-Build Alternative Scenario

The Base Year (2010) model was validated at a regional level to ensure that the model is replicating the counts within the study area. A subarea model network was extracted from the validated regional model to further calibrate the traffic volumes and subarea trip tables. **Figure 7-4** shows the extracted network from the 2010 Base Year regional network. The subarea network and trip tables, along with the traffic counts, provided input for the Origin-Destination Matrix Estimation (ODME) process. Necessary adjustments have been made to the model input including hourly capacity and free flow speed adjustments. The ODME process helped to refine the subarea and corridor level travel demand. The 2010 Base Year volumes correspond well to observed data and the majority of the mainline volumes are within the targeted ranges. It provided a good base year model for future year travel demand forecasts.





**Existing Year (2018) AM Peak Hour Congestion**



**Existing Year (2018) PM Peak Hour Congestion**



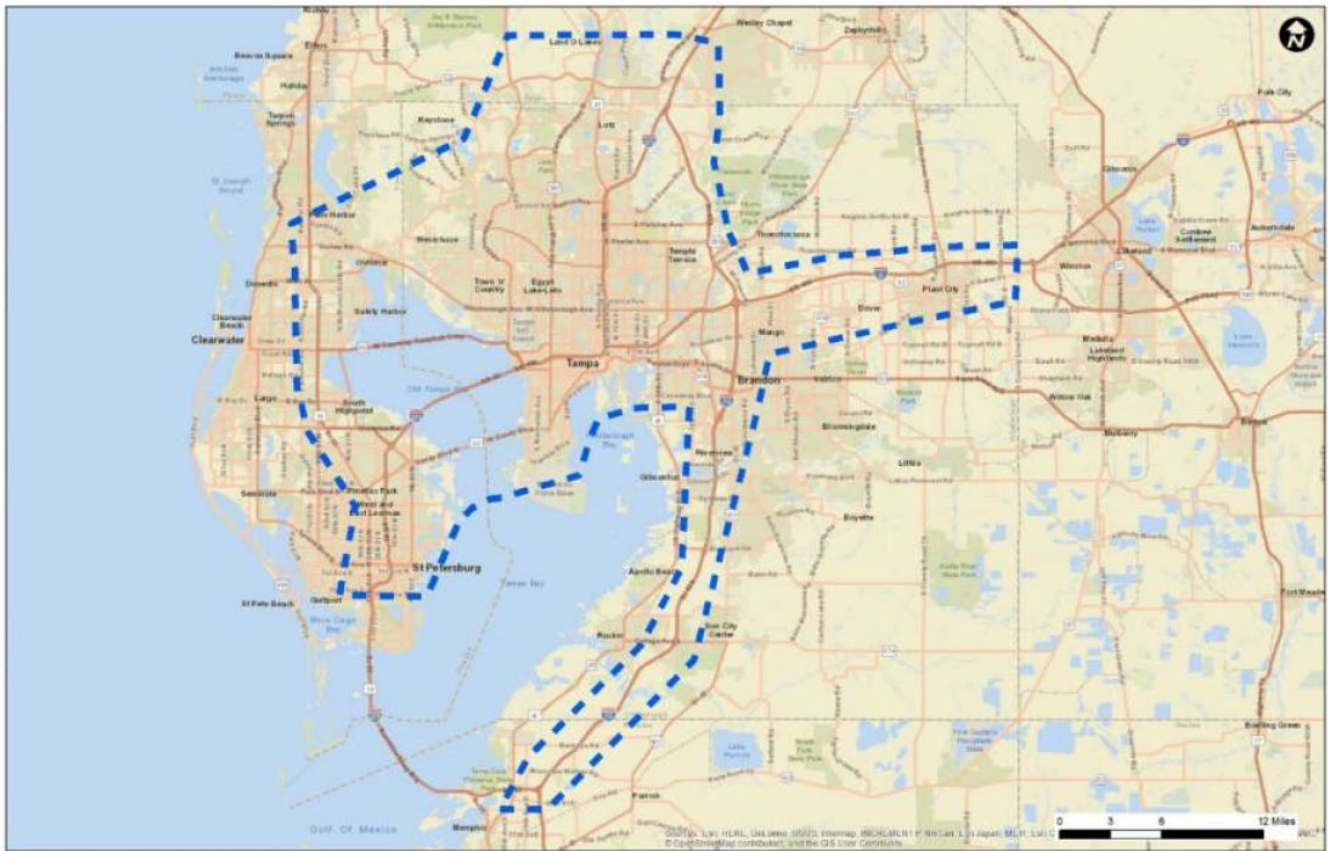
**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd

I-4 from I-275 to East of 50<sup>th</sup> Street

WPI Segment No. 258337-2

**Figure 7-3. Existing Areas of Congestion (2018)**



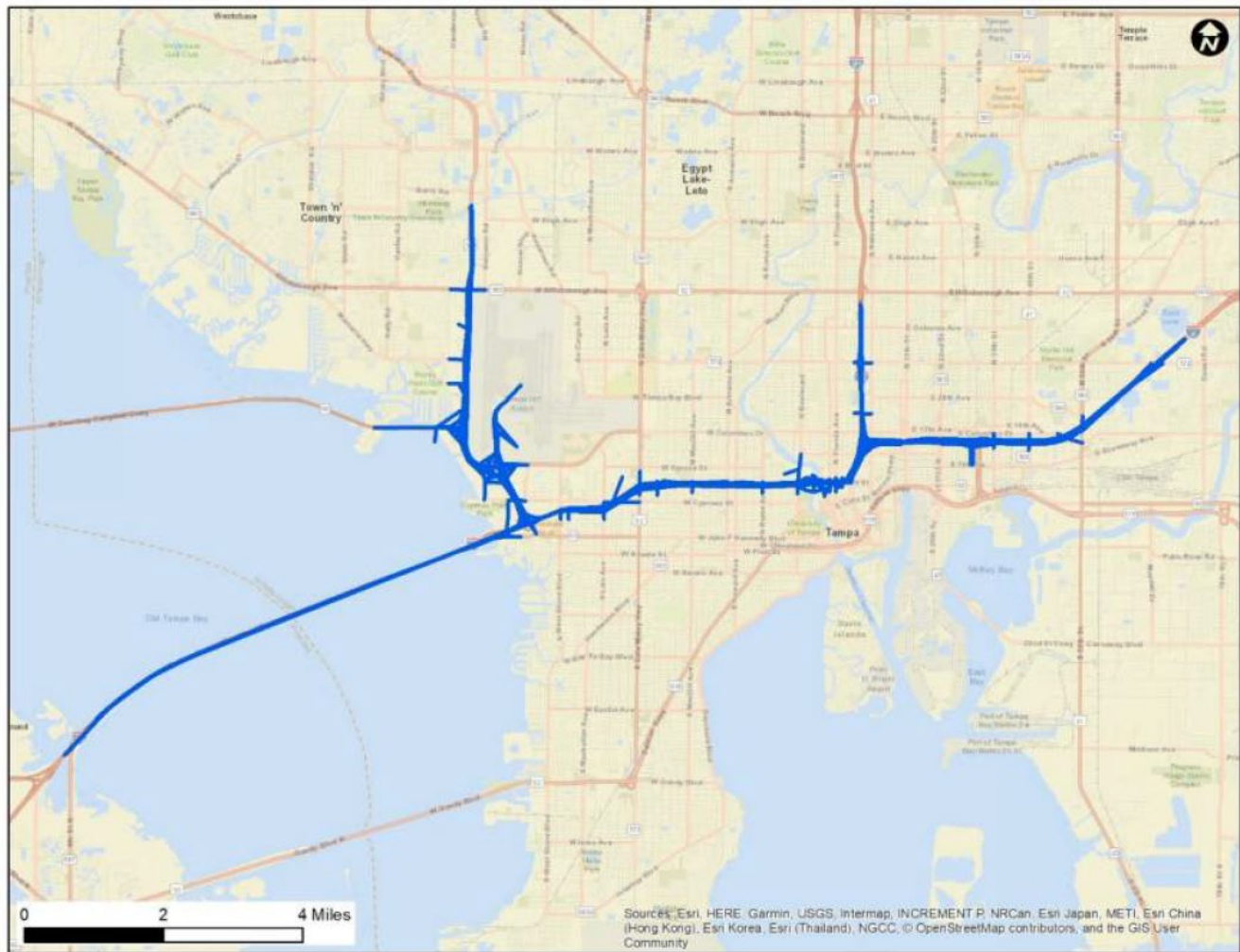
Source: Project Traffic Analysis Report

**Figure 7-4 Subarea Model Coverage Area**

The base year calibration efforts were carried over to 2025 and 2045 No Further Action Tampa Bay Regional Planning Model (TBRPM) and subarea ODME models. The models provide peak season weekday average daily traffic (PSWADT) volumes for the next steps. Model output conversion factors (MOCFs) were applied to convert PSWADT to AADTs for Base Year 2010, Future Year 2025 and 2045. The National Cooperative Highway Research Program report 765 recommended “Factoring Procedure-Difference Method” approach was utilized to correct the error associated with regional model projected volumes. Following this procedure, the existing year 2018 AADTs were interpolated from base year and future year TBRPM models. These values were compared to existing traffic count (year 2018 count data) and the difference (delta) was calculated. This delta was applied to the future year 2025 and 2045 TBRPM model AADT values to correct the error in the model and to make sure growth rates are reasonable. After the AADTs were established, K- and D-factors were applied to the ramps to calculate the demand on each ramp in AM and PM peak according to the existing peak direction. The ramp terminal intersections were balanced using the on-/off-ramp demand values and existing turn percentages.

#### Future Year Forecasting for the Build Alternatives Scenario

The build volumes were developed using the Express Lanes Time of Day (ELToD) model for this project. The 2045 ODME subarea models, including input network, refined trip tables, and associated parameters developed in the previous steps, were used as a base to develop the ELToD models. A corridor level input network was extracted from the ODME subarea model as shown in **Figure 7-5**.



Source: Project Traffic Analysis Report

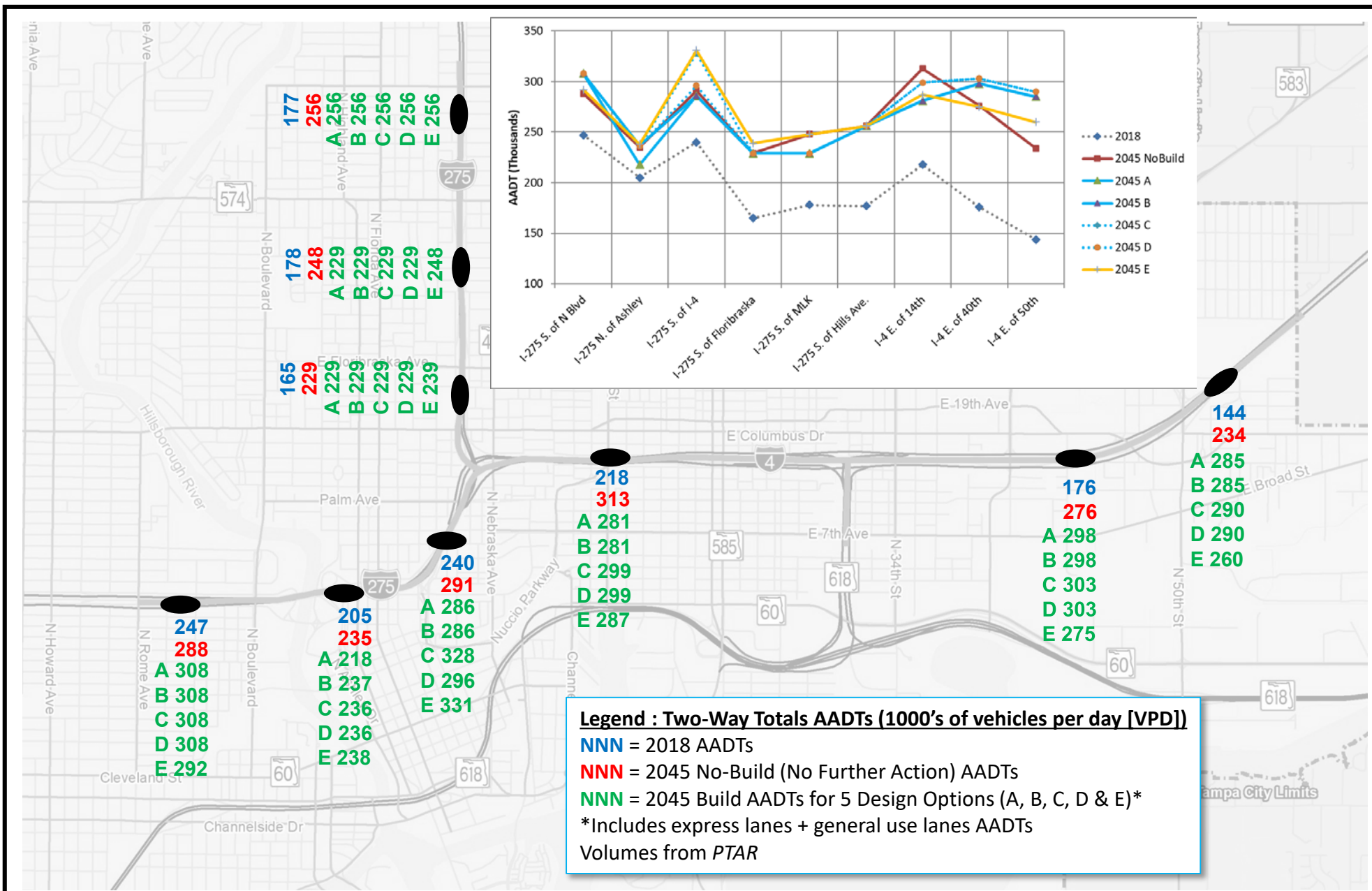
**Figure 7-5 ELToD Model Input Network**

ELToD model analysis was performed under the guidance and review of Florida's Turnpike Enterprise and its consultant. The model was enhanced during the calibration to include 1) additional directional parameters to support the hourly distributions for each corridor/section, and 2) directional parameters for toll segments were identified using the maximum distance. ELToD models provide express lanes and general-purpose lanes volume on an hourly basis based on the regional models and ODME. Where necessary, express versus general use splits were utilized from the ELToD output from peak hour volumes for Hour 8 and Hour 17 for AM and PM peak hour traffic operational analysis, respectively.

## 7.5 Future Traffic Projections

**Appendix I** includes the year 2045 Design year DDHV's for the No Further Action, Build Alternative Design Options A, B, C and D and Design year 2045 No Further Action AADT and Build Alternative AADT for Design Options A, B, C and D within the study limits. A simplified summary of the Year 2045 mainline AADTs only is included in **Figure 7-6**.





### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
 I-4 from I-275 to East of 50<sup>th</sup> Street  
 WPI Segment No. 258337-2

Design Year 2045 Mainline AADTs

Figure 7-6

## 7.6 Design Year (2045) Traffic Measures of Effectiveness

The calibrated CORSIM model was used to analyze the No Further Action and Build alternatives. The model-simulated traffic volumes and traffic MOEs were reviewed for the No Further Action and Build alternatives. The results presented below are for the Design Year (2045) only; results for the Opening Year (2025) are available in the PTAR.

The CORSIM models were run ten times using different random seed numbers to account for potential variations between model runs. The results of the simulation were averaged out to ensure that the differences in the results were related to the geometric configuration of the network and control strategies, rather than the randomness of the simulation itself. Overall, multiple runs of the simulation prevent biases in the results due to the stochastic nature of the software. The results of the traffic simulation were used to estimate the traffic operational conditions at the freeway segments within the study area for the year 2045 Design Year traffic conditions. **Appendix I, Table 3-6** and **Table 3-7** provide the 2045 Design Year summary matrix for the No Further Action and Build Design Options during the AM and PM peak hours. The CORSIM-estimated freeway traffic throughput, speeds, and densities for the No Further Action and Build alternatives.

The CORSIM model results were used to evaluate the study intersections performance for No-Build and all four Build scenarios. Signal timing plans were optimized using Synchro 10 for future year evaluation. It should be noted that the intersection evaluation from CORSIM may not provide an accurate representation of the demand traffic and accounts for bottlenecks that may be present in each of the alternatives. The CORSIM intersection and approach performance results are included in the PTAR.

Since the proposed improvements are along I-275, SR 60, and I-4 corridors, roadway geometric conditions at all signalized intersections within the study limits are identical for No Further Action and for all four Build Alternative Design Option scenarios. Operational analysis results indicate that the traffic conditions are very similar for No Further Action and Build conditions during AM and PM peak hours. However, a few study intersections under Build conditions would experience more delays compared to No Further Action conditions. This is primarily due to improved freeway geometry under various Build Alternative Design Options that allows more traffic to downstream ramp terminal intersections. Based on visual observation of all Build scenarios, none of the off-ramp queues extend beyond the ramp junction gore point and would have no significant impacts on freeway operations during AM and PM peak hours, except at the MLK interchange where the PM peak hour traffic demand significantly exceeds available capacity for a single lane southbound off-ramp. This causes long queues that back up all the way past the Hillsborough Avenue interchange.

The following freeway MOEs were compared for the 2045 Build Alternative and 2045 No Further Action Alternative at the end of peak hours:

- Average Speed (mph)
- Total Travel Delay (in vehicle-hours)
- Travel Delay per Vehicle-Mile (in min/veh/mi)

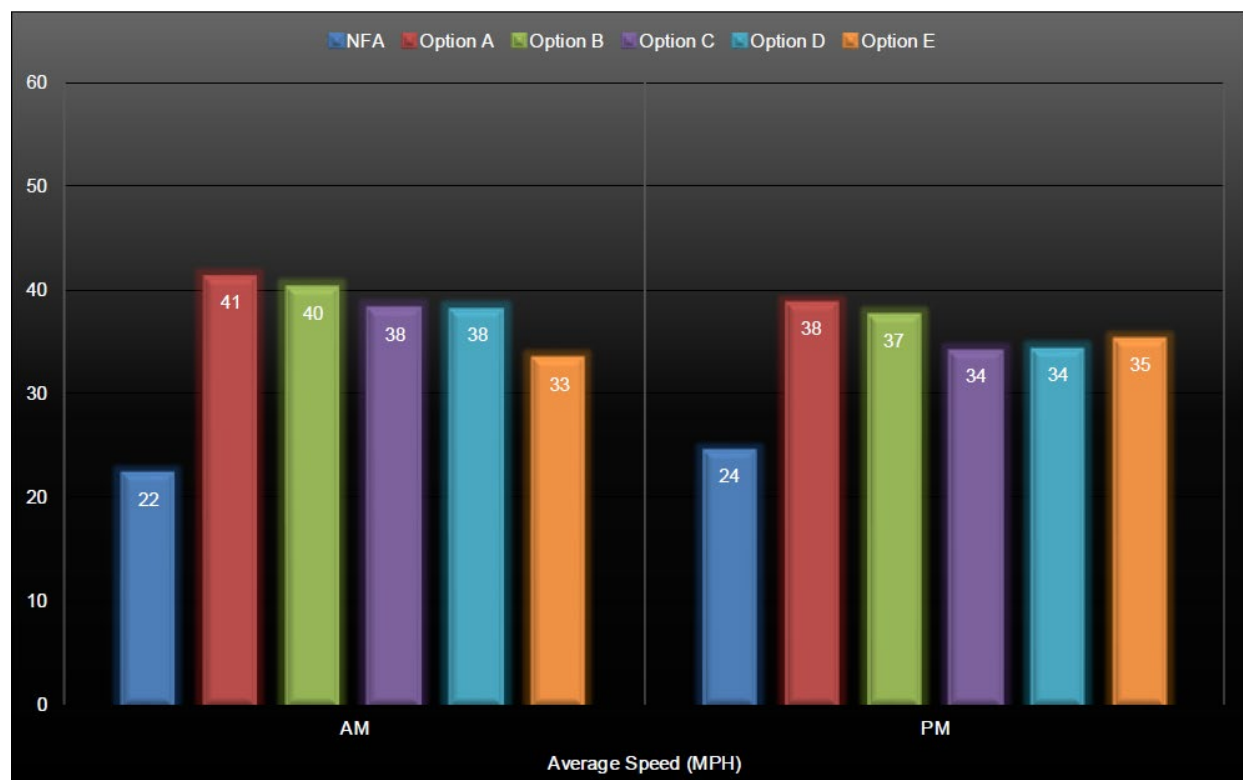
**Table 7-1** provides a summary of the 2045 Design Year MOEs for the No Further Action Alternative and all the four Build Alternative Design Options (A, B, C, D and E). **Figures 7-7** through **7-9** provide the average speed, total travel delay, and travel delay per vehicle-mile for the No Further Action Alternative and Build Alternative Design Options. The results of the CORSIM simulation analysis showed significant improvements to the overall system MOEs during AM and PM peak hours due to the Build Alternative Design Options compared to the No Further Action Alternative.

**Table 7-1 2045 Design Year MOE– No Further Action Alternative and Build Alternative Design Options**

This same data is shown graphically in **Figures 7-7, 7-8 & 7-9**

MOEs	Time Period (Peak Hour)	NFA	Option A	Option B	Option C	Option D	Option E
Average Speed (MPH)	AM	22	41	40	38	38	33
	PM	24	38	37	34	34	35
Total Travel Delay (Hours)	AM	9,833	3,870	4,149	4,649	4,695	6,869
	PM	7,555	4,690	5,075	6,382	6,204	5,678
Delay per Vehicle-Mile (min/veh/mi)	AM	1.7	0.4	0.5	0.5	0.5	0.8
	PM	1.4	0.5	0.6	0.7	0.7	0.7

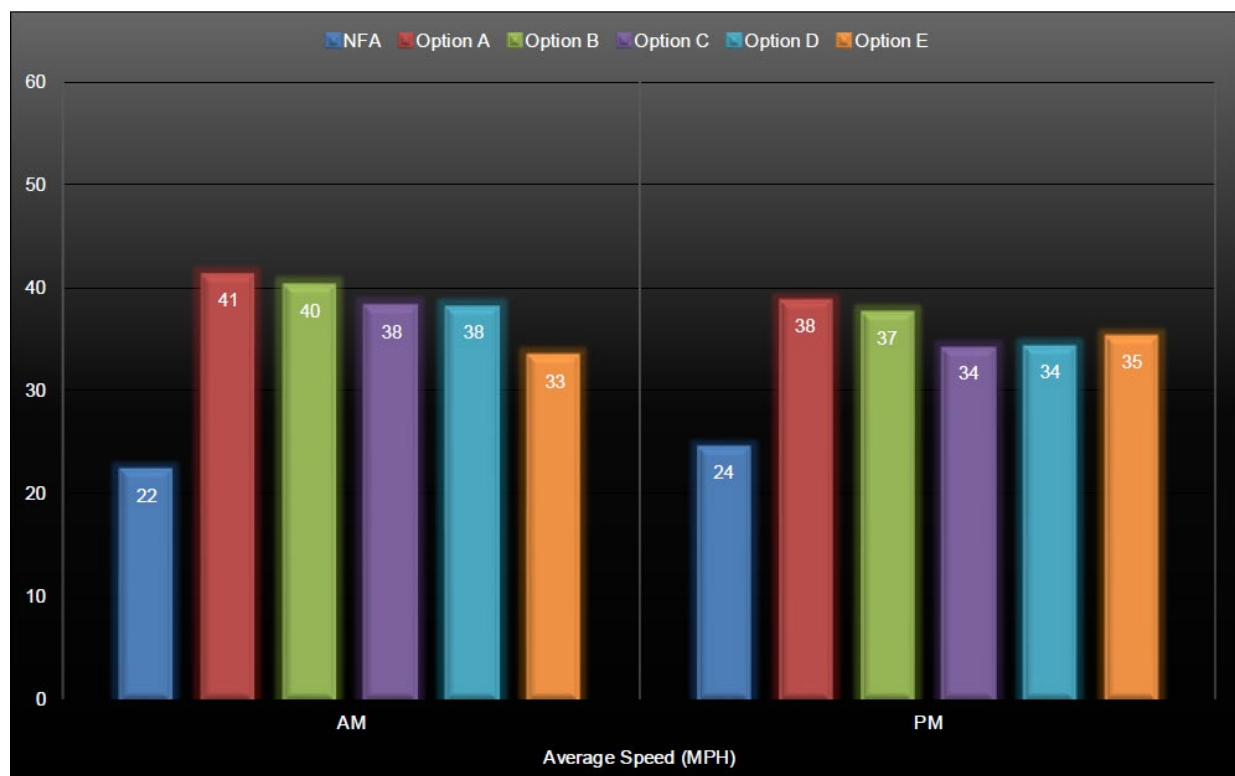
Source: Project Traffic Analysis Report, November 2019



Source: Project Traffic Analysis Report, November 2019 and **Table 7-1**

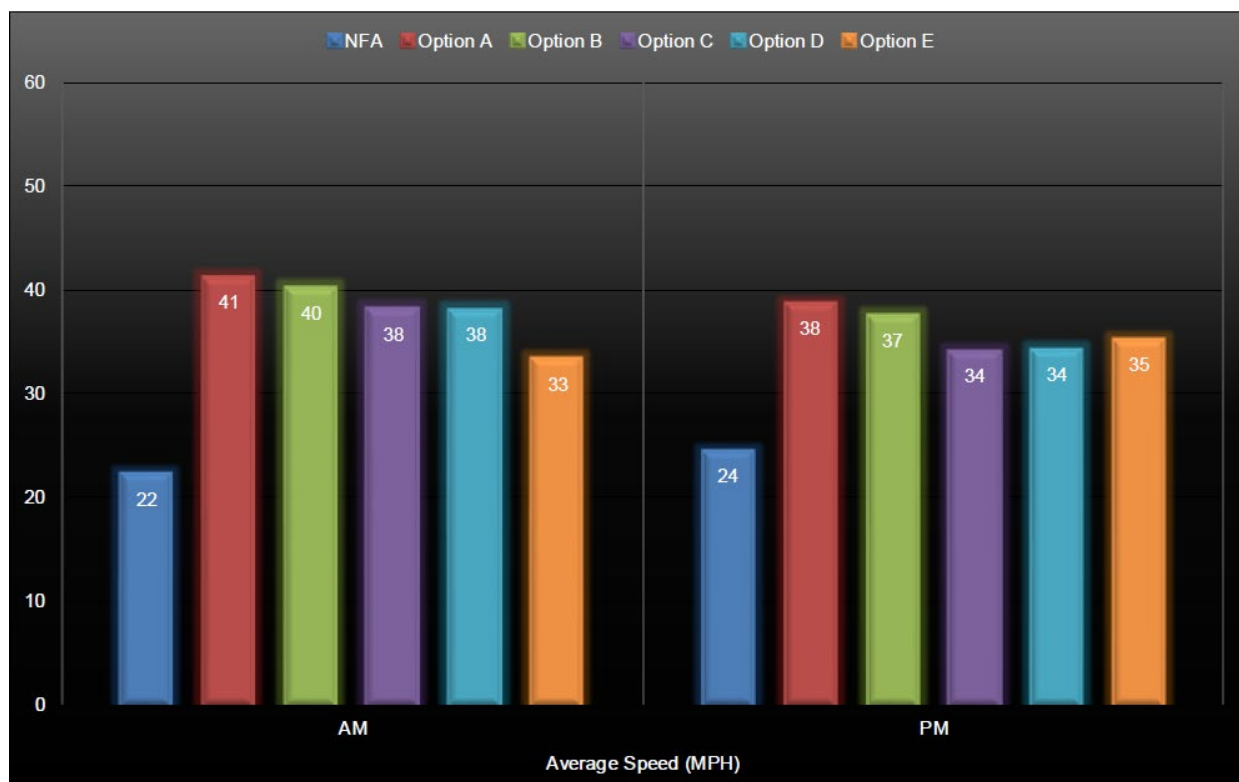
**Figure 7-7 AM/PM Peak Hour Average Speed Summary for 2045 Design Year**





Source: Project Traffic Analysis Report, November 2019 and Table 7-1

**Figure 7-8 AM/PM Peak Hour Total Travel Delay Summary for 2045 Design Year**



Source: Project Traffic Analysis Report, November 2019 and Table 7-1

**Figure 7-9 AM/PM Peak Hour Delay per Vehicle-Mile Summary for 2045 Design Year**

## 8 ALTERNATIVES ANALYSIS

The alternatives that will be evaluated in the TIS SEIS are described below.

### 8.1 No Further Action Alternative

As discussed in **Section 4.1**, portions of the Selected Alternative in the 1996 TIS FEIS have been constructed, so the No-Action Alternative that was evaluated in previous studies is no longer applicable. Therefore, a new No Further Action Alternative will be evaluated for comparison to the Build Alternative (2018 Express Lane Alternative). The No Further Action Alternative is defined as the existing transportation system plus improvements approved in the 1997 and 1999 RODs. In Segment 1A, the No Further Action Alternative includes construction of the general use lanes (outer roadways) and associated ramps within the I-275/SR 60 Interchange, which was approved under the 1997 ROD. In Segments 2B, 3A & 3B, there are no previous RODs for improvements that have not already been constructed.

### 8.2 Transportation System Management and Operations (TSM&O)

Transportation Systems Management and Operations (TSM&O) strategies are defined in the 2012 legislation "Moving Ahead for Progress in the 21st Century" (MAP-21) as "integrated strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of the transportation system."

TSM&O strategies can be applied at various levels (e.g., regional, corridor, and project levels) and address multiple modes (e.g., highway, transit, multimodal). They can be integrated into capacity, preservation, and safety projects. Many TSM&O strategies enable transportation agencies to provide better customer service in the near-term without incurring the high costs and time to implement major infrastructure projects.

Transportation Demand Management (TDM), a subset of TSM&O strategies, is defined as "a set of specific strategies that promote increased efficiency of the transportation systems and resources by promoting and providing a range of local or regional travel-related choices to influence individual travel behavior by mode, time, frequency, trip length, cost, or route." FDOT has a policy to ensure that TDM strategies are considered in all studies, plans, programs, functional areas, and in employee benefit programs. The Hillsborough County MPO's Imagine 2040: LRTP includes TDM strategy objectives to reduce VMT, including improvements to bus service, rapid transit, bicycle/pedestrian improvements, and managed lanes, as well as promoting programs such as carpooling, telecommuting, and flexible work hours. The Hillsborough County MPO FY2018/2019–FY2022/2023 *Transportation Improvement Plan* includes funding for vanpools, multi-use trails, and enhancements to pedestrian facilities in the TIS SEIS Project study area.

In addition to the transit initiatives described in **Section 4.2.14**, there are several TDM strategies currently being implemented or planned in the TIS SEIS study area. They are described below:

- Bike/Walk Tampa Bay is a regional coalition of citizens, advocates, professionals and allied organizations created to make walking and bicycling the preferred modes of transportation in the Tampa Bay region. It includes a certification program for companies that demonstrate commitment to promoting and supporting cycling; a vanpool program for commuters; as well as bicycle and pedestrian safety classes.
- As part of the TBN program, FDOT has identified Hillsborough, Pasco, and Pinellas counties as top priorities for improving bicycle and pedestrian safety. In the TIS SEIS study area, FDOT is working with the City of Tampa to develop multimodal solutions along SR 60/Kennedy Boulevard and Jackson Street to construct a dedicated

cycle track and provide on-street parking. In Ybor City, FDOT has reconstructed 21<sup>st</sup> and 22<sup>nd</sup> Streets to include on-street parking, continuous bike lanes, wide sidewalks, and other amenities.

- HART provides park-n-ride lots and commuter express service for commuters traveling to Downtown Tampa and MacDill Airforce Base.
- TBARTA offers several commuter services in Hillsborough, Pinellas, Pasco, Hernando, and Citrus counties, including carpools, vanpools, bike buddy, telework, and emergency ride home.

While the TSM&O programs described above help to alleviate congestion, they cannot fully address the transportation needs in the TIS SEIS Project study area. Additional improvements are needed in the TIS SEIS Project study area that complement and connect to existing and planned transportation demand management services that can accommodate the growing demands on the transportation system.

### **8.3 1996 TIS FEIS Long-Term Preferred Alternative (Non-Tolled)**

Proposed improvements of the 1996 TIS FEIS LTPA consist of a four-roadway system (general use lanes that provide local access and non-tolled express lanes in each direction of travel) on I-275 throughout the study limits and the preservation of a HOV/Transitway corridor within the interstate alignment. Proposed interchange improvements included:

- A fully directional interchange for the I-275 connection to the SR 60/Veterans Expressway;
- Modifications to the existing Westshore Boulevard, Lois Avenue, and Dale Mabry Highway interchanges;
- Split interchange ramps remaining at Howard and Armenia Avenues;
- A new west bank CBD interchange with ramps to and from the west on I-275 at North Boulevard;
- A fully directional interchange for the I-4/I-275 connection;
- Removal of the existing ramps to and from the north at Floribaska Avenue;
- A full interchange at Dr. MLK, Jr. Boulevard;
- Reconfiguration of the split interchange at Columbus Drive and 50th Street;
- Removal of the interchange ramps at 40th Street;
- A new directional freeway-to-freeway interchange with the proposed I-4/Selmon Expressway Connector on I-4 near 31st Street; and
- A new Ybor City/east side CBD split interchange on I-4 at 14th and 15th Streets (with extension of the ramps at 14th and 15th Streets as parallel frontage roads to 21st and 22nd Streets to replace the existing access from I-4 to 21st and 22nd Streets).

Other new non-interstate improvements included the following:

- The removal of the 19th Street overpass and the maintenance of the 26th Street overpass;
- The extension of Sherrill Street from Memorial Highway (SR 60) and Kennedy Boulevard under I-275 to Cypress Street;
- The extension of Trask Street under I-275;
- A Lemon Street Connector to Westshore Boulevard from Occident Street;



- Park-n-ride lots to provide access to HOV lanes located at the Florida State Fairgrounds, Yukon Street, Sinclair Hills Road, and SR 56;
- Overpass width to accommodate pedestrian and bicycle facilities on cross street; and
- A multi-modal terminal/parking garage at the norther end of the Marion Street.

The 1996 TIS FEIS LTPA has been reevaluated numerous times throughout the past 20 years as the various segments of interstate have been constructed. Therefore, this alternative consists of the original impacts, as updated by the approved reevaluations.

## 8.4 Build Alternatives

### 8.4.1 2018 Express Lanes Alternative (Tolled or Non-Tolled Build Alternative)

As discussed in **Section 5.6**, improvements proposed for the 2018 Express Lanes Alternative include major components of the 1996 TIS FEIS LTPA. There are areas where the design has changed in alignment and configuration. The design differences from the 1996 TIS FEIS LTPA are described in the following sections. **Figure 1-1** shows the TIS SEIS segments. The first two segments listed below are located in TIS Segments 1A & 2A, and included here only for information.

**Segment 1A – I-275 from Howard Frankland Bridge/Kennedy Boulevard ramps and just north of Cypress Street on Memorial Highway (SR 60) to east of Himes Avenue:** The general use lanes (outer roadways) in this section were included in the 1996 TIS FEIS and approved by the 1997 and 1999 RODs. The design changes would involve the use of tolled express lanes and access changes between general and express lanes; expansion of I-275 from HFB to south of SR 60 to accommodate express lanes along I-275; and local street changes, including relocation of Lemon Street, the extension of Occident Street; modified Trask Street ramp connections; and the replacement of the Executive Drive to southbound I-275 ramp connection and extension of Sherrill Street with a revised I-275 Reo Street interchange that would provide a connection between Kennedy Boulevard, Reo Street, and I-275. Additional ROW would be needed to accommodate express lanes near the SR 60 interchange south to and from I-275, a new toll ramp into TIA, the addition of general use lanes west of Westshore Boulevard, and expansion of the corridor for future transit use west of SR 60. No acquisitions would occur in historic districts.

**Segment 2A – I-275 from East of Himes Avenue to East of Rome Avenue:** The general use and express lanes in this section were included in the 1996 TIS FEIS and approved in the 1999 ROD. The outer roadway (general use lanes) has already been constructed with I-275 improvements. The work in this section includes adding express lanes in the median. Himes Avenue would be a partial express lanes interchange with direct express lane ramps to and from the south/west constructed within the I-275 median area, tying into Himes Avenue between the northbound and to and from the southbound I-275 bridges. Left turns from northbound and southbound Himes Avenue to the express lane ramps would be prohibited. Construction would include the widening of the I-275 bridges over Himes Avenue, toward the median, with pavement widening, median modifications and sidewalk construction along Himes Avenue. These interchange modifications would not require additional ROW and would allow the existing northbound I-275 general use on-ramp and the existing southbound I-275 general use off-ramp to remain in place. No additional ROW is required.

**Segment 2B – I-275 from East of Rome Avenue to North of MLK Jr. Boulevard and I-4 from I-275 to East of 15<sup>th</sup> Street:** The general use and express lanes in this section were included in the 1996 TIS FEIS. Operational improvements at the I-275/I-4 interchange were included in the 1996 TIS FEIS and approved in the 1997 ROD. The operational improvements were constructed in 2006. The design changes include tolled express lanes; changes in access to express lanes, which include adding a direct connection to the downtown local street network and slip ramp access north and east of downtown; adding overpasses at several locations to open cross-connections of local streets through the interstate footprint; and additional ROW acquisition involving vacant or

undeveloped portions of land at a few pinch-points. There are five design options, considered in Segment 2B, named Design Option A, B, C, D and E which are described in more detail in **Section 8.5**.

**Segment 3A – I-4 from East of 15th Street to East of 34<sup>th</sup> Street:** The general use and express lanes in this section were included in the 1996 TIS FEIS and approved in the 1997 ROD. The outer roadway (general use lanes) has already been constructed from 21<sup>st</sup> Street to 34<sup>th</sup> Street. The five design options, A, B, C, D & E were also evaluated in Segment 3A. The design changes for Design Options A-D involve access to express lanes, which include slip ramp access east of downtown; and ramp access change with I-4 interchanges at 14/15th Street and 21/22nd Street. No additional ROW would be acquired. For Design Option E, there is no work proposed in Segment 3A.

**Segment 3B – I-4 from East of 34<sup>th</sup> Street to East of 50<sup>th</sup> Street:** The general use lanes in this section were included in the 1996 TIS FEIS and approved in the 1997 ROD. The outer roadway (general use lanes) has already been constructed from 34<sup>th</sup> Street to 50<sup>th</sup> Street. Minimal ROW would be acquired in this section on the south side of I-4 just east of 50<sup>th</sup> Street to accommodate barrier separated express lanes along I-4 while accommodating an eastbound ingress just east of 50<sup>th</sup> Street. Work in this section would include adding express lanes in the median and adjustments in access between express and general lanes. This would require the mainline and eastbound entrance ramp to shift south of the existing ROW within the limits of the entrance ramp. Under Design Option E, no work is proposed for the 50<sup>th</sup> Street ramp.

**Segment 3C – I-4/Lee Roy Selmon Expressway Interchange:** These improvements were fully constructed in 2014. While a part of the TIS SEIS study limits, there will be no further improvements in this TIS Segment and, therefore, no additional impacts.

For all TIS Segments, tolls are proposed for the express lanes where they are proposed. The express lanes toll would be set at \$0.50 minimum per gantry on interstate facilities. Tolls would be dynamically priced based on the amount of traffic in the express lanes. The toll would be increased to manage congestion in the express lanes, and, therefore, toll rates may change frequently in peak periods. The current rate in effect at any given time would be displayed on dynamic message signs in advance of each point of entry so drivers can choose to enter the express lanes or remain in the general use lanes. While the rate may change during the time that a given vehicle is in the express lanes, the final rate charged would be no higher than the rate that was displayed at the time that the vehicle entered the system. The toll amounts shown are outputs of the travel demand models that utilize all of the information available at the time when the forecast was prepared. Actual toll rates could be different when the facility opens.

## 8.5 Downtown Interchange Design Options

### 8.5.1 Descriptions of the Five Downtown Interchange Design Options

Five design options are being considered for the DTI in TIS Segments 2B and 3A. Four of them represent tolled and non-tolled options for managed lanes. Two options are full reconstruction of the interchange with a larger footprint, two are viaduct alternatives that would build express lanes next to the existing infrastructure but have a smaller footprint, and the fifth option focuses on operational and safety improvements. Design Options A, B, C, D and E are shown in small size in **Figures 8-1, 8-2, 8-3, 8-4 and 8-5**, respectively. Larger size “concept plans” for Design Options A-D are included in **Appendix H** and for Design Option E in **Appendix A**. The Design Options are described in the following sections.

Design Options A, B, C & D have express lanes from I-275 west of the Hillsborough River to/from I-4. Express lanes were removed from the north leg of I-275 (from north of MLK Jr Blvd to north to Bearss Avenue) in early 2018; the additional lanes would have required additional ROW acquisition resulting in impacts to the adjacent neighborhoods. The I-275 southbound to I-4 eastbound GUL ramp will be expanded to two lanes in all options.

➤ **Design Options A and B – Reconstructed Interchange** - The proposed improvements under Options A and B would include reconstructing the interchange to provide a fully directional interchange for the I-4/I-275 connection, with express lanes. The design options include changes in access to express lanes, which include adding a direct connection to the downtown local street network and slip ramp access north and east of downtown; adding overpasses at several locations to open cross-connections of local streets through the interstate footprint; and additional ROW acquisition beyond that which was shown in the 1996 FEIS involving vacant or undeveloped portions of land at a few pinch-points. This section is adjacent to several parks, historic districts, and primarily residential areas. Both Design Options A and B would require a minimal amount of ROW from Perry Harvey Sr. Park along the northwest portion of park property that may eliminate several parking spaces. The differences between Options A and B are as follows:

- **Design Option A – Reconstructed Interchange with Express Lanes to the North:** Option A includes express lane connections to/from the north leg of I-275 with direct connections to I-275 and I-4.
- **Design Option B – Reconstructed Interchange without Express Lanes to the North:** Option B does not include express lane connections to/from the north leg of I-275.

**Design features of Design Option A include:**

- Provides the most capacity for future growth
- Reconstructs the existing interchange with express lane ramp connectivity to the north
- Requires the most ROW (similar footprint as identified in original TIS)
- Brings roadway design to modern standards, including full shoulder widths and improved vertical geometry
- Maintains a transit corridor in the median throughout the interchange
- Eliminates “rollercoaster effect” on I-275 between I-4 and MLK Boulevard and over the Hillsborough River
- Requires closure of the Floribaska exit except for potential transit access (Floribaska Avenue would remain open)

This option has the largest footprint of the four design options. ROW acquisition is required throughout the footprint. After receiving comments from the community, FDOT was asked to try and minimize the footprint. This led to the development of Options B, C and D.

**Design features of Design Option B include:**

- Reconstructs the existing interchange with no express lane ramp connectivity to the north
- Provides the most capacity for future growth, minus express lanes to the north
- Smaller footprint requires less ROW north of Columbus Drive
- Brings roadway design to modern standards, including full shoulder widths
- Maintains a transit corridor in the median throughout the interchange
- Eliminates “rollercoaster effect” on I-275 between I-4 and MLK Boulevard and over the Hillsborough River



- Requires closure of the Floribraska exit except for potential transit access (Floribraska Avenue would remain open)

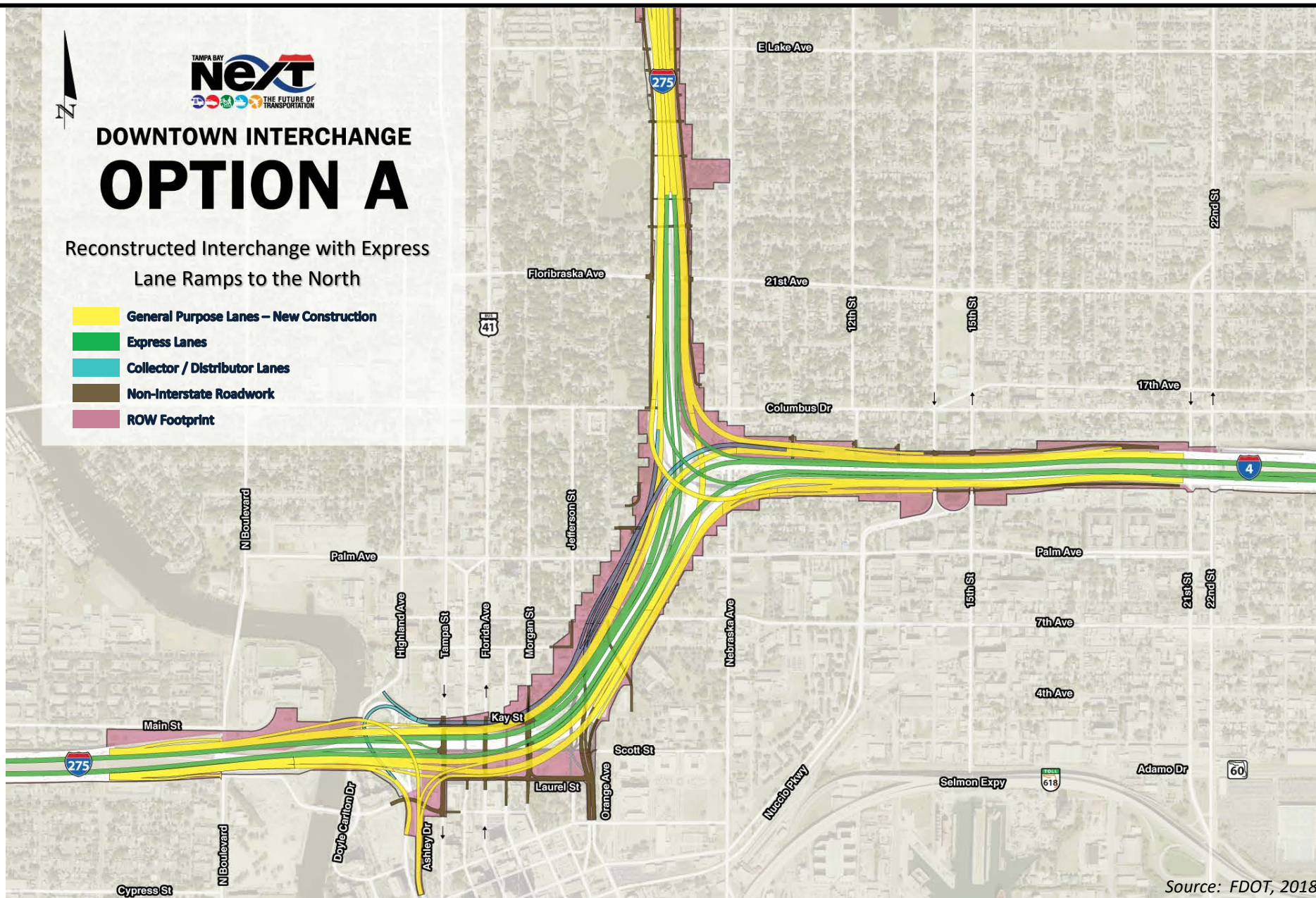
Design Option B shrinks the footprint from of Design Option A mostly within the I-4/I-275 junction and along the east side of the north leg of I-275, by eliminating the express lane ramp connections to the north leg of I-275. A motorist in the express lanes heading from Westshore to I-275 north of the DTI would need to exit the express lanes near the Hillsborough River and navigate thru the DTI utilizing the general-purpose lanes. Coming from I-275 from the north headed to Westshore, a motorist would need to navigate thru the DTI utilizing the general-purpose lanes before entering the express lanes near the Hillsborough River or get in/out near Howard Avenue.



## DOWNTOWN INTERCHANGE OPTION A

Reconstructed Interchange with Express  
Lane Ramps to the North

- General Purpose Lanes – New Construction
- Express Lanes
- Collector / Distributor Lanes
- Non-Interstate Roadwork
- ROW Footprint



Source: FDOT, 2018



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Downtown Interchange Design Option A

Figure 8-1





## DOWNTOWN INTERCHANGE OPTION B

Reconstructed Interchange without  
Express Lane Ramps to the North

- General Purpose Lanes – New Construction
- Express Lanes
- Collector / Distributor Lanes
- Non-Interstate Roadwork
- ROW Footprint



Source: FDOT, 2018



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Downtown Interchange Design Option B

Figure 8-2



- **Design Options C and D – Existing Interchange with Elevated Express Lanes** - Proposed improvements under Design Options C and D would include preserving the existing I-275 and I-4 interstate lanes (GULs) while adding express lanes on elevated structure from west of the Hillsborough River to I-4. Access would be provided to the downtown street grid from the elevated express lanes. However, like the 1996 LTPA, there would be no GUL access to Floribraska Avenue since the ramps would be eliminated. Other improvements include:

- Providing two-lane ramps for connections to I-4 and the north leg of I-275
- Adding express lane ramp connections from I-4 to the north leg of I-275
- Reconfiguring the eastbound I-4 exit to Ybor City, to increase capacity and improve operations between the Selmon Connector and the north leg of I-275
- Adding express lane ramp connection from I-4 to the north leg of I-275 to eliminate weaving on I-4 for traffic traveling to and from the Selmon Connector and the north leg of I-275
- Reconfiguring the eastbound I-4 exit to Ybor City to eliminate weaving between the southbound I-275 ramp to eastbound I-4 and the exit to Ybor City. This would be accomplished by removing the ramp along eastbound I-4, currently serving only 21<sup>st</sup>/22<sup>nd</sup> Street and providing separate exits from northbound I-275 and southbound I-275.

The exit from northbound I-275 would be located between Palm Avenue and Nebraska Avenue while the exit from southbound I-275 would be located off the two-lane flyover to eastbound I-4. Those two separate ramps would then combine along the south side of the eastbound I-4 mainline east of Nebraska Avenue and would tie into 14<sup>th</sup>/15<sup>th</sup> Street, providing a new access point the would serve both the 14<sup>th</sup>/15<sup>th</sup> Street and 21<sup>st</sup>/22<sup>nd</sup> Street interchanges. The ramp would align with the eastbound frontage road that currently connects 14<sup>th</sup>/15<sup>th</sup> Street and 21<sup>st</sup>/22<sup>nd</sup> Street. The frontage road would be widened to two lanes to facilitate traffic to 21<sup>st</sup>/22<sup>nd</sup> Street. The differences between Options C and D are as follows:

- **Design Option C – Existing Interchange with Elevated Express Lanes – South Side of I-275:** Under Option C, the elevated express lanes would fly out from the median of I-275 west of the Hillsborough River over the northbound I-275 lanes to the outside of the existing interstate and run adjacent to the existing northbound I-275 lanes from the Hillsborough River to I-4, on the south side of I-275. The elevated express lanes would turn east along I-4 by crossing over to the north side of I-4, adjacent to the westbound I-4 lanes from I-275 to east of 15<sup>th</sup> Street. The elevated express lanes would then fly over the westbound I-4 lanes back into the median of I-4 just west of 21<sup>st</sup> Street.




**Design features of Design Option C include:**

- Mostly preserves the existing interchange and adds express lanes on the south side of the interstate
- Reconstructs the southbound I-275 to I-4 ramp as a two-lane ramp
- Reconstructs the southbound I-275 bridge over the Hillsborough River
- Smaller footprint minimizes ROW impacts
- Widens portions of the existing interstate to add a general purpose lane
- Maintains existing “rollercoaster effect” on I-275 between I-4 and MLK Boulevard and over the Hillsborough River
- Improves operations on I-4 between I-275 and the Selmon Connector
- Requires bridge spanning over Perry Harvey Sr. Park skate bowl and basketball courts
- Requires closure of the Floribraska exit except for potential transit access (Floribraska Avenue would remain open)



## DOWNTOWN INTERCHANGE OPTION C

Existing Interchange with Elevated  
Express Lanes South Option

-  General Purpose Lanes – New Construction
-  Express Lanes
-  Collector / Distributor Lanes
-  Non-Interstate Roadwork
-  ROW Footprint



Source: FDOT, 2018



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

Downtown Interchange  
Design Option C

Figure 8-3





## DOWNTOWN INTERCHANGE OPTION D

Existing Interchange with Elevated  
Express Lanes North Option

- General Purpose Lanes – New Construction
- Express Lanes
- Collector / Distributor Lanes
- Non-Interstate Roadwork
- ROW Footprint



Source: FDOT, 2018



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

Downtown Interchange  
Design Option D

Figure 8-4



Design Option C would reduce the footprint considerably more than Design Options A and B by maintaining most of the existing interchange. A motorist in the express lanes headed from Westshore to I-275 north of the DTI would need to exit the express lanes near the Hillsborough River and navigate thru the DTI utilizing the general purpose lanes. Coming from I-275 from the north headed to Westshore, a motorist would need to navigate thru the DTI utilizing the general purpose lanes before entering the express lanes near the Hillsborough River. This option would include an elevated bridge structure over the skate park and basketball courts at Perry Harvey Sr. Park.

- **Design Option D – Existing Interchange with Elevated Express Lanes – North Side of I-275:** Under Option D, the elevated express lanes would fly out from the median of I-275 west of the Hillsborough River over the southbound I-275 lanes to the outside of the existing interstate and run adjacent to the existing southbound I-275 lanes from the Hillsborough River to I-4, on the north side of I-275. The elevated express lanes would turn east along I-4, adjacent to the westbound I-4 lanes from I-275 to east of 15<sup>th</sup> Street. The elevated express lanes would then fly over the westbound I-4 lanes back into the median of I-4 just west of 21<sup>st</sup> Street.

**Design features of Design Option D include:**

- Mostly preserves existing interchange and adds express lanes on the north side of the interstate
- Reconstructs the southbound I-275 to I-4 ramp as a two-lane ramp
- Smaller footprint minimizes ROW impacts
- Widens portions of the existing interstate to add a general purpose lane
- “Rollercoaster effect” remains on I-275 between I-4 and MLK Boulevard and over the Hillsborough River
- Improves operations on I-4 between I-275 and the Selmon Connector
- Requires closure of the Floribraska exit except for potential transit access (Floribraska Avenue would remain open)

Design Option D is similar to Design Option C except that the express lanes are to the north and west of I-275 thru downtown and impacts commercial and residential properties on the west side, including Mobley Park Apartments and the Tampa Heights Community Center.

- **Option E (Safety and Operational Improvements):** In May 2019 FDOT held Alternatives Public Workshops to receive input on the Westshore and Downtown Alternatives, including Options A, B, C, and D, with the intent of recommending one of the options to carry forward as a part of the Recommended Locally Preferred Alternative (LPA). While there is definitive public support for reconstruction of the I-275/SR 60 Interchange (TIS Segment 1A), there are many factors that may impact the plans in the I-275/I-4 (TIS Segment 2B). Therefore, FDOT developed Option E in response to input from the public and area stakeholders. Input that FDOT received related to:

- Minimizing ROW impacts to downtown neighborhoods
- Closure of the Floribraska Avenue ramps
- Potential impacts to the Perry Harvey Sr Park
- Support for safety and operational improvements in the Downtown Interchange area

The FDOT reviewed Design Options A, B, C, and D within the I-275/I-4 interchange and extracted and refined three improvements from the current concepts that would enhance safety and operational performance in alignment with the Purpose and Need. The improvements are shown in **Figure 8-5** and are discussed further in the following sections. The areas below would not be tolled.

The improvements would also include relocating the western exit ramp to Ybor City and East Tampa from the existing location at 21<sup>st</sup>/22<sup>nd</sup> Street to 14<sup>th</sup>/15<sup>th</sup> Street. The relocated exit ramp would provide enhanced access to businesses, educational institutions, and residential areas. Drivers would still access 21<sup>st</sup>/22<sup>nd</sup> Street via widening the existing single-lane frontage road, East 13<sup>th</sup> Avenue, to two lanes. These proposed operational improvements would be completed almost entirely within the existing FDOT owned ROW. Fewer parcels will be affected under Option E.

- **Southbound I-275 to Eastbound I-4** - The southbound I-275 to eastbound I-4 improvements include widening the existing flyover ramp to two lanes. New signage located near Hillsborough Avenue would inform drivers that they can remain in the outermost lane to access the dual lane flyover ramp to I-4. The existing auxiliary lane that begins at the entrance ramp from Dr. MLK, Jr. Boulevard still would also provide drivers access to the I-4 flyover ramp without changing lanes. The existing exit ramp to Floribaska Avenue would remain.

The improvements would also include relocating the exit ramp to Ybor City and East Tampa from the existing location at 21<sup>st</sup>/22<sup>nd</sup> Street to 14<sup>th</sup>/15<sup>th</sup> Street. The relocated exit ramp would provide enhanced access to businesses, educational institutions, and residential areas. Drivers would still access 21<sup>st</sup>/22<sup>nd</sup> Street via widening the existing single-lane frontage road, East 13<sup>th</sup> Avenue, to two lanes. These proposed operational improvements would be completed almost entirely within the existing FDOT owned ROW. One vacant additional parcel impact is anticipated.

- **Westbound I-4 to Northbound I-275** - An additional lane would be provided from west of 14<sup>th</sup> Street on westbound I-4 to MLK Boulevard on northbound I-275. The additional lane would be provided by widening westbound I-4 to the outside beginning just west of 14<sup>th</sup> Street. The entrance ramp from 21<sup>st</sup> Street that currently merges onto I-4 in the vicinity of 16th Street will become an add lane, utilizing existing pavement and not requiring any widening of existing pavement until west of 14<sup>th</sup> Street.
- The additional lane would continue along the off-ramp to northbound I-275 by widening the off-ramp to the outside to two lanes. The additional lane would then continue along northbound I-275 by widening to the outside to MLK Boulevard. A second additional lane would be added to the outside of northbound I-275 with the addition of an auxiliary lane between the on-ramp from Floribaska Avenue and the off-ramp to MLK Boulevard. The off-ramp to MLK Boulevard would be widened to two lanes.
- **Westbound I-4 to Southbound I-275** - The westbound I-4 to southbound I-275 operational improvements would include widening the southbound I-275 ramp from two lanes to three lanes. The three lanes would join the two lanes from southbound I-275 to provide five lanes. The five lanes would then merge to four lanes near Jefferson Street. The exit ramps to Downtown Tampa would be adjusted to improve spacing so drivers can more efficiently exit to downtown. The exit ramps would still serve Orange Avenue, Jefferson Street, Ashley Drive, and Doyle Carlton Drive. The improvements would remove the existing ramp bridge structure over I-275 as part of the ramp relocations. The existing shoulders would be widened on I-275 from Palm Avenue to Jefferson Street. These proposed operational improvements would be completed entirely within the existing FDOT owned ROW.

Collectively the three operational/safety improvements make up the geometric improvements to the Downtown Interchange, which will be Design Option E.





#### I-275 from Rome Avenue to Ashley Drive

Northbound, the two express lanes from Segment 2A would merge to one lane approaching North Boulevard and continue as a new single-lane flyover ramp to the outside of northbound I-275 over the Hillsborough River. The express lane ramp would then terminate to the outside of the Ashley Drive off-ramp to downtown, providing direct access to downtown.

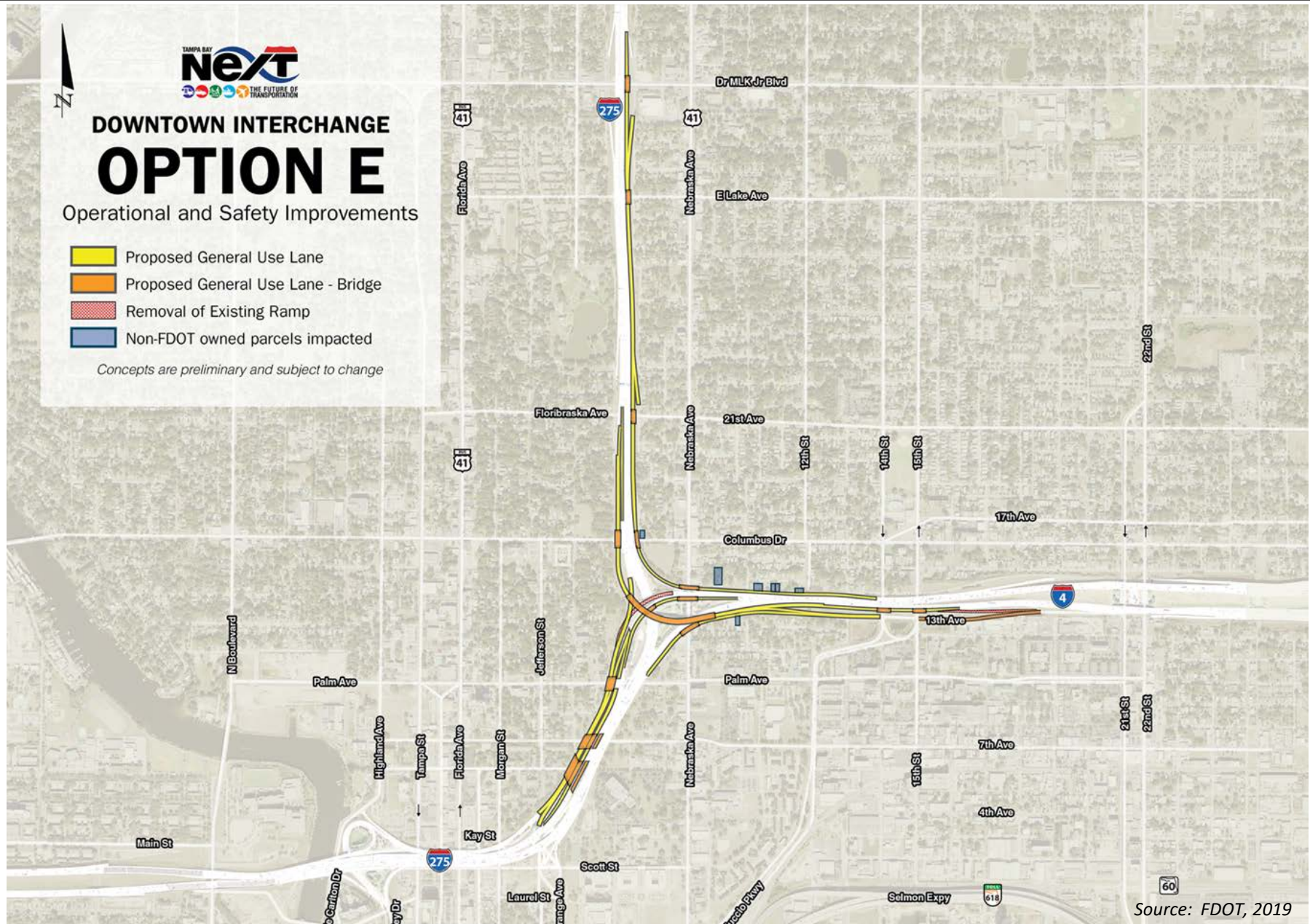


## DOWNTOWN INTERCHANGE OPTION E

Operational and Safety Improvements

-  Proposed General Use Lane
-  Proposed General Use Lane - Bridge
-  Removal of Existing Ramp
-  Non-FDOT owned parcels impacted

*Concepts are preliminary and subject to change*



Source: FDOT, 2019



### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Downtown Interchange Design Option E

Figure 8-5



Southbound, a new two-lane bridge would be constructed north of the existing southbound I-275 lanes over the Hillsborough River for the downtown on-ramps from Tampa Street and Ashley Drive. The existing general use lanes would shift outward and allow for the development of a buffer separated express lane beginning just east of North Boulevard. A single-lane express lane ramp from the Ashley Drive/Tampa Street on-ramp would flyover from the outside of I-275 to the median of I-275 between North Boulevard and Willow Avenue.

### Segments 3A, 3B and 3C

There are no improvements proposed in TIS Segments 3A and 3B under Design Option E. However, within these study limits, there is work proposed as part of the improvements associated with I-4 eastward to the Polk County Line (TB Next Section 8) that were approved under a separate NEPA action under WPI Segment 431746-1. To make a seamless transition to I-4, FDOT prepared an Engineering and Environmental Technical Compendium (EETC) for I-4 from the Selmon Connector to east of 50th Street. FDOT prepared the EETC in support of the I-4 Categorical Exclusion prepared for TB Next Section 8. For information, these improvements are shown as dashed in **Appendix A** (sheets 12-16).

As indicated earlier in this document TIS Segment 3C, the Selmon Connector and its associate improvements along the Selmon Expressway were constructed as part of the 1997 TIS ROD and Design Change Reevaluation.

## 8.5.2 Comparisons among the Downtown Interchange Design Options

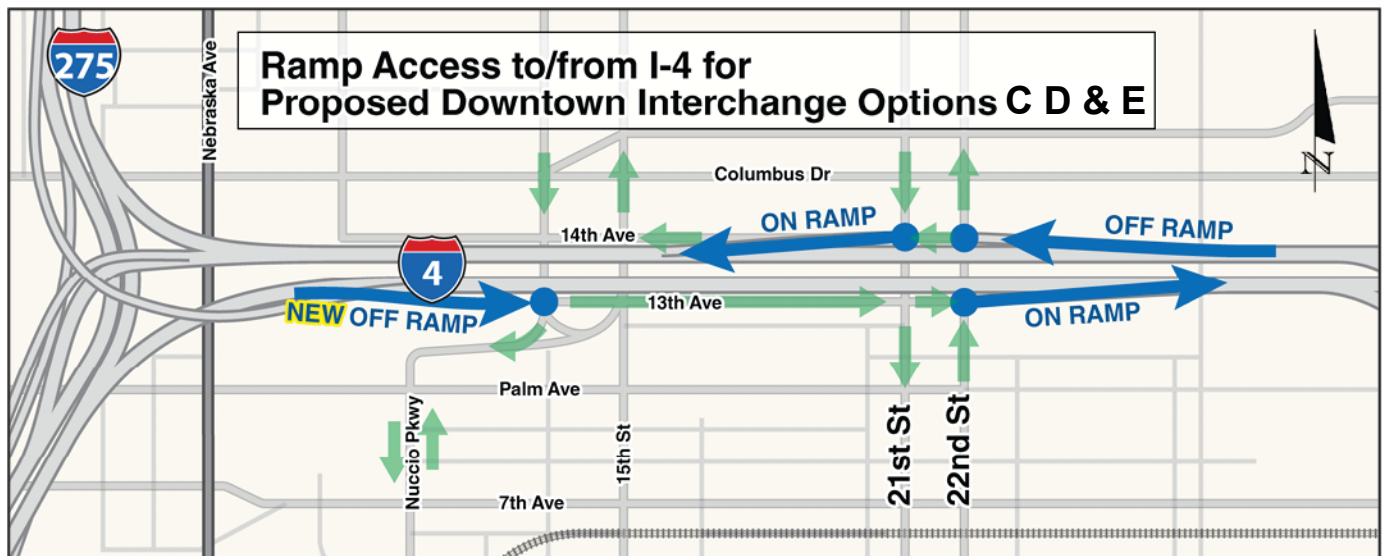
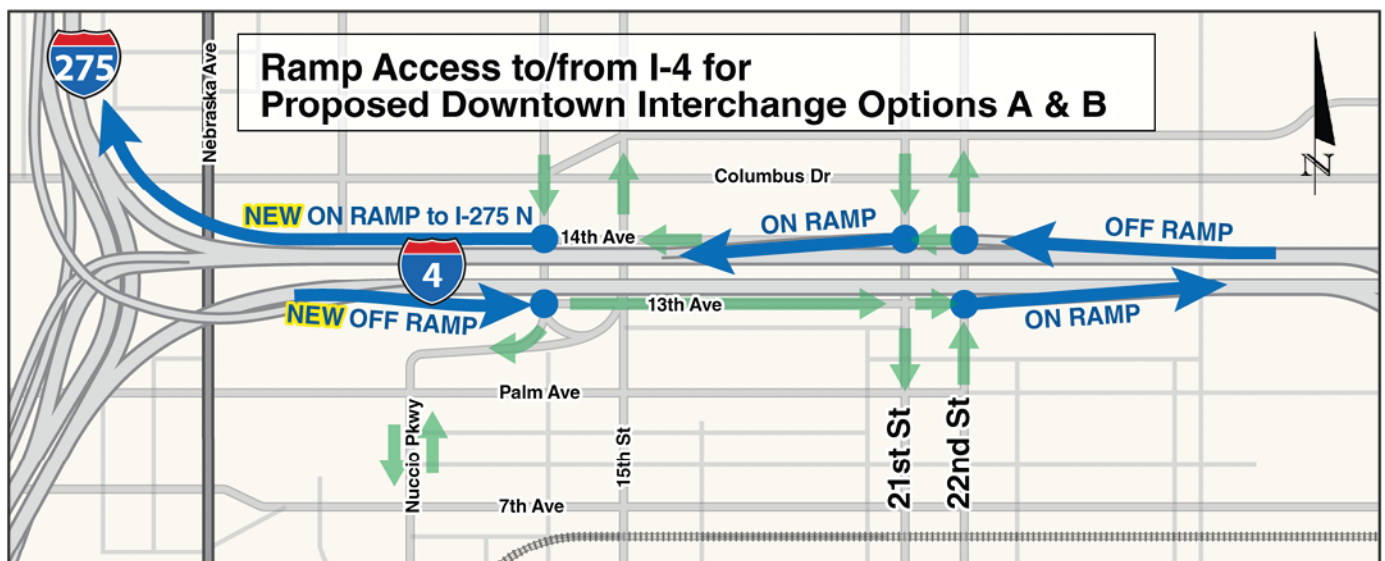
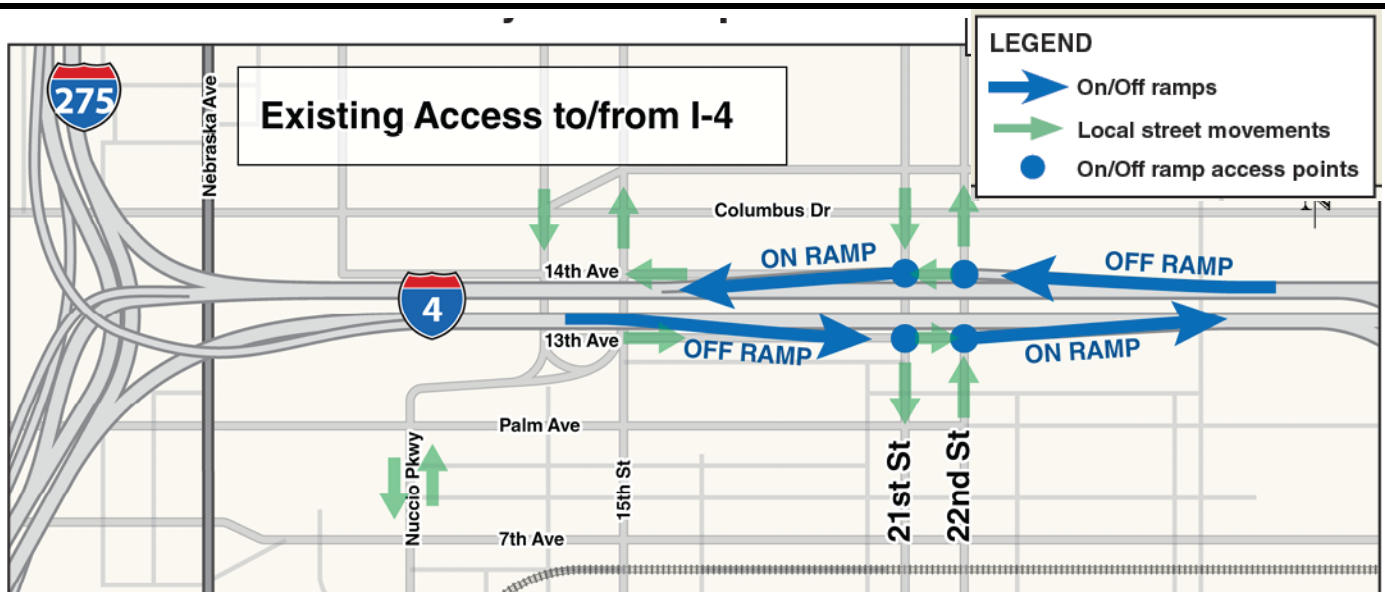
**Access** – Design Options A and B have the same access characteristics, and Design Options C and D have the same access characteristics. Access for Design Option E is the same as for the existing condition with the exception of:

- adding I-275 express lane westbound ingress/egress from the mainline just west of the Hillsborough River and a direct connection from Ashley Street
- adding I-275 express lane eastbound egress to the mainline just west of Hillsborough Avenue and a direct connection to Ashley Street, and
- shifting of the eastbound I-4 exit to 21<sup>st</sup> Street to instead exit to 14<sup>th</sup> Street.

A detailed description of access movements for Design Options A, B, C and D is included in **Appendix E**. Access for Design Option E is shown on the Concept Plans in **Appendix A**. **Figure 8-6** summarizes differences in access for the Ybor City and East Tampa among the DTI design options.

In addition to the DTI design options, the conceptual design has been evolving of the local street connections related to the I-275 at North Boulevard interchange area in coordination with the City of Tampa and Hillsborough County School District; these are shown on the concept plans in **Appendix A** for Design Option E and in **Appendix H** for Design Options A, B, C & D.

**ROW Requirements** – The DTI design options were compared for the ROW required. A comparison of the ROW “footprints” for Design Options A, B, C & D is shown in **Figure 8-7**. The ROW required for Design Option E is much less than Design Options A-D and could not be visibly depicted on the scale shown in **Figure 8-7**. Refer to **Appendix A** for the ROW requirements which is limited to the north side of I-4 in close proximity to I-275 and along the east side of I-275 north of I-4. The estimated ROW cost for each Design Option is compared in **Table 8-1**.



Conceptual diagram – not to scale

Tampa Interstate Study Supplemental Environmental Impact Statement



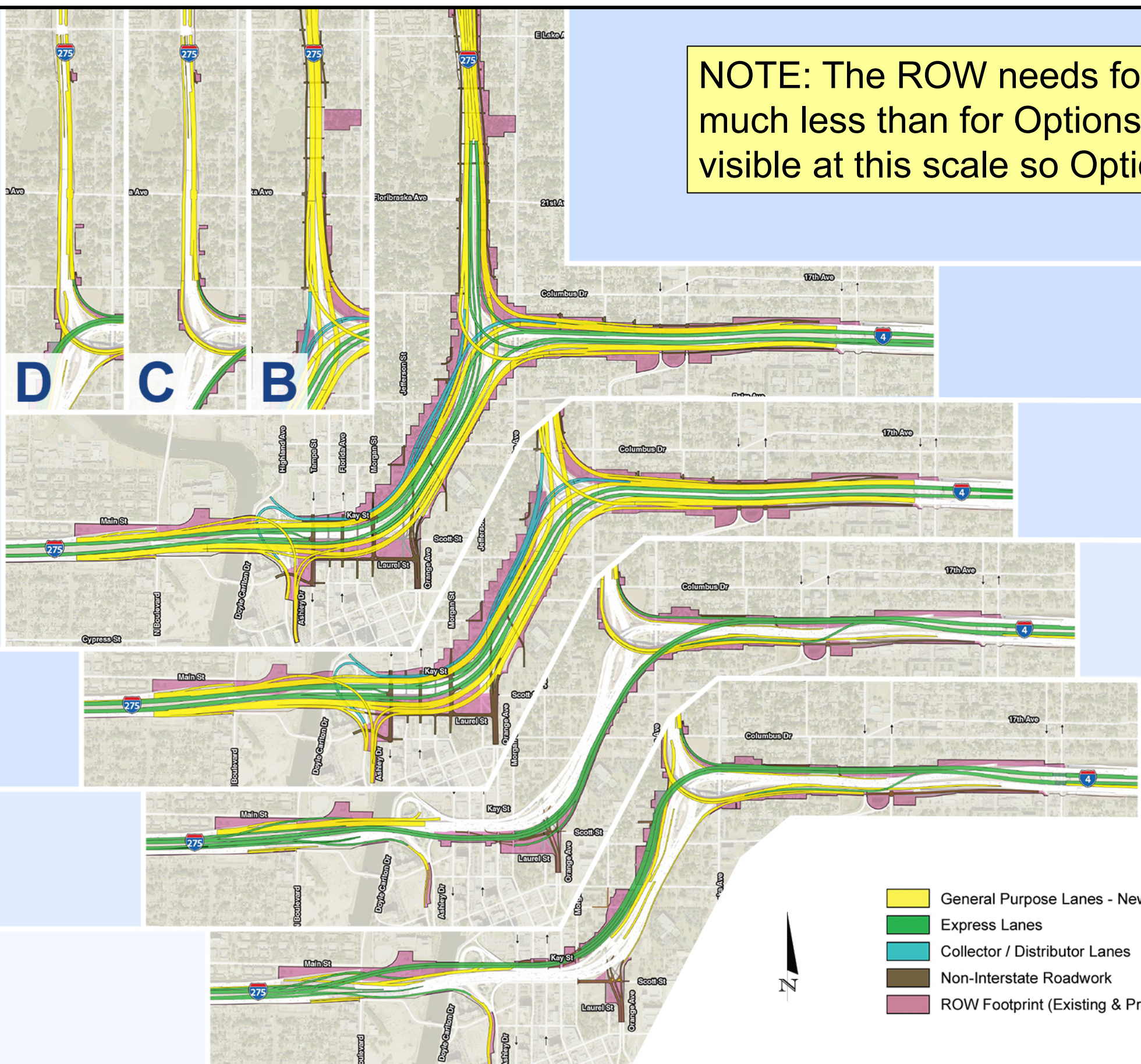
**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
 I-4 from I-275 to East of 50<sup>th</sup> Street  
 WPI Segment No. 258337-2

**Figure 8-6**  
**Proposed Changes to Access for**  
**Ybor City /East Tampa**



NOTE: The ROW needs for Design Option E are much less than for Options A-D and would not be visible at this scale so Option E is not depicted.



Option A

Option B

Option C

Option D

- General Purpose Lanes - New Construction
- Express Lanes
- Collector / Distributor Lanes
- Non-Interstate Roadwork
- ROW Footprint (Existing & Proposed)





**Table 8-1 Comparison of Estimated ROW Costs for the DTI Design Options**

Segment 2B					Segment 3A	Segment 3B
Design Option A	Design Option B	Design Option C	Design Option D	Design Option E	(All Design Options)	(All Design Options)
\$129.4 million	\$113.2 million	\$23.7 million	\$40.7 million	\$2.4 million	\$0 (Design Options A-E)	\$1.2 million (Design Options A-D) \$0 (Design Option E)

Totals (Segments 2B, 3A, 3B)				
Design Option A	Design Option B	Design Option C	Design Option D	Design Option E
\$ 130.6 million	\$ 114.4 million	\$ 24.9 million	\$ 41.9 million	\$ 2.4 million

Source: FDOT ROW Estimates October 2018 and September 2019

**Construction Cost Estimates** – Preliminary construction cost estimates were developed for improvements within TIS Segments 2B, 3A and 3B by each of the five DTI design options. These preliminary costs are summarized in **Table 8-2** and will be broken out in more detail, including by segment, in **Appendix F**.

**Table 8-2 Preliminary Construction Cost Estimates**

Segments 2B, 3A & 3B by Design Option	Total Estimated Construction Cost (nearest \$1 million)
A	\$1,679,000,000
B	\$1,386,000,000
C	\$1,025,000,000
D	\$991,000,000
E	\$254,000,000

Sources:

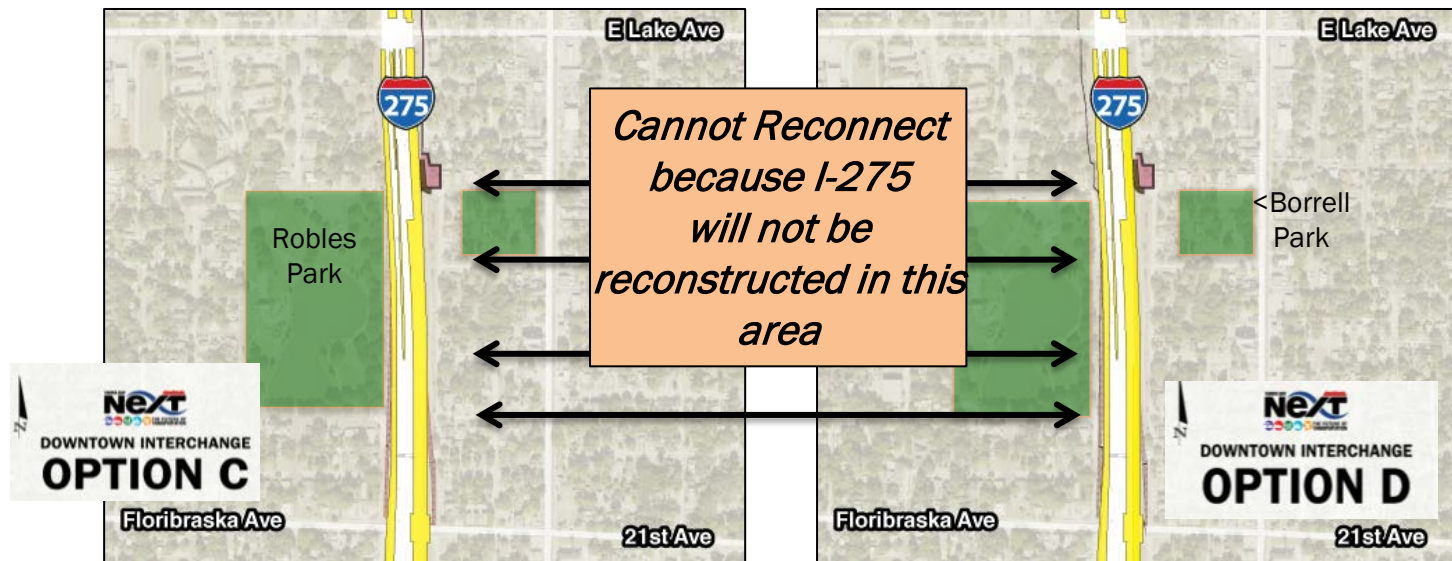
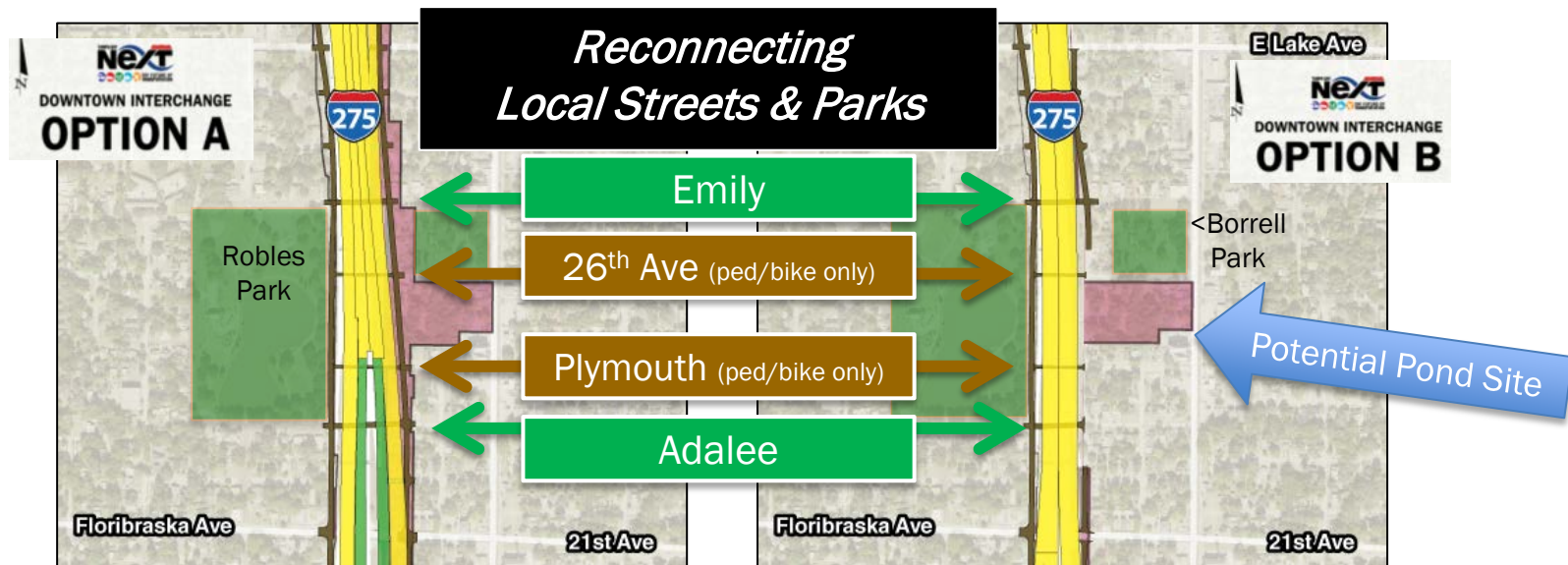
FDOT Long Range Estimate system estimates dated February 2018, April 2018, July 2019, and Feb-Apr 2020

**Neighborhood Connectivity** – **Table 8-3** shows the additional or removed roadway connections to, from and through access to I-275 and I-4 with each of the Design Options A-D. The through access at Robles Park (Adalee Street, Plymouth Street, and Emily Street), Central Avenue connection and the frontage roads on the west and east sides of I-275 would improve motorized vehicles, bicycles and pedestrians connections in these residential neighborhoods. Because of the additional through access under I-275 the connectivity between residential and nonresidential areas is expected to improve for motorized vehicles, bicycles and pedestrians as a result of this project. A graphical comparison of access in the Robles Park area for the four design options is included in **Figure 8-8**.

Table 8-3 Sociocultural Effects – Connectivity

Connection	Downtown Design Options				
	Option A	Option B	Option C	Option D	Option E
North Boulevard access to I-275 to/from Northbound off & Southbound on ramps	Yes	Yes	Yes	Yes	No
Morgan Street Express Lane Ramps to/from I-275	No	No	Yes	Yes	No
Central Avenue Connection Under I-275	Yes	Yes	No	No	No
Floribraska Avenue access to @ I-275 Northbound on/off ramps removed	Yes	Yes	Yes	Yes	No
Potential for adding local street access under I-275 at Robles Park (Adalee St., Plymouth St., 26 <sup>th</sup> Ave., Emily St.)	Yes	Yes	No	No	No
Frontage Roads on west and east side of I-275 from north of Columbus Dr. to Osborne Avenue	Yes to MLK	Yes to MLK	No	No	No
14 <sup>th</sup> Street/15 <sup>th</sup> Street access from I-4 and I-275 north	Yes	Yes	Yes	Yes	Yes
14 <sup>th</sup> /15 <sup>th</sup> Street access to I-275 north	Yes	Yes	No	No	No
I-4 express lane access to/from I-4/Selmon Connector	Yes	Yes	Yes	Yes	No

Source: Socio-Cultural Effects Evaluation Report, May 2020



**OPTION E  
SAME AS  
OPTIONS  
C & D**



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Reconnection of Local Streets  
North of Floribraska Avenue**

**Figure 8-8**



**Relocations** – The five DTI design options were compared with each other with respect to potential relocations of residences and businesses. A comparison is included in **Table 8-4**.

**Table 8-4 Comparison of Estimated Remaining Relocations for Different Design Options**

	Segment 2B					Segment 3A	Segment 3B		Total (Segments 2B, 3A, 3B)				
	Design Option A	Design Option B	Design Option C	Design Option D	Design Option E	All Design Options	Design Options A-D	Design Option E	Design Option A	Design Option B	Design Option C	Design Option D	Design Option E
Business Unit Relocations	52	47	8	17	0	0	0	0	52	47	8	17	0
Residential Unit Relocations	336	321	28	96	6	0	1	0	337	322	29	97	6
Owner Units	36	30	7	9	2	0	0	0	36	30	7	9	2
Potential Tenant Units*	300	291	21	87	4	0	1*	0	301	292	22	88	4
Total Units to be Relocated	388	368	36	113	6	0	1	0	389	369	37	114	7
Number of Remaining Parcels to be Acquired	209	182	56	67	7	0	8	0	217	190	64	75	7

Sources: FDOT ROW Estimates, Updated September 2019, Conceptual Stage Relocation Plan, April 2020

\*A county property appraiser's non-homestead status of a residential property may point to a tenant occupancy but is not in itself confirmation of tenant occupancy.

Confirmation of residential tenant occupancy for such properties is made during the Needs Assessment Survey stage. At that time identified residential landlords having met the definition of a business (as per business definition in CFR 49 Part 24 subpart 24.2(4)(i) ) will be eligible for business relocation benefits."

**Wetlands and Other Surface Waters** - Table 8-5 shows the potential impacts to wetlands and other surface waters associated with the No Further Action Alternative, 1996 TIS FEIS LTPA and the various design options for Segments 2B. The 1996 TIS FEIS identified 0.3 acre impact to Site 1 (Hillsborough River), 1.3 acre impact to Site 3 and 0.1 acre impact to Site 5 within TIS Segments 2B, 3A and 3B. The impacts to Site 1 in the 1996 TIS FEIS were evaluated as impacts to river bottom. For the purpose of this assessment, the impacts at Site 1 were evaluated based on the footprint over the Hillsborough River and not fill within the river bottom, since the number, size and location of piles is unknown at this time. The impacts for Design Options at Site 1 range from an increase of approximately 0.5 acre for Options A and B to a decrease of 0.2 acre in footprint for Options C and D to a decrease of 0.6 acres for Option E over the Hillsborough River. The Design Options are anticipated to have no impact to neither Site 3, an existing stormwater basin, nor Site 5, which were identified as part of the 1996 TIS FEIS. At the locations of Site 3 and Site 5, the proposed improvements are located within the median.

**Table 8-5 Potential Wetland and Surface Water Impact Summary**

Wetland /SW ID	No Further Action Alternative	1996 TIS FEIS Long-Term Preferred Alternative	2018 Express Lane Alternative				
			Design Option A	Design Option B	Design Option C	Design Option D	Design Option E
Site 1	0.0 acre	Approx. 1.4 acres	Approx. 1.6 acre	Approx. 1.6 acre	Approx. 1.0 acre	Approx. 1.0 acre	Approx. 0.6 acre
Site 3	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre
Site 5	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre	0.0 acre

Source: Natural Resource Evaluation, 2018

**Contamination Potential** - A comparison of involvement with potential contaminated sites as determined in the *Contamination Screening Evaluation Report*. For all Design Options, a similar number of potentially contaminated sites are present. In general, there are 11 sites ranked as high risk and 20 sites ranked as medium risk which would require further evaluation in the design phase. .

**Cultural Resources** - A survey of the presence of historic and archaeological resources is included in the *Cultural Resources Assessment Survey Update* and an evaluation of impacts is included in the *Section 106 Case Study Report*. **Table 8-6** shows the comparison of potential effects to cultural resources of various alternatives.

Table 8-6 Potential Effects to Cultural Resources

Cultural Resource Element		No Further Action Alternative	1996 TIS FEIS Long-Term Preferred Alternative	2018 Express Lane Alternative				
				Design Option A	Design Option B	Design Option C	Design Option D	Design Option E
Historic – Buildings within the Footprint (Potential Direct Effect)	Individual Properties	0	6	2	2	0	1	0
	Contributing Structures		1	28	28	14	20	5
Historic – Buildings adjacent to the Footprint (Potential Indirect Adverse Effect : Noise/Visual)	Individual Properties	0	Same as above	1	3	2	5	0
	Contributing Structures			45	47	29	42	Seg 2B: 17(n) 7(v) Seg 3A: 0 Seg 3B: 5
Archaeological Sites Impacted		0	0	0	0	0	0	0

Source: Cultural Resources Assessment Survey Update, Addendum and Section 106 Case Study Report

I = Individual Listed Property, C=Contributing Structure to District

(n) = potential noise effect, (v) = potential visual effect

## 8.6 Comparative Alternatives Evaluation and Evaluation Matrix

**Table 8-7** and **Table 8-8** shows a comparison various factors under consideration related to all alternatives. **Table 8-7** shows the evaluation of elements for Segment 2B and **Table 8-8** shows the evaluation for Segments 3A and 3B. This information was prepared to evaluate the alternatives and determine which would move forward for further consideration.



TIS Segment			2B - I-275 from Rome to North of MLK and I-4 from I-275 to East of 14th Street						
Alternative and Design Option			No Further Action	1996 TIS FEIS Long-Term Preferred (Non-Tolled)	2018 Express Lanes Alternative (Tolled)				
					A	B	C	D	E
Improves System Capacity	Delay Time (AM and PM vehicle-hours)	General Use Lanes	988.28	Not Measured	300.93	365.02	443.52	425.85	Not Measured
		Express Lanes	NA	Not Measured	25.15	7.54	15.10	10.79	Not Measured
	Average Travel Speed (AM and PM mph)	General Use Lanes	37.95	Not Measured	52.13	52.14	50.46	51.07	Not Measured
		Express Lanes	NA	Not Measured	53.07	56.80	54.91	53.83	Not Measured
Accommodates Transit Operation	Provides Express Bus/BRT Opportunities		No	Yes	Yes	Yes	Yes	Yes	TBD
	Maintains Transit Corridor		No	Yes	Yes	Yes	No	No	No
	Supports Connections to Existing and Planned Services		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Neighborhood Connections	Improves Existing Connections		No	Yes	Yes	Yes	Yes	Yes	Yes
	Provides New Connections		No	Yes	Yes	Yes	No	No	No
Cultural Resources	Historic	Historic Buildings within the Footprint (Potential Direct Effect)	0	6 Contributing Structures 1 Individual Property	Individual=2 Contributing = 28	Individual =2 Contributin g = 28	Individual=0 Contributing = 14	Individual=1 Contributing = 20	Individual = 0 Contributing = 4
		Historic Properties Adjacent to the Footprint (Potential Indirect Adverse Effect: Visual)	0		Individual=1 Contributing =45	Individual =3 Contributin g = 47	Individual=2 Contributing = 29	Individual=5 Contributing = 42	Individual = 2 Contributing < 29
	Archeological Sites	Sites Impacted	0	0	0	0	0	0	0
Parks and Recreational Areas	Resources Potentially Directly Impacted		0	1 park	2 parks	2 parks	2 parks	1 park	1 park (Julian B. Lane)
Community Resources Directly Impacted	Number		0	3	4	4	2	2	0
Natural Resources	Wetlands/ Seagrasses	Acres	0.0	0.3	1.0	1.0	1.6	1.6	0.6
	Floodplains	Potential for Encroachment	None	None	Minimal	Minimal	Minimal	Minimal	Minimal
	Surface Waters	Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Threatened & Endangered Species	Probability of Effect (Low/Med/High)	0	Low	Low	Low	Low	Low	Low
Physical Resources	Noise Sensitive Sites		0	461	210	202	216	236	1,458*
	Contamination Sites	Number of Sites Rated High or Medium Risk	0	29	11 High 20 Medium				11 High 20 Medium
R/W Impacts	Number of Parcel Impacted/Already Purchased/Remaining to Purchase		165/165/0	165/165/248	369/160/209	338/156/182	162/106/56	200/133/67	61/53/7
	Business Relocations		0	52	52	47	8	17	1
	Residential Relocations		0	196	336	321	28	96	6
Preliminary Estimated Capital Cost (millions)**	Design		\$0						
	Right-of-Way								
	Construction								
	Construction Engineering and Inspection								
	Total				\$1.73	\$1.46	\$1.19	\$1.13	TBD

SOURCE: FDOT 2019

\*The number of sites accounts for a wider area and covers all TIS Segments.

Rev 9/30/19



**Tampa Interstate Study SEIS**

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

**Preliminary Alternatives  
Evaluation Matrix – Segment 2B**

**Table 8-7**

TIS Segment			3A I-4 from East of 14th Street to 34th Street							3B I-4 from 34th Street to East of 50th Street		
Alternative and Design Option			No Further Action	1996 TIS FEIS Long-Term Preferred (Non-Tolled)	2018 Express Lanes Alternative (Tolled)					No Further Action	1996 TIS FEIS Long-Term Preferred (Non-Tolled)	2018 Express Lanes Alternative (Tolled)
					A	B	C	D	E			
Improves System Capacity	Delay Time (AM and PM vehicle-hours)	General Use Lanes	173.85	Not Measured	82.17	274.27	127.84	143.79	Not Measured	471.46	Not Measured	155.06-363.46
		Express Lanes	NA	Not Measured	7.65	4.16	7.62	3.98	Not Measured	NA	Not Measured	6.1-13.26
	Average Travel Speed (AM and PM mph)	General Use Lanes	33.46	Not Measured	50.57	39.37	43.77	41.54	Not Measured	29.49	Not Measured	40.53-44.45
		Express Lanes	NA	Not Measured	56.72	56.96	56.86	57.31	Not Measured	NA	Not Measured	56.35-58.14
Accommodates Transit Operation	Provides Express Bus/BRT Opportunities		Yes	Yes	Yes	Yes	Yes	Yes	No?	Yes	Yes	Yes
	Maintains Transit Corridor		Yes	Yes	Yes	Yes	Yes, except from 15th to 19th	Yes, except from 15th to 19th	No	Yes	Yes	Yes
	Supports Connections to Existing and Planned Services		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Neighborhood Connections	Improves Existing Connections		No	No	Yes	Yes	Yes	Yes	Yes	No	No	No
	Provides New Connections		No	No	No	No	No	No	No	No	No	No
Cultural Resources	Historic	Historic Buildings within the Footprint (Potential Direct Effect)	0	101 Contributing Structures 1 Individual Property	Individual =0 Contributing = 0	Individual =0 Contributing = 0	Individual =0 Contributing = 0	Individual =0 Contributing = 0	Individual =0 Contributing = 0	0	0	0
		Historic Properties Adjacent to the Footprint (Potential Indirect Adverse Effect: Visual)	0		Individual =0 Contributing = 0	Individual =0 Contributing = 0	Individual =0 Contributing = 13	Individual =0 Contributing = 13	Individual =0 Contributing = 13	0		0
	Archeo-logical Sites*	Sites Impacted	0	0	0	0	0	0	0	0	0	0
Parks and Recreational Areas	Resources Potentially Directly Impacted		0	0	0	0	0	0	0	0	0	0
Community Resources Directly Impacted	Number		0	0	0	0	0	0	0	0	0	0
Natural Resources	Wetlands/ Seagrasses	Acres	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	Floodplains	Potential for Encroachment	None	None	None	None	None	None	None	None	None	Minimal
	Surface Waters	Acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Threatened & Endangered Species	Probability of Effect (Low/Med/High )	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Physical Resources	Noise Sensitive Sites		0	138	66	66	59	58		0	134	16
	Contamination Sites	Number of Sites Rated High or Medium Risk	0	21	5 High 11 Medium				5 High 11 Medium	0	4	5 High 12 Medium
R/W Impacts	Number of Parcel Impacted/Already Purchased/Remaining to Purchase		270/270/0	270/270/0	270/270/0	270/270/0	270/270/0	270/270/0	270/270/0	108/108/0	108/108/0	116/108/8 ***
	Business Relocations		0	47	0	0	0	0	0	0	10	0
	Residential Relocations		0	321	0	0	0	0	0	0	37	1 ***
Preliminary Estimated Capital Cost (millions)	Design		\$0.00							\$0.00		
	Right-of-Way											
	Construction											
	Construction Engineering and Inspection											
	Total				Included in Segment 2B							**

SOURCE: FDOT 2019

Rev 9/30/19

\*\*\*for Design Options A-D, 0 for Design Option E



## Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

Preliminary Alternatives  
Evaluation Matrix –  
Segments 3A & 3B

Table 8-8

## 8.7 Recommended Locally Preferred Alternative and Next Steps

In May 2019 FDOT held Alternatives Public Workshops to receive input on the Westshore and Downtown Alternatives (tolled), including Design Options A, B, C and D (TIS Segments 2B and 3A). FDOT intended to identify a recommended LPA soon thereafter. Many factors, including comments and concerns related to the potential impacts to the Perry Harvey Sr. Park and comments to ROW impacts to downtown neighborhoods and the need to provide safety improvements in the Downtown Interchange area, led FDOT to develop new Design Option E.

FDOT identified the 2018 Express Lanes Alternative (Tolled) with Design Option E for TIS Segment 2B as the LPA for the TIS. The LPA selection process involved numerous considerations, which balanced engineering and environmental considerations as well as local preference gleaned through both the public involvement process and meetings with stakeholders and local officials.

This chapter explains the factors considered by FHWA and FDOT in selecting the Design Option E, in combination with the Westshore Interchange and Express Lanes from the HFB to Ashley Drive, as the LPA.

### 8.7.1 Basis for the Recommended LPA

Throughout the TIS SEIS process, the public and area stakeholders continually expressed overwhelming support for minimizing the necessary ROW to complete the TIS project, minimizing cultural and historical resource impacts, preserving neighborhoods, and enhancing safety and operations of the interstate. These priorities were reinforced in the results of the Hillsborough MPO's *2045 Tri-County Transportation Plan MetroQuest survey*, which the MPO conducted in November 2018 (see [http://www.planhillsborough.org/wp-content/uploads/2017/10/MetroQuest-Summary-Report\\_Nov-7-2018.pdf](http://www.planhillsborough.org/wp-content/uploads/2017/10/MetroQuest-Summary-Report_Nov-7-2018.pdf)).

While there is definitive public support for reconstruction of the I-275/SR 60 Interchange (TIS Segment 1A), there are many factors that FDOT considered in planning for improvements for the Downtown Interchange (I-275/I-4 in TIS Segment 2B). There was a desire to replace, where necessary, aging structures, which were reaching the end of their design life. Other considerations included the uncertainty of where the Brightline/Virgin Trains improvement would or could impact the LPA and where, or how, to shift the alignment in the Downtown Interchange to accommodate Brightline/Virgin Trains.

In TIS Segments 1A and 2A, the Westshore Area Interchange's design has generated weaving and merging issues, as well as drivers experiencing limited sight distances due to sharp curves. Many areas around the interchange experience congestion due to insufficient capacity along the corridor. The full reconstruction of the Westshore Area Interchange (I-275/SR 60), would include the addition of tolled express lanes and would accommodate future fixed-guideway transit in the median. The proposed express lane improvements would provide direct connections from I-275 to the Veterans Expressway, Independence Parkway, Courtney Campbell Causeway, TIA, Reo Street, St Pete-Clearwater International Airport (PIE), and Himes Avenue.

At a local level, the proposed improvements would provide a substantial benefit to the walk/bike network and traffic circulation in the Westshore Business District by reconnecting Reo Street, Occident Street, and Trask Street beneath the interstate. Reconnecting these streets would relieve traffic bottlenecks on Westshore Boulevard and improve access and connectivity. The proposed improvements would also include lighting improvements, other minor enhancements to existing underpasses, and enhance bike/pedestrian connectivity between underpasses.

The 4.5 mile I-275 corridor between the Westshore Area Interchange and the Downtown Interchange was reconstructed in 2016, and the median was widened to accommodate a transit corridor and future express lanes and access the Westshore Multimodal Center on the north side of I-275 near Cypress and Trask Streets. The improvements in this corridor would be constructed along with improvements to the Westshore Area Interchange. The Westshore Area Interchange is included in the FDOT *Strategic Intermodal Funding Strategy*



First Five-Year Plan (FY2019/2020 through FY 2023/2024). The concept plans for the LPA are located in **Appendix A**.

In TIS Segments 2B and 3A, the Downtown Interchange (I-275/I-4) is a known pressure point for congestion. I-275, I-4, and the Selmon Expressway serve as important connections to where people live, work, and play in the Tampa Bay region, providing access to jobs, education and cultural experiences. Drivers using the I-275/I-4 interchange experience congestion and high crash rates caused by existing bottlenecks along the high-volume corridors of I-4 and I-275. Backups occur along southbound I-275 as drivers stack along the corridor to exit to eastbound I-4 via the one-lane exit ramp. This causes congestion for drivers continuing southbound. Along westbound I-4, congestion occurs within the interchange as drivers exit via a one-lane ramp to northbound I-275, turn to southbound I-275 or exit to Downtown Tampa within a very short distance.

FDOT developed Design Option E, which is part of the LPA, to enhance traffic operations and safety in TIS Segments 2B and 3A. These improvements would address the existing bottlenecks and high crash rates experienced within the I-275/I-4 interchange and include the following movements, shown in **Figure 8-5**. Design Option E would include the beginning and the end of the proposed express lanes that are a continuation from the Westshore area extending to Ashley Drive and three improvements within the I-275/I-4 interchange. There would be no interstate access to North Boulevard. In addition, the LPA would remove, replace, and widen existing bridges within the Downtown Interchange of I-275 and I-4. Most of the bridges to be replaced were constructed in the 1960's and do not meet inventory and/or operating ratings, have low deck ratings and are functionally obsolete and/or fracture critical. All the existing bridges to be widened or to remain would be reviewed for rehabilitation measures to improve the superstructure and substructure rating. Some of 1960's bridges to be widened would have the bridge decks replaced with low deck ratings and/or full shoulders would be added where currently there is minimal to no shoulder width. The bridges that would remain would maintain the existing shoulder width.

In addition to Design Option E, the improvements noted in **Section 8.5.1** and **Section 8.5.3** are also included in the LPA.

The Recommended LPA will:

- Span less park property (0.017-acre) than the four previous options and avoids any physical taking to Julian B Lane Park. The span will not impact or substantially impair any activities, features, or attributes of the Section 4(f) resource;
- Avoid impacts to Perry Harvey Sr. Park;
- Avoid ROW impacts from the following historic resources: Faith Temple Missionary Baptist Church, Otto Stalling House, Sports Balloon, Inc. (Café Hey), and contributing structures in the Tampa Heights National Register Historic District, and have the least harm to contributing structures in the Ybor National Historic Landmark (NHL) District;
- Not cause or exacerbate a violation of the currently applicable National Ambient Air Quality Standards (NAAQS). Furthermore, it is anticipated that the project will have no measurable impact on regional mobile source air toxics (MSAT) levels;
- Require fewer relocations;
- Accommodate transit in TIS Segments 1A and 2A;
- Provide additional capacity to improve current and future transportation network deficiencies in TIS Segments 1A and 2A;
- Provide both operational and safety improvements in TIS Segments 1A, 2A, and 2B;

- Enhance access to the Westshore Business District and TIA;
- Maintain existing access into Downtown Tampa; and
- Connect the express lane system between the HFB and the Veterans Expressway.

### 8.7.2 Effectiveness at Meeting the Purpose and Need

As explained in **Section 3**, the purpose for the proposed action is “...to upgrade the safety and efficiency of the existing I-275 and I-4 corridors that service the Tampa urban area while maintaining access to the surrounding community.” The purpose is also to provide congestion relief that improves accessibility, mobility, travel times, and system linkages and multimodal connections, while supporting regional economic development goals and enhancing quality of life for Tampa Bay residents and visitors.

FDOT developed goals for the project, which were used to evaluate how well the Recommended LPA will meet the TIS SEIS Purpose and Need. The following bullets reflect the goals of the TIS SEIS Purpose and Need and the italicized text reflects the ability of the Recommended LPA to meet that goal.

➤ **Meet regional goals and objectives and demonstrate consistency with long range plans**

*The Recommended LPA meets this goal. Hillsborough County MPO’s “Plan Hillsborough 2045 Update Long Range Transportation Plan” (2019) includes “express toll lanes” on I-275. Multiple statewide and regional transportation plans and studies by FDOT, Pinellas and Hillsborough County MPOs, Polk County Transportation Planning Organization (TPO), and TBARTA have identified the need for interstate system improvements, including dynamically-priced managed lanes.*

➤ **Provide a vital link to the regional transportation network**

*The tolled lanes in TIS Segments 1A and 2A will provide congestion relief and improved accessibility. The non-tolled segments would provide much needed operational and safety improvements that would benefit regional travel through the Downtown Interchange in TIS Segment 2B. Additionally, it would improve access to regional facilities, such as TIA, Port Tampa Bay, Northwest Expressway, Downtown Tampa, and PIE.*

➤ **Provide a multimodal transportation corridor that complements the surrounding community from a transportation, economic, and social aspect**

*The Recommended LPA provides a transit envelope along I-275 from the HFB to North Boulevard and maintains the existing transit envelope along I-4 east of 15<sup>th</sup> Street. Through the Downtown Interchange, express buses and local transit will have to run in the general purpose lanes with all other traffic. In the tolled express lane system, the buses would be exempt from paying the toll and provide users a more reliable travel time (FDOT, 2015). FDOT is coordinating with local transit agencies to further accommodate proposed transit improvements.*

➤ **Meet future travel demand generated by population and employment growth**

*The Recommended LPA will provide much needed long-term capacity improvements to the Westshore Business District. Improvements to the Downtown Interchange will better accommodate travel demand through more efficient operational improvements and more reliable trips through safety improvements, which will reduce crashes.*

➤ **Improve regional and interstate travel and mobility through the TIS SEIS study area by reducing travel times and duration of congestion**

*The predictive crash analysis indicates that the LPA would have fewer crashes in 2045 than the No Further Action Alternative. The Tolled Express Lanes in TIS Segments 1A and 2A would help to manage congestion that otherwise would migrate to general purpose lanes and cause the entire system to be at gridlock during*

the peak periods. The general purpose system in TIS Segments 2B, 3A, and 3B would operate the same as existing conditions or slightly better.

- **Provide a safer, more efficient transportation system for the increased traffic volumes in the existing transportation corridor**

*The predictive crash analysis indicates that the LPA will have fewer crashes in 2045 compared to the No Further Action Alternative. Improvements in TIS Segments 1A and 2A will provide for a more efficient transportation system and accommodate future increased travel demand. The proposed improvements of the Recommended LPA will eliminate most of the weaving in TIS Segment 2B.*

- **Provide efficient and convenient access to economic activity centers in the TIS SEIS study area**

*The Recommended LPA will provide direct access to the Westshore Business District in TIS Segments 1A and 2A and maintain direct access to Downtown Tampa.*

- **Allow for improved access to regional facilities and efficiently accommodate regional and interstate movement of people and goods**

*The Recommended LPA will provide improved access to the TIA, Westshore Multimodal Center, PIE, and Port Tampa Bay.*

### 8.7.3 Comparative Evaluation Matrix of No Further Action and the LPA

Following selection of the LPA, FDOT prepared an evaluation matrix for display at the public hearing in February 2020. This evaluation matrix, shown in **Figure 8-9**, provides a comparison of the No Further Action Alternative and the LPA.



TIS Segment	TIS Segment 2B		TIS Segment 3A		TIS Segment 3B	
Alternative	No Further Action	Locally Preferred Alternative	No Further Action	Locally Preferred Alternative	No Further Action	Locally Preferred Alternative
<b>Accommodates Transit Operation</b>						
Provides Express Bus/BRT Opportunities	No	TBD	Yes	No	Yes	Yes
Maintains Transit Corridor	No	No	Yes	No	Yes	Yes
Supports Connections to Existing and Planned Services	Yes	Yes	Yes	Yes	Yes	Yes
<b>Neighborhood Connections</b>						
Improves Existing Connections	No	Yes	No	Yes	No	No
Provides New Connections	No	No	No	No	No	No
<b>Cultural Resources</b>						
Historic Buildings within the Footprint (Potential Direct Effect)	0	Individual Property: 0 Contributing Structures: 6	0	0	0	0
Historic Properties Adjacent to the Footprint (Potential Indirect Adverse Visual Effect)	0	0	0	0	0	0
Archaeological Sites (Number Impacted)	0	0	0	0	0	0
<b>Parks and Recreational Areas</b>						
Resources Potentially Directly Impacted	0	0	0	0	0	0
<b>Community Resources Directly Impacted</b>						
Number	0	0	0	0	0	0
<b>Natural Resources</b>						
Wetlands/Seagrasses (acres)	0	0.6	0	0	0	0
Floodplains (Potential for Encroachment)	None	Minimal	None	None	None	Minimal
Surface Waters (acres)	0	0	0	0	0	0
Threatened & Endangered Species (Probability of Effect - Low/Medium/High)	0	Low	Low	Low	Low	Low
<b>Physical Resources</b>						
Number of Impacted Receptors and Properties	0	279	0	0	0	0
Contamination Sites (Number Rated High or Medium Risk)	0	11 High 20 Medium	0	5 High 11 Medium	0	5 High 1 Medium
<b>Right-of-Way Impacts</b>						
Number of Parcels Impacted/Already Purchased/Remaining to Purchase	165/165/0	61/53/7	270/270/0	270/270/0	108/108/0	108/108/0
Business Relocations	0	1	0	0	0	0
Residential Relocations	0	6	0	0	0	0

Source: Public Hearing, February 2020.



#### Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

### Alternatives Evaluation Matrix Shown at Public Hearing

Figure 8-9

## 9 PUBLIC INVOLVEMENT/PROJECT COORDINATION

Below summarizes the public involvement and coordination for this project. More information and details can be found in the *Comments and Coordination Report*.

### 9.1 Open Houses/Library Tours and Charrettes

Beginning in 2016, 16 Tampa Bay Express Open Houses and Library Tours were held to inform the public about the program which was to modernize Tampa Bay's transportation infrastructure. There were also eight charrettes held with neighborhood representatives and the general public in 2016 to help with informing the nearby communities. These charrettes were conducted by the Florida Center for Community Design and Research at the University of South Florida (USF). The purpose of these charrettes was to inform the public of the transportation issues that could be solved by improving safety and mobility through innovation, collaboration, and community engagement. The dates of these events are included in the *Comments and Coordination Report*.

In May 2017, the FDOT District Seven launched TBN and committed to a new approach to transportation planning. The TBN program encouraged communication in a two-way dialogue, listening to the community, and collaborating with partner agencies as part of the planning process.

### 9.2 Small Group Meetings/Community Working Groups

FDOT participated in a series of small group meetings with neighborhood groups located near the project area. The small group meetings were held with neighborhood associations, business groups, public interest groups, and other concerned people who were interested in the proposed transportation improvements. These meetings were organized by the interested party or group. The content included a PowerPoint presentation and question/answer period. Some included display boards and round table discussions. Comments were documented and are part of the official study record. Since 2017, 31 Small Group Meetings were held within the TIS SEIS project limits. Program wide there were an additional 53 Small Group meetings held with neighborhoods and business organizations outside of the project limits. These presentations included information about the TIS SEIS. The event dates and summaries of these meetings are included in the *Comments and Coordination Report*.

#### Downtown Tampa Area

- Concern regarding construction and rights-of-way impacts to properties;
- Access, Floribaska Avenue Closure
- Concern of Noise
- Access 14th and 15th Street
- Transit opportunities

A matrix of comments received at the small group meetings is included in the *Comments and Coordination Report* (FDOT, 2019, j) available on the project website: [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com).

Sixteen Community Working Group meetings have been held since 2017. These Community Working Group meetings were held to help inform the communities about the PD&E Study process which would help better determine a future alternative for the downtown Tampa interstate system. Many of these meetings included interactive and collaborative exchange of information sessions. The *Comments and Coordination Report* lists the dates and civic groups involved as well as the materials presented and input received.

### 9.3 Metropolitan Planning Organization (MPO)/Local Governments

As part of the continuous engagement, ongoing updates were provided on a regular basis to the Hillsborough MPO and the City of Tampa Community Redevelopment Agency (CRA). Regular updates were provided to the board and committees of each agencies.

In Hillsborough County, FDOT provided ongoing TB Next Program and TIS SEIS Project presentations and updates to the Hillsborough MPO Board to various agency committees including the Citizens Advisory Committee, Technical Advisory Committee, Livable Roadways Committee and Bicycle and Pedestrian Committee. In addition, FDOT staff were present at each monthly board and committee meeting to answer questions that may arise. In addition, FDOT staff hold monthly calls with MPO staff and TIS SEIS Project updates are often included in the discussion.

In June 2016, the Hillsborough County Metropolitan Organization voted to continue the proposed TBX project by keeping it in its Transportation Improvement Program. The vote came after an eight-hour public hearing, where an estimated 500 people attended at the county center chambers and another floor to voice comment about the project.

In late 2016, FDOT Secretary Jim Boxold publicly announced that it was time to “hit the reset button” on the Tampa Bay Express Project. He stated “we have had some challenges with getting that project to a point where the local communities that are affected are pleased with where it is, and so we have the benefit of sometime before we’re ready to move forward with that project.” He further stated that “we probably have 2-3 years before that project is what we call ‘production ready,’ ready to turn dirt, and so we’re going to bring in additional staff or different staff to manage that project, and work more intensively with the local communities.” At that time, FDOT was expected to take two years to research and respond to community feedback and have a revised plan ready by the end of 2019.

FDOT also participated in three special open house briefings hosted by the Hillsborough MPO that focused on the TIS SEIS Project. These meetings were publicly noticed, and attendees included the public and members of MPO Board and committees. The focus areas for these special briefing meetings are listed below:

- # 1 Social and Community Impacts
- # 2 Natural Environment
- # 3 Traffic and Safety

FDOT coordinated with the City of Tampa throughout the study. The City and various departments provided feedback on build alternatives that were under evaluation. FDOT and the City of Tampa staff have been coordinating throughout the study, especially in regard to the build alternatives and potential connections to the local street network. In addition to 10 quarterly meetings with a cross section of City departments, including transportation, smart mobility, planning, CRA Management, and parks and recreation, FDOT has also engaged the transportation, CRA, and parks and recreation staff in nearly 20 technical meetings throughout the study.

Related to TIS Segments 2B, 3A and 3B, FDOT is working with the City on how to improve access and traffic flow on the northwest side of Downtown Tampa at Ashley Drive, Tampa Street/Florida Avenue, and Scott Street and better align with the City’s development plans for the area. In addition, FDOT is working with the City on the 14th/15th Street access to Ybor City/East Tampa to determine potential traffic calming, speed control, and bicycle/pedestrian amenities improve safety along 14th/15th Streets and Nuccio Parkway. In Downtown Tampa, Ybor, and East Tampa, although FDOT is not reconstructing the interstate, there are still opportunities to enhance existing connections such as the area north of Julian B. Lane Park, downtown Tampa viaduct, and 14th/15th Streets. In addition, FDOT is looking to expand trail connectivity throughout the study area, including minor enhancements to the Tampa Heights Greenway in Tampa



Heights and the extension of the Green Spine through Historic Ybor, VM Ybor, and East Tampa.

The City of Tampa Community Redevelopment Area Board requested that FDOT provide quarterly updates on the TIS SEIS project. FDOT provided seven updates on the TIS SEIS Project to the City of Tampa CRA Board and 33 Project updates to individual CRAs and CRA committees including the East Tampa Revitalization Partnership, West Tampa CRA, Ybor City Development Corporation, Channel District CRA, and Downtown CRA.

## 9.4 Project Website

The Tampa Interstate Study project website, [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com), was created early in the TIS SEIS study. The website provides study information and is used by the public to access project maps, reports and other documents. The public can also submit comments and questions using an online submittal form. The website also includes the FDOT District 7 phone number (813) 975-6000 that members of the public can use to contact the study team.

In addition, a website was developed for the TB Next program, [www.tampabaynext.com](http://www.tampabaynext.com), which includes information about the TIS SEIS Study and links to the project documents. The public can submit comments and questions or request a meeting or presentation using the online form. A specific email address ([tampabaynext@dot.state.fl.us](mailto:tampabaynext@dot.state.fl.us)) and phone number ((813) 975-NEXT (6398)) were created so members of the public can contact the program team.

## 9.5 Citizens Transportation Academy and Community Events

A Citizens Transportation Academy free webinar series was held in September thru November 2017 to help educate the public about how transportation is planned and funded in their community. This webinar series was a direct response to the questions and comments heard at the Community Working Groups and public outreach events. Six webinars were conducted and information from these is included on the website [www.tampabaynext.com](http://www.tampabaynext.com) at <http://www.tampabaynext.com/citizenstransportationacademy/>.

To further communicate with stakeholders, the FDOT routinely attended and staffed community outreach booths at neighborhood, city-wide, and regional special events. The intent was to share study information and information on adjacent projects with members of the public that may not be able to participate public meetings. FDOT picked a diverse cross section of special events to allow for greater engagement with the broader community. FDOT participated in 52 outreach events.

## 9.6 Community Engagements Presentations and Small Group Meetings

Several Community Engagements presentations were held to help inform the communities and groups about the SEIS process for the downtown including 83 community events, 20 community working groups/open houses and over 76 other group presentations. These events are listed in the *Comments and Coordination Report*.

FDOT participated in several rounds of small group meetings, with neighborhood associations, business groups, public interest groups, and other concerned people who were interested in the proposed transportation improvements. These meetings were organized by the interested party or group and FDOT was invited to present. The content included a PowerPoint presentation and question/answer period. Some included display boards and round table discussions. Visualizations were used in small group meetings following the May 2019 workshop to illustrate build alternatives with 3-D graphics and fly through video visualizations. Comments were documented and are part of the official study record. Since 2017, 45 small group meetings were held.

## 9.7 Coordination with Minority, Low-Income, and Limited English Proficient Populations

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, defines environmental justice as the fair treatment and meaningful involvement of all people – regardless of race, ethnicity, income, or education level – in transportation decision-making. Environmental justice programs promote the protection of human health and the environment, empowerment via public participation, and the dissemination of relevant information to inform and educate affected communities. Environmental justice outreach activities for this Project were done in accordance with Executive Order 12898; United States Department of Transportation (USDOT) Updated Final Order on Environmental Justice, 5610.2(a) (USDOT. 2012); and FHWA EJ Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (FHWA. 2012).

FDOT has had a project office established for the community to stop in and ask questions or provide project feedback at different locations in the communities in the TIS SEIS study area. Prior to the issuance of the NOI, a project office was located at 2105 North Nebraska Avenue on weekdays from 10 a.m. to 6 p.m. and on weekends at the Robert West Saunders Sr., Public Library located at 1505 North Nebraska Avenue. After the NOI was issued, FDOT opened a new project office at the Hillsborough County's Entrepreneur Collaborative Center in Ybor City. Project staff were present on site each Wednesday from 8 a.m. to 1 p.m. from November 2017 through early March 2020. Community members could meet with staff to address concerns, ask questions about the project or provide feedback. The strategies FDOT used to build and sustain meaningful participation for all stakeholders include the following to achieve the goals of the Executive Order as it applies to the Project. A list of outreach activities targeted to EJ communities including the locations of the small group meetings that FDOT held can be found in *Comments and Coordination Report*.

- Coordinated with area organizations that represent the interests of environmental justice populations of concern;
- Distributed project information via minority publications, faith organizations, schools, social and community organizations;
- Translated materials and provided Spanish speakers at workshops and Community Working Groups to ensure suitable communication;
- Ensured that meeting venues were accessible to public transit and ADA-compliant;
- Published multiple advertisements in minority-owned newspapers to invite persons to attend the community working groups, public workshops, public hearing, and other FDOT meetings;
- Provided accessible formats to ensure appropriate communication media for the disabled and those with limited access to electronic media;
- Hosted Community Working Groups and Small Group Meetings in minority communities;
- Participated in community outreach events in minority communities;
- Participated in community leader led Listening and Learning Tours in minority communities;
- Conducted safety checks near FDOT-owned structures in Historic Ybor, VM Ybor, and Tampa Heights;
- Coordinated with Collective Empowerment Group of Tampa Bay, Tampa Coalition of Clergy, Pastors on Patrol;
- Conducted neighborhood walk-throughs and ride-alongs with local residents to better understand residents' concerns in Seminole Heights, Tampa Heights, Historic Ybor, West Tampa, North Bon Air, and Downtown Tampa.

- Conducted door knocking campaign in VM Ybor and Historic Ybor to identify residents' and businesses' concerns regarding the proposed improvements along 14th and 15th Streets.
- Worked with Tampa Housing Authority to inform residents of Encore development (Downtown Tampa) about potential impacts of the proposed improvements.
- Coordinated with Collective Empowerment Group of Tampa Bay, Tampa Coalition of Clergy, and Pastors on Patrol.
- Collaborated with local community representatives to distribute neighborhood flyers for upcoming meetings and events.
- Established a project office in Ybor City where individuals interested in the project can visit to receive information, ask questions or provide comments; and
- Provided quarterly updates to the City of Tampa CRA Board of Directors and ongoing updates to individual CRA Community Advisory Committees.

## 9.8 Public Workshops

An initial series of TIS SEIS public workshops took place in October 2017 and May 2019. The workshops also included information about the Design Change Reevaluation for improvements to SR 60/Memorial Highway from north of Cypress Street to Memorial Highway, a portion of the Northwest Hillsborough Expressway (NWE) now known as the Veterans Expressway. The meetings were held to involve the public in the preparation of the SEIS for the TIS, and the Design Change Reevaluation for the NWE.

### 9.8.1 October 2017 Public Workshop and Historic Resources Meeting

In October 2017, two workshops were held on two separate dates at two different locations in the TIS SEIS study area to maximize public participation. The materials presented at each meeting were identical. The purpose of these meetings was to provide information to residents, local public officials, and interested persons and organizations relative to the study history, SEIS process, design concepts and provide information about the significant public outreach and engagement and how to be involved in the process. A Spanish translator was present at these meetings to accommodate the needs of the local Spanish-speaking population.

A separate Historic Resources Meeting was held in conjunction with the workshops at the same locations in a separate room. The purpose of this meeting was to provide information to residents, local public officials, and interested persons and organizations relative to the process and schedule for identifying and evaluating historic resources, determining significant historic properties, and eventually evaluating potential impacts to significant historic properties.

Some 232 individuals attended the October 2017 workshop meetings, in total, and 81 public written comments were submitted during the meeting or following. Both meetings were held in an informal open house format. There was no formal presentation. During the meeting, representatives of the FDOT were available to discuss the process, answer questions, and receive comments specific to these studies. A workshop scrapbook is included in the project files and is available on the project website: [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com).

The most common subjects of these comments were:

- Support from the business community and commuters for capacity improvements along the interstate and new local street connections at Trask, Occident and Reo Streets in the Westshore area;
- Limited opposition to the express lanes concept;
- Concern regarding construction and rights-of-way impacts to properties;



- Strong support for including mass transit options with an emphasis on rail, although questions remain about the feasibility of the transit envelope concept and practicality of regional rail;
- Support for traffic management opportunities to ease congestion;
- Preserve communities.

### 9.8.2 May 2019 Alternatives Public Workshop

A second series of public workshop meetings were held in May 2019. Two workshop meetings were held on two separate dates at two different locations in the TIS SEIS study area to maximize public participation. The materials presented at each meeting were identical. The purpose of these meetings was for the study team to present the status of the TIS SEIS to the public and to give members of the public an opportunity to ask questions, discuss the study, and to provide comments to the study team regarding the location, conceptual design and social, environmental and economic effects of the proposed improvements. In addition, FDOT presented 3D fly-through videos and before-after photo renderings for the build alternatives. A Spanish translator was present at these workshop meetings to accommodate the needs of the local Spanish-speaking population. A workshop scrapbook is located in the project files and is available on the project website at [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com).

Approximately 213 individuals attended the May 2019 meetings and 79 comments were received during or following these meetings. The main subjects of these comments were:

- Opposition to any additional road construction, with many supporting the “no build” option
- Support for increasing mass transit options
- Continuing concerns about how construction and right-of-way needs will impact properties
- There was moderate interest in additional sound and visual barriers

Comments received at the TIS SEIS workshops were documented and provided to the study team. Workshops were noticed per the FDOT PD&E Manual (FDOT, 2019, c) requirements. Documents displayed at the public workshops were posted on the TIS SEIS Project website at [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com). More detailed descriptions of all the comments received from both the 2017 and 2019 workshop meetings can be found in *Comments and Coordination Report* located on the TIS SEIS Project website.

## 9.9 Public Hearing

FDOT hosted a public hearing in two sessions for the TIS SEIS on two separate dates at two different locations in the TIS SEIS study area to maximize public participation. The public hearing provided information on the LPA for the Westshore Interchange (I-275/SR 60) and Downtown Tampa Interchange (I-275/I-4) and areas in between. The materials presented at each session were identical. The purpose of the public hearing was to provide information to residents, local public officials, and interested persons and organizations relative to the Draft SEIS document including the study history, SEIS process, design concepts and the Locally Preferred Alternative.

In addition, FDOT presented 3D fly-through videos that presented the Recommended LPA as well as and before-after photo renderings. The inclusion of these visualizations was in response to community feedback asking for better 3-D renderings and graphics that illustrated the Recommended LPA. The before-after photo renderings included key areas along the study area and showed how the viewpoint would vary between the existing and the build alternatives. A Spanish translator was present to accommodate the needs of the Spanish-speaking population.

Some 143 individuals attended the public hearing, in total, and 117 people submitted comments during the public hearing comment period. Both sessions were held in two parts with an informal open house format for the first hour followed by a formal presentation, during which oral comments were received. A court reporter was also available to receive oral comments. During the hearing, representatives of the FDOT were available to discuss the process, answer questions, and receive comments specific to the TIS SEIS. Public hearing scrapbook is located in the project files and is available on the project website: [www.tampainterstatestudy.com](http://www.tampainterstatestudy.com). The public comments and FDOT responses to the comments are provided in Appendix G of the *TIS SEIS Comments and Coordination Report* (FDOT, 2020, d). The official public hearing transcript is provided in the project files.

TIS SEIS Public Hearing Sessions	
February 25, 2020 Hillsborough Community College Dale Mabry Campus – Student Services Building 4001 W Tampa Bay Boulevard, Tampa, FL 33614 5:00 p.m. – 7:30 p.m. 78 attendees 6 written comments 4 oral comments	February 27, 2020 Port Tampa Bay Cruise Terminal #6 1331 McKay Street Tampa, FL 33602 5:00 p.m. – 7:30 p.m. 65 attendees 5 written comments 18 oral comments
* Additional 125 comments were received via mail or emailed to the department	

Major topics addressed by the comments received included the following:

- General support over the proposed express lanes and interchange improvements
- Recommendations that additional transit should be included as part of the proposed transportation improvements or provided in place of the proposed project with particular support expressed for future rail transit
- Requests for clarification about the engineering design (horizontal or vertical alignment)
- Concern over the proposed tolling of the express lanes
- Concerns over increases in traffic congestion on the interstate
- Site-specific concerns about potential construction-related congestion on local streets
- Specific concerns about potential noise impacts at individual properties
- Concerns about potential adverse environmental impacts and the effects on property values
- Concerns over the potential effects of stormwater runoff on the Hillsborough River
- Changes in access at the 14th/15th Streets and 21st/22nd Streets exits

Concerns about safety on the interstate as well as on local roads particularly for pedestrians and bicyclists. All comments received from the public can be found in the *Comments and Coordination Report, Appendix G*.

## 10 DESIGN DETAILS OF PREFERRED ALTERNATIVE

FDOT presented the Recommended LPA at the public hearing that FDOT held on February 25 and 27, 2020. As a result of coordination with the City of Tampa and public comments on the TIS Draft SEIS, FDOT made some refinements to the Recommended LPA to mitigate potential safety issues, which resulted in the Preferred Alternative. The City of Tampa requested FDOT reconsider the existing and proposed interchange connections of I-275 to Ashley Drive and Tampa Street, just east of the Hillsborough River. The City of Tampa has significant residential development occurring in the northwest Downtown area, which will result in an increase in pedestrians and bicyclists in the area. To better address the residential growth and facilitate the safe movement of pedestrians and bicyclists the City of Tampa proposes to enhance the street grid in this area. The City of Tampa also specifically would like to remove the southbound free-flow style ramp connections to Tampa Street as this higher speed geometry is not conducive to safe pedestrian crossings. **Section 10.1** outlines the refinements.

The FDOT determined that the No Further Action Alternative did not meet the project need. The LPA, as modified by the conceptual refinements noted below, was identified as the Preferred Alternative. It is described in detail in **Section 1.2** of this report. Below are additional design details for use in the design phase of this project.

### 10.1 Refinements following the Public Hearing

The specific refinements made to the LPA following the public hearing are presented below and illustrated in the Concept Plans for the Preferred Alternative in **Appendix A**.

#### **Reo Street Widening (located in Segment 1A)**

Reo Street will be widened from Gray Street to Cypress Street to accommodate the addition of a second southbound lane. The proposed typical section includes two southbound lanes, a two-way left turn lane, and a single northbound lane. The second southbound lane will provide traffic capacity to the adjacent commercial properties, the new southbound I-275 entrance ramp and thru-connection to W. Kennedy Boulevard. Additionally, a shared use path is proposed along the west side of Reo Street providing connectivity from the proposed shared-use path across the HFB to Cypress Point Park. The roadway widening and shared-use path creates impacts to several commercial properties, including some parking impacts. However, the widening does not impact Cypress Point Park. The City of Tampa will extend the shared-use path through the park. Refer to the *PER* for Segments 1A and 2A for further details.

#### **Lemon Street Re-alignment (located in Segment 1A)**

The proposed concept design for the Recommended LPA has southbound I-275 on bridge structure over Lemon Street between Occident Street and West Shore Boulevard. FDOT conducted a hydroplaning analysis on I-275 in this area and determined that traffic within the express lanes would be prone to hydroplaning due to all General Purpose and express lanes sloping toward the median. In order to mitigate this safety concern, Lemon Street will be shifted to the north side of I-275 so that I-275 between Occident Street and West Shore Boulevard can be constructed on roadway embankment and retaining wall. This allows for longitudinal trench drain to be positioned within the buffer between the General Purpose lanes and the Express Lanes, thereby capturing the General Purpose roadway run-off before it enters the express lanes. These changes mitigate the hydroplaning issue. Refer to the *PER* for Segments 1A and 2A for further details.

#### **Downtown Tampa Connections (located in Segment 2B)**

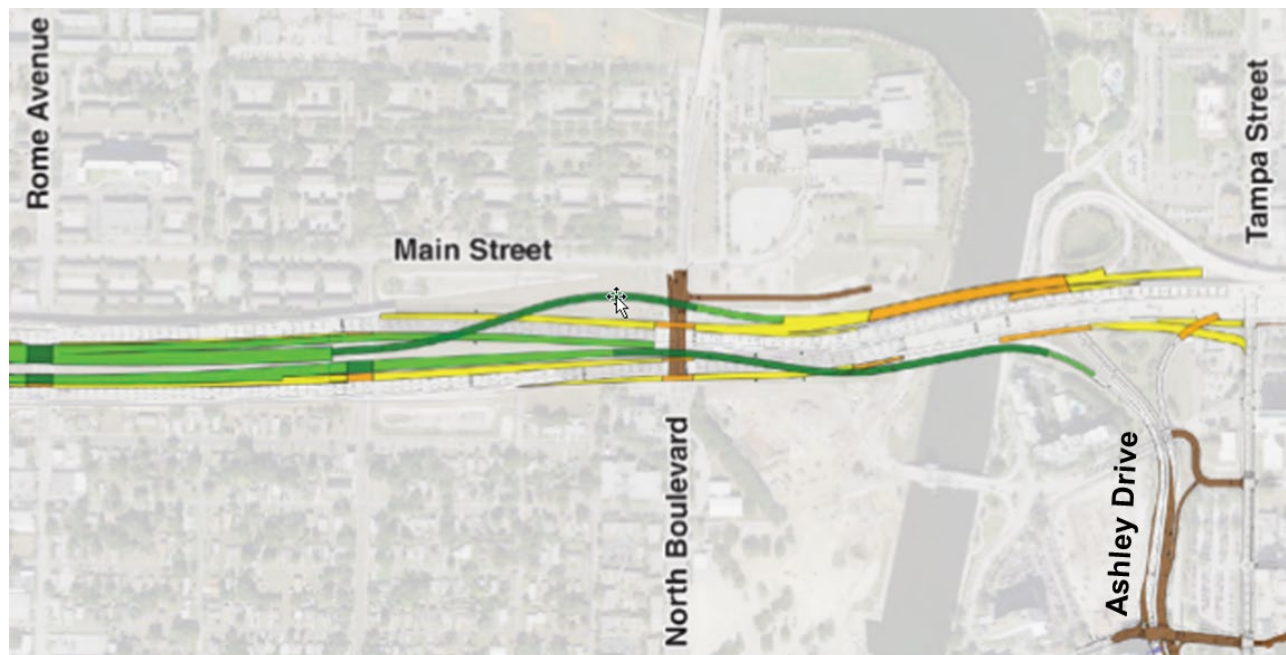
To achieve the City of Tampa's mission of enhancing the street grid and improving the safe movement of pedestrians and bicycles in TIS Segments 2B and 3A, the northbound I-275 General Purpose traffic will exit exclusively to Tampa Street, without direct connection to Ashley Drive. This will require the ramp bridge to be



widened to two lanes with the ramp terminus at Tampa Street to provide two eastbound lanes to Scott Street and triple right turns to Tampa Street. To facilitate the northbound General Purpose ramp improvements, the ramp bridge from Ashley Drive to northbound I-275 will require reconstruction. The northbound Express Lane ramp connection to Ashley Drive will tie into the existing ramp pavement, eliminating the need to widen the ramp bridge over Laurel Street. The Preferred Alternative will also result in the following local street improvements:

- A new intersection of Ashley Drive at Fortune Street will be created, and Fortune Street will be connected to the Harrison Street/Tampa Street intersection, completing this street grid connection.
- The northbound Ashley Drive bridge/grade separation over the southbound ramp will be removed.
- Through a reversing S-curve, Laurel Street will be connected to Fortune Street, completed this street grid connection.
- A northbound Ashley Drive connection to Laurel/Fortune Street S-curve will be made.
- Minor widening of Scott Street is anticipated.

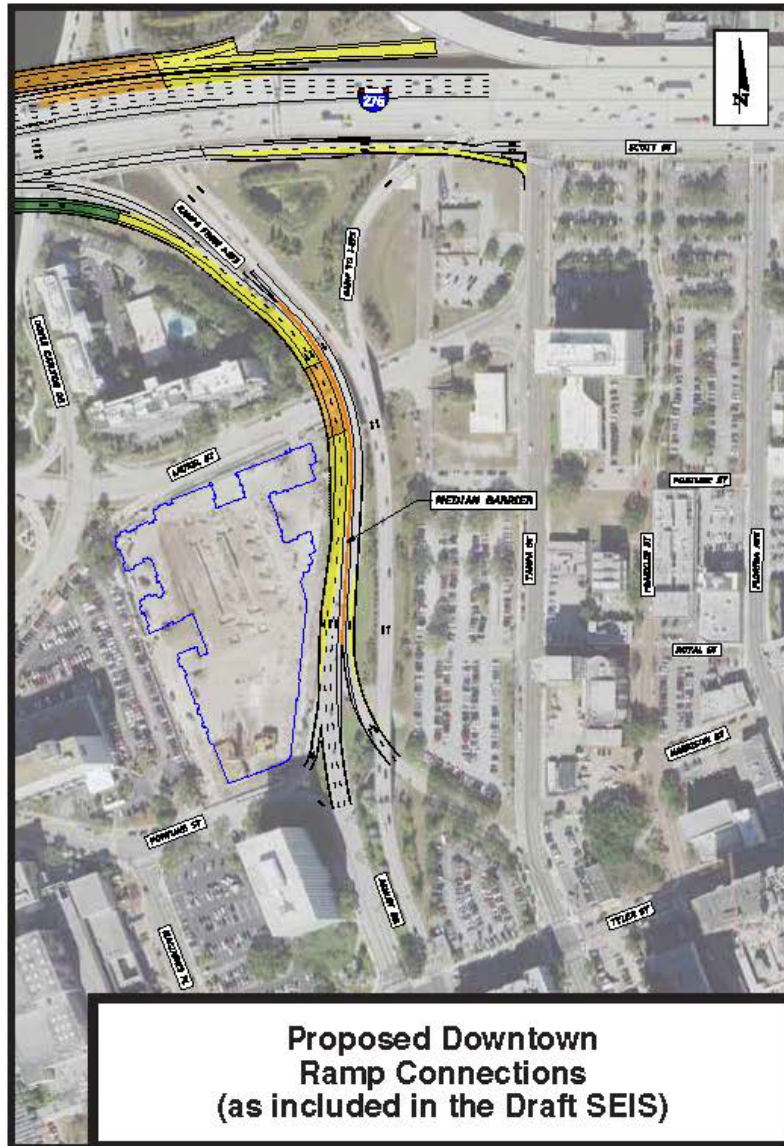
As a result of the refinements noted above, adjustments were made to the connections in the portion of I-275 between Rome Avenue and Ashley Drive/Tampa Street. The modified connection is shown in **Figure 10-1**. The Downtown Tampa Connections related to Ashley Drive/Tampa Street conceptual design refinements (before and after the refinement) are illustrated in **Figure 10-2**.



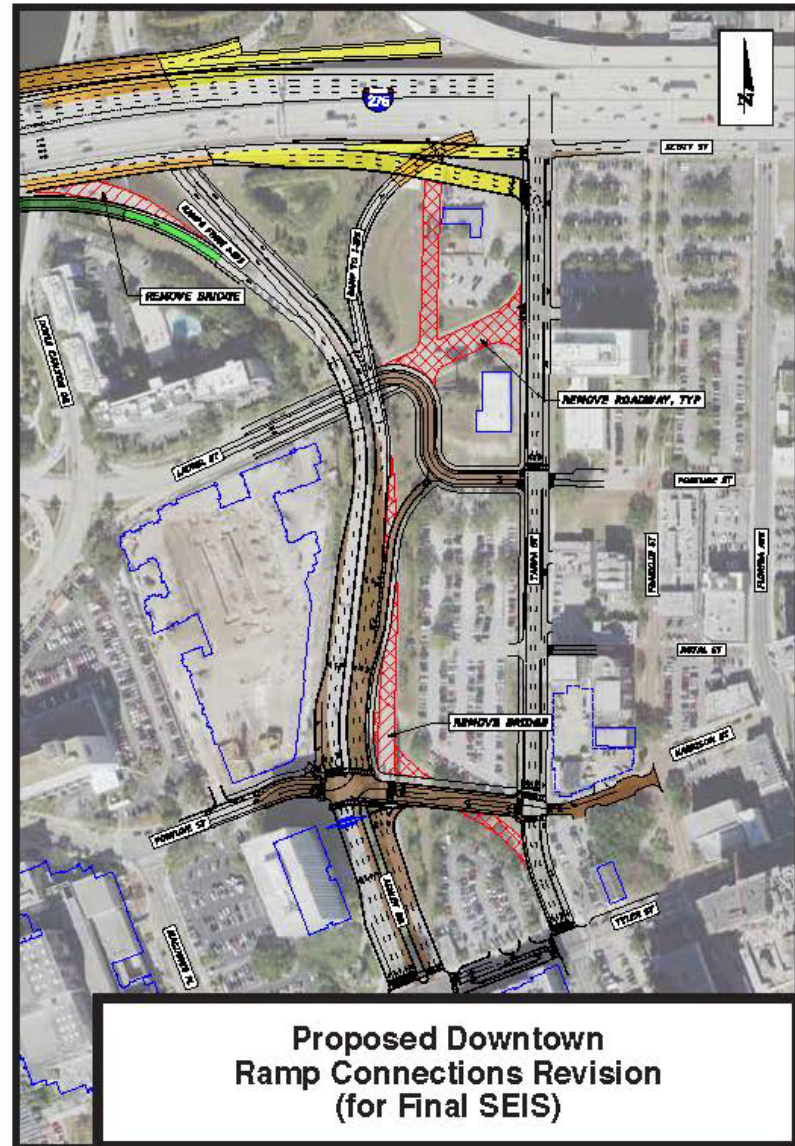
**Figure 10-1 I-275 Improvements Rome Avenue to Ashley Drive/Tampa Street**

# Downtown Tampa Connection – Ashley Drive/Tampa Street

As presented at Public Hearing



As refined following Public Hearing



Source: FDOT 2020 See Appendix A – Concept Plans for the Preferred Alternative for more details



## Tampa Interstate Study SEIS

I-275 from Rome Avenue to North of Martin Luther King Jr. Blvd  
I-4 from I-275 to East of 50<sup>th</sup> Street  
WPI Segment No. 258337-2

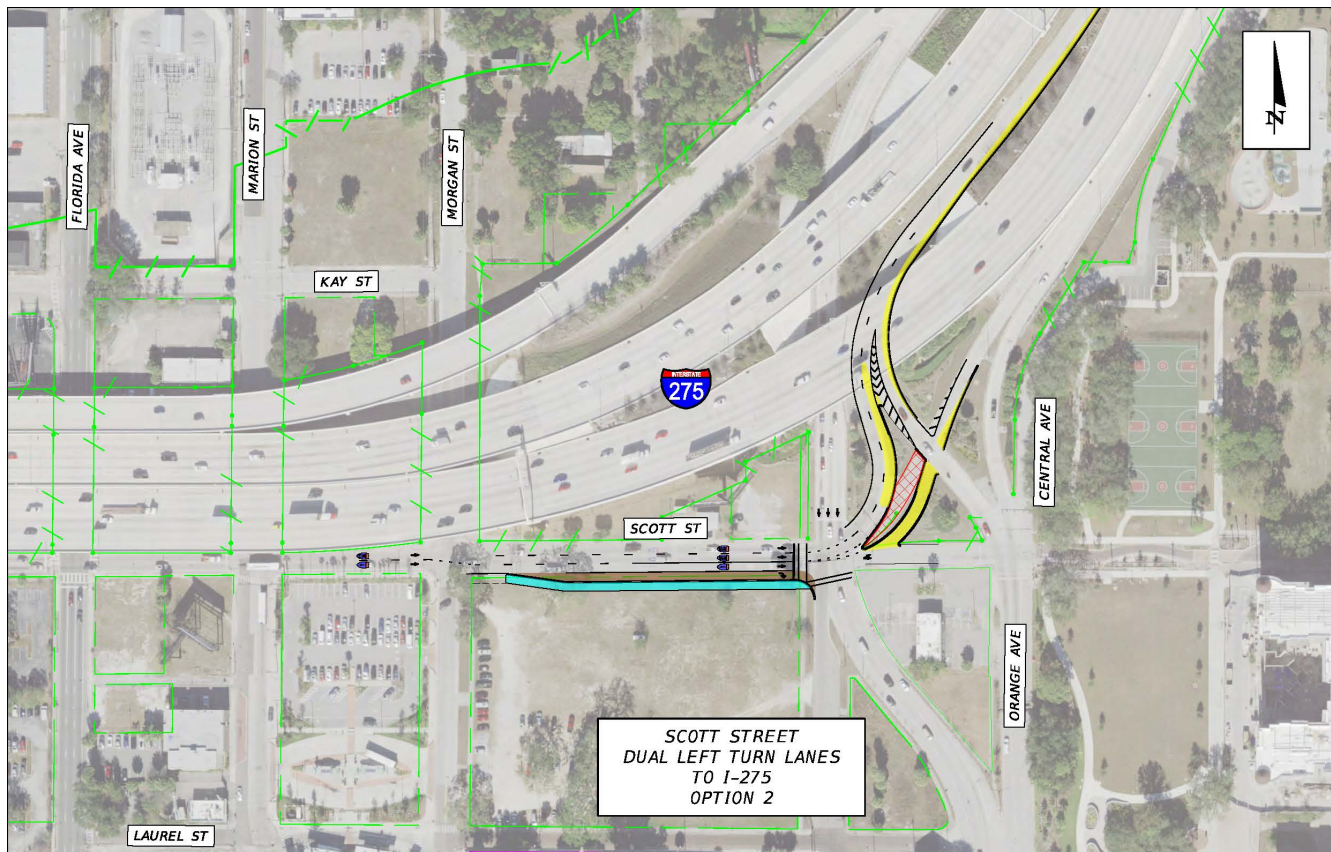
**Downtown Tampa Connection  
Ashley Drive/Tampa Street**

**Figure 10-2**



### Scott Street

To accommodate the extensive growth that has recently occurred, and is projected to continue, in the Channel District in Tampa's east side, FDOT will widen Scott Street by 12 feet to the south for an additional lane for the one block between Morgan Street and Jefferson/Orange Streets. This will create four lanes, allowing for two entry lanes to northbound I-275, one lane combined to eastbound I-4/through lane, and one exclusive right turn lane to Jefferson/Orange Streets. The entrance ramp to northbound I-275 will be widened for several hundred feet, before tapering to a single lane. See **Figure 10-3**.



**Figure 10-3 Downtown Tampa Connection – Scott Street/Orange Avenue**

All of the refinements discussed above combined with the LPA (Design Option E) to encompass the Preferred Alternative for Segments 2B and 3A and shown in **Figure 10-4**. There are no improvements shown for Segment 3B. As noted above, these improvements are shown in detail on the Concept Plans in **Appendix A**.



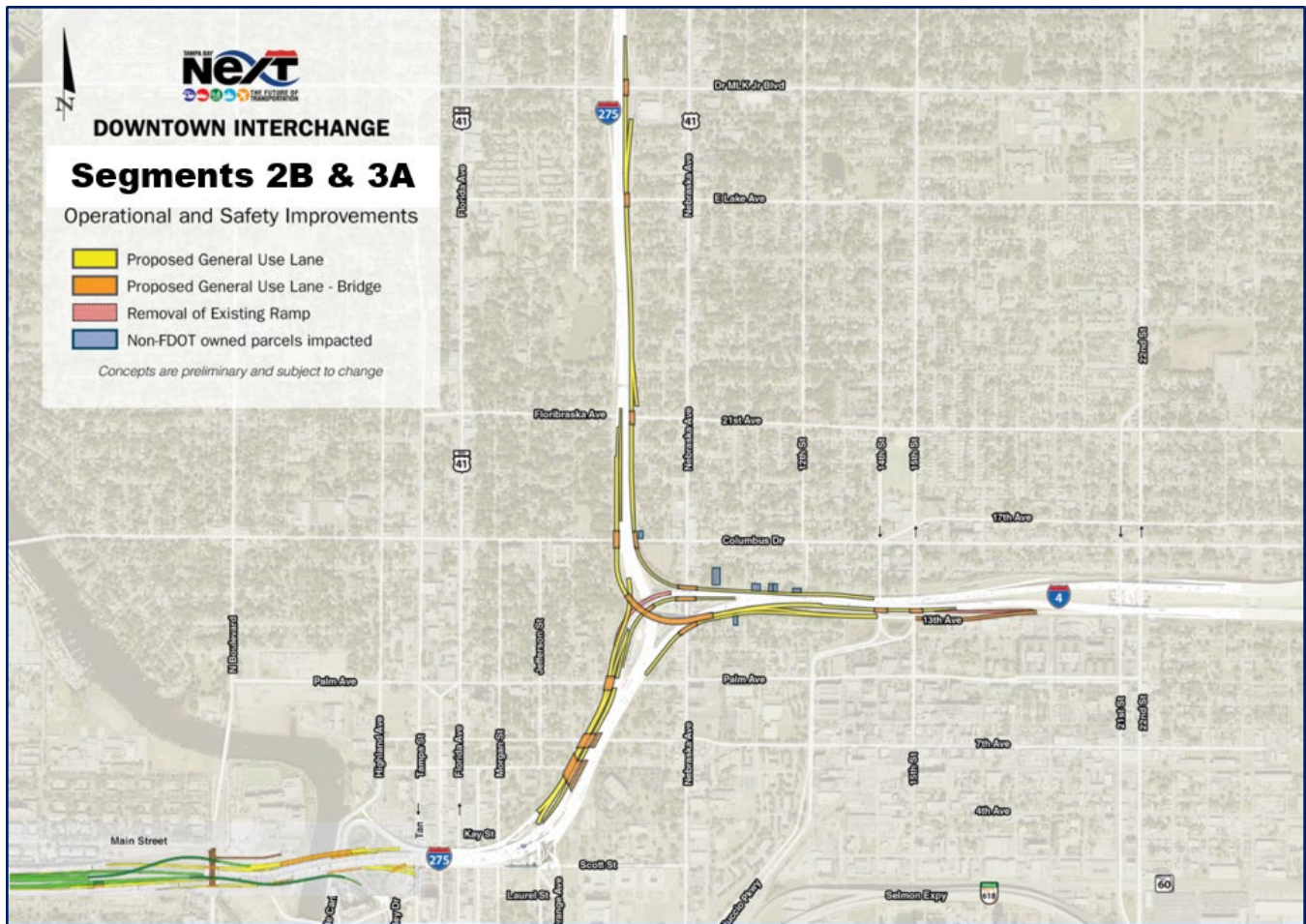


Figure 10-4 Preferred Alternative for Segments 2B and 3A

## 10.2 Design Traffic Volumes

The design traffic volumes for design year 2045 are included in **Section 7** and **Appendix I**.

## 10.3 Horizontal and Vertical Alignment

For aspects of the project where the proposed improvements involve a widening of the existing pavement, the existing alignments will be followed. New or adjusted ramps will follow on new alignments and will meet the design criteria outlined in **Section 6**, in accordance with the FDM or by variation/exception as evaluated during the design phase.

## 10.4 Typical Sections

Preliminary typical sections were prepared for pertinent locations along I-275 and I-4 consistent with the original TIS FEIS and in a similar graphic format. These sections are included in **Appendix A** following the Concept Plans sheets. The locations shown are:

- I-275 at Hillsborough River
- I-275 at Tampa Street
- I-275 at Henderson Avenue
- I-275 at Robles Park
- I-4 at 14<sup>th</sup> and 15<sup>th</sup> Streets
- I-275 southbound ramp to eastbound I-4

## 10.5 Drainage and Stormwater Management

The *Pond Siting Report* includes the evaluation of SMF sites for the Preferred Alternative. Alternatives that are hydraulically feasible and environmentally permissible based on the best available information were analyzed. These alternatives were then compared based on relocations and community impacts; archaeological impacts, environmental impacts including wetlands, upland habitat and protected species involvement; petroleum and hazardous materials contamination; and economic factors including ROW costs. A more detailed discussion of drainage and stormwater management is provided in the *Pond Siting Report*. The proposed SMFs are shown on the Concept Plans in **Appendix A**.

## 10.6 Structures

**Table 10-1** lists the proposed bridges included with the Preferred Alternative as well as improvements to existing bridges. There are no bridge culverts that would be impacted or extended. Retaining walls will essentially match the existing retaining walls that are currently in the project limits. For the portion of I-275 north of I-4, existing embankment will be replaced with retaining walls to keep the improvements within the existing right of way.

## 10.7 Right of Way Needs and Relocations

The Preferred Alternative within Segments 2B, 3A & 3B, including the roadway improvements and proposed stormwater management facility sites will require acquisition of 7 parcels. One of these parcels, located on the south side of I-4 is vacant. The other 6 parcels all involved a residential relocation. Two of these are believed to be owner-occupied and four are tenant occupied. No business relocations are anticipated.

## 10.8 Utility and Railroad Impacts

Most of the improvements for the Preferred Alternative will occur within the access controlled right of way of I-275 and I-4 with limited utility presence. A listing of utility owners is included in **Section 4.2.12**. Utility impacts are anticipated for bridge piers, drainage construction and overhead clearance conflicts. Any conflicts will be evaluated during the design phase and addressed for relocation during construction. An estimate of utility relocation costs was prepared by FDOT for the Preferred Alternative. The cost was estimated at approximately \$6 million.

FPID	BRIDGE NUMBER	STRUCTURE NAME	NEW/WIDEN/ REMOVE/REDUC	LENGTH	DECK WIDTH	LANES	VERTICAL CLEARANCE	NAVIGATION ELEMENTS	Comments
445057-1	100654	I-275 SB TO I-4 EB FLYOVER	WIDEN	1068.5	46.7	2	16.0 Min.		
445057-1	100656	I-4 EB OVER 14TH STREET	WIDEN	135.0	86.5	5	16.0		
445057-1	100657	I-4 EB OVER 15TH STREET	WIDEN	133.5	86.5	5	20.5		
445057-1	REPLACE 100244	I-275 SB OFF RAMP TO I-4 OVER COLUMBUS DRIVE	NEW	182.3	46.7	2	16.5 Min.		
445057-1	NOT ASSIGNED	I-275 NB OFF RAMP TO 14TH STREET OVER NEBRASKA AVENUE	NEW	226.7	29.7	1	14.5 Min.		No lower than minimum exist. vertical clearance of adjacent bridge
445056-1	100650	I-4 WB RAMP E OVER NEBRASKA AVENUE	WIDEN	169.6	43.6	2	16.7		
445056-1	100652	I-4 TO I-275 NB RAMP/COLUMBUS DRIVE	WIDEN	180.7	43.6	2	16.5		
445056-2	100145	I-4 WB RAMP OVER NEBRASKA AVENUE	WIDEN	169.5	VARIES 85.5-100.7	4	16.0 Min.		
445056-2	100655	I-4 RAMP TO I-275 SB OVER I-275	WIDEN	163.1	69.7	4	16.0 Min.		
445056-2	100141	I-275 SB OVER 7TH AVENUE	WIDEN	165.4	86.7	5	14.2		
445056-2	100139	I-275 SB OVER CENTRAL & HENDERSON AVENUE	WIDEN	297.9	86.7	5	14.2		
445056-2	REPLACE 100649	I-275 SB OFF RAMP OVER PALM AVENUE	NEW	144.4	VARIES 76.6-80.1	3	16.5 Min.		
445056-2	100143	I-4 WB RAMP TO I-275 SB/PALM AVENUE	REDUCE	144.3	VARIES 64.0-68.6	3	14.1		
445056-2	REPLACE 100074	I-275 SB OFF RAMP OVER 7th AVENUE	NEW	162.0	58.7	3	16.5 Min.		No lower than minimum exist. vertical clearance.
445056-2	REPLACE 100082	I-275 SB OFF RAMP OVER HENDERSON AVENUE/CENTRAL AVENUE	NEW	252.8	58.7	3	14.6 Min.		
445056-2	100648	I-4 WB RAMP TO DOWNTOWN OVER I-275	REMOVE	151.1	35.6	0	16.8		
445056-2	100653	I-4 WB TO DOWNTOWN OVER I-275 RAMP	REMOVE	194.7	35.6	0	16.7		
443770-1	100201	I-275 OVER FLORIBRASKA AVENUE	WIDEN	140.0	VARIES 189.4-200.9	11 (5 NB,4 SB,2 SB Ramp)	14.8		
443770-1	100207	I-275 OVER LAKE AVENUE	WIDEN	139.0	VARIES 173.1-177.5	11 (6 NB, 5SB)	14.4		
443770-1	100204	I-275 OVER MLK BOULEVARD	WIDEN	170.0	164	9 (5 NB, 4 SB)	14.3		
443770-1	100206	I-275 OVER CHELSEA STREET	WIDEN	145.0	176	10 (5NB, 5SB)	14.7		
434045-2	100701	I-275 NB OVER ROME AVENUE	WIDEN	108.0	VARIES 136.9-138.0	7 (5 GU/2 EL)	18.8		
434045-2	100702	I-275 SB OVER ROME AVENUE	WIDEN	108.0	VARIES 142.6-138.0	8 (5 GU/2RAMP/1 EL)	18.5		
434045-2	NOT ASSIGNED	ASHLEY DRIVE ON RAMP TO I-275 SB EXPRESS OVER ROME AVENUE	NEW	108.0	29.7	1	16.5' Min.		
434045-2	100703	I-275 NB OVER WILLOW AVENUE	WIDEN	108.0	VARIES 111.3-119.1	6	18.5		
434045-2	100704	I-275 SB OVER WILLOW AVENUE	WIDEN	108.1	VARIES 121.5-132.0	7 (6 GU/1 EL)	19.0		
434045-2	NOT ASSIGNED	I-275 NB EXPRESS RAMP TO ASHLEY DRIVE OVER WILLOW AVENUE	NEW	108.0	50.7	2	16.5' Min.		
434045-2	NOT ASSIGNED	ASHLEY DRIVE ON RAMP TO I275 SB EXPRESS OVER WILLOW AVENUE/I-275 SB/NORTH BOULEVARD	NEW	1570.8	29.7	1	16.5' Min.		
434045-2	100705	I-275 NB OVER NORTH BOULEVARD	WIDEN	123.0	94.7	6	16.8		
434045-2	100134	I-275 SB OVER NORTH BOULEVARD	WIDEN	163.4	114.7	7 (6 GU/1 EL)	14.8		
434045-2	NOT ASSIGNED	I-275 NB EXPRESS RAMP TO ASHLEY DRIVE OVER NORTH BOULEVARD/ I-275 NB/HILLSBOROUGH RIVER/DOYLE CARLTON DRIVE	NEW	1837.6	29.7	1	16.5' Min./40' Min.	EXTEND FENDERS, NAVIGATION LIGHTS, REPLACE DOLPHINS, 40' MIN. VERT. CLEAR., 75' HOR. NAV. CLEAR.	
434045-2	NOT ASSIGNED	ASHLEY DRIVE ON RAMP TO I275 SB OVER HILLSBOROUGH RIVER/DOYLE CARLTON DRIVE	NEW	847.5	44.7	2	16.5' Min./40' Min.	EXTEND FENDERS, NAVIGATION LIGHTS, REPLACE DOLPHINS, 40' MIN. VERT. CLEAR., 75' HOR. NAV. CLEAR.	
434045-2	100135	I-275 SB OVER HILLSBOROUGH RIVER	WIDEN	907.1	VARIES	5 (4 GU/1 EL)	27.5 Green St. 39.7' River 30.2 Doyle Carlton 15.7 Ashley Ramp		This bridge is not typical width anywhere and we don't have topo to provide a varying dimension. Bridge inspection report says 81.0'. 75' Horizontal Navigation clearance.
434045-2	100136	I-275 NB OVER HILLSBOROUGH RIVER	WIDEN	930.0	VARIES	6	28.7 Green St. 39.7' River 30.2 Doyle Carlton 14.6 Ashley Ramp		This bridge is not typical width anywhere and we don't have topo to provide a varying dimension. Bridge inspection report says 77.4'. 75' Horizontal Navigation clearance.
434045-2	REPLACE 100831	ASHLEY DRIVE ON RAMP TO I-275 NB OVER SCOTT STREET	NEW	183.0	29.7	1	16.5' Min./40' Min.		This bridge is part of the downtown redesign area.





## 10.9 Special Features

The placement and maintenance of any landscaping shall comply with the required clear zone and sight distance. The *Urban Design Guidelines* will be used for the type and placement of landscaping and color schemes for structures, signing structures and lighting. Future evaluation of lighting should be undertaken during the design phase. Based on the *Noise Study Report*, noise barriers are feasible and reasonable and existing noise barriers will be replaced or new barriers will be constructed. The Concept Plans in **Appendix A** show approximate location of noise barriers. These areas will be reevaluated in the design phase.

## 10.10 Recycling and Salvageable Materials

During construction of the project, recycling of reusable materials will occur to the greatest extent possible. Where feasible, removal and recycling of the existing pavement and base material for use in the new pavement will be considered. This will reduce the volume of the materials that need to be hauled away and disposed of potentially reducing the cost of purchasing new materials for construction. Other materials such as signs, drainage pipes, etc., will also be salvaged and reused for regular maintenance operations if they are deemed to be in acceptable condition.

## 10.11 User Benefits (Safety, Etc.)

The public will realize benefits after the proposed improvements are constructed. Reduction in travel time, reduced vehicle operating costs, reduced traffic crash related costs and reduced emergency response times are the primary benefits. Bicyclists and pedestrians will be accommodated along local streets and under overpasses to more safely share those corridor with motorists.

## 10.12 Cost Estimate

Preliminary cost estimates for the Preferred Alternative (\$millions, rounded) for Segments 2B, 3A and 3B are included in **Table 10-2**. Construction costs are based on FDOT's LRE cost estimating system prepared in February-April 2020, and include temporary traffic control, mobilization and an initial contingency. The LRE estimates are split into several projects. The LREs and summary of these costs is shown in **Appendix F**.

**Table 10-2 Preliminary Cost Estimate of Preferred Alternative**

Component	Total Estimated Cost for Segments 2B, 3A & 3B (nearest \$1 million)
Construction of Roadways, Bridges, Ponds and Other Elements	\$254,000,000
Right of Way	\$3,000,000
Design*	\$18,000,000
Construction Inspection	\$19,000,000
Total	\$294,000,000

\* Includes portion of the LRE for the Design aspect of Design/Build or design estimate for Design-Bid-Build project

Sources: FDOT Long Range Estimate system estimates dated Feb-Apr 2020

### 10.13 Potential Construction Segments and Phasing

Potential construction segments are “To be determined”. The FDOT has separated the improvements for the Preferred Alternative by movement and separate WPI Segment Numbers have been developed and costs separated in the event funding becomes available to implement these improvements independently.

- WPI 434045-2: I-275 from Rome Ave to Downtown (Tampa Street)
- WPI 445057-1: Southbound I-275 to Eastbound I-4
- WPI 445056-1: Westbound I-4 to Northbound I-275
- WPI 445056-2: Westbound I-4 to Southbound I-275/Downtown Ramps
- WPI 443770-1: I-275 north of I-4 and transition to Tampa Bay Next Section 7

Advance funding for ROW acquisition could include securing the additional right of way needed for the improvements should properties become listed for sale by the property owners.

### 10.14 Work Program Schedule

The FDOT has programmed future phases of a portion (WPI 434045-2) of the Preferred Alternative in the current Five-Year work program for FY 2020-2024. The portion funded includes the portion along I-275 from Rome Avenue across the Hillsborough River and the Downtown Tampa Connections to Ashley Drive/Tampa Street (as shown in **Figures 10-1 and 10-2**). These portions are intended to be programmed with improvements to TIS Segments 1A and 2A. Below is a list of work program milestones for this portion.

- Begin Fiscal Year 2020
- Advertise Design-Build – Fiscal Year 2023
- Execute Design-Build – Fiscal Year 2024
- Construction Notice to Proceed – Fiscal Year 2024

No future phases are currently programmed in the FDOT’s current Five-year work program for the remainder of the Preferred Alternative including potential construction segments as noted in **Section 10.11**):

- WPI 445057-1: Southbound I-275 to Eastbound I-4 which includes Downtown Tampa Connections at Scott Street/Orange Avenue
- WPI 445056-1: Westbound I-4 to Northbound I-275
- WPI 445056-2: Westbound I-4 to Southbound I-275/Downtown Ramps
- WPI 443770-1: I-275 north of I-4 and transition to Tampa Bay Next Section 7

### 10.15 Design Variations and Exceptions

Due to maintaining existing alignments, design variations and design exceptions are anticipated for the Preferred Alternative. The anticipated variations/exceptions are listed in **Table 10-3** and separated by potential project segments noted in **Section 10.13** for ease in understanding their locations.

**Table 10-3 Potential Design Variations and Exceptions with the Preferred Alternative**

LPA Project Segments	S6 DTI SB to WB	S6 DTI WB to NB	S6 DTI WB to SB	S7 Transition	S5 N. of Rome to Downtown	Remarks
WPI Numbers	445057-1	445056-1	445056-2	443770-1	434045-2	
<b>Design Variations</b>						
Shoulder Width	Yes	Yes	Yes	Yes	Yes	
Vertical Clearance	Yes	Yes	Yes	Yes	Yes	
Horizontal Curve Length	Yes	Yes	Yes		Yes	
Ramp Connection Spacing	Yes	Yes	Yes			
Border Width	Yes	Yes	Yes	Yes	Yes	
Pier Protection		Yes		Yes		Not adding pier protection to existing piers that are not design for vehicular impact to preserve the existing character of the existing underpass.
Cross Slope				Yes		
Superelevation Transition	Yes			Yes		
Design Speed					Yes	Mainline at Hillsborough River
<b>Design Exceptions</b>						
Vertical Clearance (new bridge)	Yes		Yes			
Stopping Sight Distance				Yes	Yes	Existing Crest Vertical Curves.
Shoulder Width				Yes	Yes	Existing shoulder widths to remain.
Design Speed					Yes	Ashley entrance loop ramp.

Sources: FDOT 2020



## 11 LIST OF TECHNICAL REPORTS

The following reports have been prepared for Segments 2B, 3A & 3B as part of the SEIS process:

- *Preliminary Engineering Report*
- *Project Traffic Analysis Report (PTAR)*
- *Pond Siting Report*
- *Location Hydraulics Report*
- *Conceptual Stage Relocation Plan*
- *Natural Resource Evaluation (NRE) Report*
- *Cultural Resource Assessment Survey (CRAS) Update*
- *Cultural Resource Assessment Survey (CRAS) Update Addendum*
- *Contamination Screening Evaluation Report (CSER)*
- *Section 106 Case Study Report*
- *Sociocultural Effects Evaluation (SCE) Report*
- *Economic and Fiscal Impact Analysis Report*
- *Noise Contour Study*
- *Noise Study Report*
- *Air Quality Technical Memorandum*
- *Public Workshops Scrapbook and TIS Historic Resources Meeting (meetings held on 10/9/17 and 10/10/17)*
- *Alternatives Public Workshop Scrapbook (meetings held on 5/21/19 and 5/23/19)*
- *Public Hearing Scrapbook*
- *Comments and Coordination Report*
- *Draft Supplemental EIS (SEIS) and Section 4(f) Evaluation*
- *Final Supplemental EIS (SEIS)/Record of Decision (ROD)/Section 4(f) Use Determination*

## List of Appendices

Appendix A	Concept Plans and Typical Sections for the Preferred Alternative
Appendix B	Existing Roadway Typical Sections
Appendix C	Correspondence Regarding Florida High Speed Rail
Appendix D	TIS FEIS Preliminary Alternatives Screening Evaluation Technical Memo
Appendix E	Downtown Interchange Concept Options Access Details
Appendix F	Long Range Estimating System Cost Estimate
Appendix G	Colorized Exhibits of the Plans for the TIS FEIS Long Term Preferred Alternative
Appendix H	Concept Plans including the Downtown Interchange Design Options A, B, C & D
Appendix I	Traffic-Related Data and Figures
Appendix J	Straight Line Diagram Inventory
Appendix K	Bridge Rehabilitation Recommendations Memo