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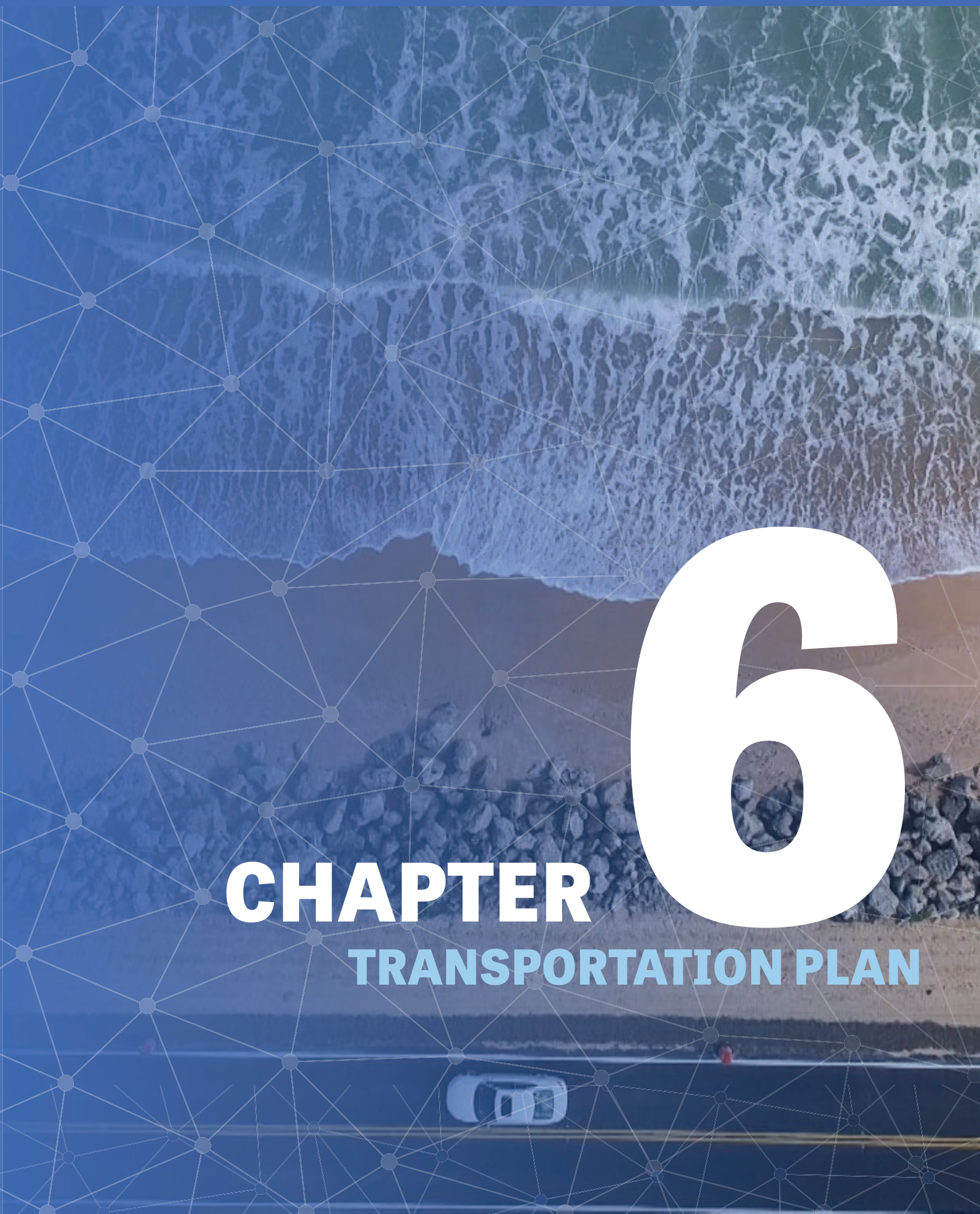

CHAPTER 6

TRANSPORTATION PLAN

CHAPTER 6 - TRANSPORTATION PLAN

This chapter provides an overview of Connect 2045's multimodal transportation plan, including the Cost Feasible Plan component. The plan is guided by projected financial resources that define the anticipated revenues available to plan for the region's transportation network. Guided by this forecast, the Cost Feasible Plan includes a fiscally constrained list of projects that define the highest priority roadway needs in bands of years going out to 2045. The plan also summarizes programmatic, policy and planning steps that support the development of a comprehensive multimodal network.

FINANCIAL RESOURCES

Long range transportation plans rely upon revenue forecasts that project anticipated financial resources that will be available to preserve and improve the transportation system. A revenue forecast is used to determine which identified and prioritized transportation needs can reasonably be expected to be funded over the timeframe of the LRTP. These projects will make up the Cost Feasible Plan.

The Florida Departement of Transportation (FDOT) develops the State Revenue Forecast every five years in coordination with the MPO Advisory Council (MPOAC) to support development of LRTPs. The Revenue Forecast assists MPOs in complying with the federal requirements to develop cost feasible transportation plans and demonstrates coordinated planning for transportation facilities and services. The State Revenue Forecast is also used by FDOT for the Strategic Intermodal System (SIS) Cost Feasible Plan. The forecast is based on current federal and state laws, funding sources, and FDOT policies, as well as assumptions concerning factors affecting state revenue sources (e.g., population growth rates, motor fuel consumption and tax rates).

The State Revenue Forecast is focused on state and federal funds that "pass through" the FDOT Five-Year Work Program. Local estimates were prepared separately based upon anticipated revenues for Volusia and Flagler counties.

Trends and Funding Considerations

A major challenge in funding transportation is the gap between revenues and the growing demand and costs of transportation needs. This challenge has been a major focus of the conversation and input behind the development of Connect 2045 as the TPO plans for a sustainable transportation network for the area. As referenced in the discussion of the Funding Scenarios in Chapter 5, there are a number of potential factors that could cause funding to be more constrained, including:

- Growing shortfalls in federal transportation funding due to highway fuel tax remaining at the same level since 1993
- Projected reductions in fuel tax revenue due to increasing vehicle fuel economy
- Projected reductions in fuel tax revenue due to growth in sales of electric and other alternative fuel vehicles

In contrast, there are potential factors including those listed below that may provide additional financial resources in the future:

- Increase in federal highway fuel tax
- A new local sales tax
- Increase in state funding
- Implementation of a new revenue source based on miles driven rather than gallons of fuel sold

Revenue Summary

The TPO needs financial resources to maintain, develop, and build transportation services or facilities to serve the community. As part of Connect 2045, a revenue forecast and projection was performed to identify the potential revenues available to fund prioritized projects in the Cost Feasible Plan. The Connect 2045 revenue forecast is based on current and assumed future federal, state, and local funding sources, with regard to projected population and employment growth rates, fuel consumption, transit ridership, Florida Revenue Estimating Conference tax rates, and local tax rates.

The available revenues for the long range transportation plan can be categorized into four major categories:

1. **SIS funding** - FDOT funding that is earmarked exclusively for SIS projects.
2. **Other Federal and State funding** - includes Other Arterials (OA) funds, Transportation Alternative funds (TALU/TALL/TALT), and Transportation Management Area (TMA) funds.
3. **Local revenues** - includes county and city impact fees, gas taxes, and other taxes where applicable
4. **Transit revenues** - projections include federal, state, and local sources.

Table 6-1 provides a summary of projected revenue totals by source.

Table 6-1: Connect 2045 Revenue Forecast Summary

Category	Total Projected Revenues 2026-2045
Projected State and Federal Revenues	
Other Roads Construction & ROW	$872,750,000
TMA (for MPO Population > 200,000)	$112,910,000
TALU (Transportation Alternatives for TMAs)	$9,120,000
Strategic Intermodal System Projects	
SIS Revenues	$1,664,036,000
Projected Local Revenues	
Volusia County Revenues	$1,369,207,000
Flagler County Revenues	$357,555,000
Projected Transit Revenues[1]	
Volusia County Transit Revenues	$827,901,000
Flagler County Transit Revenues	$86,245,000
Total	***$5,033,756,000***

[1]*Transit revenue projections include federal, state, and local sources.*

STRATEGIC INTERMODAL SYSTEM (SIS) REVENUES

The Strategic Intermodal System (SIS) was established by the Florida Legislature in 2003 as high-priority transportation facilities that enhance Florida's economic prosperity and competitiveness. The SIS includes significant statewide and interregional infrastructure and places importance on safely and efficiently moving both passengers and freight. Revenues are used specifically and exclusively for SIS facilities with the goals of enhancing Interregional Connectivity, Intermodal Connectivity, and Economic Development.

The FDOT Systems Implementation Office produces the SIS Funding Strategy. This is comprised of three sequential documents that identify potential SIS projects, anticipated phase scheduling, and estimated costs. The documents include the following:

- SIS First Five Year Plan, which includes project phases over the next five years and is in the FDOT Five Year Work Program, consistent with the TPO Transportation Improvement Program (TIP), which are each updated annually.
- SIS Second Five Year Plan, which includes the project phases planned for Years 6 through 10 and is updated annually after the First Five Year Plan is updated.
- SIS Cost Feasible Plan, which includes the phases that are considered financially feasible for Years 11 through 25 based on current revenue forecasts. This plan is updated after new revenue forecasts are developed, generally every three to five years.

OTHER STATE AND FEDERAL TRANSPORTATION FUNDING

This plan's estimates for the State and Federal revenues plus affiliated inflation factors were guided by the 2019 FDOT Revenue Forecasting Guidebook. Projected State and Federal Revenues are shown in **Table 6-2**. The Guidebook can be found in **Technical Appendix ##**.

Transportation Alternative Funds: The Florida Department of Transportation (FDOT) has provided estimates of funds for Transportation Alternatives to assist MPOs and TPOs in developing their plans. They can be utilized to fund pedestrian and bicycle improvements. Estimates of Transportation Alternatives funds allocated for TMAs (i.e., "TALU" funds) are provided to each TMA. In addition, "TALT" (Transportation Alternative funds for any area of the state) funds are provided for FDOT District Five.

Transportation Regional Incentive Program (TRIP) funds are allocated to improve regionally significant transportation facilities. FDOT funds 50% of project costs, or up to 50% of the non-Federal share of project costs for public transportation facility projects.

Table 6-2: Connect 2045 Revenue Forecast Summary (in millions)

Revenue	2026 to 2030	2031 to 2035	2036 to 2045	2045 LRTP Total	2040 LRTP Total**	Change from 2040 to 2045
Other Roads Construction & ROW[1]	$199.73	$217.72	$455.3	$872.75	$409	213.4%
TMA (for MPO Population > 200,000)	$28.23	$28.23	$56.45	$112.91	$94.4	119.6%
TALU (Transportation Alternatives for TMAs)****	$2.28	$2.28	$4.56	$9.120	N/A***	N/A***
Total	***$230.24***	***$248.23***	***$516.31***	***$994.78***	***N/A***	***N/A***

1 *A portion of Other Roads Construction & ROW revenue may be used for non-State roads*

* *Includes years 2026 to 2045 (20 years). Note that year 2021 to 2025 revenues will be derived from the Transportation Improvement Program (TIP).*

** *Includes years 2021 to 2040 (20 years)*

*** *Not included in 2040 LRTP revenue forecast*

**** *In addition to TALU, other competitive funding sources include:*

- *TALL (Transportation Alternatives for areas with populations between 5,000 and 200,000)*
- *TALT (Transportation Alternatves for any area of the state)*
- *TRIP (Transportation Regional Incentive Program)*
- *TLWR (SUN Trail)*
- *CIGP (County Incentive Grant Program)*
- *SCOP (Small County Outreach Program)*

Source for State and Federal Revenue Data: FDOT 2045 Revenue Forecast

LOCAL FUNDING

There are several local sources that currently fund operations and maintenance projects including the 9th Cent Gas Tax, 1st Local Option Gas Tax, 2nd Local Option Gas Tax, Constitutional Gas Tax, County Gas Tax, and Impact Fees. Volusia County, Flagler County and the City of Palm Coast provided projections for future funding levels from their current funding sources and further analysis of these projections was developed by the TPO. This information on local revenue is provided for informational purposes only.

Table 6-3: Projected Volusia County Revenues

Revenue	2026 to 2030	2031 to 2035	2036 to 2045	Total
County				
County Gas Tax	$12,677,000	$13,368,000	$28,812,000	$54,857,000
Constitutional Gas Tax	$28,720,000	$30,203,000	$64,857,000	$123,780,000
Local Option Gas Tax	$46,824,000	$49,811,000	$108,586,000	$205,221,000
9th Cent Gas Tax	$14,685,000	$15,613,000	$34,005,000	$64,303,000
2nd Local Option Gas Tax	$34,515,000	$36,639,000	$79,644,000	$150,798,000
Road Impact Fees	$94,250,000	$113,930,000	$296,100,000	$504,280,000
Subtotal	***$231,671,000***	***$259,564,000***	***$612,004,000***	***$1,103,239,000***
Municipalities[1]				
Local Option Gas Tax	$34,980,000	$37,212,000	$81,120,000	$153,312,000
2nd Local Option Gas Tax	$25,785,000	$27,372,000	$59,499,000	$112,656,000
Subtotal	***$60,765,000***	***$64,584,000***	***$140,619,000***	***$265,968,000***
Total	***$292,436,000***	***$324,148,000***	***$752,623,000***	***$1,369,207,000***

1 *42.7% of Local Option Gas Tax countywide totals are distributed to municipalities. See the 2018 Local Government Financial Information Handbook, Page 215.*

Table 6-4: Projected Flagler County and City of Palm Coast Revenues

Revenue	2026 to 2030	2031 to 2035	2036 to 2045	Total
County				
County Gas Tax	$3,286,000	$3,601,000	$8,147,000	$15,034,000
Constitutional Gas Tax	$7,351,000	$8,014,000	$18,016,000	$33,381,000
Local Option Gas Tax	$2,766,000	$2,929,000	$5,404,000	$11,099,000
9th Cent Gas Tax	$2,690,000	$2,891,000	$6,390,000	$11,971,000
½ Cent Small County Sales Tax[1]	$37,323,000	$16,449,000	$0	$53,772,000
Subtotal	***$53,416,000***	***$33,884,000***	***$37,957,000***	***$125,257,000***
Palm Coast[2]				
Local Option Gas Tax[3]	$10,995,000	$11,829,000	$26,160,000	$48,984,000
½ Cent Small County Sales Tax[4]	$41,225,000	$18,169,000	$0	$59,394,000
Road Impact Fees	$22,590,000	$23,360,000	$77,970,000	$123,920,000
Subtotal	***$74,810,000***	***$53,358,000***	***$104,130,000***	***$232,298,000***
Total	***$128,226,000***	***$87,242,000***	***$142,087,000***	***$357,555,000***

1 *The ½ Cent Small County Sales Tax is set to expire in 2032*

2 *The TPO's planning area in Flagler County is limited to Palm Coast and its immediate surrounding area*

3 *73.3% of the Local Option Gas Tax countywide total is distributed to Palm Coast. See the 2018 Local Government Financial Information Handbook, Page 210.*

4 *49.9% of the ½ Cent Small County Sales Tax countywide total is distributed to Palm Coast. See the 2018 Local Government Financial Information Handbook, Page 162.*

2045 Transit Revenue Forecast

Anticipated transit revenues for Connect 2045 total nearly $828 million for Votran and approximately $86 million for Flagler County Public Transportation. **Tables 6-11** and **6-12** below display the revenues forecasted to be available for transit from 2026 to 2045.

Table 6-5: Projected Votran Revenues

Revenue	2026 to 2030	2031 to 2035	2036 to 2045	Total
Operating				
Federal Operating	$32,495,000	$34,390,000	$74,850,000	$141,735,000
FDOT State Block Grant	$12,592,000	$13,780,000	$31,146,000	$57,518,000
FDOT Service Development	$4,696,000	$5,140,000	$11,616,000	$21,452,000
FDOT Corridor	$0	$0	$0	$0
Commission for TD Operation	$8,638,000	$9,453,000	$21,365,000	$39,456,000
Local Operating	$80,552,000	$83,295,000	$174,885,000	$338,732,000
Capital				
Federal Capital	$46,741,000	$46,306,000	$93,875,000	$186,922,000
State Capital	$5,192,000	$5,625,000	$12,578,000	$23,395,000
Local Capital	$4,673,000	$4,630,000	$9,388,000	$18,691,000
Total	***$195,579,000***	***$202,619,000***	***$429,703,000***	***$827,901,000***

Table 6-6: Projected Flagler County Public Tranportation Revenues*

Revenue	2026 to 2030	2031 to 2035	2036 to 2045	Total
Operating				
Federal Operating	$5,520,000	$6,053,000	$13,707,000	$25,280,000
Commission for TD Operation	$4,279,000	$4,693,000	$10,626,000	$19,598,000
Local Operating	$4,742,000	$5,200,000	$11,775,000	$21,717,000
Capital				
Federal Capital	$2,884,000	$3,138,000	$7,039,000	$13,061,000
State Capital	$1,455,000	$1,583,000	$3,551,000	$6,589,000
Total	***$18,880,000***	***$20,667,000***	***$46,698,000***	***$86,245,000***

* *The extrapolation of Flagler transit revenues assuming linear growth based on the values presented in the 2015 TDP resulted in higher-than-expected annual growth. As such, the Flagler transit revenue forecast presented here assumes that the 2025 Flagler transit revenues forecasted in the 2015 TDP will increase at a rate equal to that of total population growth for the County, according to the ZDATA. For capital revenues, values were only forecast to 2020 in the 2015 TDP; in this case, values were extrapolated based on 2020 forecasts.*

Transportation Improvement Program (TIP)

The adopted 2020/21 – 2024/25 Transportation Improvement Program (TIP) serves as the first five years of the long range transportation plan. The TIP is incorporated into the LRTP in order to capture revenues for the entire duration of time from plan adoption (2020) through the plan's horizon year of 2045.

While the federal regulations call for a TIP that includes four years of improvements, Florida requires and recognizes a full five years. Amendments and updates to the TIP go through a formal process which includes a public comment periord for major changes.

General revenue sources for TIP projects are listed in **Table 6-7**. The full table can be found in the River to Sea TPO FY 2020/2021-2024/25 Transportation Improvement Program on the TPO's website.

The current TIP includes several projects which are scheduled to be at least partially-funded as listed in **Tables 6-8** – **6-12**. It should be noted that The TIP five-year program includes costs as year-of-expenditure (YOE), which are considered equivalent to present day value (PDV).

Table 6-7: Five-Year TIP Fund Summary by Fund Type, 2021-2025

2020/2021 - 2024/2025 Total TIP Funds	
Federal	$135,640,276
State	$381,349,101
Local	$70,733,609
All Sources	**$587,722,986**

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TIP ROADWAY (CAPACITY) PROJECTS

Table 6-8 summarizes the roadway capacity projects included in the River to Sea TPO FY 2020/2021 – FY 2024/2025 TIP and associated cost by phase and timeframe. This includes both SIS and non-SIS projects. Many of the projects identified in **Table 6-9** are included in the Connect 2045 Cost Feasible Plan.

Table 6-8: Summary of TIP Roadway (Capacity) Projects for FY 2020/21 - 2024/25

Project	From	To	Mi	Improve Type	PE Time	PE Cost	PE Revenue Source
SR 40	SR 15/US 17	SR 11	6.38	2U-4D	< 2020/21	$5,696,397	N/A
SR 40	W OF SR 11	W OF CONE RD	7.64	2U-4D	< 2020/21	$6,685,110	N/A
SR 15 (US 17)	DELEON SPRINGS	SR 40	6.85	4D-6D	< 2020/21	$23,295,661	N/A
I-95	AT SR 5 (US 1)		1	INT IMP	< 2020/21	$10,000	N/A
SR 600 (US 92)	I-4 EASTBOUND RAMP	TOMOKA FARMS RD	2.2	4D-6D	< 2020/21	$5,096,676	N/A
SR 40	BREAKAWAY TRAIL	WILLIAMSON BLVD	2.46	4D-6D	< 2020/21	$587,453	N/A
I-95	AT PIONEER TRAIL	n/a		INT IMP	< 2020/21	$6,976,198	N/A
					2020/21 (ENV)	$4,000,000	STATE (SIS)
I-95	AT MAYTOWN RD	n/a	0.05	NEW INT	2020/21 (PDE)	$2,550,000	STATE (SIS)

Abbreviation	Definition
2U	2 Lane Undivided Road
4U	4 Lane Undivided Road
4D	4 Lane Divided Road
6D	6 Lane Divided Road
CR	County Road
SR	State Road
US	US Road
PE	Preliminary Engineering
PDE	Project Development & Environment
ROW	Right-of-Way
CST	Construction
ENV	Environmental
PDV	Present Day Value
SIS	Strategic Intermodal System
INT IMP	Interchange Improvement
NEW INT	New Interchange

ROW Time	ROW Cost	ROW Revenue Source	CST Time	CST Cost	CST Revenue Source	PDV Total	Funded Level
2022/23 - 2024/25	$4,206,411	STATE (SIS)	TBD	TBD	TBD	$4,206,411	PARTIAL
2022/23 - 2024/25	$2,411,357	STATE (SIS)	TBD	TBD	TBD	$2,411,357	PARTIAL
2020/21 - 2021/22	$5,069,894	STATE (SIS)	TBD	TBD	TBD	$5,069,894	PARTIAL
2020/21	$2,050,000	STATE (SIS)	TBD	TBD	TBD	$2,050,000	PARTIAL
2021/22 - 2023/24	$8,870,200	STATE	TBD	TBD	TBD	$8,870,200	PARTIAL
2022/23 - 2024/25	$3,385,000	STATE (SIS)	TBD	TBD	TBD	$3,385,000	PARTIAL
2021/22	$3,730,000	STATE (SIS)	TBD	TBD	TBD	$7,730,000	PARTIAL
TBD	TBD	TBD	TBD	TBD	TBD	$2,550,000	PARTIAL

Total	**$36,272,862**
FEDERAL	*$27,402,662*
STATE	*$8,870,200*
LOCAL	*$0*

TIP PUBLIC TRANSIT AND TRANSPORTATION DISADVANTAGED (TD) PROJECTS

Table 6-9 summarizes the transit and transportation disadvantaged projects included in the River to Sea TPO FY 2020/2021 – FY 2024/2025 TIP and associated costs. The table details projects including new or enhanced routes. The other project types are included cumulatively.

Table 6-9:TIP FY 2020/2021-2024/25 Transit & Transportation Disadvantaged Projects

Project	Cost	Revenue Source	PDV Total
Votran Increase Headways	$4,089,020	STATE	$ 4,089,020
Sunrail Feeder Bus Service Phases I & II	$327,000	STATE (SIS)	$ 327,000
Volusia Express Routes Serving Sunrail in Debary	$347,040	STATE	$ 347,040
Operations, Maintenance, and Other Project Types	$64,262,819	FEDERAL	$211,279,295
	$98,589,443	STATE	
	$48,427,033	LOCAL	
		Total	**$216,042,355**
		Local	*$48,427,033*
		State	*$31,171,191*
		State (SIS)	*$72,181,312*
		Federal	*$64,262,819*

TIP BICYCLE, PEDESTRIAN & ENHANCEMENT PROJECTS

Table 6-10 summarizes the bicycle and pedestrian facility and enhancement projects included in the River to Sea TPO FY 2020/2021 – FY 2024/2025 TIP and associated costs. The table details bicycle, pedestrian, and multiuse trail projects.

Table 6-10:TIP FY 2020/2021-2024/25 Bicycle, Pedestrian & Enhancement Projects

Project	Cost	Revenue Source	PDV Total
River To Sea TPO Bike/Pedestrian SU/TALU Set-Aside Reserve	$4,782,045	STATE	$ 4,782,045
Graham Swamp Multi-Use Trail and Pedestrian Bridge	$6,393,744	STATE	$ 6,393,744
SR 400 (Beville Rd) from Williamson Blvd to Clyde Morris Blvd	$111,000	LOCAL	$ 964,030
	$853,030	STATE	
Spring-to-Spring Trail Phase 3C W Highbanks Rd to Debary Plantation Blvd	$1,173,000	STATE	$ 1,173,000
US 17/92 at Sunrail Station (Fort Florida Rd) Coast to Coast Trail	$225,000	LOCAL	$ 225,000
Titusville to Edgewater Trail from Roberts Rd to Dale Ave	$9,240,281	STATE	$ 9,240,281
St Johns River to Sea Loop Myrtle Av from 10th St to SR 44/Lytle Av	$3,190,503	STATE	$ 3,190,503
SJR2C Loop Trail (Spruce Creek Rd) from S of Selin Cir to Herbert St	$200,000	STATE	$ 200,000
SJR2C Loop Trail from Sauls St/Mcdonald Rd to Carmen Dr	$1,100,000	STATE	$ 1,100,000
SR A1Aa Trail (SJR2C) In Flagler Beach	$2,500,000	STATE	$ 2,500,000
St Johns River to Sea Loop from Lake Beresford Park to Grand Ave	$9,097,238	STATE	$ 9,097,238
SR 15 (Us 17) from SR 40 to Putnam County Line	$2,840,000	STATE	$ 2,840,000
Navy Canal Trail from Museum Blvd West to Clyde Morris Blvd	$599,624	LOCAL	$ 827,597
	$227,973	STATE	
Volusia Pines Elementary & Ivy Hawn Charter School Sidewalk Gaps	$728,950	STATE	$ 728,950
Amelia Ave from Voorhis Ave to Ohio Ave	$2,149,612	STATE	$ 2,149,612
Derbyshire Sidewalks Phase II	$85,694	LOCAL	$ 859,440
	$773,746	STATE	
Campbell Middle School & Turie T. Small Elementary	$865,962	STATE	$ 865,962
A1A from Millsap Drive to State Road 40	$2,138,631	STATE	$ 2,138,631
Providence Blvd from Perimeter Dr to Alexander Ave South Segment	$367,739	LOCAL	$ 1,104,218
	$736,479	STATE	
SR A1A from N Of Ocean Marina Dr to S of Westmayer Pl	$1,483,461	STATE	$ 1,483,461
Willow Run Boulevard From Harms Way to Clyde Morris	$108,100	STATE	$ 120,000
	$11,900	LOCAL	
		TOTAL	**$51,983,712**
		LOCAL	*$1,400,957*
		STATE	*$50,582,755*

OTHER TIP PROJECT TYPES

Table 6-11 summarizes other project types included in the River to Sea TPO FY 2020/2021 – FY 2024/2025 TIP and associated costs. The table summarizes Traffic Operations, Intelligent Transportation System (ITS) & Safety projects, which includes primarily non-capital roadway improvements, maintenance projects, and planning studies.

Table 6-11: TIP FY 2020/2021-2024/25 Other Project Types

Project Type	Revenue Identity	Revenue (2020$)
Traffic Operations, ITS & Safety Projects	TOTAL	$60,396,943
	FEDERAL/STATE	$57,960,792
	LOCAL	$2,436,151
Maintenance Projects	TOTAL	$158,162,239
	FEDERAL/STATE	$157,064,333
	LOCAL	$1,097,906
Transportation Planning Studies	TOTAL	$5,684,521
	FEDERAL/STATE	$5,590,987
	LOCAL	$93,534

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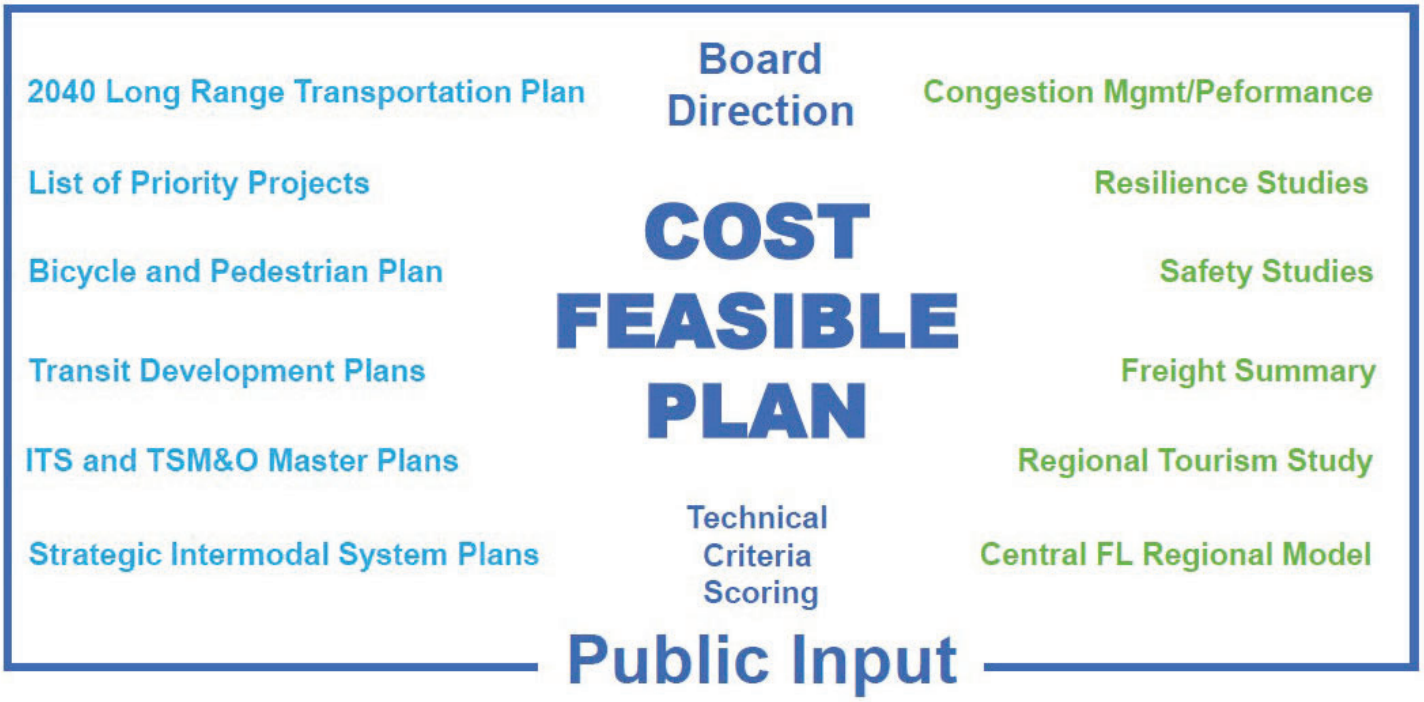
COST FEASIBLE PLAN

In long range transportation planning, a Cost Feasible Plan (CFP) identifies financially viable improvements to an area's transportation network. The estimated available revenue for roadway capital improvements is not sufficient to fund all projects identified through the comprehensive Needs Assessment described in Chapter 5. Proposed projects are eligible for funding from different sources depending on the type and jurisdiction of the project. Funding was allocated to projects considering priority and eligibility of funding source. The CFP was developed in a fiscally constrained manner based on reasonable transportation revenues anticipated to be available through 2045.

The CFP focuses on roadway needs since they are addressed at the project level. However, the CFP includes other multimodal needs programmatically through a $40 million set-aside for Local Initiatives. Funding for Local Initiatives – such as transit, bicycle-pedestrian, and traffic operations-safety – is further addressed programmatically through the TPO's Surface Transportation Program Urban Attributable (SU) Funding Set-Aside Policy (Resolution 2017-3).

A range of plans, studies, and input come together to create the Cost Feasible Plan.



ROADWAY PLAN

Roadway projects are categorized as follows:

Strategic Intermodal System (SIS)

The SIS is Florida's high priority network of transportation facilities. SIS projects are identified at the state level by FDOT with input from MPOs and local governments. Pursuant to Florida Statute 339.64, the River to Sea TPO performs a critical role in the development and the advancement of SIS projects within its planning area. The inclusion and prioritization of SIS projects in the TPO's planning and programming processes are influential with regard to SIS Plan updates and may lead to revisions or reprioritization of SIS projects in the statewide plan.

Other Arterials

The Other Arterials projects represent major non-SIS corridors that are "On-System" (State Highway System) or "Off-System" (Non-State Highway System). These projects could be funded through federal (TMA) funds and state (non-SIS) funds defined as "Other Roads Construction and ROW" in the Connect 2045 Revenue Forecast. All TMA funds and up to 10% of "Other Roads Construction and ROW" funds can be estimated for "Off-System (Non-State Highway System)" projects. Specific TMA (SU) set-asides are defined in R2CTPO Resolution 2017-03.

Non-State Major Roadways

These projects are determined at the local level and are illustrative needs that would be expected to receive funding through local sources. In Connect 2045, locally identified projects are included as a separate list.

Table 6-12 includes the Strategic Intermodal System (SIS) Cost Feasible projects. **Table 6-13** includes Other Arterial Cost Feasible Projects. The map in **Figure 20** illustrates the SIS Cost Feasible and Unfunded Needs projects shown in **Table 6-12**, while **Figure 21** illustrates Other Arterial Cost Feasible and Unfunded Needs projects shown in **Table 6-13**. The Map ID listed for each project in Table 6-12 and 6-13 are used to label the corresponding projects in Figures 20 and 21.

Detailed tables of the Cost Feasible Plan projects are included in **Exhibit A** and **Exhibit B** of this document. **Exhibit A** includes the projects with the Year-of-Expenditure (YOE) costs, while **Exhibt B** includes the projects in terms of Present Day Value (PDV). These tables ensure the proposed improvements included in the Cost Feasible Plan are identified sufficiently per 23 C.F.R. 450.322(f)(6).

Local Initiatives

As shown in **Table 6-13**, Connect 2045 also aims to create high quality transportation facilities by allocating approximately $40 million (in present day dollars) in funding for Local Initiative projects on the state highway system. These include projects that address complete streets retrofits, roundabouts, technology projects, climate change adaptation and other improvements that support the goals of Connect 2045.

Table 6-12: Connect 2045 SIS Cost Feasible Projects

Map ID	Facility	Improvement	Cost (Year of Expenditure)
A	**I-4/SR 400** from Seminole County Line to East of SR 472	Widen to 8 lanes	$937.99 M
	SR 472 from Graves Avenue to Kentucky/ MLK Boulevard	Widen to 6 lanes	
	Saxon Boulevard from I-4 to Normandy Boulevard	Widen to 4 lanes	
	Rhode Island Avenue Extension from Veterans Memorial Parkway to Normandy Boulevard	Widen to 4 lanes	
B	**SR 15 (US 17)** from DeLeon Springs to SR 40	Widen to 4 lanes	$65.86 M
C	**SR 40** from Breakaway Trails to Williamson Boulevard	Widen to 6 lanes	$49.39 M
D	**SR 40** from West of SR 11 to West of Cone Road	Widen to 4 lanes	$79.92 M
E	**SR 40** from SR 15 (US-17) to SR 11	Widen to 4 lanes	$68.94 M
F	**I-95/LPGA Boulevard Interchange** from Williamson Boulevard to Tymber Creek Road Extension	Interchange Improvement	$32.48 M
G	**I-95 Interchange at Pioneer Trail**	New Interchange	$18.50 M
H	**I-95/US-1 Interchange**	Interchange Improvement	$32.20 M
I	**SR 100** from Old Kings Road to Belle Terre Parkway	Widen to 6 lanes	$59.95 M
J	**I-95/SR 44 Interchange**	Interchange Improvement	$2.25 M
K	**I-95 Interchange at Maytown Road** (Farmton Interchange)	New Interchange	Developer Funded

Table 6-13: Connect 2045 Other Arterial Cost Feasible Projects

Map ID	Facility	Improvement	Cost (Year of Expenditure)
P	**US-1 at Park Avenue**	Intersection Improvement	$7.95 M
Q	**SR 483 (Clyde Morris Blvd.)** from SR 400 (Beville Road) to US-92	Corridor Improvement	$84.35 M
R	**Old Kings Road** from Palm Harbor Village Way to Farnum Lane	Widen to 4 lanes	$28.91 M
S	**Old Kings Road** from Farnum Lane to Forest Grove Drive	Widen to 4 lanes	$35.77 M
T	**SR 44** from Grand Ave to SR 15A	Widen to 4 lanes	$27.05 M
U	**US-92** from I-4 Eastbound Ramp to CR 415 (Tomoka Farms Road)	Widen to 6 lanes	$67.00 M
L	**Tomoka River Bridge (LPGA)** W of Champions Drive to E of Tomoka Farms Road	Widen to 4 lanes	$3.57 M
V	**US 17/92** from SR 472 to SR 15A (Taylor Road)	ITS	$46.50 M
W	**SR 44** from I-4 to Prevatt Avenue	Widen to 6 lanes	$10.82 M
X	**US-1** from Nova Road (N) to I-95	Widen to 6 lanes	$65.62 M
Y	**SR 415 (Tomoka Farms Road)** from Acorn Lake Road to Lake Ashby Road	Widen to 4 lanes	$98.14 M
Z	**SR 415 (Tomoka Farms Road)** from Lake Ashby Road to SR 44	Widen to 4 lanes	$130.15 M
AA	**SR 44** from SR 415 to Glencoe Road	Widen to 6 lanes	$117.31 M
BB	**SR 44** from Lake County line to Grand Avenue	Widen to 4 lanes	$55.69 M
CC	**Old Kings Road Extension (Phase II)** from Mantanzas Woods Parkway to Old Kings Road	New 4-lane road	$15.13 M
DD	**Commerce Parkway Connector** from SR 5 (US-1) to SR 100	New 2-lane road	$12.80 M
B	**SR 15 (US 17)** from DeLeon Springs to SR 40	Widen to 4 lanes	$10.00 M
-	**Local Initiatives**	Varies	$72.08 M
-	**SHS Operational Improvements**	Varies	$3.34 M

UNFUNDED TRANSPORTATION NEEDS

There are several unfunded needs that the River to Sea TPO will look to fund should additional revenues become available. The unfunded needs for both the SIS and Other Arterial groupings are shown in Table 6-14 and Table 6-15.

Table 6-14: Unfunded SIS Needs Projects

Map ID	Facility	Improvement	Cost
L	**Tomoka River Bridge (LPGA Boulevard)** from West of Champions Drive to East of Tomoka Farms Road	Bridge	
M	**I-95/Matanzas Woods Parkway Interchange**	Interchange Improvement	TBD
N	**I-95** from SR 400 to Old Dixie Highway	Widen to 8 lanes	TBD
O	**I-95/SR 442 Interchange**	Interchange Improvement	TBD

Table 6-15: Unfunded Other Arterial Needs Projects

Map ID	Facility	Improvement	Cost
EE	**SR 415 (Tomoka Farms Road)/excludes bridge** from Seminole County line to Howland Drive	Widen to 6 lanes	$54.55 M
FF	**SR 11** from N. Woodland Boulevard to Flagler County line	Widen to 4 lanes	$141.90 M
GG	**Williamson Boulevard** from Madeline Avenue to SR 400 (Beville Road)	Widen to 4 lanes	$6.70 M
HH	**Veterans Memorial Parkway** from Harley Strickland to Graves Avenue	Widen to 4 lanes	$9.80 M
II	**Mantanzas Woods Parkway** from SR 5 (US-1) to I-95	Widen to 4 lanes	$14.80 M
JJ	**LPGA Boulevard** from Nova Road to US-1	Widen to 3 lanes	$12.95 M
KK	**Hand Avenue** from Clyde Morris Boulevard to SR 5A (Nova Road)	Widen to 4 lanes	$7.00 M
LL	**Josephine Street** from Old Mission to Tatum	Widen to 4 lanes	$4.95 M
MM	**North Entrance DeLand Airport** from Industrial Drive to SR 11	New 2-lane road	$2.26 M
NN	**LPGA Boulevard** from Tymber Creek Road to I-95	Widen to 4 lanes	$31.20 M
OO	**LPGA Boulevard** from US 92 to Tymber Creek Road	Widen to 4 lanes	$17.40 M
PP	**Dunn Avenue** from LPGA Boulevard to Tomoka Farms Road	New 2-lane road	$22.00 M
QQ	**Williamson Boulevard** from N of Summertrees Road to Madeline Avenue	Widen to 4 lanes	$27.00 M
RR	**Beresford Avenue Extension** from Kepler Road/ MLK Boulevard to SR 44	New 2-lane road	$15.84 M

Figure 20: Strategic Intermodal System (SIS) Projects

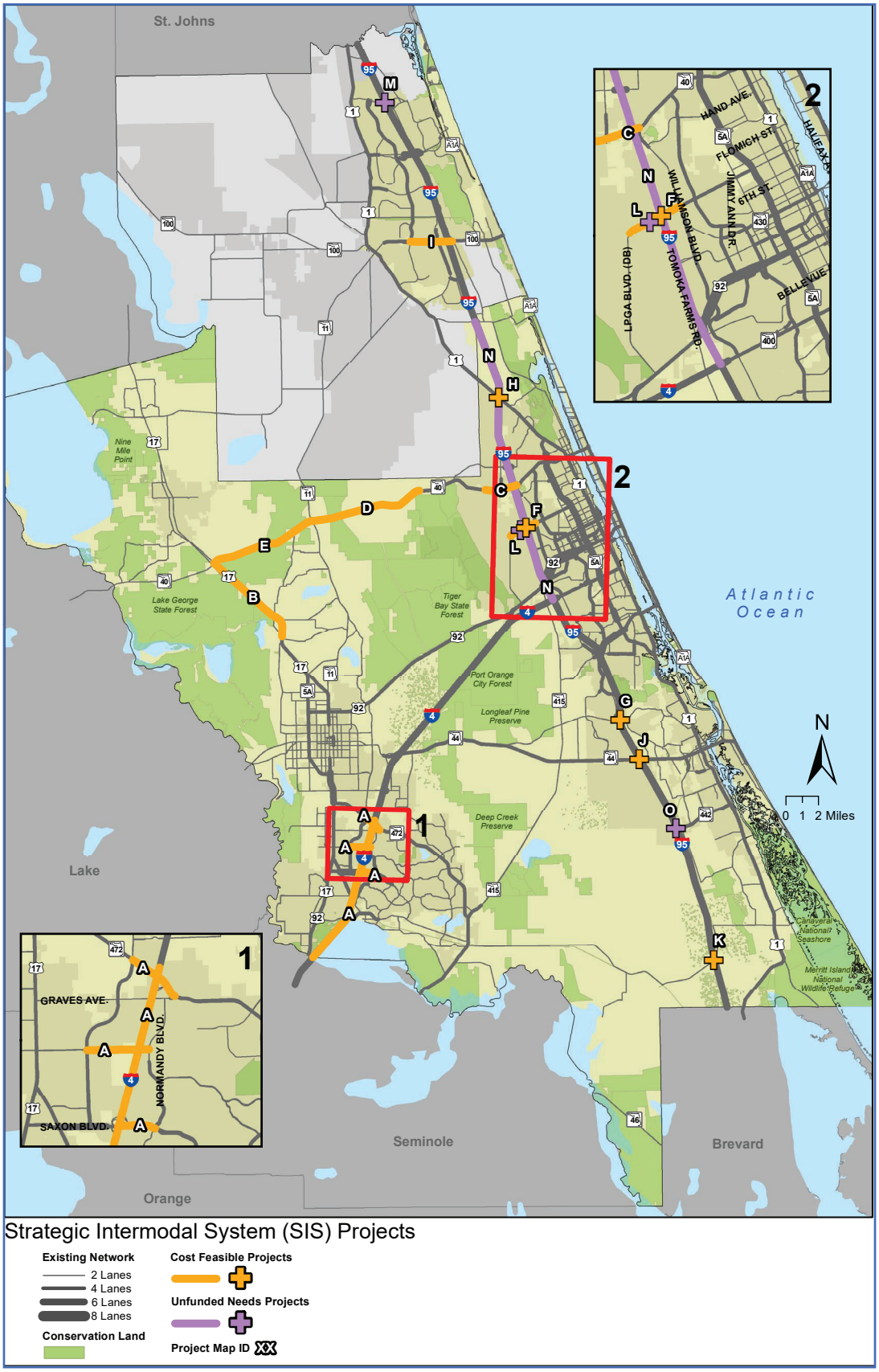


Figure 21: Other Arterials Projects

LOCAL ROADWAY PROJECTS

Local roadway projects were submitted by Volusia County and the City of Palm Coast for inclusion in Connect 2045 for informational purposes. While these local projects are not part of the Cost Feasible Plan, they reflect additional needs for the area's transportation network. These projects are funded through local resources and are managed by the respective local governments. The local projects provided by Volusia County and Palm Coast are illustrated in Table 6-16 through 6-18. More information is provided in **Appendix #.**

Table 6-16: Volusia County – Local Projects for Connect 2045

Project	Limits (To - From)	*Costs (in millions)*	Timing	General Location
Zone 1 - NE VOLUSIA				
LPGA Blvd - widening to 4 lanes	Tymber Creek Rd to I-95 Interchange	$21.7	2026 to 2030	Daytona Bch
Tymber Creek Road - New 2 lane road	South of SR 40 to LPGA Blvd	$17.1	2026 to 2030	Daytona/Ormond
Beach St - Raise Road	Pine Tree Dr to Tomoka River bridge	$4.0	2031 to 2035	Ormond Bch
Hand Ave - widening to 4 lanes	Williamson Blvd to SR 5A/Nova Rd	$24.0	2031 to 2035	Ormond Bch
Williamson Blvd - widening to 4 lanes	Madeline Ave to SR400/Beville Rd	$11.4	2031 to 2035	Daytona/Port Orange
Dunn Ave - widening to 4 lanes	Williamson Blvd. to Bill France Blvd.	$9.4	2036 to 2040	Daytona Bch
Dunn Ave - widening to 4 lanes	Bill France Blvd. to Clyde Morris Blvd.	$7.1	2036 to 2040	Daytona Bch
Tymber Creek - widening to 4 lanes	Peruvian to Airport	$8.8	2036 to 2040	Ormond Bch
LPGA Blvd - widening to 4 lanes	US 92 to Tymber Creek Rd	$16.1	2041 to 2045	Daytona Bch
Taylor Branch Rd - widening to 4 lanes	SR 421/Dunlawton Av to Clyde Morris Blvd	$8.3	2041 to 2045	Port Orange
Tomoka Farms Rd - widening to 4 lanes	I-4 Overpass to US 92/ISB	$6.4	2041 to 2045	Daytona Bch
Zone 2 - SE VOLUSIA				
Pioneer Tr/Tomoka Farms Rd - Roundabout	Intersection Improvement	$3.5	2026 to 2030	Samsula
Pioneer Tr/Wallace Rd - Safety & Paved Shoulders	I-95 to SR 44 (East)	$13.5	2026 to 2030	New Smyrna Bch
Joesphine St./10th St - widening to 4 lanes	Old Mission to Tatum St	$5.0	2031 to 2035	New Smyrna Bch
Pioneer Tr - Safety & Paved Shoulders	SR 44 (West) to Airport Rd	$5.5	2031 to 2035	Samsula
Sugar Mill Rd - widening to 4 lanes	SR 44 to Pioneer Tr	$9.8	2041 to 2045	New Smyrna Bch
Zone 3 - SW VOLUSIA				
W Volusia Beltway (VMP Extension) - New 4 lane	SR 472 to Graves	$15.0	2026 to 2030	Orange City
W Volusia Beltway (VMP) - widening to 4 lanes	Rhode Island Ave to Harley Strickland	$6.6	2026 to 2030	Orange City
W Volusia Beltway (VMP) - widening to 4 lanes	Graves to Rhode Island Ave	$7.5	2031 to 2035	Orange City
Dirksen - adding bi-directional turn lane	US 17/92 to I-4	$7.9	2031 to 2035	DeBary
Doyle Road - widening to 4 lanes	Providence Blvd. to Saxon Blvd	$16.8	2036 to 2040	Deltona
Doyle Road - widening to 4 lanes	Saxon Blvd. to Courtland Blvd.	$15.5	2041 to 2045	Deltona
Doyle Road - widening to 4 lanes	Courtland Blvd. to SR 415	$9.6	2041 to 2045	Deltona
Zone 4 - NW VOLUSIA				
Beresford Ave - extend road	MLK/Kepler to SR 44	$4.9	2026 to 2030	DeLand
W Volusia Beltway (Kepler Rd) - widening to 4 lanes	US 92 to SR 44	$16.5	2031 to 2035	DeLand
W Volusia Beltway (Kepler Rd) - widening to 4 lanes	SR 44 to Beresford Ave Extension	$4.6	2031 to 2035	DeLand
W Volusia Beltway (Dr MLK Jr) - widening to 4 lanes	Beresford Ave Extension to Taylor Rd	$6.2	2036 to 2040	DeLand
W Volusia Beltway (Dr MLK Jr) - widening to 4 lanes	Taylor Rd to Orange Camp Rd	$6.2	2036 to 2040	DeLand
W Volusia Beltway (Dr MLK Jr) - widening to 4 lanes	Orange Camp Rd toSR 472	$10.5	2041 to 2045	DeLand
Blue Lake Avenue Extn - New 2 LN	Blue Lake Ave (in Victoria Park) to Orange Camp Rd	$8.0	2041 to 2045	DeLand

Table 6-17: Volusia County – Unfunded Local Projects for Connect 2045

Project	Limits (To - From)	*Costs (in millions)*	Timing	General Location
Zone 1 - UNFUNDED PROJECTS				
Airport Road (PO) - widening to 4 lanes	Sabal Creek to Creekside Middle	$6.7		Port Orange
Airport Road (PO) - widening to 4 lanes	Creekside Middle to Pioneer Trail	$7.6		Port Orange
Airport Road (OB) - widening to 4 lanes	Tymber Creek Rd. to Pineland Tr.	$8.1		Ormond Beach
Airport Road (OB) - widening to 4 lanes	Pineland Tr. to Sunshine Blvd.	$8.7		Ormond Beach
Airport Road (OB) - widening to 4 lanes	Sunshine Blvd. to US 1	$10.5		Ormond Beach
Dunn Ave - New 2 lane road	LPGA Blvd to Tomoka Farms Rd	$37.8		Daytona Beach
Knox Bridge Replacement	Bridge	$25.0		Ormond by the Sea
Main St Bridge Replacement	Bridge	$50.0		Daytona Beach
Old Kings Hwy - - widening to 4 lanes	Old Dixie Hwy to Flagler Co line	$7.6		Ormond Beach
Taylor Road (CO) - widening to 4 lanes	Tomoka Farms Rd to Summer Tree Rd	$20.4		Port Orange
Tomoka Farms Rd - widening to 4 lanes	Taylor Rd to I-4 Overpass	$22.8		Port Orange
Williamson Blvd - widening to 4 lanes, incl I-95 Overpass	Summer Tree Rd to Madeline Ave	$32.0		Port Orange
Zone 2 - UNFUNDED PROJECTS				
Pioneer Trail - widening to 4 lanes	Airport Road to I-95	$13.8		New Smyrna Beach
Pioneer Trail - widening to 4 lanes	SR 44 (West) to Airport Rd	$47.2		Samsula
Williamson Blvd - New 4 Lane	SR 44 to Pioneer Tr	$33.0		New Smyrna Beach
Zone 3 - UNFUNDED PROJECTS				
Providence Blvd - widening to 4 lanes	Doyle Road to East Normandy	$14.1		Deltona
Providence Blvd - widening to 4 lanes	East Normandy to Saxon	$7.3		Deltona
Providence Blvd - widening to 4 lanes	Saxon to Tivoli	$8.8		Deltona
Providence Blvd - widening to 4 lanes	Ft. Smith Blvd to Howland Blvd	$14.5		Deltona
Rhode Island Ext with I-4 overpass - extend as 2 lane road	Veterans Memorial Pkwy to Normandy Blvd	$15.5		Deltona/Orange City
Rhode Island Ext - I-4 Interchange	I-4 Interchange	$73.0		Deltona/Orange City
Saxon Blvd - widening to 4 lanes	Tivoli to Providence	$8.3		Deltona
Saxon Blvd Extension - extend road	US 17/92 to Westside Parkway	$9.9		DeBary/Orange City
Westside Pkwy - extend road	French Av to Rhode Island Ave	$8.5		Orange City
Westside Pkwy - extend road	Rhode Island Ave to Saxon Blvd Extension	$11.8		Orange City
Westside Pkwy - extend road	McGregor Rd to Minnesota/Hamilton	$6.2		Orange City/DeLand
Zone 4 - UNFUNDED PROJECTS				
CR 305 (Bunnell Rd) - widening to 4 lanes	US-17 to Flagler Co line	$38.4		Seville
Orange Camp Rd - widening to 4 lanes	US 17/92/Woodland Blvd to W Volusia Bltwy/MLK	$19.1		DeLand
Plymouth Ave - adding bi-directional turn lane	SR 15A to US 17/92	$9.2		DeLand

Table 6-18: City of Palm Coast Unfunded Local Projects for Connect 2045

Projects	Limits (To - From)	Cost ($millions)*	Date of Estimate
Belle Terre Parkway - widening to 6-lanes	Pine Lakes Pkwy to Palm Coast Parkway (EB)	$2.60	2018
Bulldog Drive - widening to 4-lanes	SR100 to Central Ave.	$3.60	2018
Matanzas Woods Pkwy. - widening to 4-lanes	US1 to Southbound I-95 ramps	$14.10	2014
Matanzas Woods Pkwy. - widening to 4-lanes	I-95 to Old Kings Rd. Extension	$2.46	2014
Old Kings Rd. South - widening to 4-lanes	SR100 to Old Dixie Hwy.	TBD	
Old Kings Rd. - widening to 4-lanes	Town Center Blvd. to Palm Coast Pkwy.	$7.80	2018
Royal Palms Parkway - widening to 4-lanes	US1 to Town Center Blvd.	$29.30	2018
Town Center Blvd - widening to 4-lanes	Central Ave. to Royal Palms Pkwy.	$6.10	2018
Belle Terre Pkwy. Corridor Turn-lane Project	Eastwood Dr. to Burroughs Dr.	$1.89	2018
Belle Terre Blvd. Corridor Turn-Lane Project	Karas Trail to Zonal Geranium Trail	$0.39	2018
Colbert Lane @ Blare Dr. Turn-Lane Project	Colbert Lane @ Blare Dr.	$0.10	2018
Palm Harbor Pkwy. Corridor Turn-Lane Project	Crystal Way to Fernmill Lane	$1.76	2018
Pine Lakes Pkwy. S. Corridor Turn-Lane Project	Wellington Dr. to Commerce Blvd.	$1.27	2018
Ravenwood @ Rolling Sands Dr. Turn Lane	Ravenwood Dr. @ Rolling Sands Dr.	$0.10	2018
Rymfire Dr. Corridor Turn-Lane Project	Ryan Dr. E to Rymfire Elementary	$1.46	2018
Seminole Woods Blvd. Corridor Turn-Lane Project	Sloganeer Tr. W. to Pinnacles Plaza	$1.56	2018
Whiteview Pkwy. Corridor Turn-Lane Project	Rolling Sands Dr. to Princess Rose Dr.	$2.08	2018
Palm Coast Pkwy. And Pine Lakes Pkwy. SB Right Turn Lane	Palm Coast Pkwy. and Pine Lakes Pkwy.	$0.10	2018
Palm Coast Pkwy. (EB) @ Pine Cone Dr. Turn Lane and Signal Improvement	Palm Coast Pkwy. and Pine Cone Dr.	$0.53	2018
Palm Coast Pkwy. (EB) Turn-lane Projects	Corporate Dr. to Belle Terre Pkwy.	$0.20	2018
Palm Coast Pkwy. (WB) Turn Lane Projects	Bridgehaven Dr. to Corporate Dr.	$0.39	2018
Palm Coast Pkwy. (WB) Turn Lane Projects & Signal Improvement	Pine Cone Dr. to Frontage Rd.	$0.72	2018
Palm Coast Pkwy. (WB) @ Colbert Lane Turn-lane Projects	Palm Coast Pkwy. and Colbert Lane	$0.10	2018

* No Right of Way Costs Included

CONGESTION MANAGEMENT

Maintenance of a Congestion Management Process (CMP) is a requirement for all MPOs under Florida law and for MPOs in Transportation Management Areas (TMA) under federal law. Consistent with the guidance from the Federal Highway Administration (which provides the funding for this program), the intent of the Congestion Management Process is to "address congestion management through a process that provides for safe and effective integrated management and operation of the multi-modal transportation system." A vibrant congestion management process can serve a valuable role in addressing the region's transportation needs in light of the following:

- Many roadway corridors have already been built out to their maximum number of travel lanes;
- Funding levels limit the number of new large scale projects which can be planned and constructed; and
- Transportation safety is becoming an increasingly important planning consideration.

The elements of a successful CMP are defined in the Federal Highway Administration's (FHWA) Process Model, which includes eight actions or steps which are crucial for developing a comprehensive CMP. The R2CTPO CMP closely follows these eight actions as defined by FHWA and listed below:

1. Develop Regional Objectives for Congestion Management
2. Define CMP Network
3. Develop Multimodal Performance Measures
4. Collect Data/Monitor System Performance
5. Analyze Congestion Problems and Needs
6. Identify and Assess Strategies
7. Program and Implement Strategies
8. Evaluate Strategy Effectiveness

The River to Sea TPO developed its CMP in concert with the 2040 Long Range Transportation Plan. It was adopted by the TPO Board on August 26, 2015 by Resolution 2015-16 and is included in **Technical Appendix ##**. The TPO adopted a Congestion Management/Performance Measures Report on October 24, 2018 (**Appendix ##**).

The CMP provides performance measures to evaluate the network over time. The R2CTPO developed the initial performance evaluation of the transportation system as prescribed in the CMP, as well as an overall "Performance Scorecard" that includes key performance measures and provides a snapshot of how the transportation system is functioning. The scorecard identified unfavorable trends in auto demand, auto safety, bicycle and pedestrian safety, and total crashes. Some favorable trends were found related to transit demand.

INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) are made up of a variety of communications and computer technologies focused on detecting and relieving congestion and improving safety within the transportation system by enabling drivers to make smart travel choices. ITS technology communicates in real time to travelers about where congestion is occurring and provides information on alternative routes or modes to reduce the severity and duration of congestion. ITS can also communicate where a crash has occurred, and alert officials to request assistance in clearing the accident, which helps restore traffic flow.

The R2CTPO ITS Master Plan, Phase I (**Technical Appendix ##**) includes a vision, goals, and objectives consistent with the 2040 LRTP; an inventory of existing ITS elements and organizational relationships; and stakeholder interviews with Volusia and Flagler counties, municipalities, FDOT District Five, law enforcement agencies, Votran, and SunRail.

The ITS Master Plan provides an overview of existing and planned ITS infrastructure within the TPO's boundary, and a general overview of the types of communication infrastructure utilized by various agencies including FDOT District Five and its related services (e.g. Florida 511, Regional ITS Architecture, Traffic Incident Management). A qualitative assessment of the existing ITS system notes that there are some challenges related to communication breakdowns between agency networks, and other interagency coordination issues. Staff shortages, aging equipment, maintenance, and the need for specialized training are other issues facing the ITS system. It is noted that each local transportation agency has a focus on connecting traffic signals to a common ITS network, automated vehicles, and pedestrian/bicycle data collection.

The successor to the ITS Master Plan, Phase I, was the TPO's TSM&O Master Plan Phase 2 (Technical Appendix ##). This plan provides an overview of various TSM&O strategies and based on a scoring and ranking of roadway segments within the LRTP network offers recommendations regarding the most applicable strategies and projects. TSM&O is an approach to improving the performance and efficiency of the transportation network by addressing traffic-related problems and minimizing congestion through the utilization of ITS, signal system control, and other management and operational strategies. This plan includes a respective Top 25 ranking for SIS, Regional, Non-Regional, and Collector roadway segments within the LRTP network to determine where TSM&O strategies are expected to provide the greatest benefit and optimum return on investment. It also includes four (4) recommended TSM&O deployments with related cost information.

Automated, Connected, Electric, and Shared-Use (ACES) Vehicles

As technology continues to evolve and transform transportation at an accelerating pace, it is noted that ACES technologies will have significant impact on the TPO's future transportation systems. Personal and public vehicles alike are using increased levels of technology, and combined with shared mobility, are integrating into an existing transportation system that must be supportive of the technology. The FDOT developed guidance for ACES planning in September 2018. This guidance can be found in Technical Appendix ## and was the basis for Connect 2045's Technology/ACES Scenario. The TPO is also using this guidance in planning for congestion management and the evolution of transportation throughout the community and region.

In June 2020, the TPO adopted a Connected and Automated Vehicle Readiness Study – Technology Transition Plan. The study includes a thorough review of connected and automated vehicle (CAV) readiness, including an assessment of the region's preparedness to adopt and adapt to new technologies and mobility solutions. The Technology Transition Plan (TTP) outlines a transition plan specific to the planning area for adopting transformational technologies at the local community level and for incorporating new transportation technologies into regional plans, land development codes, and funding.

Chapter 5 discusses the Technology/ACES Scenario that was performed to identify and prioritize potential corridors for future infrastructure technology improvements. The $40 million set-aside for local initiatives on the state highway system could include technology projects identified within the ACES Corridor Prioritization developed in this scenario.

TRANSIT (PUBLIC TRANSPORTATION)

Transit plays an important role in providing access to education, employment, healthcare, and cultural/environmental resources. Although transit may benefit those that choose to utilize it regularly, transit also has the capacity to improve the quality of life for those who cannot otherwise freely travel by other modes. Transit can also provide economic benefits—such as ensuring that local and regional businesses have dependable access to the workforce.

Connect 2045 continues to provide support for local transit service by reserving a portion of the TMA set-aside to provide funding of approximately $34 million through the plan horizon. The TPO recognizes that the TMA set-aside funding, along with the Federal, State and local funding shown in the revenue forecast, is only sufficient to support the continuation of existing service. Funding for service expansion in the long run has not been identified. The TPO will continue to seek additional transportation funding strategies that will support efforts to expand transit service in the area.

Regional Transit Opportunities

REGIONAL TRANSIT STUDY

Led by the Central Florida Metropolitan Planning Organization Alliance (CFMPOA), the Regional Transit Study, completed in October 2018, is a ten-county effort to establish a regional transit vision and create a consensus on regional transit priorities in Central Florida. The study presents strategies for advancing the regional vision, including identifying high priority transit investments that could be implemented in the short-term, as well as detailing approaches and processes for advancing the near- and long-term elements of the vision in state, regional and local plans. The River to Sea TPO continues to support the regional effort to link high-priority transit elements.

PASSENGER RAIL

Brightline is the only privately owned and operated intercity passenger railroad in the United States. In Florida, service is currently operating between Miami, Fort Lauderdale and West Palm Beach. An expansion is currently under construction to provide service from West Palm Beach to the Orlando International Airport with plans to further extend the service to Tampa. The River to Sea TPO recognizes the importance of rail travel and the opportunity it presents to offer additional transportation choices that may enhance and alter traveler behaviors across the state. The TPO is in support of, and will continue to pursue, a future expansion of the service north to Jacksonville with a potential station located in the TPO planning area.

I-4 RAIL ENVELOPE

The River to Sea TPO continues to support the preservation of a rail envelope to accommodate future passenger rail service within the I-4 corridor extending throughout the metropolitan planning area (MPA) from SR 46 eastward to I-95 (based on logical termini).

BICYCLE AND PEDESTRIAN

The River to Sea TPO has a long-standing commitment to bicycle and pedestrian planning and project implementation and works closely with local, regional, and state stakeholders. The TPO has completed numerous bicycle and pedestrian feasibility studies and plans focused on school safety, as well as regional and local comprehensive and multimodal transportation plans. The continued allocation of TMA set-aside funding for Bicycle/Pedestrian projects (roughly $34 million through the year 2045) and the use of Transportation Alternatives (TA) funding reaffirms the River to Sea TPO's commitment to the development of bicycle and pedestrian facilities and regional trail facilities that provide vital connections within the state and national trail and greenway network.

Additionally, the TPO is fortunate to have the Tier 1 & 2 SUN Trail regional trail networks (Coast to Coast Trail and St. Johns River to Sea Loop Trail) within the planning area. SUN Trail projects within the regional network are funded over time through various sources including the $25 million annual state SUN Trail funding set-aside (Section 339.81(5) Florida Statutes). SUN Trail projects outside of the regional trail networks can also be pursued for funding under the SUN Trail Individual Project category.

River to Sea TPO Bicycle and Pedestrian Plan

The R2CTPO's Bicycle and Pedestrian Plan **(Technical Appendix ##)** outlines a vision, goals, and objectives for providing a safe, accessible, and connected network of bicycle, pedestrian, and trail facilities for the TPO's planning area and respective regional connections. The Bicycle and Pedestrian Plan conveys the TPO's commitment to bicycle and pedestrian planning, safety, and project implementation – all of which informed the goals and objectives of Connect 2045.

The goals of the Bicycle and Pedestrian Plan include:

1. Reduce the number of bicycle and pedestrian-related injuries and fatalities for all ages and users
2. Make all facilities safe places to walk and ride a bicycle for all ages and users
3. Enhance connectivity and multi-modal transportation choices
4. To continue to identify and map existing and proposed facilities
5. To provide for the safety of all mobility-impaired users

The plan provides data related to bicycle crashes, pedestrian crashes, and the location of high crash intersections. Inventories of bicycle, pedestrian, and regional trail facilities are also provided. The Bicycle and Pedestrian Plan provides background on the concept of Complete Streets, related FDOT policy, and how it may be implemented within varying local contexts. The plan also outlines bicycle pedestrian facility design considerations including wayfinding, markings, crosswalks, and signal timings.

BICYCLE AND PEDESTRIAN NEEDS AND PRIORITIES

The River to Sea TPO prioritizes on an annual basis bicycle, pedestrian, and trails projects which may be eligible for funding.

FREIGHT

The River to Sea TPO is committed to the efficient movement of goods and supporting the needs of the freight community throughout the planning area and the region. The TPO looks forward to continued involvement in planning for meeting these needs. As part of the planning process, the TPO engaged the freight community, including extensive coordination with the FDOT Freight Coordinator and organizations that represent freight industry companies (see Chapter 4). It is critical that the area's transportation network support Trader Joe's, Amazon, US Foods, Boston Whaler and other commercial and manufacturing operations that demonstrate the increased demand for freight activity. Economic development objectives will continue to identify potential distributors and manufacturers that may locate to this area. Freight parking is also an issue that has been identified as a problem that needs to be addressed. This plan considered the findings of both FDOT's District Five Truck Parking Study and Statewide Truck Parking Study.

Freight mobility was one of the criteria used in the technical criteria scoring, giving increased points to corridors that are designated as freight routes. Strategic Intermodal System (SIS) projects identified in the Cost Feasible Plan (see Figure 20) are among the most critical needs that address efficient and safe movement of freight. Through a coordinated effort with FDOT, the Connect 2045 Freight Summary (Appendix #) was developed to provide a comprehensive overview of freight issues and needs in the TPO area and beyond. Connect 2045 is consistent with the Central Florida Regional Freight Mobility Study.

TRANSPORTATION SAFETY

The River to Sea TPO has had a longstanding commitment to improving transportation safety and Connect 2045 reflects this commitment by allocating funds to improve traffic safety and operations and to utilize new technology to improve the efficiency of our existing system. This plan allocates roughly $45 million in TMA set-aside funding through the year 2045 for projects that improve safety and efficiency. Additionally, activities included in the Unified Planning Work Program such as the completion of school safety studies for all elementary and middle schools within the planning area, pedestrian law enforcement training and exercises, health and safety partnerships with local agencies, participation on the Community Traffic Safety Teams and helmet distribution programs have led to increased safety awareness and project specific recommendations to reduce injuries and fatalities throughout the planning area.

As noted in Chapter 2 and Chapter 5, safety data was utilized in the prioritization of projects for inclusion in the Cost Feasible Plan. A project prioritization process was developed that assigned higher scores to projects based on an analysis of number of crashes by severity in an effort to prioritize projects within the plan that are likely to reduce fatalities and serious injuries.

The R2CTPO 2017 Crash Analysis Report **(Technical Appendix ##)** provides a detailed review and analysis of crash data for Volusia and Flagler Counties, covering the period from 2011-2015. Both roadway segments and intersections were analyzed based on crash frequency and severity, as well as the types of crashes (rear-end, left-turn, sideswipe, right angle, head-on, impaired driving, distracted driving, crashes involving bicyclists/pedestrians). Of note, annual crash totals increased substantially over the study period, with rear-end collisions accounting for 28% of the total.

The report recommended a more detailed review of the high-crash intersection and roadway segments, rear-end collisions, motorcycle crashes, and crash-related behavior to identify causes and potential countermeasures.

The R2CTPO Roadway Safety Evaluation & Improvement Study (**Technical Appendix ##**) further refined the crash analysis in order to develop a process to address and mitigate the high volume of crashes within the planning area.

SAFETY EMPHASIS AREAS

The TPO considered federal and state safety documents, including the FDOT State Strategic Highway Safety Plan (SHSP) ,during this LRTP process.

The FDOT SHSP is included in Technical Appendix ##. To ensure consistency with the SHSP the River to Sea TPO will support the Key Safety Emphasis Areas as listed here:

- **Lane Departures**
- **Impaired Driving**
- **Pedestrians and Bicyclists**
- **Intersections**
- **Occupant Protection**
- **Motorcyclists**
- **Aging Road Users**
- **Commercial Motor Vehicles**
- **Speeding and Aggressive Driving**
- **Teen Drivers**
- **Distracted Driving**
- **Work Zones**
- **Traffic Records and Information Systems**

Vision Zero

Vision Zero is a multi-dimensional effort to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero is increasingly being adopted across the United States. It takes a traditional approach to safety and reconsiders some of the most basic assumptions made over the past decades to reduce the number of deaths on American roadways. The FDOT initially established a Vision Zero policy in 2012, and the 2016 update of the SHSP supports the policy.

The TPO acknowledges and supports FDOT's statewide safety targets, which set the target at "0" for each performance measure to reflect the Department's goal of zero deaths. On January 24, 2018, the TPO adopted Resolution 2018-02 to establish the TPO's target of a 2% reduction based on a five-year rolling average for the required safety performance measures. In February 2019, and most recently on February 26, 2020, the TPO adopted Resolution 2020-03 and reaffirmed its commitment to a 2% reduction based on a five-year rolling average for the required safety measures.

TRANSPORTATION SECURITY

Better planning in transportation security can help reduce the negative impacts to local and regional transportation systems from major natural or manmade events, such as hurricanes, tornadoes, flooding, or terror attacks. In addition, Federal requirements for metropolitan planning also include considering security as a factor in LRTPs. The metropolitan planning process should provide for consideration and implementation of projects, strategies, and services that will increase the security of the transportation system for motorized and non-motorized users.

The TPO can play a key role in planning both before and after a disaster. Pre-disaster planning involves efforts to guard against, prepare for, and mitigate a disaster's effects; while post-disaster planning focuses on restoring essential functions, speeding recovery, and rebuilding in the wake of a disaster.

Largely because of its vulnerability to hurricanes and tropical storms, Florida has become a leader in emergency management and disaster mitigation planning. Local governments prepare several types of plans that MPOs and TPOs should be aware of and, as appropriate, participate in developing:

- Comprehensive Emergency Management Plans: Operational procedures used to prepare for, respond to, recover from, and mitigate emergencies.
- Local Mitigation Strategies: Identify and prioritize hazard mitigation needs and strategies to reduce the vulnerability to natural hazards.
- Post-Disaster Redevelopment Plans: Outlining recovery and reconstruction procedures and policies.

Considerations of transportation security were integrated into the project prioritization process for this plan as scoring criteria was included for those projects located along evacuation routes. As an important follow-up to Connect 2045's Resiliency Scenario (Chapter 5), the TPO will utilize the information from the scenario analysis and prior studies to develop a strategy for future incorporation of resiliency data into long range planning that advances the Board's policy direction.

TOURISM AND TRAVEL

Owing to the TPO planning area's status as a leading tourism destination, long range planning must not only consider a burgeoning resident population, but constantly growing visitation as well. Significant influxes of visitors translate into major seasonal impacts to the transportation network associated with races at Daytona International Speedway, motorcycle rallies, festivals, and other events. The area is also noted for its nature-based destinations and opportunities as highlighted through corridors such as the A1A Scenic & Historic Coastal Byway, River of Lakes Heritage Corridor, Halifax Heritage Byway, Ormond Scenic Loop and Trail and extensive regional trail investments.

Tourism and travel industry representatives were among those providing feedback to this plan through input mechanisms such as the Focus Group Workshops. Indicative of the issues raised was the need to provide transportation choices for visitors who come to the area but don't intend to use a private vehicle. This affirms the TPO's efforts to expand multimodal transportation choices addressed in other sections of this plan. During the planning process, the concept of utilizing tourism corridors like A1A as pilot areas for emerging transportation technologies was also raised. As a future technology working group is formed, this will be an appropriate topic to consider as part of that effort. Tourism and travel were also integrated into the planning and project prioritization process through scoring criteria that gave points to projects providing access to tourism activity centers. The review of tourism data for Connect 2045 included the Central Florida Visitor Study.

REGIONAL COORDINATION

Due to the amount of growth the TPO's planning area has experienced and the expectations that it will continue, ongoing regional transportation planning is critical. The TPO has maintained strong alliances and collaboration with partners in the region and throughout the state through organizations including the East Central Florida Regional Planning Council (ECFRPC), the Central Florida MPO Alliance (CFMPOA), and the Florida Metropolitan Planning Organization Advisory Council (MPOAC).

The CFMPOA is a partnership of metropolitan planning organizations in the Central Florida area encompassing Orange, Osceola, Seminole, Brevard, Lake, Sumter, Polk, Volusia, Ocala, and Marion counties that meet to collaborate on the transportation needs of the region. The CFMPOA continues to develop a regional list of priority projects for the mutual benefit of the region and to improve the communication of regional priorities to the FDOT. The TPO will ensure that the regional projects contained in Connect 2045 are reflected in regional transportation plans.

The River to Sea TPO recognizes there are several regional transportation corridors linking the surrounding MPO/TPO regions and there may be opportunities in the future for coordination between the agencies.

Note: For the purpose of the Chapter 6 Draft document review, this information is being provided as an Exhibit. In the final document this data will become part of the full Appendix and numbered/ lettered accordingly and referenced as such.

CHAPTER 6 - EXHIBIT A

ROADWAY PROJECTS AND COSTS YEAR-OF-EXPENDITURE (YOE)

Chapter 6 - Exhibit A
Strategic Intermodal System (SIS) - Cost Feasible Projects and Costs - Year of Expenditure (YOE)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	YOE Cost	Time	YOE Cost	Time	YOE Cost	Time	YOE Cost		
A	I-4 / SR 400	Seminole C/L	0.5 MI E of SR 472	Managed Lanes	Complete	$ -	Complete	$ -	2031-2035	$ 36,923,000	2031-2035	$ 901,071,000	1	COST FEASIBLE
	SR 472	Graves Ave	Kentucky/MLK Blvd	4D-6D										COST FEASIBLE
	Saxon Blvd	I-4	Normandy Blvd	Ramp Improvements										COST FEASIBLE
	Rhode Island Extension	Veterans Memorial Pkwy	Normandy Blvd	2U-4D										COST FEASIBLE
B	SR 15 (US 17)	Deleon Springs	SR 40	2U-4D	Complete	$ -	Complete	$ -	Programmed	$ 11,142,775	2025-2030	$ 65,862,017	2	COST FEASIBLE [1]
C	SR 40	Breakaway Trails	Williamson Blvd	4D-6D	Complete	$ -	Programmed	$ 2,750,000	2025	$ 2,260,000	2036-2045	$ 41,175,000	3	COST FEASIBLE
									2026-2030	$ 5,955,000				
D	SR 40	W of SR 11	W of Cone Rd	2U-4D	Complete	$ -	2031-2035	$ 7,365,000	Programmed	$ 2,411,357	2036-2045	$ 72,370,000	4	COST FEASIBLE
									2025	$ 429,000				
									2026-2030	$ 181,000				
E	SR 40	SR 15 (US-17)	SR 11	2U-4D	Complete	$ -	2031-2035	$ 6,338,000	Programmed	$ 4,206,411	2036-2045	$ 62,279,000	5	COST FEASIBLE
									2025	$ 880,000				
									2026-2030	$ 319,000				
F	I-95/LPGA Blvd	Williamson Blvd	Tymber Creek Rd Ext	Interchange Improvement	Complete	$ -	2031-2035	$ 3,000,000	N/A	$ -	2036-2045	$ 29,480,000	6	COST FEASIBLE
G	I-95/Pioneer Trail New Interchange	At Pioneer Trail	Interchange / Intersection	Interchange Improvement	Programmed	$ 4,000,000			Programmed	$ 3,730,000	2036-2045	$ 33,134,000	7	COST FEASIBLE
H	I-95/US 1 Interchange	at US-1	Interchange / Intersection	Interchange Improvement	Programmed	$ 2,050,000	2031-2035	$ 4,200,000	TBD	TBD	2036-2045	$ 28,000,000	8	COST FEASIBLE
I	SR 100	Old Kings Rd	Belle Terre Pkwy	4D-6D					2031-2035	$ 3,170,000	2036-2045	$ 56,775,000	9	COST FEASIBLE
J	I-95/SR 44	at SR 44	Interchange / Intersection	Interchange Improvement	2029-2035	$ 2,250,000	TBD	TBD	TBD	TBD	TBD	TBD		COST FEASIBLE
K	I-95 Interchange (Farmton Interchange)	At Maytown Rd	Interchange / Intersection	Interchange Improvement	Developer Funded									COST FEASIBLE - DEVELOPER FUNDED
L	Tomoka River Bridge (LPGA Blvd)	West of Champions Dr	E of Tomoka Farms Rd	Bridge to match interchange configuration							TBD	$ 10,000,000		PARTIALLY FUNDED [2]

SHS = State Highway System; CFP = Cost Feasible Plan; Imprv = Improvement; PDV = Present Day Value; LOPP = List of Priority Projects; SIS = Strategic Intermodal System; OA = Other Arterials
U = Undivided; D = Divided; F = Freeway; TBD = To be determined

[1] It is anticipated that this US-17 (SR 15) widening will be a SIS-funded project. $ 10,000,000 is identified in the OA table for funding to show local commitment and priority.

[1] It is anticipated that this US-17 (SR 15) widening will be a SIS-funded project. $ 10,000,000 is identified in the OA table for funding to show local commitment and priority.

[2] It is anticipated that the Tomoka River Bridge will be a SIS-funded project. $ 3,000,000 is identified in the OA table for funding 30% to show local commitment and priority.

Chapter 6 -Exhibit A (continued) Strategic Intermodal System (SIS) - Unfunded Needs					
Map ID	**On Street**	**From Street**	**To Street**	**Imprv**	**Funding Status**
S	Tomoka River Bridge (LPGA Blvd)	West of Champions Dr	E of Tomoka Farms Rd	Bridge	PARTIALLY FUNDED
R	I-95/Matanzas Woods Pkwy	At Matanzas Woods Pkwy	Interchange / Intersection	Interchange Improvement	UNFUNDED Interim Improvements Funded
N	I-95	SR 400	Old Dixie Hwy	6F-8F	UNFUNDED
O	I-95	SR 442	Interchange / Intersection	Interchange Improvement	UNFUNDED

Chapter 6 -Exhibit A (continued)
Other Arterials Cost Feasible Projects and Costs - Year of Expenditure (YOE)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	YOE Cost	Time	YOE Cost	Time	YOE Cost	Time	YOE Cost		
P	US-1	At Park Ave		Intersection	2020-2025	$ 372,000	2025	$ 416,500	2025	$ 3,332,000	2025-2030	$ 4,620,000	1	COST FEASIBLE
Q	SR 483 (Clyde Morris Blvd)	SR 400 (Beville Rd)	US-92	Corridor Improvement[1]	COMPLETE	$ -	COMPLETE	$ -	2025-2030	$ 42,108,000	2025-2030	$ 42,240,000	2	COST FEASIBLE
R	Old Kings Road	Palm Harbor Village Way	Farnum Ln	2U-4D	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2031-2035	$ 28,907,500	3	COST FEASIBLE
S	Old Kings Road	Farnum Ln	Forest Grove Dr	2U-4D	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 35,772,500	3	COST FEASIBLE
T	SR 44	Grand Ave	SR 15A	2U-4D	COMPLETE	$ -	2025	$ 2,065,840	2025	$ 2,070,600	2025-2030	$ 22,915,200	4	COST FEASIBLE
U	US-92	I-4 EB Ramp	CR 415 (Tomoka Farms Rd.)	4D-6D	COMPLETE	$ -	COMPLETE	$ -	2020-2025	$ 8,870,200	2031-2035	$ 58,125,000	5	COST FEASIBLE
L	Tomoka River Bridge (LPGA Blvd)	W of Champions Dr	E of Tomoka Farms Rd	Bridge to match interchange configuration	Anticipated SIS Funding						2025	$ 3,570,000[2]		PARTIALLY FUNDED
V	US 17/92	SR 472	SR 15A (Taylor Rd)	6D-6D (ITS)	COMPLETE	$ -	COMPLETE	$ -	2031-2035	$ 4,650,000	2031-2035	$ 41,850,000	9	COST FEASIBLE
W	SR 44	I-4	Prevatt Ave.	4D-6D	2031-2035	$ 277,452	2031-2035	$ 554,903	2031-2035	$ 4,439,226	2031-2035	$ 5,549,032		COST FEASIBLE
X	US-1	Nova Rd. (N)	I-95	4D-6D	2031-2035	$ 1,443,741	2031-2035	$ 2,887,481	2031-2035	$ 23,099,849	2036-2045	$ 38,189,266		COST FEASIBLE
Y[3]	SR 415 (Tomoka Farms Rd)	Acorn Lake Rd	Lake Ashby Rd	2U-4D	2031-2035	$ 2,159,193	2031-2035	$ 4,318,387	2031-2035	$ 34,547,094	2036-2045	$ 57,114,148		COST FEASIBLE
Z[3]	SR 415 (Tomoka Farms Rd)	Lake Ashby Rd	SR 44	2U-4D	2031-2035	$ 2,571,488	2031-2035	$ 5,142,975	2036-2045	$ 54,415,997	2036-2045	$ 68,019,996		COST FEASIBLE
AA	SR 44	SR 415	Glencoe Rd.	4D-6D	2036-2045	$ 3,008,040	2036-2045	$ 6,016,079	2036-2045	$ 48,128,636	2036-2045	$ 60,160,794		COST FEASIBLE
BB	SR 44	Lake County	Grand Ave	2U-4D	2036-2045	$ 1,427,854	2036-2045	$ 2,855,707	2036-2045	$ 22,845,659	2036-2045	$ 28,557,074		COST FEASIBLE
CC	Old Kings Road Extension Roadway (Phase II)	Matanzas Woods Pkwy	Old Kings Rd	00-2U	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 15,131,050	6	COST FEASIBLE
DD	Commerce Pkwy Connector Road	SR 5 (US 1)	SR 100	00-2U	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 12,795,309[4]	7	PARTIALLY FUNDED
B	SR 15 (US 17)	Deleon Springs	SR 40	2U-4D	Anticipated SIS Funding						2036-2045	$ 10,000,000[5]	SIS 2	COST FEASIBLE

Chapter 6 -Exhibit A (continued)
Other Arterials Cost Feasible Projects and Costs - Year of Expenditure (YOE)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	YOE Cost	Time	YOE Cost	Time	YOE Cost	Time	YOE Cost		
–	Local Initiatives 2025	Various			N/A						2025	$ 2,380,000		COST FEASIBLE
–	Local Initiatives 2025-2030										2025-2030	$ 13,200,000		COST FEASIBLE
–	Local Initiatives 2031-2035										2031-2035	$ 15,500,000		COST FEASIBLE
–	Local Initiatives 2036-2045										2036-2045	$ 41,000,000		COST FEASIBLE
–	SHS Operational Improvements	Various			In lieu of additional capacity projects, funding is identified to support smaller-scale operational to maintain system performance.						2036-2045	$ 3,338,631 [6]		COST FEASIBLE

[1] Clyde Morris Blvd improvements are currently in development. The costs associated with this project is consistent with a previous plan in which the roadway would be widened to six lanes.

[2] It is anticipated that the Tomoka River Bridge will be a SIS-funded project. $ 3,000,000 is identified for funding 30% to show local commitment and priority. This project and additional associated cost is included in the SIS table.

[3] SR 415 widening from Acorn Lake Rd to SR 44 is divided into two segments to facilitate optimal phase funding, reducing total cost.

[4] $6,241,614 identified for construction, leaving an additional $3,438,386 to be funded for full funding.

[5] SR 15 (US 17) is included in the SIS Cost Feasible Table. $10,000,000 is identified for funding to show local commitment and priority for this project.

[6] Value contingent upon the timeframe in which operational improvements are programmed

SHS = State Highway System; CFP = Cost Feasible Plan; Imprv = Improvement; PDV = Present Day Value; LOPP = List of Priority Projects;
SIS = Strategic Intermodal System; U = Undivided; D = Divided

Chapter 6 -Exhibit A (continued)
Other Arterial Needs - Unfunded Needs

Map ID	On Street	From Street	To Street	Improvement	Funding Status
EE	SR 415 (Tomoka Farms Rd) (Excludes Bridge)	Seminole C/L	Howland Dr	4D-6D	UNFUNDED
FF	SR 11	N. Woodland Blvd.	Flagler County	2U-4D	UNFUNDED
GG	Williamson Blvd	Summer Trees Rd	SR 400 (Beville Rd)	2LN - 4LN	UNFUNDED
HH	Veterans Memorial Pkwy	Harley Strickland	Graves Ave	2LN - 4LN	UNFUNDED
II	Matanzas Woods Pkwy	SR 5 (US1)	I-95	2U-4D	UNFUNDED
JJ	LPGA Blvd	Nova Rd	US-1	2U-3D	UNFUNDED
KK	Hand Ave	Clyde Morris Blvd	SR 5A (Nova Rd)	2LN - 4LN	UNFUNDED
LL	Josephine St	Old Mission	Tatum	2LN - 4LN	UNFUNDED
MM	North Entrance DeLand Airport (Industrial Park)	Industrial Dr	SR 11	00-2U	UNFUNDED
NN	LPGA Blvd	Tymber Creek Rd	I-95	2LN - 4LN	UNFUNDED
OO	LPGA Blvd	US-92	Tymber Creek Rd	2LN - 4LN	UNFUNDED
PP	Dunn Ave	LPGA Blvd	Tomoka Farms Rd	00-2U	UNFUNDED
QQ	Williamson Blvd	N Summer Trees	Madeline Ave	2LN - 4LN	UNFUNDED
RR	Beresford Ave Extension	Kepler/MLK Blvd	SR 44	00-2U	UNFUNDED

Note: For the purpose of the Chapter 6 Draft document review, this information is being provided as an Exhibit. In the final document this data will become part of the full Appendix and numbered/ lettered accordingly and referenced as such.

CHAPTER 6 - EXHIBIT B

ROADWAY PROJECTS AND COSTS PRESENT DAY VALUE (PDV)

Chapter 6 -Exhibit B
Strategic Intermodal System (SIS) - Cost Feasible Projects and Costs - Present Day Value (PDV)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	PDV Cost	Time	PDV Cost	Time	PDV Cost	Time	PDV Cost		
A	I-4 / SR 400	Seminole C/L	0.5 MI E of SR 472	Managed Lanes	Complete	$ -	Complete	$ -	2031-2035	$ 47,923,000	2036-2045	$ 613,310,000	1	COST FEASIBLE
	SR 472	Graves Ave	Kentucky/MLK Blvd	4D-6D										COST FEASIBLE
	Saxon Blvd	I-4	Normandy Blvd	Ramp Improvements										COST FEASIBLE
	Rhode Island Extension	Veterans Memorial Pkwy	Normandy Blvd	2U-4D										COST FEASIBLE
B	SR 15 (US 17)	Deleon Springs	SR 40	2U-4D	Complete	$ -	Complete	$ -	Programmed	$ 11,142,775	TBD	TBD	2	COST FEASIBLE [1]
C	SR 40	Breakaway Trails	Williamson Blvd	4D-6D	Complete	$ -	Programmed	$ 2,750,000	2025	$ 2,260,000	2036-2040	$ 22,990,000	3	COST FEASIBLE
									2026-2030	$ 5,955,000				
D	SR 40	W of SR 11	W of Cone Rd	2U-4D	Complete	$ -	2031-2035	$ 7,365,000	Programmed	$ 2,411,357	2036-2045	$ 49,098,000	4	COST FEASIBLE
									2025	$ 429,000				
									2026-2030	$ 181,000				
E	SR 40	SR 15 (US-17)	SR 11	2U-4D	Complete	$ -	2031-2035	$ 6,338,000	Programmed	$ 4,206,411	2036-2045	$ 42,252,000	5	COST FEASIBLE
									2025	$ 880,000				
									2026-2030	$ 319,000				
F	I-95/LPGA Blvd	Williamson Blvd	Tymber Creek Rd Ext	Interchange Improvement	Complete	$ -	2031-2035	$ 3,000,000	N/A	$ -	2036-2045	$ 20,000,000	6	COST FEASIBLE
G	I-95/Pioneer Trail New Interchange	At Pioneer Trail	Interchange / Intersection	Interchange Improvement	Programmed	$ 4,000,000			Programmed	$ 3,730,000	2036-2040	$ 18,500,000	7	COST FEASIBLE
H	I-95/US 1 Interchange	at US-1	Interchange / Intersection	Interchange Improvement	Programmed	$ 2,050,000	2031-2035	$ 4,200,000	TBD	TBD	2036-2040	$ 28,000,000	8	COST FEASIBLE
I	SR 100	Old Kings Rd	Belle Terre Pkwy	4D-6D					2031-2035	$ 3,170,000	2036-2045	$ 31,700,000	9	COST FEASIBLE
J	I-95/SR 44	at SR 44	Interchange / Intersection	Interchange Improvement	2029-2035	$ 2,250,000	TBD	TBD	TBD	TBD	TBD	TBD		COST FEASIBLE
K	I-95 Interchange (Farmton Interchange)	At Maytown Rd	Interchange / Intersection	Interchange Improvement	Developer Funded									COST FEASIBLE - DEVELOPER FUNDED
L	Tomoka River Bridge (LPGA Blvd)	West of Champions Dr	E of Tomoka Farms Rd	Bridge to match interchange configuration							TBD	$ 10,000,000		PARTIALLY FUNDED [2]

SHS = State Highway System; CFP = Cost Feasible Plan; Imprv = Improvement; PDV = Present Day Value; LOPP = List of Priority Projects; SIS = Strategic Intermodal System; OA = Other Arterials

U = Undivided; D = Divided; F = Freeway; TBD = To be determined

[1] It is anticipated that this US-17 (SR 15) widening will be a SIS-funded project. $ 10,000,000 is identified in the OA table for funding to show local commitment and priority.

[2] It is anticipated that the Tomoka River Bridge will be a SIS-funded project. $ 3,000,000 is identified in the OA table for funding 30% to show local commitment and priority.

Chapter 6 -Exhibit B (continued) Strategic Intermodal System (SIS) - Unfunded Needs					
Map ID	**On Street**	**From Street**	**To Street**	**Imprv**	**Funding Status**
S	Tomoka River Bridge (LPGA Blvd)	West of Champions Dr	E of Tomoka Farms Rd	Bridge	PARTIALLY FUNDED
R	I-95/Matanzas Woods Pkwy	At Matanzas Woods Pkwy	Interchange / Intersection	Interchange Improvement	UNFUNDED Interim Improvements Funded
N	I-95	SR 400	Old Dixie Hwy	6F-8F	UNFUNDED
O	I-95	SR 442	Interchange / Intersection	Interchange Improvement	UNFUNDED

Chapter 6 -Exhibit B (continued)
Other Arterials Cost Feasible Projects and Costs - Present Day Value (PDV)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	PDV Cost	Time	PDV Cost	Time	PDV Cost	Time	PDV Cost		
P	US-1	At Park Ave		Intersection	2020-2025	$ 372,000	2025	$350,000	2025	$ 2,800,000	2025-2030	$ 3,500,000	1	COST FEASIBLE
Q	SR 483 (Clyde Morris Blvd)	SR 400 (Beville Rd)	US-92	Corridor Improvement[1]	COMPLETE	$ -	COMPLETE	$0	2025-2030	$ 31,900,000	2025-2030	$ 32,000,000	2	COST FEASIBLE
R	Old Kings Road	Palm Harbor Village Way	Farnum Ln	2U-4D	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2031-2035	$ 18,650,000	3	COST FEASIBLE
S	Old Kings Road	Farnum Ln	Forest Grove Dr	2U-4D	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 17,450,000	3	COST FEASIBLE
T	SR 44	Grand Ave	SR 15A	2U-4D	COMPLETE	$ -	2025	$1,736,000	2025	$ 1,740,000	2025-2030	$ 17,360,000	4	COST FEASIBLE
U	US-92	I-4 EB Ramp	CR 415 (Tomoka Farms Rd.)	4D-6D	COMPLETE	$ -	COMPLETE	$0	2020-2025	$ 8,870,200	2031-2035	$ 37,500,000	5	COST FEASIBLE
L	Tomoka River Bridge (LPGA Blvd)	W of Champions Dr	E of Tomoka Farms Rd	Bridge to match interchange configuration	Anticipated SIS Funding						2025	$ 3,000,000 [2]		PARTIALLY FUNDED
V	US 17/92	SR 472	SR 15A (Taylor Rd)	6D-6D (ITS)	COMPLETE	$ -	COMPLETE	$ -	2031-2035	$ 3,000,000	2031-2035	$ 27,000,000	9	COST FEASIBLE
W	SR 44	I-4	Prevatt Ave.	4D-6D	2031-2035	$ 179,001	2031-2035	$ 358,002	2031-2035	$ 2,864,017	2031-2035	$ 3,580,021		COST FEASIBLE
X	US-1	Nova Rd. (N)	I-95	4D-6D	2031-2035	$ 931,446	2031-2035	$ 1,862,891	2031-2035	$ 14,903,128	2036-2045	$ 18,628,910		COST FEASIBLE
Y[3]	SR 415 (Tomoka Farms Rd)	Acorn Lake Rd	Lake Ashby Rd	2U-4D	2031-2035	$ 1,393,028	2031-2035	$ 2,786,056	2031-2035	$ 22,288,448	2036-2045	$ 27,860,560		COST FEASIBLE
Z[3]	SR 415 (Tomoka Farms Rd)	Lake Ashby Rd	SR 44	2U-4D	2031-2035	$ 1,659,024	2031-2035	$ 3,318,049	2036-2045	$ 26,544,389	2036-2045	$ 33,180,486		COST FEASIBLE
AA	SR 44	SR 415	Glencoe Rd.	4D-6D	2036-2045	$ 1,467,336	2036-2045	$ 2,934,673	2036-2045	$ 23,477,383	2036-2045	$ 29,346,729		COST FEASIBLE
BB	SR 44	Lake County	Grand Ave	2U-4D	2036-2045	$ 696,514	2036-2045	$ 1,393,028	2036-2045	$ 11,144,224	2036-2045	$ 13,930,280		COST FEASIBLE
CC	Old Kings Road Extension Roadway (Phase II)	Matanzas Woods Pkwy	Old Kings Rd	00-2U	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 7,381,000	6	COST FEASIBLE
DD	Commerce Pkwy Connector Road	SR 5 (US 1)	SR 100	00-2U	COMPLETE	$ -	COMPLETE	$ -	COMPLETE	$ -	2036-2045	$ 6,241,614 [4]	7	PARTIALLY FUNDED
B	SR 15 (US 17)	Deleon Springs	SR 40	2U-4D	Anticipated SIS Funding						2036-2045	$ 10,000,000 [5]	SIS 2	COST FEASIBLE

Chapter 6 -Exhibit B (continued)
Other Arterials Cost Feasible Projects and Costs - Present Day Value (PDV)

Map ID	On Street	From Street	To Street	Imprv	PLANNING		DESIGN		RIGHT OF WAY		CONSTRUCTION		LOPP Rank	Funding Status
					Time	PDV Cost	Time	PDV Cost	Time	PDV Cost	Time	PDV Cost		
–	Local Initiatives 2025	Various			N/A						2025	$ 2,000,000		COST FEASIBLE
–	Local Initiatives 2025-2030										2025-2030	$ 10,000,000		COST FEASIBLE
–	Local Initiatives 2031-2035										2031-2035	$ 10,000,000		COST FEASIBLE
–	Local Initiatives 2036-2045										2036-2045	$ 20,000,000		COST FEASIBLE
–	SHS Operational Improvements	Various			In lieu of additional capacity projects, funding is identified to support smaller-scale operational to maintain system performance.						2036-2045	$ 1,628,601		COST FEASIBLE

[1] Clyde Morris Blvd improvements are currently in development. The costs associated with this project is consistent with a previous plan in which the roadway would be widened to six lanes.

[2] It is anticipated that the Tomoka River Bridge will be a SIS-funded project. $ 3,000,000 is identified for funding 30% to show local commitment and priority. This project and additional associated cost is included in the SIS table.

[3] SR 415 widening from Acorn Lake Rd to SR 44 is divided into two segments to facilitate optimal phase funding, reducing total cost.

[4] $6,241,614 identified for construction, leaving an additional $3,438,386 to be funded for full funding.

[5] SR 15 (US 17) is included in the SIS Cost Feasible Table. $10,000,000 is identified for funding to show local commitment and priority for this project.

SHS = State Highway System; CFP = Cost Feasible Plan; Imprv = Improvement; PDV = Present Day Value; LOPP = List of Priority Projects;
SIS = Strategic Intermodal System; U = Undivided; D = Divided

Chapter 6 -Exhibit B (continued)
Other Arterial Needs - Unfunded Needs

Map ID	On Street	From Street	To Street	Improvement	Funding Status
EE	SR 415 (Tomoka Farms Rd) (Excludes Bridge)	Seminole C/L	Howland Dr	4D-6D	UNFUNDED
FF	SR 11	N. Woodland Blvd.	Flagler County	2U-4D	UNFUNDED
GG	Williamson Blvd	Summer Trees Rd	SR 400 (Beville Rd)	2LN - 4LN	UNFUNDED
HH	Veterans Memorial Pkwy	Harley Strickland	Graves Ave	2LN - 4LN	UNFUNDED
II	Matanzas Woods Pkwy	SR 5 (US1)	I-95	2U-4D	UNFUNDED
JJ	LPGA Blvd	Nova Rd	US-1	2U-3D	UNFUNDED
KK	Hand Ave	Clyde Morris Blvd	SR 5A (Nova Rd)	2LN - 4LN	UNFUNDED
LL	Josephine St	Old Mission	Tatum	2LN - 4LN	UNFUNDED
MM	North Entrance DeLand Airport (Industrial Park)	Industrial Dr	SR 11	00-2U	UNFUNDED
NN	LPGA Blvd	Tymber Creek Rd	I-95	2LN - 4LN	UNFUNDED
OO	LPGA Blvd	US-92	Tymber Creek Rd	2LN - 4LN	UNFUNDED
PP	Dunn Ave	LPGA Blvd	Tomoka Farms Rd	00-2U	UNFUNDED
QQ	Williamson Blvd	N Summer Trees	Madeline Ave	2LN - 4LN	UNFUNDED
RR	Beresford Ave Extension	Kepler/MLK Blvd	SR 44	00-2U	UNFUNDED