

Appendices



Appendix A

LRTP Checklist

Date Reviewed: _____

MPO:

TMA? Yes ___ No ___

	Requirements in the U.S. Code	Included		Comments
		Yes	No	
A-1	Are the 8 planning factors addressed? [23 U.S.C. 134(h)(1)]	Yes		<i>The 8 planning factors are addressed throughout the Martin/St. Lucie LRTP</i>
A-2	Does the plan identify transportation facilities (including major roadways, transit, multimodal and intermodal facilities, and intermodal connectors) that function as an integrated system, giving emphasis to facilities that serve important national, state, and regional transportation functions? [23 U.S.C. 134(i)(2)(A)]	Yes		<i>The LRTP identifies all regional, federal, state, and local roadway networks within the two county area of analysis. The network modeling has illustrated the functionality of these networks and the plan also incorporates airport and seaport implications to the roadway system as well as the land use impacts.</i>
A-3	Does the plan include discussion of potential environmental mitigation activities and potential areas to carry out these activities? [23 U.S.C. 134 (i)(2)(B)(i)]	Yes		<i>Potential environmental mitigation activities as they relate to the Martin/St. Lucie LRTP are discussed in Chapter 3: Study Area Data Review and Analysis; Chapter 5: Transportation Alternatives; Chapter 7: Goals, Objectives, and Policies.</i>
A-4	Was the plan developed in consultation with Federal, State, Tribal, wildlife, land management, and regulatory agencies? [23 U.S.C. 134 (i)(2)(B)(ii)]	Yes		<i>The LRTP was developed with assistance and insight from the Florida Department of Transportation, Martin County, St. Lucie County, and local governments.</i>
A-5	Does the plan include a financial plan that demonstrates how the adopted transportation plan can be implemented and indicates public and private resources that can be made available to carry out the plan? [23 U.S.C. 134 (i)(2)(C)]	Yes		<i>Chapter 6: Financial Resources Analysis goes into considerable detail in revenue projections, revenue sources, and Year of Expenditure (YOE) costs of the Needs Assessment projects.</i>
A-6	Does the plan include operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods? [23 U.S.C. 134 (i)(2)(D)]	Yes		<i>Chapter 3: Study Area Data Review and Analysis discusses the need and alternatives to improve existing transportation systems and reduce congestion. Chapter 8: Cost Feasible Plan describes new options to mitigating congestion, supporting transit, and building more livable environments (see US 1 Retrofit and Livable Communities Initiative).</i>
A-7	Does the plan include capital investment and other strategies to preserve the existing and future system and provide for multimodal capacity increases based on regional priorities and needs? [23 U.S.C. 134 (i)(2)(E)]	Yes		<i>See Chapter 8: Cost Feasible Plan. The Cost Feasible Plan includes funded initiatives to improve multi-modal capacity, provide a better balance of land uses thereby reducing vehicle miles traveled, and encourages investment in existing transportation and infrastructure systems.</i>
A-8	Does the plan include proposed transportation and transit enhancement activities? [23 U.S.C. 134 (i)(2)(F)]	Yes		<i>The LRTP includes a Bicycle, Pedestrian, Greenway and Trails Vision map as well as a Bus and Train component. Also, see Chapter 8: Cost Feasible Plan.</i>
A-9	Within Transportation Management Areas (TMAs), did the plan incorporate the use of a congestion management process? [23 USC 134 (k)(3)]	Yes		<i>See Chapter 4: Needs Plan Development and Chapter 8: Cost Feasible Plan.</i>

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	Requirements in the Code of Federal Regulations	Included		Comments
		Yes	No	
B-1	Does the plan cover a 20-year horizon from the date of adoption? [23 C.F.R.450.322(a)]	Yes		<i>The RL RTP extends through the year 2035.</i>
B-2	Does the plan include both long-range and short-range strategies/actions? [23 C.F.R. 450.322(b)]	Yes		<i>The plan supports the 5-year Transportation Improvement Plan for the MPO/TPO as well as illustrates feasible projects in 5-year intervals out 20 years.</i>
B-3	Was the plan created using the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity? [23 C.F.R. 450.322(e)]	Yes		<i>The plan establishes population and growth totals based upon the University of Florida Bureau of Business Research 2035 mid-range population projections.</i>
B-4	Does the plan identify the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan? [23 C.F.R. 450.322(f)(1)]	Yes		<i>The RL RTP utilized the Urban Land Allocation Model to forecast growth trends through 2035 based upon growth control totals and existing land use designations. The plan also utilized the Greater Treasure Coast Regional Planning Model to determine roadway deficiencies and needs.</i>
B-5	Does the plan describe proposed improvements in sufficient detail to develop cost estimates? [23 C.F.R. 450.322(f)(6)]	Yes		<i>Chapter 6: Financial Resources Analysis and Chapter 8: Cost Feasible plan.</i>
B-6	Does the plan identify pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g)? [23 C.F.R. 450.322(f)(8)]	Yes		<i>Chapter 4: Needs Plan Development includes tables and maps pertaining to non-motorized needs and project specifics.</i>
B-7	Does the plan include system-level estimates of costs and revenue sources to adequately operate and maintain Federal aid highways and public transportation? [23 C.F.R. 450.322(f)(10)(i)]	Yes		<i>Please see Chapter 6: Financial Resources Analysis; and Chapter 4: Needs Plan Development (Tables 6-10 and 7-3 from the Martin/St. Lucie Transit Development Plan).</i>
B-8	Were the plan's revenues and project costs reflected in year of expenditure dollars? [23 C.F.R. 450.322(f)(10)(iv)]	Yes		<i>See Chapter 8: Cost Feasible Plan.</i>
B-9	Was the plan developed in consultation with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation? [23 C.F.R. 450.322(g)]	Yes		<i>See Chapter 3: Study Area Data Review and Analysis under "Conservation Plan Reviews".</i>
B-10	Where appropriate, was the plan compared to State conservation plans and maps, or inventories of natural resources? [23 C.F.R. 450.322(g)(1) and (2)]	Yes		<i>The plan was compared to state conservation and land management maps and plans. See Chapter 3: Study Area Data Review and Analysis</i>
B-11	Does the plan include a safety element consistent with the State's Strategic Highway Safety Plan, and (as appropriate) emergency relief and disaster preparedness plans and strategies and policies that support homeland security? [23 C.F.R. 450.322(h)]	Yes		<i>See Chapter 3: Study Area Data Review and Analysis (Florida Strategic Intermodal System Plan; State Regional Evacuation Study); Chapter 4: Needs Plan Development (Project Prioritization Criteria); Chapter 7: Goals, Policies, and Objectives.</i>

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	Requirements in the Code of Federal Regulations	Included		Comments
		Yes	No	
B-12	Was the public given a reasonable opportunity to comment on the plan, and did the MPO use their public participation plan developed under 23 C.F.R. 450.316(a)? [23 C.F.R. 450.322(i)]	Yes		<i>There were multiple public design workshops, there was a project website and public survey (that received over 270 responses), and there were over 35 public presentations during the development of the LRTP.</i>
B-13	Did the plan include the use of visualization techniques? [23 C.F.R.450.316(a)(1)(iii)]	Yes		<i>Extensive visualization techniques were used to design parts of the plan as well as tell the story of the LRTP and what is has attempted to achieve in a manner that was more easily understood by the general public.</i>
B-14	Was technical information related to the plan made available to the public in electronic formats such as the World Wide Web? [23 C.F.R. 450.316(a)(1)(iv)]	Yes		<i>There has been a continuously updated website with all presentation and adoption/public hearing materials; an updated electronic calendar; and a web survey with updated results. See Chapter 1: Public Participation Plan.</i>
B-15	Does the plan demonstrate explicit consideration of and response to public input? [23 C.F.R. 450.316(a)(1)(vi)]	Yes		<i>See Chapter 1: Public Participation Plan, and Chapter 2: Alternative Land Use Data Development (public workshops).</i>
B-16	In developing the plan, did the MPO seek out and consider the needs of those traditionally underserved by existing transportation systems such as low income and minority households? [23C.F.R 450.316(a)(1)(vii)]	Yes		<i>During the development of the LRTP there were numerous meetings with the Local Coordinating Board for the Transportation Disadvantaged, the Citizens Advisory Boards, and outreach presentations in minority neighborhoods.</i>

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	Requirements in the State Statute (not already addressed in Federal law or regulation)	Included		Comments
		Yes	No	
C-1	Does the plan give emphasis to facilities that serve important national, state, and regional transportation functions including SIS and TRIP facilities? [Section 339.175, F.S.]	Yes		See Chapter 4: Needs Plan Development (project prioritization criteria).
C-2	Was the plan developed using a congestion management system? [Subsection 339.175(5)(c)(1) F.S.]	Yes		A congestion Management Process was employed in the development of the LRTP. See Chapter 4: Needs Plan Development, and Chapter 8: Cost Feasible plan.
C-3	Is the plan consistent, to the maximum extent feasible, with future land use elements and the goals, objectives, and policies in the approved local government comprehensive plans? [Subsection 339.175(6), F.S.]	Yes		Chapter 2: Alternative Land Use Data Development includes suggested enhancements to existing land uses based upon community input as well as growth projections based on existing land uses; Chapter 3: Study Area Data Review and Analysis includes local comprehensive plan review; Chapter 7: Goals, Policies, and Objectives offers further recommended amendments to growth regulations.
C-4	Does the plan consider the goals and objectives identified in the Florida Transportation Plan? [Subsection 339.175(6)(a), F.S.]	Yes		See Chapter 3: Study Area Data Review and Analysis.
C-5	If the plan includes a project located within the boundary of more than one MPO, did the MPO coordinate on this project with the other MPO? [Subsection 339.175(6)(a), F.S.]	Yes		This is a Regional Long Range transportation Plan for Martin and St. Lucie Counties which includes the Martin MPO and the St. Lucie TPO. The plan also incorporates coordination with Indian River County and the Indian River MPO.
C-6	Does the plan consider strategies that integrate transportation and land use planning to provide for sustainable development and reduce green house gas emissions? [Subsection 339.175(1)]	Yes		The entire plan has focused on sustainable growth and more efficient and responsible strategies for mitigating green house gas emissions and vehicle miles traveled by insisting upon a stronger transportation and land use connection.
C-7	Was the plan approved on a recorded roll call vote or hand-counted vote of the majority MPO board members present? [Subsection 339.175(12)]	Yes		The plan was unanimously adopted, by a roll-call vote, at the February 2, 2011 joint Martin MPO/St. Lucie TPO Board Meeting.

Appendix B

ATTACHMENT B

**Florida Department of Transportation (FDOT) District Four
Martin-St. Lucie MPO 2035 Regional Long Range Transportation Plan (RLRTP) Update
Review Comments - January 20, 2011**

General Comments on Technical Memoranda

1. Memoranda should label and reference/cite all figures, tables, and appendices for consistency.

The final Regional Long Range Transportation Plan (RLRTP) document will fully reference and label all figures, tables, maps, and appendices.

2. Please provide sources for tables and figures as applicable.

The RLRTP will appropriately source materials.

Comments on Approach and Analysis

Technical Memorandum 2: Public Process and Land Use Vision Plan

3. Pages 5 and 8 – Please clarify the source for the projected population estimates for St. Lucie and Martin Counties, as they are not match with the BEBR population projections in the Transportation Land Use Alternative Reports.

The population projections are BEBR mid-range numbers. The Transportation Land Use Alternative descriptions were written in December 2009 while the 2035 control totals are based upon the May 2010 BEBR report. The document has been revised to remove this discrepancy.

Technical Memorandum 2: Martin County Transportation Land Use Alternative Report

4. Page 5 - The base year of the model, for population and employment data as developed by FDOT District IV, should be 2005 instead of 2006. For consistency, all base year data should be 2005, including traffic zone data, zonal data, school enrollment data, and life style data.

The document has been edited to make this correction.

5. Page 7, Table 2: Base Year Population and Employment Totals – Please verify the total of multi-family population in the base year, which is likely more than 0.

This table, a component of the Urban Land Allocation Model, has been revised so as not to create this confusion.

6. Page 34, Table 10: Projected Age Distribution – It was indicated on this page that BEBR Medium 2009 Population forecast total was used; however, on Page 6, it was mentioned that the BEBR Medium 2010 Population forecast total was used for the projected 2035 age distribution. Please reconcile the discrepancy.

BEBR Medium 2010 was used and the discrepancy has been corrected.

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Technical Memorandum 2: St. Lucie Transportation Land Use Alternative Report

7. Page 6 – Please see Comment #4 for the correct base year.

This discrepancy has been corrected.

8. Please see Comment #5 regarding single and multi-family ratios.

This discrepancy has been corrected.

9. Page 41, Table 11: Projected Age Distribution – Please See Comment #6.

This discrepancy has been corrected.

Task 3: Financial Data

10. In the 2035 Revenue Projections section, it is indicated that the potential new transportation revenue sources considered (i.e. the Charter County Transportation System Surtax and the Local Government Infrastructure Surtax) will be described in more detail under the Technical Memorandum 6: Financial Resources Analysis section. The Financial Resources Analysis section is missing this description. It does not include a section on potential new transportation sources.

The reference to a detailed discussion in the Financial Resources Analysis section of the plan pertaining to local surtaxes has been removed as it was decided that this discussion was not germane at this time.

Technical Memorandum 4: Needs Plan Development

11. For consistency, project costs should be added to the Transit Needs table, as they are for Bicycle Pedestrian Greenways and Trails Needs. These tables should be numbered for ease of referencing.

Tables 6-10 and 7-3 from the Martin/St. Lucie Transit Development Plan have been included to provide estimated transit project costs.

Technical Memorandum 6: Financial Resources Analysis and Needs Plan Project Cost Estimates

12. Page 9, Table 4 and Page 10, Table 5 - It is explained on Page 11 that Enhancement Funds estimates are for illustrative purposes only and are already included in the Other Arterials Construction & ROW estimates. For clarification purposes, please revise the Total Capacity Programs estimate to avoid double counting Enhancement Funds. Consider moving the Enhancement Funds estimates to the right of the Total Capacity Programs and add a footnote explaining these are for illustrative purposes and included in the Other Arterials Construction & ROW estimates provided by FDOT.

Chapter 6: Financial Resources Analysis has been revised to address this issue. Additional language has been added to clarify that Enhancement Funds were subtracted from Other Arterials Construction & ROW by the study team in the estimating methodology.

13. Page 16 - It is noted the University of Florida's BEBR population and employment projections were used to calculate future revenues of transportation impact fees. Please elaborate on how these BEBR projections were used, what percent growth rate was applied annually, and the methodology used to

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project the transportation impact fees revenue in the plan period. Please also refer to Comment #3 which indicates that the BEBR's population projection is not being used for the plan development. However, it is being used for revenue forecast. This inconsistency should be resolved. (The BEBR's population figure is higher than the population figures used to develop the plan and would lead to a higher revenue figure).

Chapter 2: Alternative Land Use Data Development, under Land Use Model Development for Martin and St. Lucie Counties identifies the project control totals, socio-economic data, and the percentage rate of growth out to 2035 based upon 2010 BEBR Medium projections. These totals and percentages were utilized to project traffic fee revenues and that methodology is described in Chapter 6: Financial Resources Analysis. Comment #3 was addressed earlier.

14. Page 18, Table 10 and Page 19, Table 11 - Similar to comment #12, please revise the subtotal for Capital Revenues to avoid double counting the Enhancement Funds already included in the Other Arterial Construction/ROW estimates. Consider adding a footnote describing these funds are for included for illustration purposes only.

Chapter 6: Financial Resources Analysis has been revised to address this issue. Additional language has been added to clarify that Enhancement Funds were subtracted from Other Arterials Construction & ROW by the study team in the estimating methodology.

15. Page 18, Table 10 & Page 19, Table 11 - State Transit Funds also include Operating Revenues; therefore, consider including a footnote mentioning these also include operating assistance to transit systems through different grant programs.

This footnote has been added.

16. Page 20 – Please note the source for the cost estimates.

This source has been added.

Technical Memorandum 8: 2035 Cost Feasible Plan

17. Establishing project priorities: It is noted on Page 5 that “The CFP is based on guidance from the MPO and TPO List of Priority Projects (LOPP), stakeholder agency input, and project prioritization based on the Goals Objectives and Policies.” However, it is not evident how the projects are prioritized in the tables of project listings. Please elaborate the project prioritization process.

The Needs Projects prioritization criteria and ranking have been added to the document.

18. A note should be added to indicate the meaning of the shading in the tables, and also the reason for repeating the cost for a project in each of the four five-year time horizons (i.e. the project is built only once, not four times over).

Footnotes to clarify the shading of the tables have been added to each of the YOY Cost of Needs Plan Projects tables.

19. Cost Feasible Plan Tables: We recommend that long range cost estimates be rounded to the nearest thousand dollar.

Appendix B

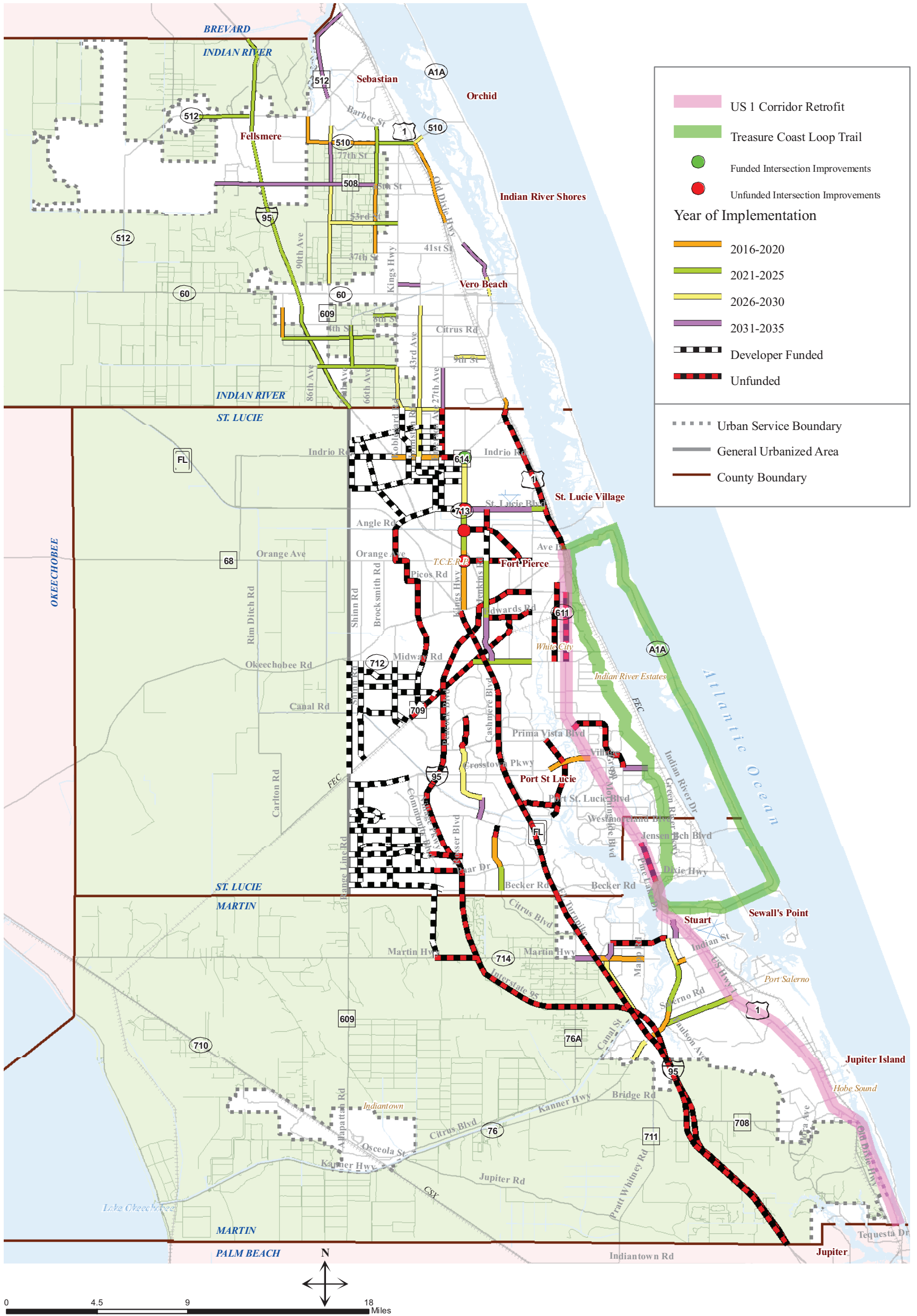
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The Cost Feasible Plan Tables cost estimates have been rounded to the nearest thousand dollar.

20. Page 3, U.S. 1 Corridor Retrofit, 3rd line: contains an evident typo error - "... was determined the cost infeasible for roadway widening."

This statement was not a typographical error. The U.S. 1 corridor was determined to be infeasible for widening due to cost, physical constraints, and the desire to make U.S. 1 more transit supportive and conducive to redevelopment. The statement in the document has been revised to more clearly state the intent.

Map C-1 Regional Cost Feasible Plan



**Map D-1
Regional Designated and Emerging SIS Facilities**

