



# CONTEXT CLASSIFICATION ANALYSIS AND DOCUMENTATION MEMORANDUM

BREVARD COUNTY, FLORIDA

September 2024



# Context Classification Analysis and Documentation Memorandum Brevard County, Florida

Prepared for:  
Space Coast Transportation Planning Organization  
2725 Judge Fran Jamieson Way  
Melbourne, FL 32940

Prepared by:  
**Kittelson & Associates, Inc.**  
225 East Robinson Street, Suite 355  
Orlando, FL 32801  
407.540.0555

Project Manager:  
Andrew Garrison, P.E.  
Engineer

Project Number: 27069.6

September 2024



## CONTENTS

Introduction .....	1
Context Classification Analysis .....	1
State Roadway Analysis .....	2
SOS Roadway Analysis .....	2
Non-State Non-SOS Roadway Analysis.....	2
SCTPO Review .....	2
Coordination With Local Partners .....	2
Context Classification Naming Convention .....	3
Context Classification Adoption .....	3
Context Classification Revision Process.....	3
Summary .....	3

## LIST OF TABLES

Table 1: Context Classification Analysis Method .....	1
Table 2: Context Classification Mileage Summary .....	4

## APPENDICES

Appendix A: 2018 SOS Report Context Classification Evaluation Memorandum
Appendix B: FDOT Preliminary Context Classification Revisions Request Memorandum
Appendix C: Non-State Non-SOS Context Classification Analysis Methodology
Appendix D: Initial Preliminary Context Classifications
Appendix E: Local Coordination
Appendix F: SCTPO Adoption
Appendix G: Context Classification Revision Process

# INTRODUCTION

In the last several years, the Florida Department of Transportation (FDOT) have continued to integrate roadway Context Classification into project development processes, including using this for roadway design, traffic engineering, and determining multimodal level of service thresholds and standards. To support Brevard County municipalities in their own transportation planning and design and their collaboration with FDOT, the Space Coast Transportation Planning Organization (SCTPO) has evaluated and developed a set of preliminary context classifications for functionally classified roadways in Brevard County.

This database will provide an initial set of information and a tool for municipalities to use as they advance local and regional transportation planning and decision-making. As with the statewide preliminary context classification layer, this countywide database is considered “preliminary” designations of context classification as it was reviewed at a high-level. A project-level review (conducted to supplement the GIS based analysis) can be conducted as appropriate or desired, by each municipality or the SCTPO, to determine a final context classification for each roadway segment. This manual review will require a closer consideration of the conditions on the ground, including determining building heights, setbacks, and other factors not included in the GIS-based analysis.

This memorandum documents the following topics:

- The analysis and coordination with local stakeholders to determine the context classifications.
- A process for updating context classifications based on future development.

# CONTEXT CLASSIFICATION ANALYSIS

The context classification analysis was completed for functionally classified (FC) roadways in Brevard County using several methods, as documented in **Table 1**.

**Table 1: Context Classification Analysis Method**

Functionally Classified Roadway Category	Analysis Description
<b>State Roadways in Brevard County</b>	FDOT maintains a preliminary context classification network for all State roadways. SCTPO used FDOT's latest preliminary context classification on these roadways.
<b>Non-State Roadways on SOS Network</b>	A context classification analysis was previously completed as part of the 2018 State of the System (SOS) report as documented in <b>Appendix A</b> . The current results are adapted from the 2018 context classifications after accounting for recent land use changes.
<b>Non-State Non-SOS Roadways</b>	A GIS- and logic-script-based method similar to the one used in the 2018 context classification analysis was used to determine preliminary context classifications for the remaining roadways in the FC roadway network.  Some roadways were added to the category later in the analysis, so a manual review of their context classification was conducted.

## STATE ROADWAY ANALYSIS

The context classifications on State roadways in Brevard County were determined by referring to the FDOT preliminary context classification network. However, some FDOT preliminary context classifications were considered inaccurate by SCTPO and City/County staff. A brief memorandum, provided in **Appendix B**, documents these concerns and requests that FDOT staff review and update certain preliminary context classifications. The SCTPO will adopt the current FDOT preliminary context classifications on State roadways but anticipates revising their context classification network once FDOT responds to the request.

## SOS ROADWAY ANALYSIS

The context classifications on non-State SOS roadways were determined as part of a context classification analysis completed during the 2018 SOS report as documented in **Appendix A**. This analysis used a subset of the primary and secondary measures outlined in the 2017 FDOT Complete Streets Handbook Context Classification Matrix in a GIS and logic-script-based method to determine existing preliminary context classifications. The 2018 context classifications were reviewed against current land uses and were revised to reflect important land use changes since 2018. Land use changes affected the original context classifications on fewer than 10 roadway segments.

## NON-STATE NON-SOS ROADWAY ANALYSIS

A GIS- and logic-script-based method like the one used in the 2018 context classification method was used to determine preliminary context classifications for the remaining roadways in the FC roadway network, which consists of FC roadways not on the SOS network. For these roadways, several changes were made to the context classification analysis methodology as documented in **Appendix C**.

## SCTPO REVIEW

SCTPO staff reviewed the first round of preliminary context classifications resulting from the above steps and identified changes based on their local knowledge of land use and network factors. These revisions are documented in **Appendix D**, as well as an on-line map of the initial results shared with local municipal representatives.

## COORDINATION WITH LOCAL PARTNERS

Once the initial set of preliminary context classifications were developed for each functionally classified roadway in Brevard County, staff from Brevard County and local municipalities provided comments on the context classification network. An online map showing the context classifications was shared with local stakeholders on November 2, 2023, and final comments were received by January 12, 2024. Virtual workshops were held with County and City staff members on November 16 and 17, 2023 to review the results and gather input. Staff members provided comments throughout this process and the draft preliminary context classifications network was updated to reflect comments received. The virtual workshop summaries and a record of local stakeholder comments is provided in **Appendix E**. The draft context classifications with local stakeholder revisions are also provided in **Appendix E**.

# CONTEXT CLASSIFICATION NAMING CONVENTION

The draft context classification network determined after stakeholder comments will be referred to as the preliminary context classification network to follow the same convention as FDOT's State roadway context classification network. Using this convention, context classifications on roadways where only the GIS context classification process and stakeholder review were completed will be referred to as preliminary context classifications. If a detailed review of a roadway's context classification is conducted, the updated results will be referred to as a current context classification. This review would include consideration of factors not reviewed by the GIS process, such as building height and fronting uses.

# CONTEXT CLASSIFICATION ADOPTION

Several additional context classification revisions were made internally as part of a final review of the context classification network. The preliminary context classification network was presented and adopted by the Technical Advisory Committee/Citizens Advisory Committee (TAC/CAC) on September 9, 2024 and by the SCTPO Board on September 12, 2024. The adopted context classifications are provided in **Appendix F**.

# CONTEXT CLASSIFICATION REVISION PROCESS

It is expected that land use and context will continue to change in Brevard County. As the preliminary context classifications determined in this analysis will serve a variety of planning uses, the SCTPO has also established a process for updating the context classification of a particular roadway based on development or other factors. An agency requesting the revision of a particular context classification will complete a brief form that includes the roadway and the reason for the change, as well as provide supporting documentation. This form is provided in **Appendix G**.

It is also expected a formal context classification review and update will be completed every 5-10 years using a similar methodology to one documented in this memorandum. The SCTPO will determine the details of this analysis cycle as the context classifications are used as a planning tool in the upcoming years.

# SUMMARY

The SCTPO has completed the adoption of the preliminary context classifications for functionally classified roadways in Brevard County. This process included:

- Coordination with FDOT and their Statewide context classification network.
- A GIS analysis for non-State roadways.
- Coordination with local stakeholders on the draft context classification network.
- Adoption of the preliminary context classification network.
- Creation of a context classification revision process.

**Table 2** provides a breakdown of the number of miles within each context classification on Brevard County's functionally classified roadways based on this round of analysis. There are not any C6 roadways in Brevard County.

**Table 2: Context Classification Mileage Summary**

<b>Context Classification</b>	<b>Centerline Miles</b>	<b>Percent of Miles</b>
<b>C1</b>	51.5	5.8%
<b>C2</b>	76.5	8.6%
<b>C2T</b>	2.2	0.3%
<b>C3R</b>	327.2	42.6%
<b>C3C</b>	266.8	30.1%
<b>C4</b>	61.1	6.9%
<b>C5</b>	3.0	0.3%
<b>Limited Access</b>	98.6	11.1%
<b>Total</b>	<b>886.9</b>	<b>100.0%</b>

**Appendix A:**  
2018 SOS Report Context Classification  
Evaluation Memorandum



## MEMORANDUM

---

Date: October 25, 2019

Project #: 20741.08

To: Laura Carter and Chelsea Forgenie  
Space Coast Transportation Planning Organization  
2725 Judge Fran Jamieson Way, Building B,  
Melbourne FL 32940

From: Margaret Kent and Andrew Garrison  
Project: SPCTPO State of the System Context Classification  
Subject: Method for Context Classification Evaluation

---

As part of the Space Coast Transportation Planning Organization's (SCTPO) 2018 State of the System (SOS) report, the annual review of Brevard County's transportation system, roadway context classification was analyzed for all SOS roadways. The SPCTPO context classification approach follows the Florida Department of Transportation's (FDOT) context classification (CC) system, which supports Complete Streets planning and design as guided by the FDOT Design Manual (FDM). To implement this system, FDOT developed a database of the CC for all state roadways. The SCTPO evaluation supplements FDOT's original database and includes all non-state roadways on the SOS network. These CC evaluations use available data and information on existing built conditions and surrounding land uses. The existing preliminary CC GIS database will serve as a countywide resource for SCTPO for high level-planning. It should be noted that for FDOT, preliminary CC for state roadways are re-evaluated, updated, or confirmed at the beginning of each project phase, including planning, PD&E, and design by evaluating the measures not analyzed as part of the GIS method, as FDOT projects or studies occur.

From 2017 to 2018, Kittelson & Associates, Inc. (Kittelson) worked with FDOT Districts 1, 5, and 7 to develop a GIS- and logic-script-based method for determining existing preliminary CC using a subset of the primary and secondary measures outlined in the 2017 FDOT Complete Streets Handbook Context Classification Matrix, reproduced as **Table 1**.

**Table 1: FDOT Context Classification Matrix**

FDOT CONTEXT CLASSIFICATION MATRIX

Context Classification	(1) Distinguishing Characteristics	(2) Primary Measures					(3) Secondary Measures						
		Land Use	Building Height	Building Placement	Fronting Uses	Location of Off-street Parking	Roadway Connectivity			Allowed Residential Density	Allowed Office/Retail Density	Population Density	Employment Density
							Intersections/Square Mile	Block Perimeters	Block Length				
	Description	Floor Levels	Description	Yes/No	Description		Feet	Feet	Dwelling Units/Acre	Floor-Area Ratio (FAR)	Persons/Acre	Jobs/Acre	
<b>C1-Natural</b>	Lands preserved in a natural or wilderness condition, including lands unsuitable for settlement due to natural conditions.	Conservation Land, Open Space, or Park	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>C2-Rural</b>	Sparsely settled lands; may include agricultural land, grassland, woodland, and wetlands.	Agricultural or Single-Family Residential	1 to 2	Detached buildings with no consistent pattern of setbacks	No	N/A	<20	N/A	N/A	<1	N/A	<2	N/A
<b>C2T-Rural Town</b>	Small concentrations of developed areas immediately surrounded by rural and natural areas; includes many historic towns.	Retail, Office, Single-Family or Multi-Family Residential, Institutional, or Industrial	1 to 2	Both detached and attached buildings with no or shallow (<20') front setbacks	Yes	Mostly on side or rear; occasionally in front	>100	<3,000	<500	>4	>0.25	N/A	>2
<b>C3R-Suburban Residential</b>	Mostly residential uses within large blocks and a disconnected or sparse roadway network.	Single-Family or Multi-Family Residential	1 to 2, with some 3	Detached buildings with medium (20' to 75') front setbacks	No	Mostly in front; occasionally in rear or side	<100	N/A	N/A	1 to 8	N/A	N/A	N/A
<b>C3C-Suburban Commercial</b>	Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.	Retail, Office, Multi-Family Residential, Institutional, or Industrial	1 (retail uses) and 1 to 4 (office uses)	Detached buildings with large (>75') setbacks on all sides	No	Mostly in front; occasionally in rear or side	<100	>3,000	>660	N/A	<0.75	N/A	N/A
<b>C4-Urban General</b>	Mix of uses set within small blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods immediately along the corridor or behind the uses fronting the roadway.	Single-Family or Multi-Family Residential, Institutional, Neighborhood Scale Retail, or Office	1 to 3, with some taller buildings	Both detached and attached buildings with no setbacks or up to medium (<75') front setbacks	Yes	Mostly on side or rear; occasionally in front	>100	<3,000	<500	>4	N/A	>5	>5
<b>C5-Urban Center</b>	Mix of uses set within small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town, or city.	Retail, Office, Single-Family or Multi-Family Residential, Institutional, or Light Industrial	1 to 5, with some taller buildings	Both detached and attached buildings with no or shallow (<20') front setbacks	Yes	Mostly on side or rear; occasionally in front, or in shared off-site parking facilities	>100	<2,500	<500	>8	>0.75	>10	>20
<b>C6-Urban Core</b>	Areas with the highest densities and building heights, and within FDOT classified Large Urbanized Areas (population >1,000,000). Many are regional centers and destinations. Buildings have mixed uses, are built up to the roadway, and are within a well-connected roadway network.	Retail, Office, Institutional, or Multi-Family Residential	>4, with some shorter buildings	Mostly attached buildings with no or minimal (<10') front setbacks	Yes	Side or rear; often in shared off-site garage parking	>100	<2,500	<660	>16	>2	>20	>45

More information on measures with undefined thresholds (N/As) are included in Appendix B. The thresholds presented in Table 1 are based on the following sources, with modifications made based on Florida case studies:

1) 2008 Smart Transportation Guidebook: Planning and Designing Highways and Streets that Support Sustainable and Livable Communities; New Jersey Department of Transportation and Pennsylvania Department of Transportation;

2) 2012 Florida TOD Guidebook, Florida Department of Transportation;

3) 2009 SmartCode Version 9.2, Duany, Andres, Sandy Sorien, and William Wright; and

4) 2010 Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, Institute of Transportation Engineers and Congress for the New Urbanism.

Source: FDOT Context Classification Guidance

Since urban form and zoning data are not consistently available in GIS across all jurisdictions, only a subset of measures can be readily calculated using available GIS data. **Table 2** shows the subset of measures used for the preliminary CC evaluation and the additional measures that will be considered when FDOT conducts these project-based manual CC evaluations. As such, the preliminary CC data should be considered a “snapshot” of high-level conditions that is based on FDOT’s preliminary CC dataset and users of this dataset should note that:

- The FDOT CC database is dynamic as FDOT’s roadway projects are regularly occurring and the roadway network and surrounding land use conditions continue to change.
- For both state and non-state roadways, this dataset will provide a high-level understanding of context classification as a result of the GIS method. The TPO or other users may consider additional and manual reviews at the segment level for more detailed and accurate results, if that level of detail is needed to inform roadway planning and design.

**Table 2: Context Classification Measures Used**

Measures	Definition	Preliminary CC (Used in Countywide GIS Method)	Updated CC (Manually Evaluated as Roadway Projects are conducted)
Land Use	Land use mix for >50% of the fronting uses	✓	✓
Building Height	Range in building heights for >50% of the properties (stories)		✓
Building Placement	Location of buildings in terms of setbacks (ft) for >50% of parcels		✓
Fronting Uses	>50% of buildings have front doors accessible from the sidewalk		✓
Location of Off-street Parking	Location of parking in relation to the building		✓
Intersection Density	Number of intersections per square mile	✓	✓
Block Perimeter	Avg. perimeter of blocks adjacent to the roadway on either side (ft)	✓	✓
Block Length	Avg. distance between intersections (ft)	✓	✓
Allowed Residential Density	Maximum allowed residential density by adopted zoning (Dwelling Units/Acre)		✓
Allowed Office/Retail Density	Maximum allowed office or retail density in terms of Floor Area Ratio (FAR)		✓
Population Density	Population per acre based on the census block group (Persons/Acre)	✓	✓
Employment Density	Total number of jobs per acre (Jobs/Acre)	✓	✓

FDOT’s GIS-based preliminary CC method was applied to SCPTO’s SOS network. The contents of this memo are based on the technical documentation provided to FDOT during the development of FDOT District 5’s preliminary CC network. Kittelson adapted the method for SCTPO as follows:

- Applied the method to the non-state roadways
- Updated data sources to use the most recent available (FDOT data, conservation areas)
- Used local data sources where appropriate (city boundaries)
- Adjusted thresholds for residential and commercial land use (see page 11)

FDOT District 5 currently updates its CC database bimonthly to incorporate project-based evaluations. SCTPO can update its own database by seeking FDOT's latest state roadway CC data.

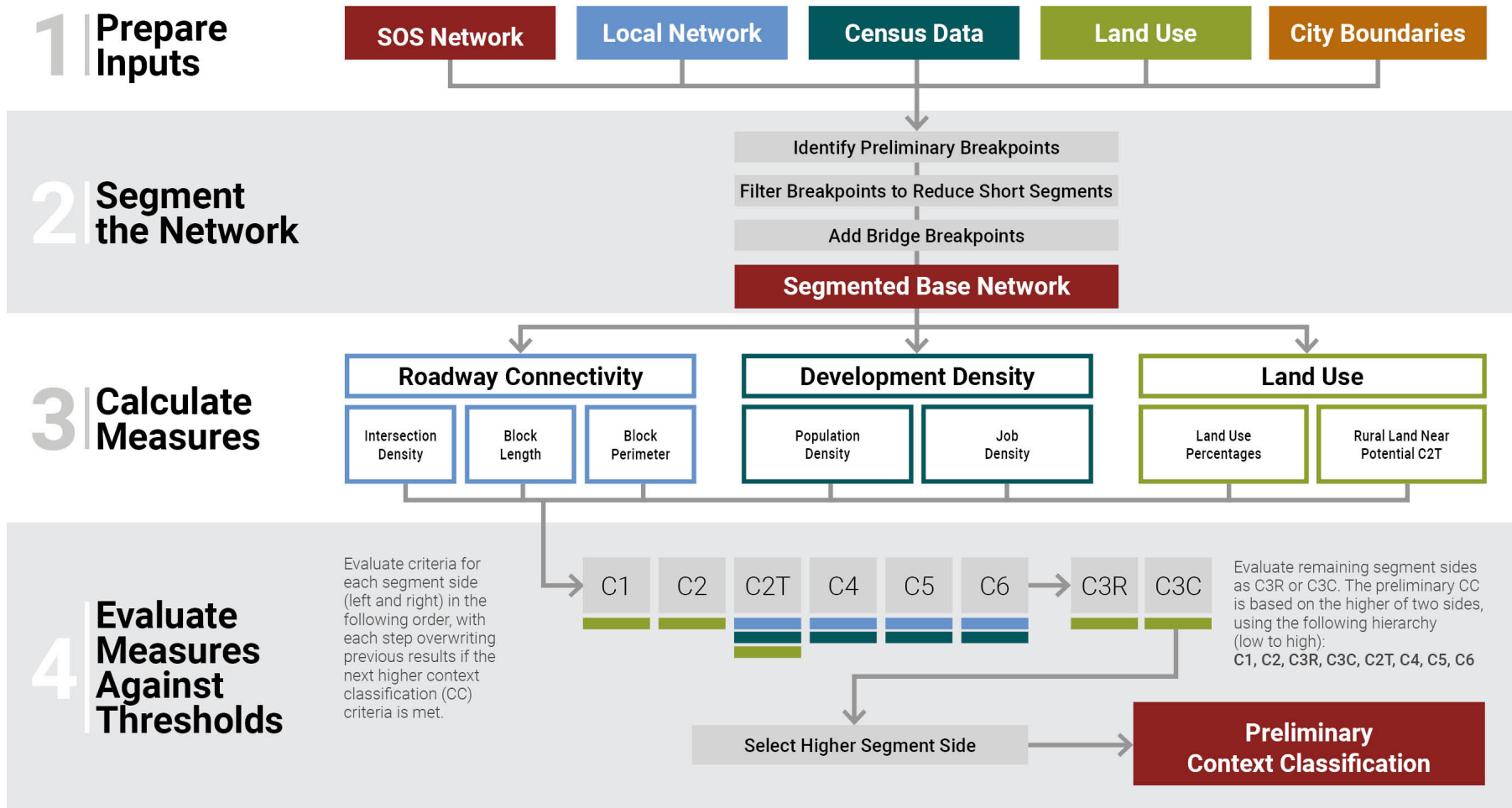
## GIS PROCESS OVERVIEW

Figure 1 summarizes the four major steps of the GIS method for determining the preliminary CC:

1. Prepare inputs
2. Segment the network
3. Calculate measures
4. Evaluate measures against thresholds

These steps are explained in greater detail in each of the following sections of this memorandum.

Figure 1. GIS Process Overview

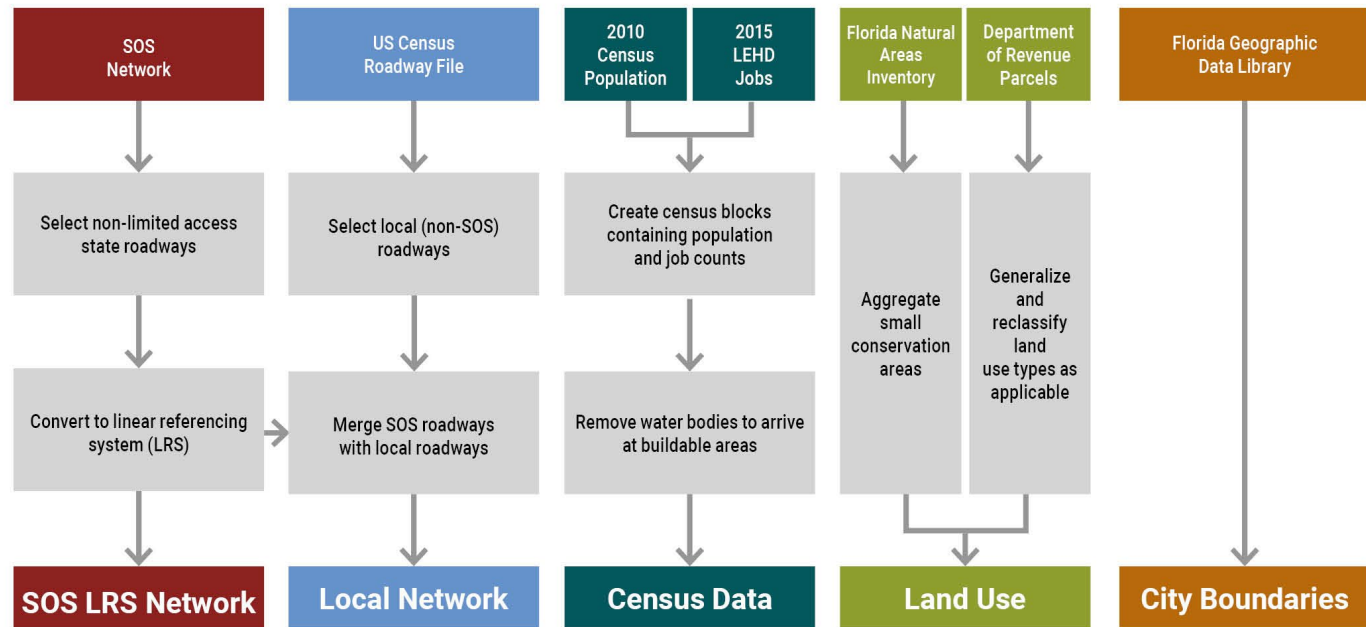


## STEP 1: PREPARE INPUTS

**Figure 2** summarizes the process for preparing inputs for segmentation and measures calculation. **Table 3** summarizes the data sources. Each major component is detailed in the following pages.

**Figure 2. Summary of Step 1**

### 1 | Prepare Inputs



**Table 3. Data Sources**

Layer	Scale	Source	File Name	Year	Notes
SOS 2018 Network	Countywide	SCTPO	2018_SOS_Network_v3.shp	2018	Used to create LRS for the study network.
Interstates	Statewide	FDOT Transportation Data and Analytics Office	interstates.shp	2019	Used to identify and remove limited access roads from the study network
Toll Roads	Statewide	FDOT Transportation Data and Analytics Office	toll_roads.shp	2019	Used to identify and remove limited access roads from the study network
Bridges	Statewide	FDOT Transportation Data and Analytics Office	bridges.shp	2019	Used to identify bridge segments
Local Roadway Network	Countywide	US Census Bureau TIGER/Line files	tl_2018_[countyFIPS]_roads.shp	2018	Brevard County and adjacent counties: Indian River, Orange, Osceola, Seminole, and Volusia County
City Boundaries	Countywide	Brevard County	Cityshp.shp	Unknown	Compared against statewide city boundaries file from the Florida Geographic Data Library; determined that files matched and used this locally sourced file
Conservation Areas	Statewide	Florida Natural Areas Inventory	flma_201906.shp	2019	Federal, state, local, and privately managed conservation areas
2016 Existing Land Use	Countywide – Parcel	St. John’s River Water Management District/The State of Florida County Property Appraisers	[CountyName]_County_Parcels_Fall_2017	2017	These data were prepared by Panda Consulting for SJRWMD
2010 Population	Countywide – Census Block Level	US Census Bureau 2010 Decennial Census - TIGER/Line with Selected Demographic and Economic Data	tabblock2010_12_pophu	2010	2010 Census is the most fine- grain data available.
2015 Employment	Countywide – Census Block Level	LEHD Origin-Destination Employment Statistics	fl_wac_S000_JT00_2015.csv	2015	2015 was most recent available from LEHD until new data was

---

					released August 28, 2019
--	--	--	--	--	-----------------------------

## SOS Network

The base study network is sourced from the SCPTO SOS 2018 network. Limited access roadways were manually removed from the base network file by comparing against FDOT interstate centerline file (interstates.shp), the FDOT toll road file (toll\_roads.shp). The GIS method adapted from FDOT's CC system is based on linear referencing, or a method of storing geographic locations using relative positions measured along a linear feature with mileposts. Therefore, the SOS 2018 network was converted into a linear referencing system (LRS) in a Polyline M format. During the conversion, the 578 segments present in the SOS 2018 network were consolidated to major corridors, resulting in 120 LRS segments. The consolidation was important because the CC evaluation process includes segmenting the network according to the major, distinguishing characteristics aligning with land use and other inputs into the CC analysis. Whereas the SOS 2018 network was segmented according to AADT and other attributes, the goal of the CC evaluation is to identify segments based on context. To prevent the creation of many short segments caused by combining existing SOS network segmentation with additional context-based segmentation, the SOS LRS network was consolidated. The SOS LRS network was created with the same coordinate system as the SOS 2018 network (NAD 1983 CORS96 State Plane Florida East FIPS 0901 in Feet).

The SOS LRS network included both state and non-state roads. The entire network was analyzed, but state road segments were removed at the end of the process. The final network is separated into two files:

1. State road file sourced from FDOT's most recent project-based CC reviews.
  - a. State road segments analyzed as part of the SOS LRS network were compared to FDOT's results. Variations were noted and considered at the end of the process for potential recommendations to update FDOT's preliminary CC network.
2. SOS non-state road file containing the results of this CC evaluation.

## Local Network

The local street network was assembled from the US Census Bureau's TIGER roadway GIS shapefiles for Brevard County and each adjacent county. Adjacent counties were included to accurately calculate measures like intersection density that require data beyond the boundary of Brevard County. The local network was projected to the same coordinate system as the SOS LRS network. The SOS LRS network has a single centerline, whereas the local TIGER roadways file has parallel lines in segments with a



median, resulting in two nodes for every local intersection. To allow for single local intersection nodes could be extracted, the following process was used (ArcGIS tools are noted in parentheses):

1. Filtered the local street network by removing the following from the TIGER/Line roadway network: state routes, unnamed roads, and links coded as Vehicular Trails, Ramps, Walkway/Pedestrian Trail, Alley, Private Road for Service Vehicles, Internal Census Bureau Use, Parking Lot Road, Bike Path or Trail within the TIGER/Line attribute table.<sup>1</sup>
2. Remove TIGER/Line roadway segments with their centroid within 50 feet of the SOS LRS network.
3. Where medians created gaps between the local and state/county networks, reconnected local streets to the SOS LRS network (Extend Line - tolerance within 80 feet).
4. Combined the SOS LRS network with the filtered local network (Merge).
5. To capture any remaining disconnected local streets, reconnected side street intersections in the merged layer from Step 3 (Extend Line - tolerance within 80 feet).
6. Extract local intersection nodes from merged network (ET Geowizards – Export Nodes)
7. Split the local network at all local intersections (ET Geowizards – Clean Polylines)

The result is a local street network in which links coinciding with the SOS network are replaced with the SOS centerline. Additional geoprocessing steps were used to extract intermediate inputs from the local network to use in the segmentation and measures calculation processes; these steps are detailed in each relevant section of this memorandum.

## Census Data

Population and jobs data came from two sources:

- Population: US Census Bureau 2010 Decennial Census at the census block level
- Jobs: Longitudinal Employer-Household Dynamics (LEHD) workplace 2015 at the census block level

Population data from 2010 were used because they were the finest resolution counts available; more recent American Community Survey (ACS) data are estimates instead of counts at less fine resolution. It is important to use LEHD data, because it counts jobs at the place of employment, whereas other census datasets count employed residents at their place of residence. One challenge with LEHD data is that it is created from payroll data associated with the employer, causing centralization of dispersed jobs to single administrative headquarters. For example, jobs in local schools are centrally reported to a single school board address. Manually reassigning job counts was outside the scope of this analysis,

---

<sup>1</sup> For TIGER/Line feature class codes, see: <https://www.census.gov/geo/reference/mtfcc.html>

so the issue was addressed at the end of the CC process by manually checking C5 or C6 segments outside of major urban areas for atypically high job densities and downgrading if necessary.

To account for the reduction in buildable land area caused by lakes and large ponds, a water bodies layer from ESRI North America was used to “cut out” the water areas from the census blocks. The census block acreage was recalculated without the water area, and population and job densities were calculated using this revised block acreage as the denominator.

## Land Use

Land use data came from two sources:

- Florida Natural Areas Inventory’s (FNAI) conservation areas (flma\_201906.shp)
- Department of Revenue’s (DOR) parcel database containing land use types and acres, assembled from county files provided by the St. John’s River Water Management District

Conservation areas were used for segmentation and to reclassify parcels in the DOR database from “Governmental” to “Conservation.” Other detailed land use types in the DOR database were also reclassified into general land use categories as documented in Appendix A. The reclassified parcel database was used to calculate land use measures.

## City Boundaries

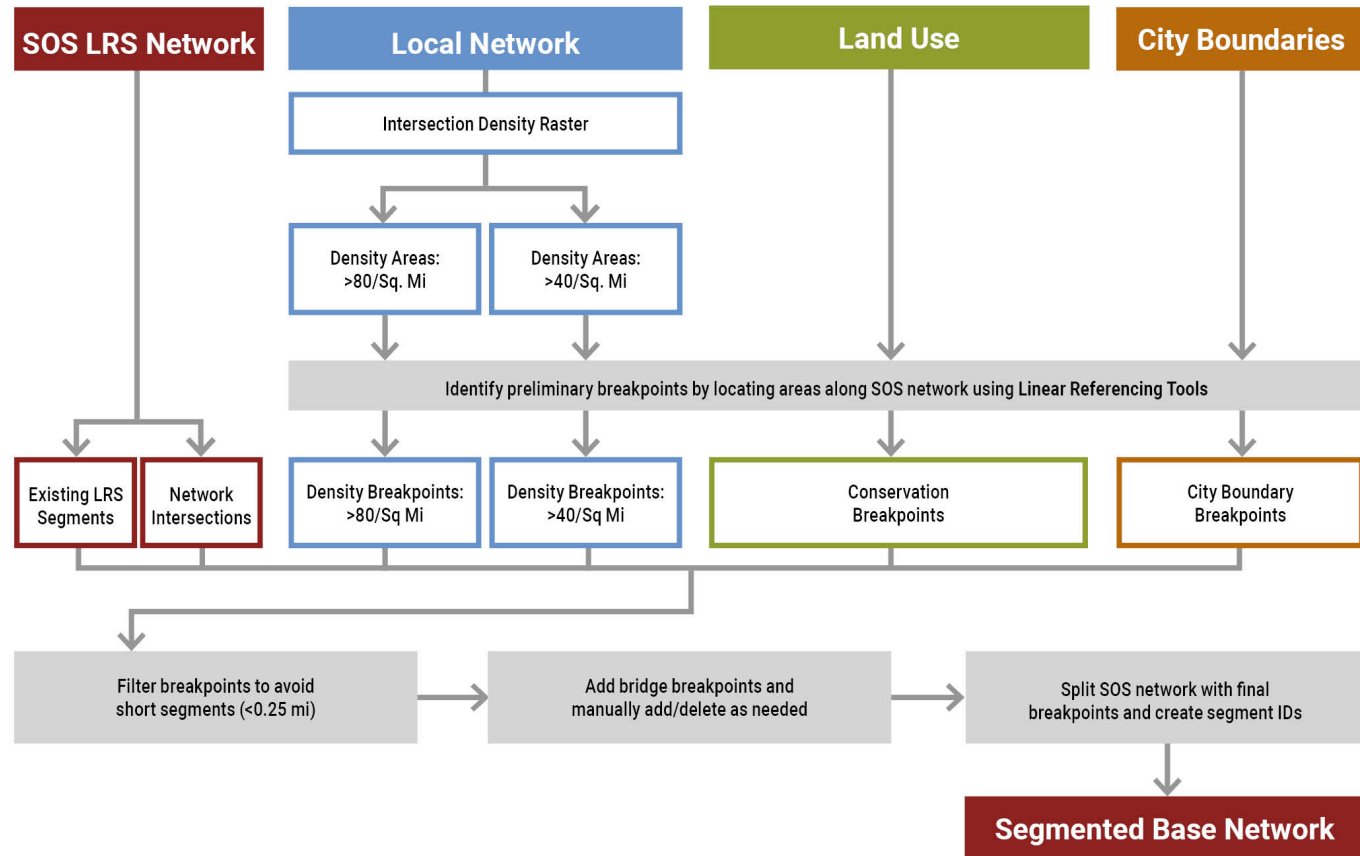
City boundaries were obtained from Brevard County (Cityshp.shp) to use for the segmentation process only.

## STEP 2: SEGMENTATION

Figure 3 summarizes the segmentation process, which is detailed in the following pages.

Figure 3. Summary of Step 2

### 2 | Segment the Network



The adjacent and intersecting local roadway system has a significant impact on the classification of each state roadway segment; and the way the state roadway network itself is segmented will in turn impacts the CC. In a manual evaluation, the network would be segmented by looking at aerial imagery to look for major changes in land use form and roadway structure. Because the GIS software is unable to judge an aerial the same way as the human eye, proxy data were used to identify major changes in land use or roadway structure. Four types of breakpoints were generated to segment the network, in order of descending priority:

1. SOS LRS network inherent structure (intersections and existing LRS segmentation)
2. Conservation areas boundaries
3. City boundaries
4. Intersection density (over 80 per square mile and over 40 per square mile)

In addition, bridge breakpoints were added in at the end of the segmentation process.

The priority levels do not reflect the importance; instead, they are used to remove breakpoints that are closely spaced so that segments are at least one quarter mile long, as prescribed by the FDOT CC guidance. The CC guidance states that segments in areas with no defined block structure should be no shorter than a quarter mile long, while segments in areas with defined block structure should be no shorter than two blocks long. This analysis uses the quarter-mile standard throughout the district instead of switching to the two-block standard in more urban areas. This is because a single distance threshold works better for a logic-script based process, while the two-block standard was developed with the intention of a human analyst identifying city blocks given the variability in block length.

## 1: State Road Inherent Structure

The creation of the LRS involved assigning a unique roadway ID to each of 120 LRS segments. Therefore, the SOS LRS network was already split at these roadway ID changes. The network was then split at all state and county road intersections to make it easier to identify segments and split very long, rural corridors into more manageable segments. The drawback of this approach is that closely spaced intersections can result in some short segments in urban areas. However, these short segments would likely be classified as the same context. Splitting the consolidated SOS LRS network at intersections replicated some of the existing segmentation in the SOS 2018 network. The SOS LRS network does not split line features at all state road intersections, so breakpoints were created as follows:

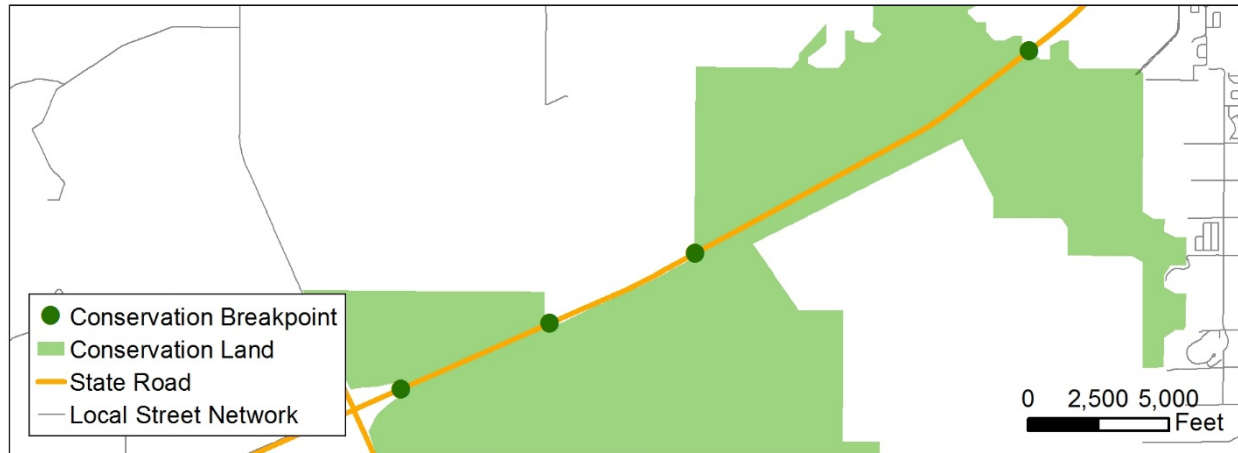
1. Split the SOS LRS network at intersection nodes (ET Geowizards – Clean Polyline Layer).
  - a. Note: this tool detects the crossing of two or more lines as an intersection; grade-separation is *not* detected. Therefore, the network was also split at interchanges, even though in a manual process, they may not be considered appropriate breakpoints.
2. Extracted endpoints (ET Geowizards – Polyline to Points).
  - a. This tool results in the extraction of both roadway ID change and intersection nodes.

## 2: Conservation Areas

Conservation areas from the Florida Natural Areas Inventory were used to create C1-Conservation segments. The conservation layer contained many small, non-contiguous parcels, so a simplified version was created using the Aggregate Polygons tool in the ET Geowizards plug-in for ArcGIS. The aggregated conservation areas were used as follows:

1. Located conservation areas along the SOS LRS network to isolate segments within conservation areas (Locate Features Along Route).
2. Exported isolated segments' attribute table containing the beginning milepost and ending milepost for each conservation segment and then sorted mileposts in ascending order. For conservation segments in each roadway ID group, calculated the distances between each conservation segment's beginning milepost and its downstream neighbor, and between each conservation segment's ending milepost and its upstream neighbor.
  - a. Note: The limitation of this approach is that the table can only "locate" mileposts along the same roadway ID; sorting by roadway ID does not necessarily yield adjacent segments. Distances between mileposts were within the same roadway ID, meaning that short distances between conservation segments on different roadway IDs would not be detected.
3. Filtered out:
  - a. Isolated conservation segments less than 0.25 miles long (no adjacent segments)
  - b. Conservation segments less than 0.25 miles long and at least 0.5 miles away from their nearest upstream and downstream neighbors
4. Extracted remaining segments into a data table containing the beginning (minimum for the roadway ID) and ending (maximum for the roadway ID) mileposts for each segment.
5. Developed a route event layer using the minimum/maximum milepost table and the linear referenced basemap to create revised conservation segments (Make Route Event Layer).
6. Extracted endpoints from conservation segments (ET Geowizards – Polyline to Points).
7. Manually inspected conservation breakpoints to remove any unnecessary segmentation.

**Figure 4. Breakpoints where state road passes through conservation land**

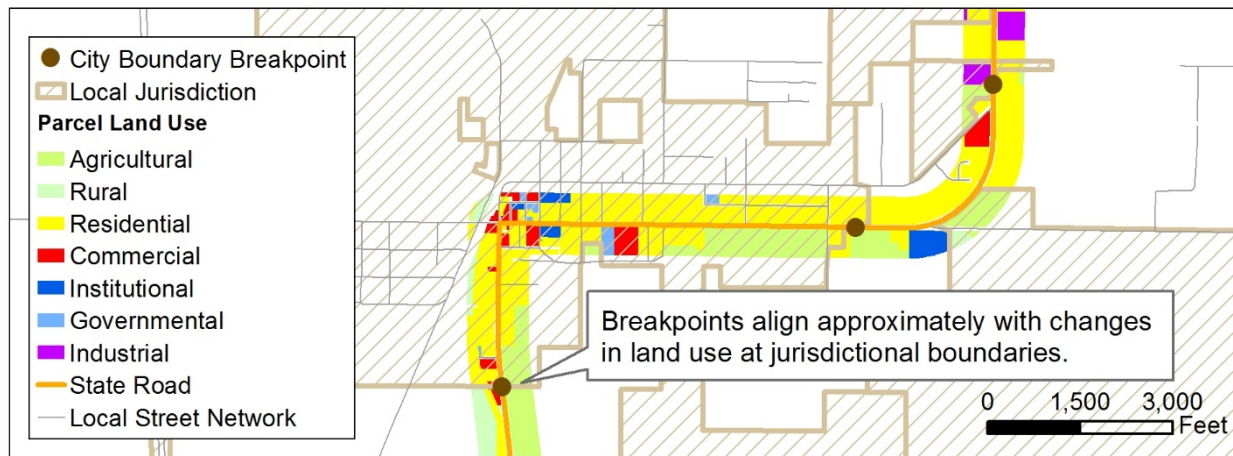


### 3: City Boundaries

City boundaries were used not to separate CC by jurisdiction, but rather because they tend to align with land use patterns in the parcel layer where zoning and development patterns differs with changes in city boundary. The land use parcels are difficult to use for segmentation because of their heterogeneity. Therefore, city boundaries are used as a proxy to create breakpoints as follows:

1. Located city boundaries along to SOS LRS network to isolate segments within city boundaries (Locate Features Along Route).
2. Exported isolated segments' attribute table. For each roadway ID and each city, isolated minimum and maximum mileposts in a data table.
  - a. The minimum and maximum mileposts are needed because many city polygons include small holes or slivers that introduce new breakpoints over short distances. The goal of using the minimum and maximum is to capture the outermost boundary of the municipality in the segmentation.
3. Created a route event layer using the minimum/maximum milepost table and the linear referenced basemap to place breakpoints at city boundaries.
4. Filtered out any city boundary breakpoints that coincided with network intersections within a 50-foot tolerance.

**Figure 5. Breakpoints where state road crosses city boundaries**

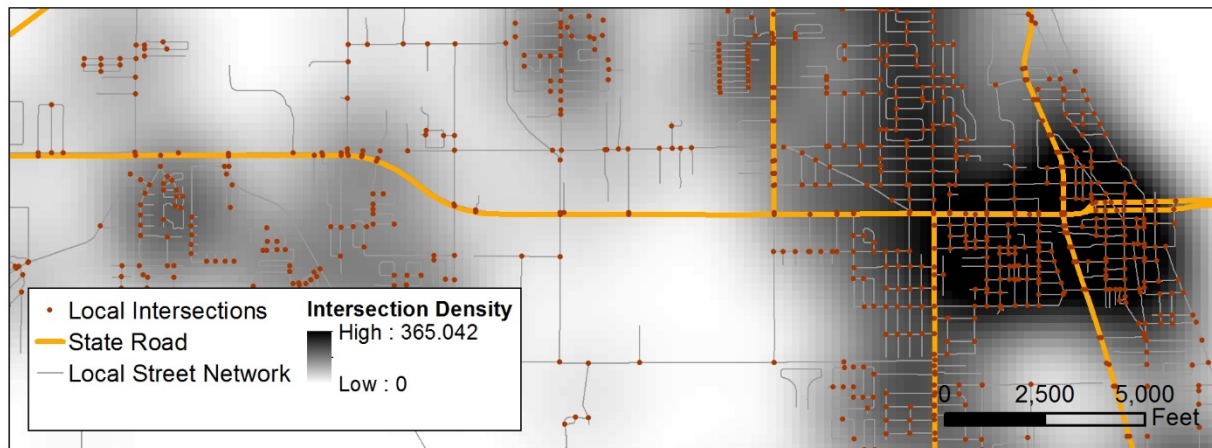


#### 4: Breakpoints using Intersection Density

For segmentation and for calculation of the measure, a raster approach was used for intersection density. In this approach, raster surface was created for the entire district, with each cell value representing the number of intersections per square mile for the cell's immediate surrounding area. In the manual method, an analyst would measure the area of the blocks along a connected-network segment or an area up to 2,000 feet from laterally from the road for a sparse/no-network segment to obtain the denominator for calculating intersection density. For the GIS method, a raster was used because it could be calculated for the entire district without differentiating between areas with and without a block structure. The raster used a constant denominator, with only the number of intersections in the numerator varying. The intersection density raster was created as follows:

1. Extracted intersection points from the local street network (ET Geowizards – Export Nodes)
  - a. Intersection nodes created by local streets with the type coded as a Terrace, Court, or Place and length of less than 500 feet are filtered out to reduce intersection density in suburban residential areas that do not have a true block structure.
2. Created a raster surface of intersection density based on ½ mile search radius using 200 feet or less focal resolution (Kernel Density – requires Spatial Analyst extension) as shown in **Figure 6**.
  - a. Kernel density fits a surface over a layer of points, where the surface value (density) is highest at the point location and diminishes with increasing distance from the point, reaching zero at the search radius unless another point is encountered. The surface output is grid, with each cell containing a single density measure. Grid cell sizes were set at 200 feet by 200 feet.

**Figure 6. Intersection density raster**



To create breakpoints, polygons were drawn around the raster cells indicating higher than 80 intersections per square mile (pink in **Figure 7**) and higher than 40 intersections per square mile (green in **Figure 7**). These thresholds were selected because:

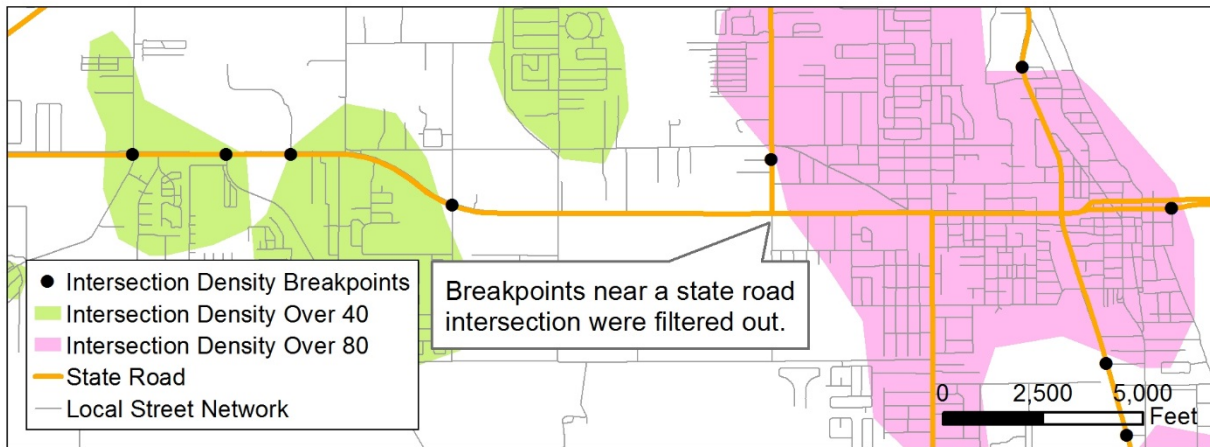
- Areas with at least 80 intersections per square mile indicate a transition to an urbanized area. 80 was used instead of 100 to be more inclusive of the edges of urban areas where the “last block” is located before the transition into a disconnected roadway network. The distance between 80, 90, and 100 intersections per square mile tended to be small. For this process, areas with at least 80 intersections per square mile had to also contain an area with at least 100 intersections per square mile to be included.
- Areas with at least 40 intersections per square mile indicate there is an activity center, typically suburban in nature, that could be segmented from surrounding natural or rural areas. This threshold can also capture small rural towns where there are closely spaced side streets along a main street, but not enough block structure on parallel streets to surpass 80 to 100 intersections per square mile. For this process, areas with at least 40 intersections per square mile had to *not* contain an area with at least 100 intersections per square mile to capture suburban and rural activity centers instead of exurban areas.

Breakpoints were created by using the following process:

1. Created polygons from intersection density raster corresponding with 40 and 80 intersections per square mile, respectively (Raster to Polygon).
2. Located density polygons along SOS LRS network to isolate segments within these connected-network areas (Locate Features Along Route).
3. Extracted endpoints from segments within density polygons (Export Nodes).
4. Snapped endpoints to the nearest local intersection along the state route (Snap Points).



**Figure 7. Intersection density polygons used to generate breakpoints**



## 5: Breakpoint Filtering

All breakpoints were merged into a single set that tracked their type. Breakpoints for bridges longer than 0.25 miles long or crossing a major water body were include in this set. Breakpoints with the same roadway ID and within a quarter mile of each other were filtered to remove and reduce the incidence of short segments using the following process:

1. Located all breakpoints (537 total) along the SOS LRS network to associate each one with a roadway ID and milepost (Locate Features Along Routes).
2. Exported the resulting attribute table containing the type of each breakpoint, its milepost, and its associated roadway ID. Sorted breakpoints by roadway ID and by mileposts in ascending order. Calculated the distances between each breakpoint and its upstream and downstream neighbors for each roadway ID and sum the total distance between upstream and downstream neighbors.
3. First round filtering: removed **city boundary** and **intersection density** breakpoints with a total distance between upstream and downstream neighbors of less than 0.5 miles. This step prioritized state roadway intersections and conservation boundaries for segmentation. Recalculated distances between remaining neighbors. (67 breakpoints filtered out)
4. Second round filtering: removed **city boundary** and **intersection density** breakpoints with no downstream neighbor *and* within 0.25 miles of their upstream neighbors. Recalculated distances between remaining neighbors. This step captured any breakpoints missed during the first round because they had no downstream neighbors. (6 breakpoints filtered out)
5. Third round filtering: removed **intersection density** breakpoints:
  - a. Within 0.25 miles of their *upstream* neighbors. Recalculated distances between remaining neighbors. (65 breakpoints filtered out)

- b. Within 0.25 miles of their *downstream* neighbors. Recalculated distances between remaining neighbors. (30 breakpoints filtered out)
6. Fourth round filtering: removed **city boundary** breakpoints:
  - a. Within 0.25 miles of an upstream neighbor that is also a *city boundary* breakpoint. Recalculated distances between remaining neighbors. This step only removed downstream neighbors to consolidate closely spaced city boundary breakpoints. (3 breakpoints filtered out)
  - b. Within 0.25 miles of an upstream or downstream neighbor that is a *state roadway intersection breakpoint*. Recalculated distances between remaining neighbors. (9 breakpoints filtered out)
7. Fifth round filtering: removed **conservation** breakpoints:
  - a. Within 0.25 miles of an upstream or downstream neighbor that is a *city boundary* breakpoint. Recalculated distances between remaining neighbors. This step assumes that for jurisdictions near conservation areas, city boundaries are more accurate than conservation breakpoints, which were created from a generalized conservation area. (4 breakpoints filtered out)

The resulting set of 456 filtered breakpoints create segments at least 0.25 miles long, except where 1) breakpoints based on intersections inherent in the SOS network resulted in shorter segments or 2) breakpoints on different roadway IDs were close to each other. Also, the multiple rounds of geoprocessing needed to create breakpoints may be the reason that near some intersections, tiny segments were created that are not visible until zooming to a scale of less than 100 feet. Functionally, these tiny segments are invisible when looking at the corridor's overall CC, but they were included in the attribute table.

## 6: Final Segmentation

The final set of breakpoints split the SOS LRS network using the ET Geowizards – Split Polylines with Feature tool. The segmented network contained 648 segments.

### STEP 3: CALCULATE MEASURES

Table 4 summarizes the measures used in the GIS process: a subset of FDOT’s full context classification matrix, with the addition of a land use measure to identify potential C2Ts.

**Table 4. Measures Used in GIS Process**

Measure Category	Measures	Definition	Calculated for Each Segment	Calculated for Each Side of Each Segment
Roadway Connectivity	Intersection Density	Number of intersections per square mile	✓ <sup>1</sup>	✓
	Block Perimeter	Avg. perimeter of blocks adjacent to the roadway on either side (ft)	✓ <sup>1</sup>	✓
	Block Length	Avg. distance between intersections (ft)	✓ <sup>1</sup>	
Development Density	Population Density	Population per acre based on the census block group (Persons/Acre)	(✓) <sup>2</sup>	✓
	Employment Density	Total number of jobs per acre (Jobs/Acre)	(✓) <sup>2</sup>	✓
Land Use	Land Use	Percentage of each land use type within 500 feet of segment		✓
	Acres of Rural/Agricultural Land within 3 miles of Connected-Network Segment	Total number of acres of rural and agricultural land within 3 miles of a segment scored as having a connected network based on Intersection Density, Block Perimeter, and Block Length. This measure differentiates C2Ts from C4/C5/C5.	✓	

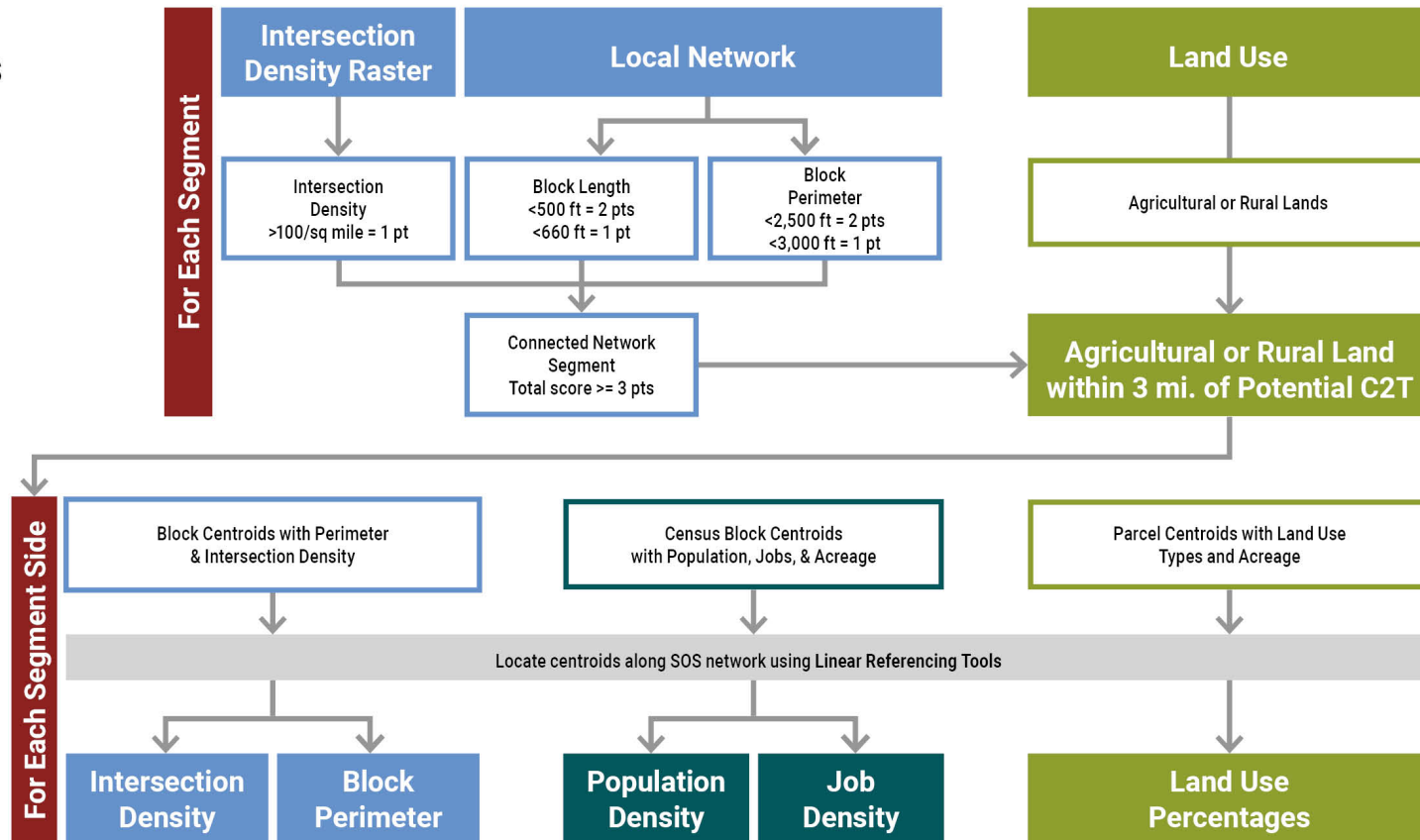
<sup>1</sup> Roadway connectivity measures were calculated at the segment level to identify connected-network segments for potential C2Ts. **Side-level measures were used for all other context classifications.**

<sup>2</sup> Population and job density were calculated at the segment level so that it could be included in the GIS attribute table as a general reference (the GIS attribute table can only contain segment-level measures, not side-level measures, unless all segments are duplicated), but the segment-level measures were **not** used in the context classification logic scripts. Only the side-level measures were used.

Figure 8 summarizes the process for calculating measures, which is detailed in the following pages.

Figure 8. Summary of Step 3

### 3 Calculate Measures



**Note:** Segment-level measures for roadway connectivity are used to identify potential C2Ts. Segment-level measures for population and job density are also calculated as a reference, but are not used in the higher-side classification process.

### 3A: Roadway Connectivity Measures

The Context Classification Matrix identifies three local roadway connectivity measures that influence whether a segment is urban or suburban/rural. The following parameters were used to determine if a segment has a connected network:

- Intersection density – At least 100 intersections per square mile in the area immediately around the segment.
- Block length – Average block length less than 500 feet for C4 and C5 and less than 660 feet for C6
- Block perimeter – Average blocks fronting the roadway with a perimeter of 2,500 feet or less for C5 and C6 and 3,000 feet or less for C4

The analysis steps for all three measures started with the local street network prepared during Step 1. Segment-level and side-level measures were calculated for each where applicable. The three segment-level roadway connectivity scores were added into a single network connectivity measure ranging in value from 0 to 5 based on the following scores:

- Intersection density at least 100 per square mile: 1 point
- Block length less than 500 feet: 2 points
- Block length less than 660 feet: 1 point
- Block perimeter less than 2,500 feet: 2 points
- Block perimeter less than 3,000 feet: 1 point

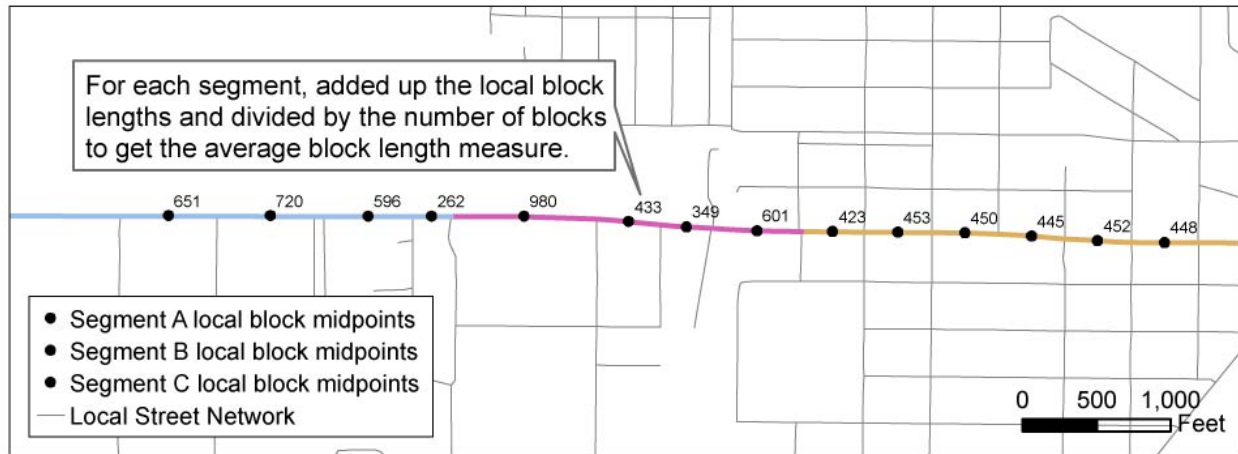
The total connectivity score was used to review the results visually and to identify potential C2T segments for calculating rural land use within 3 miles. It was assumed that segments scoring at least 3 out of 5 points are in urban places or rural towns.

#### ***Block Length (Segment Level Only)***

1. Starting with links in the local street network, filtered out blocks measuring less than 150 feet, as they tend to be small segments between closely spaced offset side-streets or irregularities created by geoprocessing during network development. Since the block length measure is based on an average, removing these blocks gives a result closer to what would visually be identified as the average block length for a segment.
2. Converted block segments into a midpoint so that block lengths for adjacent segments are not picked up during the calculation of the average.
3. Calculated the average block length for each segment (Spatial Join the local block midpoints to the segmented state roadway input file, using “average” as merge rule for length field and “intersect” as the match option) **(Figure 9)**.

4. Calculated each segment's Block Length Score as 2 if average block length is less than 500 feet, 1 if average block length is greater than 500 feet but less than 660 feet, and 0 if average block length is greater than or equal to 660 feet (Field Calculator). This score was used to check results and to select connected-network segments later in the process.

**Figure 9. Calculated average block length for each segment**



### **Block Perimeter**

#### *Block Preparation*

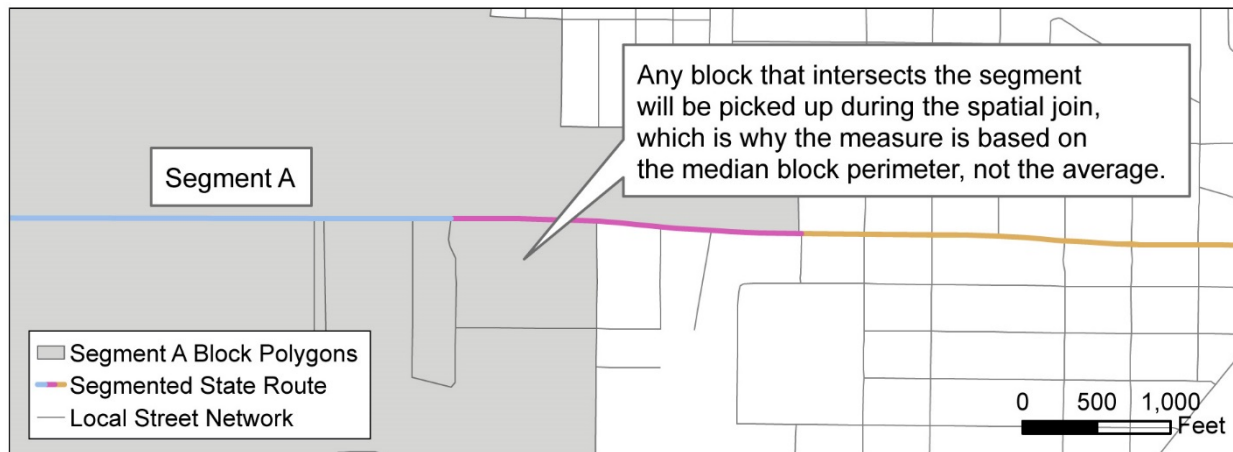
1. Created block polygons from the local road network by using Build Polygons tool (ET Geowizards). This tool traces along the street centerlines until it finds enclosure, or an area with streets as boundaries on all sides. Results yielded accurate blocks in urban places, but large polygons are created in areas where no defined block structure exists.
2. Created a 2,000-foot buffer around the state roadway network (a dissolved version of the network that is a single feature) and use this buffer to cut the block polygons in areas with no block structure. In urban areas, blocks adjacent to the roadway are not affected, while in suburban and rural areas, this step limits the size of the blocks in terms of lateral distance from the state roadways.
3. Intersected Block Polygons with 2,000-foot buffer. This step extracted blocks that are adjacent to the roadway, with true blocks in urban and rural town areas and roadside areas up to 2,000 feet on either side in natural, rural, and suburban areas.
4. Recalculated block perimeter to account for the 2,000-foot cut-off. This lateral distance cut-off is used to imitate the way an analyst would manually measure block perimeter, going only as far as 2,000 feet based on the CC guidance. Without this cut-off, the GIS tool would measure block perimeter around large areas in rural places with no block perimeter based on enclosure.

5. Selected cut-off blocks within 75 feet of the state roadways to use for calculating measures (Select by Location).

#### Calculation of Segment-Level Measure

1. Joined the cut-off blocks to the segments (Spatial Join with “Median” as merge rule and “Intersect” within 75 feet as the match option) (**Figure 10**).
  - a. This step attributes the Segment ID to each adjacent block while also calculating the median block perimeter for that Segment ID.
  - b. It is important to use the median instead of the mean because there are instances where one very large block near the end of a segment or a narrow easement to the highway right-of-way will heavily skew the mean of a set of majority small blocks
2. Calculated each segment’s Block Perimeter Score as 2 if the median block perimeter is less than 2,500 feet, 1 if greater than 2,500 feet and less than 3,000 feet, and 0 if greater than or equal to 3,000 feet (Field Calculator).

**Figure 10. Calculated median block perimeter for each segment**

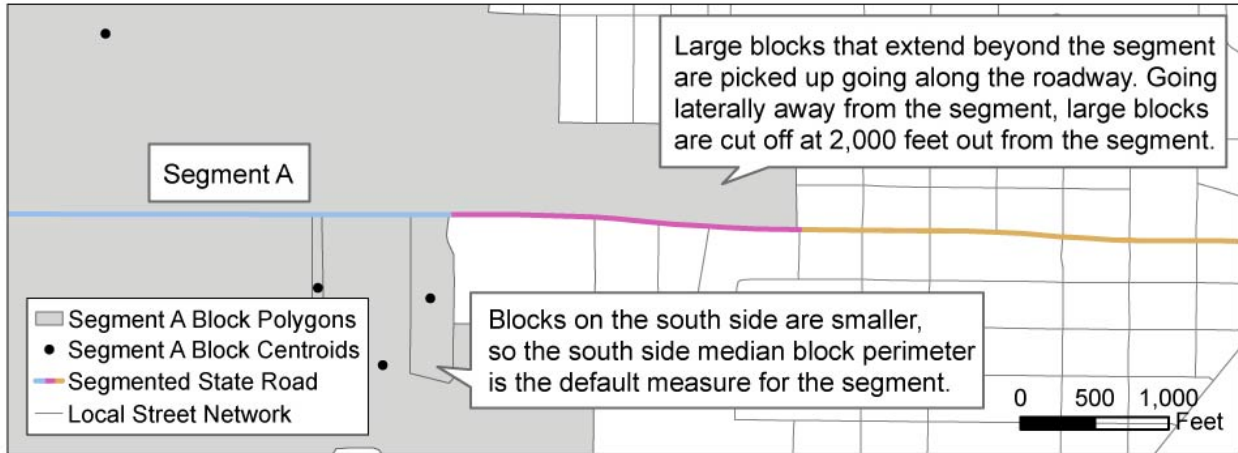


#### Calculation of Side-Level Measure

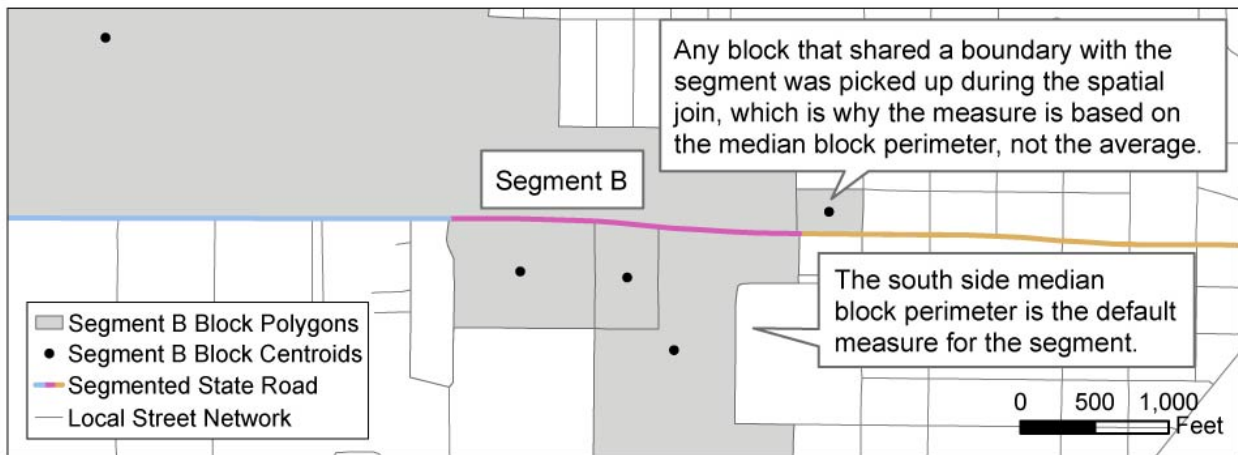
1. Converted the cut-off blocks to centroids (ET Geowizards - Polygon to Points).
  - a. Note: This step is necessary so that the block polygons can be located on either side of the roadway using linear referencing.
2. Located block centroids along SOS LRS network to associate each one with a roadway ID and milepost (Locate Features Along Routes) and export the attribute table (**Figure 11** and **Figure 12**).
  - a. Note: This step tracks which side of the roadway the block is by using positive numbers for right side and negative numbers for left side in a field for lateral distance.

3. Converted block centroids located in the previous step to an output file (Make Route Event Layer; Copy Features) and attributed the Segment ID to each located block centroid (Intersect – with segments). Exported the resulting attribute table to a .csv file.
4. Using R scripts, assigned the roadway side (L or R) to each block centroid and created a Segment-Side ID (Segment ID + L/R). For each segment side, calculated the median block perimeter.

**Figure 11. Calculated median block perimeter for each segment side: Example A**



**Figure 12. Calculated median block perimeter for each segment side: Example B**



### **Intersection Density**

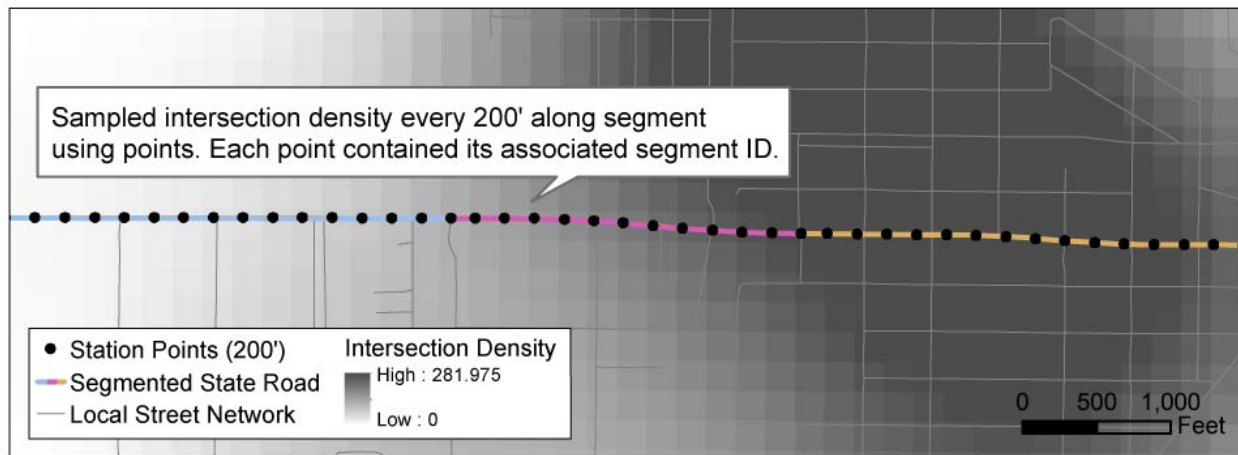
The intersection density raster used in segmentation was also used to calculate measures.



### Calculation of Segment-Level Measure

1. Created a set of sampling points located every 200 feet along each segment with the Segment ID associated with each set of points (ET Geowizards – Station Points)
  - a. Note: Multiple points were used along each segment instead of the midpoint to sample more values in case of variation along the segment.
2. Using the intersection density raster created during segmentation, sampled the intersection density at points along each segment (Extract Values from Raster– requires Spatial Analyst extension) (**Figure 13**).
3. Calculated the average intersection density along segment points (Summary Statistics).
4. Calculated each segment's Intersection Density Score as 1 if average intersection density is over 100 and 0 if less than or equal to 100? (Field Calculator).

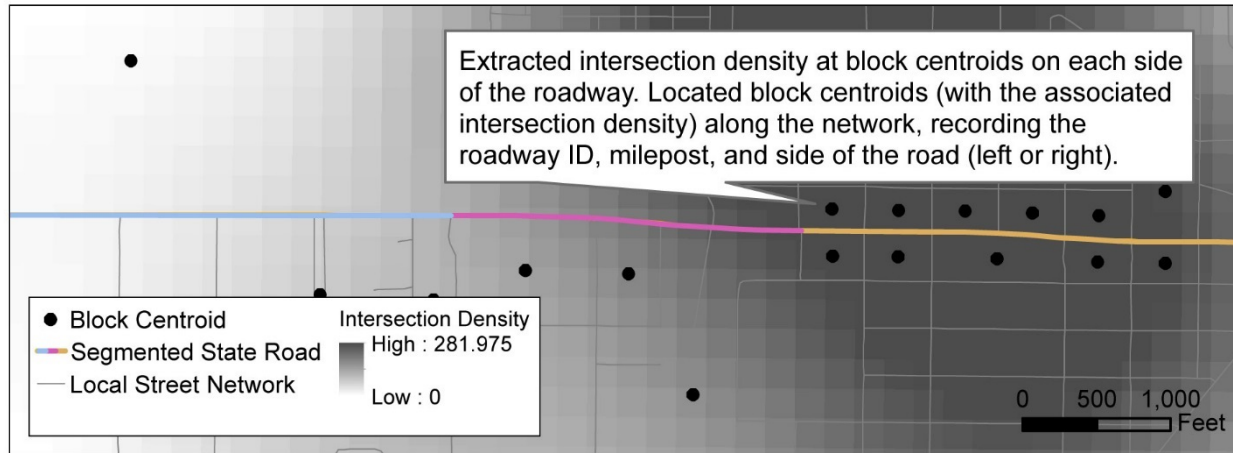
**Figure 13. Sampled intersection density along segment**



### Calculation of Side-Level Measure

1. Used the block centroids created during the block perimeter analysis to sample the intersection density at the center of each block (Extract Values from Raster– requires Spatial Analyst extension). This was the same process as the segment-level measure, but the intersection density was sampled from next to the road *instead of* at 200' intervals along the road (Figure 14).
2. Once the block centroids contained both the block perimeter and intersection density values, they were used to calculate the two measures at the same time, as previous described for the calculation of the side-level block perimeter above.

**Figure 14. Sampled intersection density along each segment side**



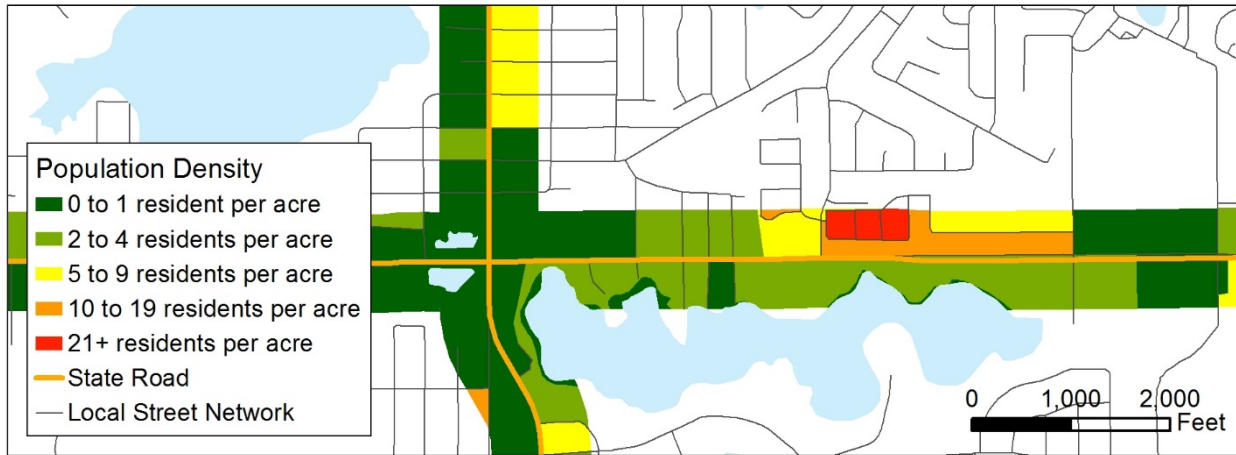
### 3B: Population and Job Density Measures

#### *Calculation of Segment-Level Measure*

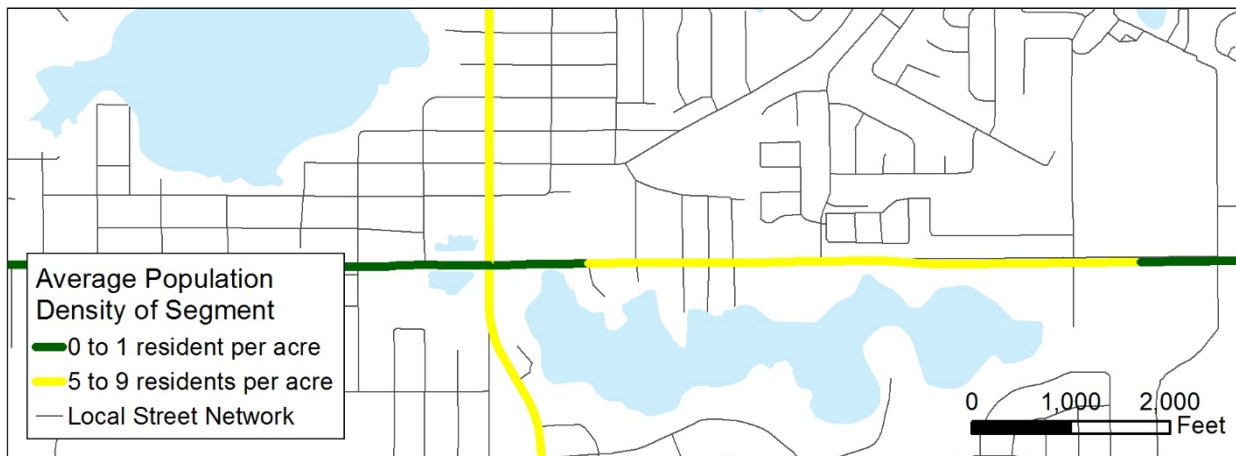
Note: These were calculated to provide a quick reference in the final GIS file. Context classification used the side-level measures.

1. Buffered 500-foot around the segmented network. This step transfers the Segment ID to the 500-foot areas.
2. Intersected the 500-foot buffers with the census blocks to extract the area adjacent to the roadway.
3. Weighted the census counts by the percentage of census block area within the 500-foot buffer (Field Calculator).
4. Summed the population and job counts along each segment; summed the intersected census block acreage along each segment (Summary Statistics); calculated population and job densities (Field Calculator)
  - a. Note: **Figure 15** depicts the intermediate step of mapping the densities by block to visually check the segment results. The density was not calculated as a measure until after aggregating the job and population counts to the segment level as shown in **Figure 16**.

**Figure 15. Intersected 500' segment buffers with census blocks**



**Figure 16. Calculated average densities for segments**

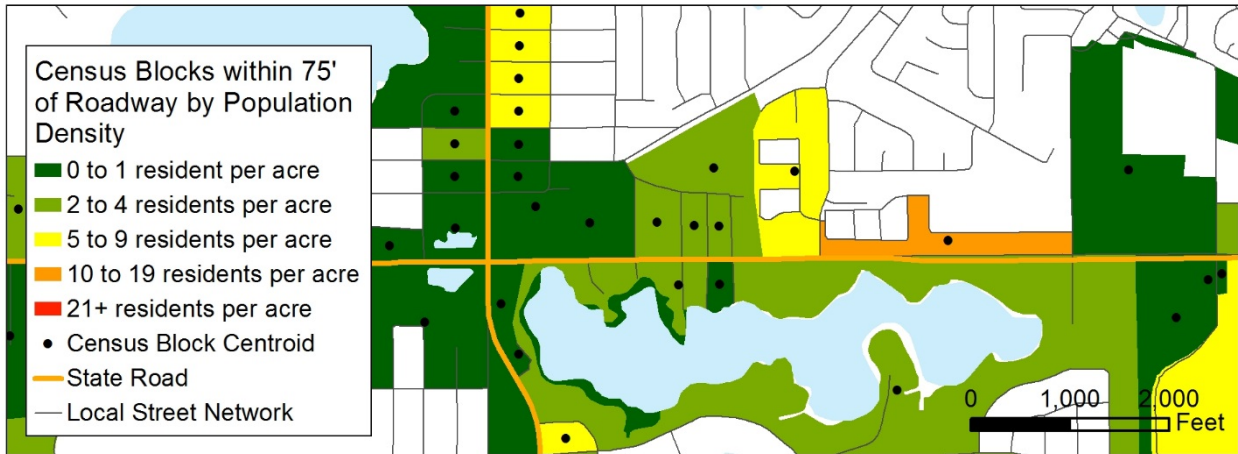


*Calculation of Side-Level Measure*

1. Selected census blocks within 75 feet of the roadway (Select by Location).
2. Converted selected census blocks to centroids (ET Geowizards - Polygon to Points) (**Figure 17**)
3. Located census block centroids along SOS LRS network to associate each one with a roadway ID and milepost (Locate Features Along Routes) and export the attribute table.
  - a. Note: This step tracks which side of the roadway the block is by using positive numbers for right side and negative numbers for left side in a field for lateral distance.
4. Converted block centroids located in the previous step to an output file (Make Route Event Layer; Copy Features) and attributed the Segment ID to each located census block centroid (Intersect – with segments). Exported the resulting attribute table to a .csv file.

- Using R scripts, assigned the roadway side (L or R) to each census block centroid and created a Segment-Side ID (Segment ID + L/R). For each segment side, calculated the population density and job density.

**Figure 17. Prepared census block centroids to locate along each side of network**



### 3C: Land Use Measures

The land use measures are used in the GIS process to distinguish between C1, C2, C2T, C3R, and C3C context classifications. They do not factor into C4, C5, and C6 context classifications for two reasons:

- Roadway connectivity and population and job density are the determining measures for C4, C5, and C6.
- Land use is more mixed in urban areas, making it more challenging to set thresholds that apply universally across the district.

Land use measures included three components:

- Agricultural/rural areas near town centers
- Generalized land use on either side of the roadway

#### ***Agricultural/Rural Land Near Town Centers (Segment Level Only)***

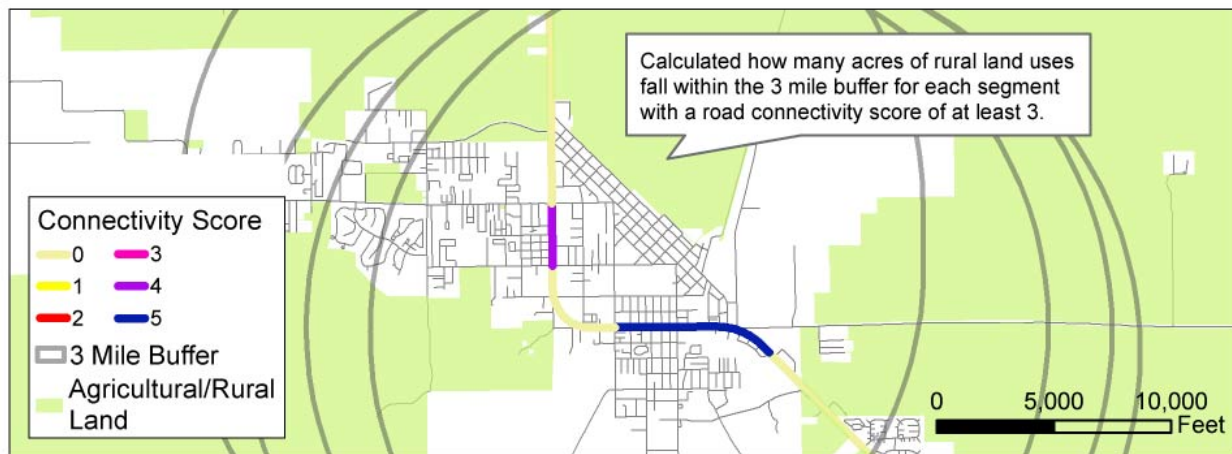
A few miscellaneous land use types, such as mining and waste land, were categorized as “Rural” for to supplemented agricultural land uses in the DOR database as documented in Appendix A. Agricultural and rural land uses were together used to assess potential C2 and C2T segments.

Rural towns were identified as follows:

1. Identified potential towns using the total network connectivity score (at least 3 out of 5 points across block length, block perimeter, and intersection density).
  - a. The total network connectivity score was used because it allows greater flexibility than requiring all connectivity measures or two out of three connectivity measures to be met, thus expanding the pool of connected-network segments for which agricultural/rural land use was assessed. In addition, some rural towns only have a main street, leading to lower intersection density and/or block perimeter measures.
2. Created a 3-mile buffer around each connected-network segment (Buffer) (**Figure 18**).
3. Extracted parcels or portions of parcels within the buffer zone for each (Intersect).
4. Added the total agricultural/rural land use area in each buffer zone (Calculate Geometry as acres for intersected area, Summary Statistics, Join Field).

The total acreage was attributed to each connected-network segment and set aside for the context classification logic statement process.

**Figure 18. Determined which segments go through rural towns**



### **Generalized Land Use (Segment-Side Level)**

Land use percentages along all roadway segments were assessed separately for either side of the road to determine the “higher side” CC where applicable. This process started with generalized land use categories, based on DOR classifications and reclassified land uses (Agriculture, Commercial, Conservation, Governmental, Industrial, Institutional, Residential, Rural, Miscellaneous, Rail Corridor). See Appendix A for the land use classifications. The adjacent parcel land use was attributed to each segment side as follows (**Figure 19**):

1. Extracted a 500-foot buffer of land use from the database on either side of the highway (Buffer, Intersect)

- a. On a district-wide scale, 500 feet aligns approximately with the block size on either side of the road, with more rear parcels selected in urban areas and more roadway right-of-way and less fronting parcels selected in rural and suburban areas.
2. Converted parcels within the 500-foot buffer to centroids. (ET Geowizards - Polygon to Points).
  - a. Note: This step is necessary so that the parcels can be located on either side of the roadway using linear referencing.
3. Located parcel centroids along the SOS LRS network to associate each one with a roadway ID and milepost (Locate Features Along Routes) and export the attribute table (**Figure 19**).
  - a. Note: This step tracks which side of the roadway the parcel is by using positive numbers for right side and negative numbers for left side in a field for lateral distance.
4. Converted parcel centroids located in the previous step to an output file (Make Route Event Layer; Copy Features) and attributed the Segment ID to each located census block centroid (Intersect – with segments). Exported the resulting attribute table to a .csv file.
5. Using R scripts, assigned the roadway side (L or R) to each parcel centroid and created a Segment-Side ID (Segment ID + L/R). For each segment side, calculated the percentage of each generalized land use type.

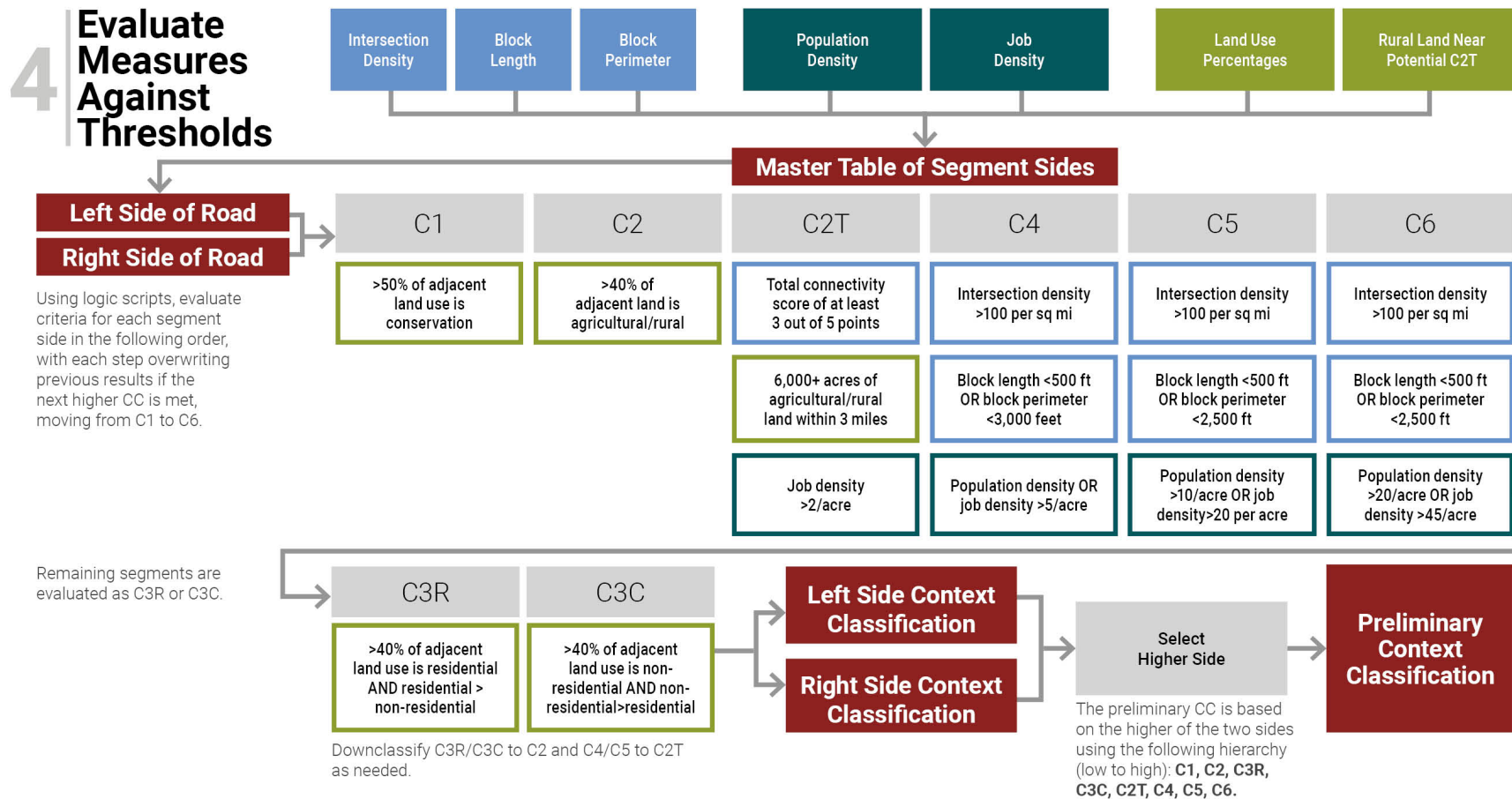
**Figure 19. Converted parcels to centroids to locate along either side of network**



## STEP 4: EVALUATE MEASURES AGAINST THRESHOLDS

Figure 20 summarizes the process and thresholds for evaluating the measures for each side of the roadway, as detailed in the following pages.

Figure 20. Summary of Step 4



The result of the previous step is four tables:

- Segments with segment-level measures
- Segment-sides containing block perimeter and intersection density
- Segment-sides containing population and job density
- Segment-sides containing land use percentages

The four tables were joined using the Segment ID to create a master table with all the measures and two rows for each segment, one for each side.

### Evaluate Measures to Determine Context Classification of Each Side

The context classification evaluation was done using logic statements containing criteria directly from the CC Matrix or adapted for the GIS process. The logic statements were applied using a specific sequence, so that “lower” contexts would be upgraded to “higher contexts” as stricter criteria were introduced. The method assumes that the eight context classifications are associated with a numerical code ordered from lowest to highest as follows:

- C1 – 1 (lowest)
- C2 – 2
- C3R – 3
- C3C – 4
- C2T – 5
- C4 – 6
- C5 – 7 (highest)

C6 was not included, because Brevard County does not contain a metropolitan area with a population of over 1 million. C2T is considered a “higher” context than C3R and C3C because it requires stricter roadway connectivity measures.

Logic statements were applied to side of each segment in the following order and with the following parameters:

- **C1 – Natural**
  - Over 50% of the adjacent land use is conservation
- **C2 – Rural**
  - Over 40% of the adjacent land use is agricultural/rural
- **C2T – Rural Town**
  - Within 3 miles, there is at least 6,000 acres of agricultural/rural land, AND
  - Total network connectivity score of at least 3 out of 5 points, AND
  - Either population OR job density is at least 2 per acre
- **C4 – Urban General**
  - Intersection density is over 100 per square mile, AND



- Either block length is less than 500 feet OR block perimeter is less than 3,000 feet, AND
- Either population density OR job density is over 5 per acre
- **C5 – Urban Center**
  - Intersection density is over 100 per square mile, AND
  - Either block length is less than 500 feet OR block perimeter is less than 2,500 feet, AND
  - Either population density is over 10 per acre OR job density is over 20 per acre

After the first set of classifications, remaining unclassified segments were compared against land use criteria adapted for the GIS process as follows:

- **C3R – Suburban Residential**
  - At least 50% of the adjacent land use is residential, AND
  - The percentage of adjacent residential land is greater than non-residential land (sum of commercial, industrial, institutional, and governmental)
- **C3C – Suburban Commercial**
  - At least 50% of the adjacent land use is non-residential, AND
  - The percentage of adjacent non-residential land is greater than residential land

Note: For the District 5 preliminary CC evaluation, a threshold of 40% was used for residential and commercial land use. Conditions varied more throughout the district, making it more likely that, for example, segments that should be classified as C3R would only have 45% residential land use due to a mix of other uses included schools and churches. For Brevard County, a more stringent threshold of 50% was tested and found to capture segments appropriately.

Finally, one round of down-classification was run for C3R, C3C, and remaining unclassified segments only:

- **Down-classification to C2**
  - Current CC is C3R, C3C, or unclassified
  - Intersection density is less than 20 per square mile OR block perimeter is greater than 3,000 feet OR block length is greater than 660 feet, AND
  - At least 20% of the adjacent land use is agricultural/rural, AND
  - Population density is less than 2 per acre, AND
  - Job density is less than 2 per acre

At the end of this process, 6 left segment-sides and 5 right segment-sides remained unclassified, out of 648 segments. The “higher side” process resolved the rest of these.

### Default to Higher Side Context Classification

The output from the logic statements is a table for which two sides of nearly every segment had a preliminary CC. The segment’s preliminary CC was defaulted to the “higher side” as follows:

1. Reorganize the left-side and right-side rows for each segment into two columns, so that the table contains the Segment ID, left-side CC code, and right-side CC code in three columns, and an empty column for the higher side's CC. Fill the higher classification column with the larger numerical value of the left-side and right-side columns. Join the CC definition to the table as the last column.

**Table 5. Example of Choosing the "Higher Side" Context Classification**

Segment ID	Left Side CC Code	Right Side CC Code	Higher CC Code	Higher CC
1	2	3	3	C3R
2	5	2	5	C2T
3	4	6	6	C4

## STEP 5: BRIDGES AND MANUAL CLEAN-UP

Minor refinements of the existing preliminary CC were conducted to further address cases where the GIS data was insufficient, led to conflicting measures, or was unable to be interpreted by the computer software in the same way as a human analyst. These cases include:

- Bridge segments
- Intermittent C2 segments between C3 segments, often a result of "leapfrog" development patterns
- C3R segments that need to be down-classified to C2 because the adjacent residential land was vacant/undeveloped
- C3C segments that need to be down-classified to C3R because institutional uses like large schools inflate the non-residential to residential balance in primarily residential areas
- Segments on one-way pairs that could be reclassified to maintain corridor consistency
- C4 and C5 segments that need to be down-classified because LEHD jobs data or short segment lengths resulted in inflated densities
- C4 and C5 segments that need to be down-classified based on a visual assessment of urban form

Manual edits of these segments were tracked in separate columns to preserve the original logic statement-generated CC and to provide a description of the reason for the edit.

The CC guidance states that bridges should be classified to match the higher classification of its two ends. In most cases, long bridge segments to a suburban or rural context. The following manual changes were conducted to finalize the preliminary CC on bridges:

- The FDOT bridge inventory database was used to identify segments that coincided with a bridge link at least 500 feet long and passing over water. These were manually edited to match the context of the highest neighbor segment.
- While most bridges were segmented out from the bridge approach, in the few cases this was not the case. When one bridge approach was a higher CC than the other approach, but the bridge segment was attached to the lower CC approach, segments were manually edited to split bridge and bridge approach segments. Splitting the segment allowed the bridge to be reclassified to match the higher side without affecting the other approach. The editing resulted in duplicated measures for the bridge and originally attached bridge approach segment. These cases are tracked.

During the manual review, FDOT CC results were also compared to the analysis run for state road segments in the SOS LRS network. This visual comparison, along with a more detailed visual assessment of urban form for Brevard County than was feasible for all FDOT District 5’s network, informed comments provided about potential updates to the CC results for state roads, where appropriate.

## SUMMARY

Table 6 provides a breakdown of the number of miles within each CC on SCTPO’s SOS network by state road and non-state road status.

**Table 6. Context Classification Mileage Summary**

Context Classification	State Roads		Non-State Roads	
	Miles	% Miles	Miles	% of Miles
<b>C1</b>	28.1	10%	5.1	2%
<b>C2</b>	37.6	14%	40.8	13%
<b>C2T</b>	1.5	1%	0.0	0%
<b>C3C</b>	136.8	50%	99.9	33%
<b>C3R</b>	36.7	13%	155.0	51%
<b>C4</b>	31.4	11%	4.5	1%
<b>C5</b>	2.4	1%	0.0	0%
<b>TOTAL</b>	<b>274.4</b>	<b>100%</b>	<b>305.3</b>	<b>100%</b>

## Appendix A: Land Use Categories

Land Use	Use Code	Definition (Department of Revenue)	Reclassification Notes
Agricultural	050	Improved agricultural	
	051	Cropland soil capability Class I	
	052	Cropland soil capability Class II	
	053	Cropland soil capability Class III	
	054	Timberland - site index 90 and above	
	055	Timberland - site index 80 to 89	
	056	Timberland - site index 70 to 79	
	057	Timberland - site index 60 to 69	
	058	Timberland - site index 50 to 59	
	059	Timberland not classified by site index to Pines	
	060	Grazing land soil capability Class I	
	061	Grazing land soil capability Class II	
	062	Grazing land soil capability Class III	
	063	Grazing land soil capability Class IV	
	064	Grazing land soil capability Class V	
	065	Grazing land soil capability Class VI	
	066	Orchard Groves, citrus, etc.	
	067	Poultry, bees, tropical fish, rabbits, etc.	
	068	Dairies, feed lots	
069	Ornamentals, miscellaneous agricultural		
Commercial	010	Vacant Commercial	
	011	Stores, one story	
	012	Mixed use - store and office or store and residential combination	
	013	Department Stores	
	014	Supermarkets	
	015	Regional Shopping Centers	
	016	Community Shopping Centers	
	017	Office buildings, non-professional service buildings, one story	
	018	Office buildings, non-professional service buildings, multi-story	
	019	Professional service buildings	
	020	Airports (private or commercial), bus terminals, marine terminals, piers, marinas	
	021	Restaurants, cafeterias	
	022	Drive-in Restaurants	
	023	Financial institutions (banks, saving and loan companies, mortgage companies, credit services)	
	024	Insurance company offices	
025	Repair service shops (excluding automotive), radio and T.V. repair, refrigeration service, electric repair, laundries, Laundromats		
026	Service stations		
027	Auto sales, auto repair and storage, auto service shops, body and fender shops, commercial garages, farm and machinery sales and services, auto rental, marine equipment, trailers and related equipment, mobile home sales, motorcycles, construction vehicle sales		
028	Parking lots (commercial or patron), mobile home parks	Mobile home parks were manually reclassified to Residential	
029	Wholesale outlets, produce houses, manufacturing outlets		

	030	Florists, greenhouses	
	031	Drive-in theaters, open stadiums	
	032	Enclosed theaters, enclosed auditoriums	
	033	Nightclubs, cocktail lounges, bars	
	034	Bowling alleys, skating rinks, pool halls, enclosed arenas	
	035	Tourist attractions, permanent exhibits, other entertainment facilities, fairgrounds (privately owned)	
	036	Camps	
	037	Racetracks (horse, auto, or dog)	
	039	Hotels, motels	
Conservation	082	Forest, parks, recreational areas	Reclassified from Governmental
	088	Federal, other than military, forests, parks, recreational areas, hospitals, colleges	Reclassified from Governmental
	087	State, other than military, forests, parks, recreational areas, colleges, hospitals	Reclassified from Governmental
Governmental	080	Vacant Governmental	
	081	Military	
	086	Counties (other than public schools, colleges, hospitals) including non-municipal government	
	089	Municipal, other than parks, recreational areas, colleges, hospitals	
Industrial	040	Vacant Industrial	
	041	Light manufacturing, small equipment manufacturing plants, small machine shops, instrument manufacturing, printing plants	
	042	Heavy industrial, heavy equipment manufacturing, large machine shops, foundries, steel fabricating plants, auto or aircraft plants	
	043	Lumber yards, sawmills, planing mills	
	044	Packing plants, fruit and vegetable packing plants, meat packing plants	
	045	Canneries, fruit and vegetable, bottlers and brewers, distilleries, wineries	
	046	Other food processing, candy factories, bakeries, potato chip factories	
	047	Mineral processing, phosphate processing, cement plants, refineries, clay plants, rock and gravel plants	
	048	Warehousing, distribution terminals, trucking terminals, van and storage warehousing	
	049	Open storage, new and used building supplies, junk yards, auto wrecking, fuel storage, equipment and material storage	
Institutional	070	Vacant Institutional, with or without extra features	
	071	Churches	
	072	Private schools and colleges	
	073	Privately owned hospitals	
	075	Orphanages, other non-profit or charitable services	
	076	Mortuaries, cemeteries, crematoriums	
	077	Clubs, lodges, union halls	
	078	Sanitariums, convalescent and rest homes	
	079	Cultural organizations, facilities	
	083	Public county schools - including all property of Board of Public Instruction	Reclassified from Governmental
	084	Colleges (non-private)	Reclassified from Governmental
	085	Hospitals (non-private)	Reclassified from Governmental
Miscellaneous	090	Leasehold interests (government-owned property leased by a non-governmental lessee)	

	091	Utility, gas and electricity, telephone and telegraph, locally assessed railroads, water and sewer service, pipelines, canals, radio/television communication	
	093	Subsurface rights	
	094	Right-of-way, streets, roads, irrigation channel, ditch, etc.	
Rail Corridor	098	Centrally assessed	Reclassified from Centrally Assessed
Residential	000	Vacant Residential	
	001	Single Family	
	002	Mobile Homes	
	003	Multi-family - 10 units or more	
	004	Condominiums	
	005	Cooperatives	
	006	Retirement Homes not eligible for exemption	
	007	Miscellaneous Residential (migrant camps, boarding homes, etc.)	
	008	Multi-family - fewer than 10 units	
	009	Residential Common Elements/Areas	
	038	Golf courses, driving ranges	Reclassified from Commercial
	074	Homes for the aged	
	097	Outdoor recreational or parkland, or high-water recharge subject to classified use assessment	Reclassified from Miscellaneous - mostly golf clubs and suburban ponds
Rural	092	Mining lands, petroleum lands, or gas lands	Reclassified from Miscellaneous
	096	Sewage disposal, solid waste, borrow pits, drainage reservoirs, waste land, marsh, sand dunes, swamps	Reclassified from Miscellaneous
	099	Acreage not zoned agricultural with or without extra features	Reclassified from Other

**Appendix B:**  
FDOT Preliminary Context Classification  
Revisions Request Memorandum



# MEMORANDUM

---

September 20, 2024

To: Tiffany Hill and James Rodriguez  
Florida Department of Transportation - District 5  
719 South Woodland Boulevard  
DeLand FL 32720

From: Laura Carter and Sarah Kraum  
Space Coast Transportation Planning Organization  
2725 Judge Fran Jamieson Way, Building B,  
Melbourne FL 32940

RE: Brevard County State Road Context Classification Recommendations

---

The Space Coast Transportation Planning Organization (SCTPO) has completed a countywide Context Classification (CC) analysis for functionally classified roadways to better support local transportation planning efforts. SCTPO engaged Kittelson & Associates, Inc. (Kittelson) to analyze CC on functionally classified roadways in Brevard County using a similar methodology and criteria set in the Florida Department of Transportation (FDOT) CC Guide.

Since FDOT District Five has both Preliminary and Current CC designations for State roads, the SCTPO CC evaluation focused on non-State roads. Kittelson, SCTPO staff, and local County/City staff also conducted additional visual review of CC results for State roads during this process. As a result, SCTPO identified some roadways that we would like to request FDOT consider amending their preliminary CC designations, as shown in **Table 1**. We make these recommendations with our understanding of current local conditions, as well as our awareness of ongoing development projects underway. Consistent with FDOT's best practice, we expect that these recommendations based on our visual and high-level review will remain preliminary CC designations and can be further evaluated and confirmed during subsequent FDOT project-level reviews.

We appreciate your consideration of our request and would be happy to have a discussion about these recommendations if you have any questions.

**Table 1: Recommendations for Updates to State Road Existing Context Classification**

Roadway Segment	From	To	Roadway ID	Original CC	Requested CC	Notes	Jurisdiction
<b>US 1</b>	Aurantia Rd.	Flounder Creek Rd.	70030000	C3R	C2	Change to C2 to be consistent with Aurantia Rd and area above C2T as all have same rural development	SCTPO
<b>Garden St. (SR 406)</b>	Clarewood Blvd.	Dahlia Ave.	70002000	C3R	C3C	Consider-Changing to C3C for consistency along entire corridor (Garden St.)	SCTPO
<b>Garden St. (SR 406)</b>	W of Forrell Ave.	E of Forrell Ave.	70002000	C3C	C4	Change to C4 for consistency along corridor	SCTPO
<b>Garden St. (SR 406)</b>	W of Dixie Ave.	Washington Ave. (US 1 NB)	70002000	C3C	C4	Consider C4 for consistency. Commercial uses continue with similar density as to the west.	SCTPO
<b>South St. (SR 405)</b>	N of Swan Lake Rd.	Singleton Ave.	70160000	C2	C3R	Change to C3R based expected residential developments	SCTPO
<b>US 1</b>	SR 50	Olmstead Dr.	70030000	C4	C3C	Change to C3C, consistent with development along west side. East side is river.	SCTPO
<b>SR 520 (EB)</b>	E of US 1	Merritt Island Cswy. Bridge	70100000	C2/C4	C5	Change to C5 for consistency with SR 520 (WB)	SCTPO

**Table 1: Recommendations for Updates to State Road Existing Context Classification (Continued)**

Roadway Segment	From	To	Roadway ID	Original CC	Requested CC	Notes	Jurisdiction
<b>SR 520</b>	E of Courtenay Pkwy.	Sykes Creek Pkwy.	70100000	C3C	C4	SR 520 extend C4 designation to Sykes Creek	SCTPO
<b>SR A1A</b>	S of Sherry Lee Ln.	SR A1A (NB)	70060000	C4	C3C	Change to C3C	SCTPO
<b>Pineda Cswy. (SR 404)</b>	Patrick Dr. (SR 513)	US 1	70004000	C3R	C3C	C3C-Consistency, residential has no access to 404	SCTPO
<b>Eau Gallie Blvd (SR 518)</b>	E of Autumn Woods Dr.	Stewart Ave.	70120004	C4	C3C	C3C for consistency	SCTPO
<b>Eau Gallie Blvd (SR 518) - WB Only</b>	Pineapple Ave.	US 1	70120001	C4	C5	Change to C5, acts as urban center for Eau Gallie	SCTPO
<b>SR A1A</b>	N of Coral Wy.	Majorca Ct.	70060000	C3C	C4	Consider all of A1A in this area C4 for consistency	SCTPO
<b>SR A1A</b>	Jackson Ave.	Pineda Cswy. (SR 404)	70060000	C3C/C3R	C4	Update to C4 based on population and employment densities and block structure	SCTPO
<b>Strawbridge Ave. (US 192)</b>	New Haven Ave.	US 1	70050000	C4	C5	Downtown Melbourne - C5	SCTPO

**Table 1: Recommendations for Updates to State Road Existing Context Classification (Continued)**

Roadway Segment	From	To	Roadway ID	Original CC	Requested CC	Notes	Jurisdiction
<b>US 1</b>	WH Jackson St.	Eau Gallie River Bridge	70020000	C3C	C4	C4 from Bridge to WH Jackson	Melbourne
<b>US 192 WB (Strawbridge Ave.)</b>	US 1	Causeway	70050000	C4	C5	Change to C5 to the Causeway	Melbourne
<b>US 192 EB (New Haven Ave.)</b>	US 1	Causeway	70050001	C3C	C5	Change to C5 to the Causeway	Melbourne
<b>US 1 SB (Hopkins Ave.)</b>	South St (SR 405)	US 1 (Two-Way)	70030101	C3C	C4	consistency. The existing and planned development pattern is urban general.	Titusville
<b>SR 524</b>	Adamson Rd.	I-95	70070000	C2	C3R	C3R from Adamson Rd to I-95 interchange	Cocoa
<b>SR A1A SB (Orlando Ave.)</b>	S 2nd St.	N 2nd St.	70060001	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach
<b>SR A1A NB (Atlantic Ave.)</b>	S 2nd St.	N 2nd St.	70060000	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach

**Table 1: Recommendations for Updates to State Road Existing Context Classification (Continued)**

Roadway Segment	From	To	Roadway ID	Original CC	Requested CC	Notes	Jurisdiction
<b>SR A1A SB (Orlando Ave.)</b>	SR A1A Two-Way	S 2nd St.	70060001	C3R	C4	Revisit this stretch, should it be C4 to reflect the S Atlantic Ave	Cocoa Beach
<b>Eau Gallie Blvd. (SR 518)</b>	FEC RR	US 1	70120004	C3C	C4	Change Eau Gallie Blvd. from the FEC RR to US 1 to C4.	Melbourne
<b>US 1</b>	Eau Gallie River Bridge	Eau Gallie Blvd. (SR 518)	70020000	C3C	C4	Change US 1 from the Eau Gallie River to SR 518 to C4.	Melbourne
<b>US 1</b>	Silver Palms Ave.	Hibiscus Blvd.	70020000	C3C	C4	Change US 1 from Silver Palm Ave. to Hibiscus Blvd. to C4.	Melbourne
<b>US 1</b>	W. H. Jackson St	US 192	70010000	C3C	C4	US 1 should be changed to C4 from US 192 to W. H. Jackson.	Melbourne
<b>US 192</b>	Simon Rd.	Columbia Ln.	70050000	C2T	C3R	C3R - thousands of upcoming residential units	Brevard County
<b>St Johns Heritage Pkwy.</b>	Malabar Rd.	Palm Bay City Limit	70000399	C2	C3R	Change to C3R from Malabar to city limit/bend	Palm Bay

**Appendix C:**  
Non-State Non-SOS Context Classification  
Analysis Methodology

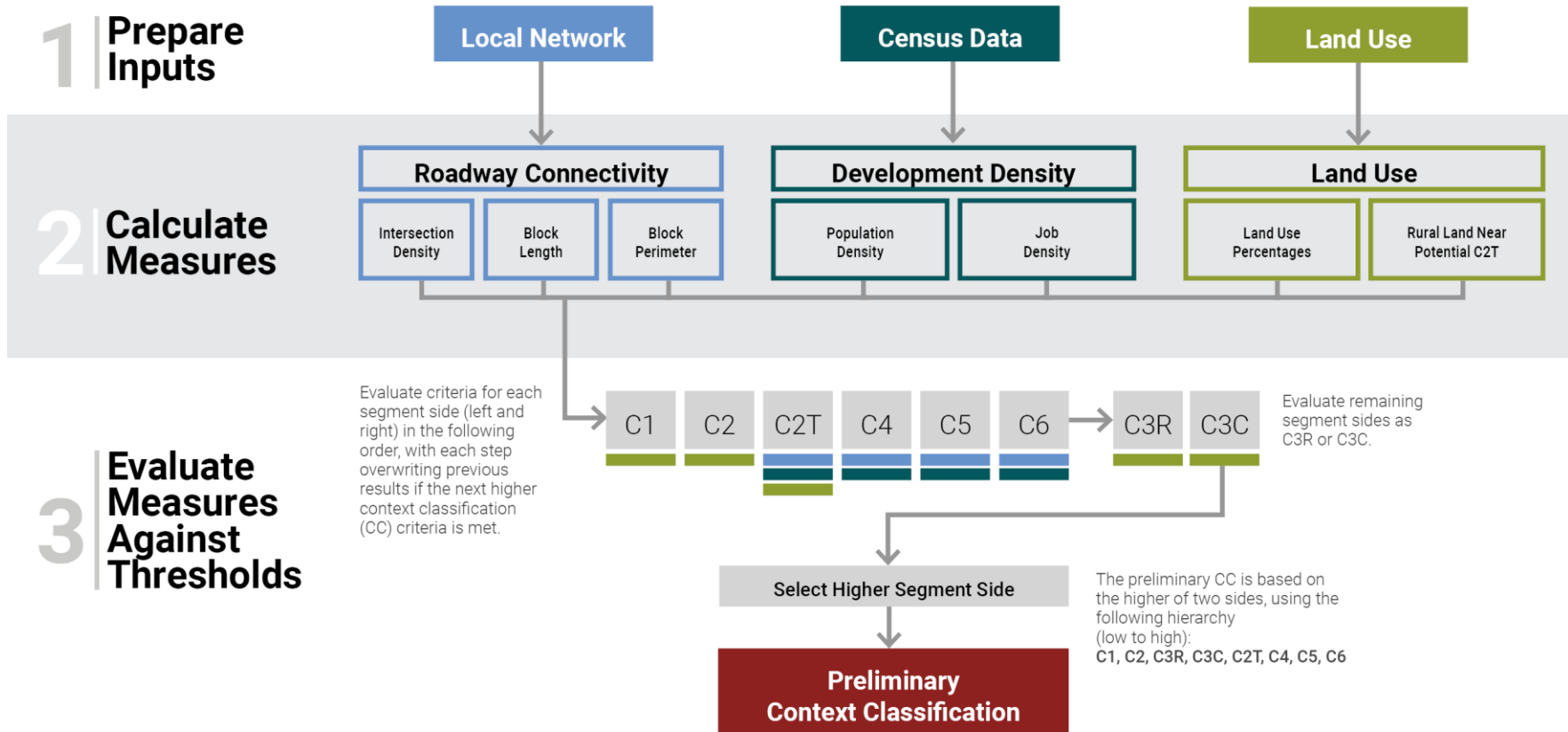
# INTRODUCTION

As part of the Space Coast Transportation Planning Organization (SCTPO) context classification analysis, non-State non-State-of-the-System (SOS) functionally classified (FC) roadways were analyzed to determine their preliminary context classifications. This analysis was based on the GIS- and logic-script-based method used to analyze non-State SOS roadway context classifications completed as part of the 2018 SOS report. However, the method was refined based on the characteristics of the non-state, non-SOS FC roadways.

- The 2018 method is documented in **Appendix A** of the main report for the current analysis.
- This **Appendix (C)** summarizes the analysis process for Non-State Non-SOS roadways, noting differences with the procedures used in the 2018 analysis. The Non-State Non-SOS analysis considered approximately 200 roadway segments and 175 centerline miles.

**Figure 1** summarizes the steps of the GIS method used for determining the preliminary context classifications. The 2018 analysis included an additional step after “Prepare Inputs” (Segment the Network). Segmentation was not needed for the 2023 analysis, because the Non-State Non-SOS roadways were geographically scattered throughout the County and generally had shorter lengths that did not cross multiple jurisdictions.

Figure 1: GIS Process Overview



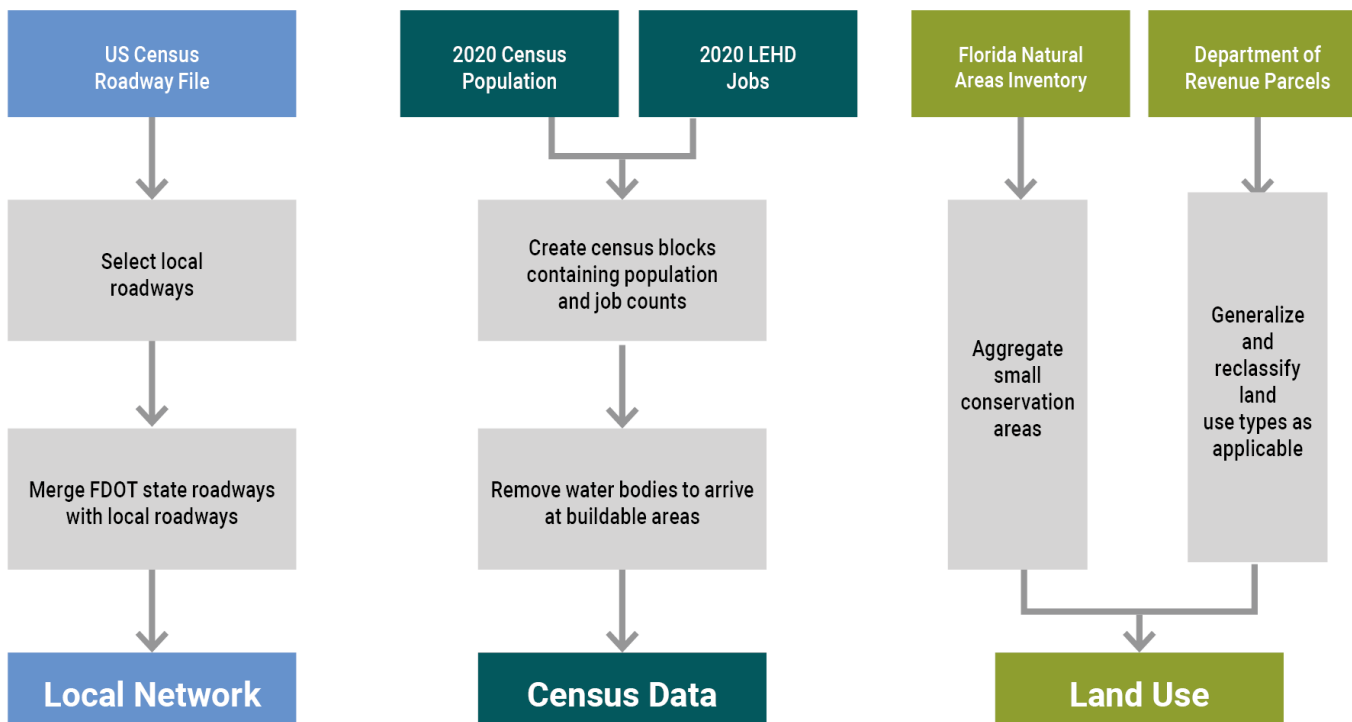


# STEP 1: PREPARE INPUTS

Figure 2 summarizes the data sources and steps used to prepare the inputs for the calculation of measures. Each major component (Local Network, Census Data, and Land Use) is detailed in the following pages. Table 1 summarizes the data sources.

Figure 2: Summary of Step 1

## 1 | Prepare Inputs



**Table 1: Data Sources for Analysis**

Layer	Scale	Source	Year	Notes
SOS 2018 Network	Countywide	SCTPO	2018	Used to create LRS <sup>1</sup> for the study network.
Local Roadway Network	Countywide	US Census Bureau TIGER/Line files	2018	Brevard County and adjacent counties: Indian River, Orange, Osceola, Seminole, and Volusia County
Conservation Areas	Statewide	Florida Natural Areas Inventory	2022	Federal, state, local, and privately managed conservation areas
2022 Existing Land Use	Countywide – Parcel	The State of Florida County Property Appraisers (Florida Department of Revenue) data collected from Florida Geographic Data Library (fgdl.org)	2022	These data were prepared by Florida Department of Revenue
2020 Population	Countywide – Census Block Level	US Census Bureau 2020 Decennial Census - TIGER/Line with Selected Demographic and Economic Data	2020	2020 Census is the most fine-grain data available.
2020 Employment	Countywide – Census Block Level	LEHD Workplace Area Characteristics Employment Statistics	2020	2020 was most recent available from LEHD

<sup>1</sup> Linear Referencing System. For details, see **Appendix A**.

## STUDY NETWORK: FC NON-SOS ROADS

The base study network is sourced from the SCPTO FC non-SOS 2010 network. The FC non-SOS LRS network included both GIS method evaluation and an estimated evaluation. The final network is separated into two files:

- GIS method CC evaluation.
- Estimated CC evaluation.

## LOCAL NETWORK

The local road network used was the 2018 Census TIGER/Line file. The more recent 2022 TIGER/Line file was not used because a comparison with the 2018 version showed that the changes were generally not near the study segments and would not substantively influence the connectivity measures. Instead of using the 2022 version, a limited number of new roadways were manually added to the FC non-SOS segments.

# CENSUS DATA

Population and jobs data came from two sources:

- Population: US Census Bureau 2020 Decennial Census at the census block level
- Jobs: Longitudinal Employer-Household Dynamics (LEHD) workplace 2020 at the census block level

Population data from 2020 were used because they were the finest resolution counts available; more recent American Community Survey (ACS) data are estimates based on survey samples instead of counts at less fine resolution. It is important to use LEHD data because it counts jobs at the place of employment, whereas other census datasets count employed residents at their place of residence. One challenge with LEHD data is that it is created from payroll data associated with the employer, causing centralization of dispersed jobs to single administrative headquarters. For example, jobs in local schools to be centralized to a single school board address. Manually reassigning job counts was outside the scope of this analysis, so the issue was addressed at the end of the CC process by manually checking C5 segments outside of major urban areas for atypically high job densities and down-classifying if necessary.

To account for the reduction in buildable land area caused by lakes and large ponds, the census blocks contain a land area field in square meters. The census block land acreage was recalculated to acres without the water area, and population and job densities were calculated using this revised block acreage as the denominator.

# LAND USE

Land use data came from two sources:

- Florida Natural Areas Inventory's (FNAI) conservation areas
- Florida Department of Revenue's (DOR) parcel database containing land use types and acres, assembled from county files provided by the St. John's River Water Management District

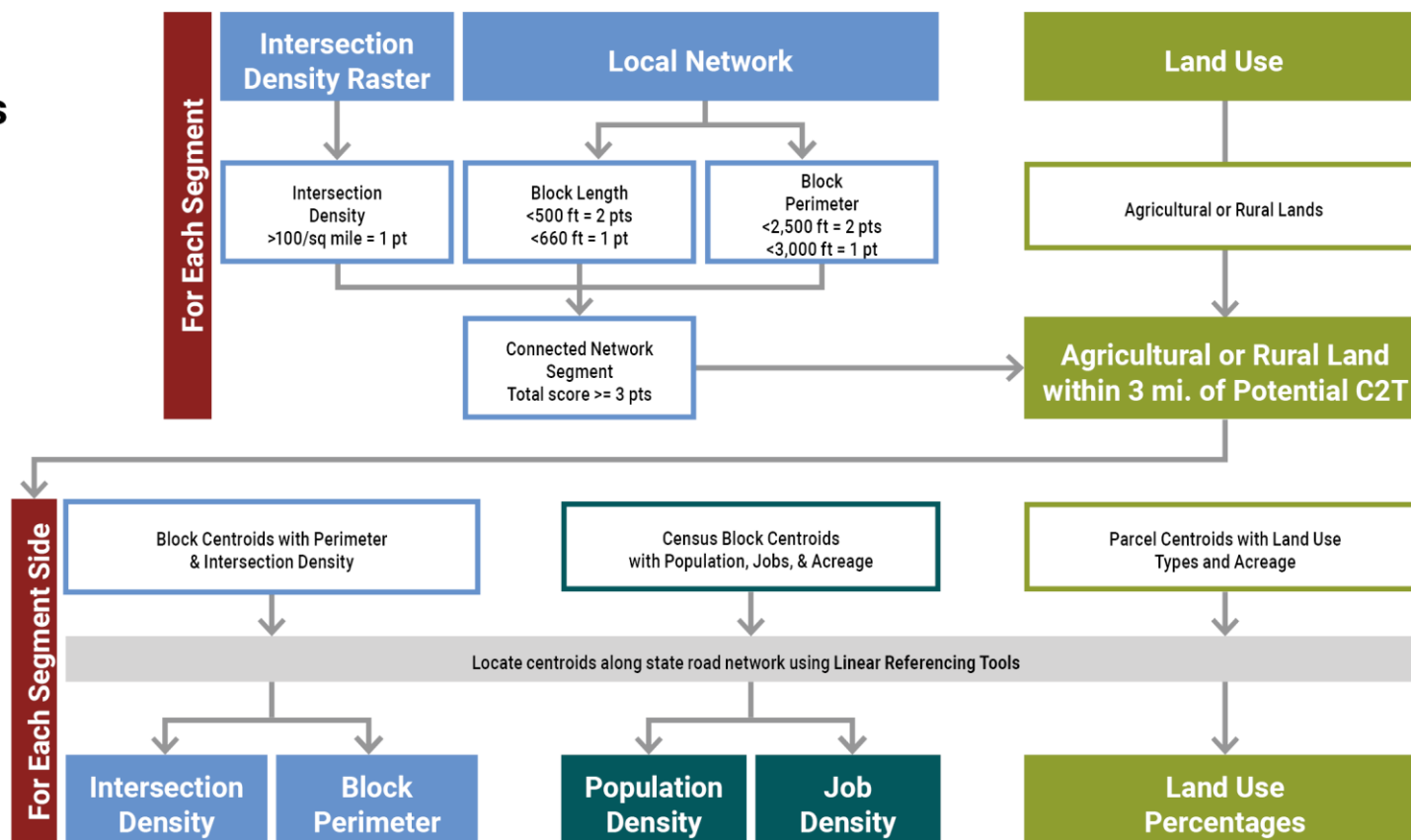
Other detailed land use types in the DOR database were also reclassified into general land use categories as documented in **Appendix A**. The reclassified parcel database was used to calculate land use measures.

# STEP 2: CALCULATE MEASURES

Figure 3 summarizes the process for calculating context classification measures for each segment and for each segment side. Refer to Appendix A for more detail about the method.

Figure 3. Summary of Step 2

## 2 | Calculate Measures

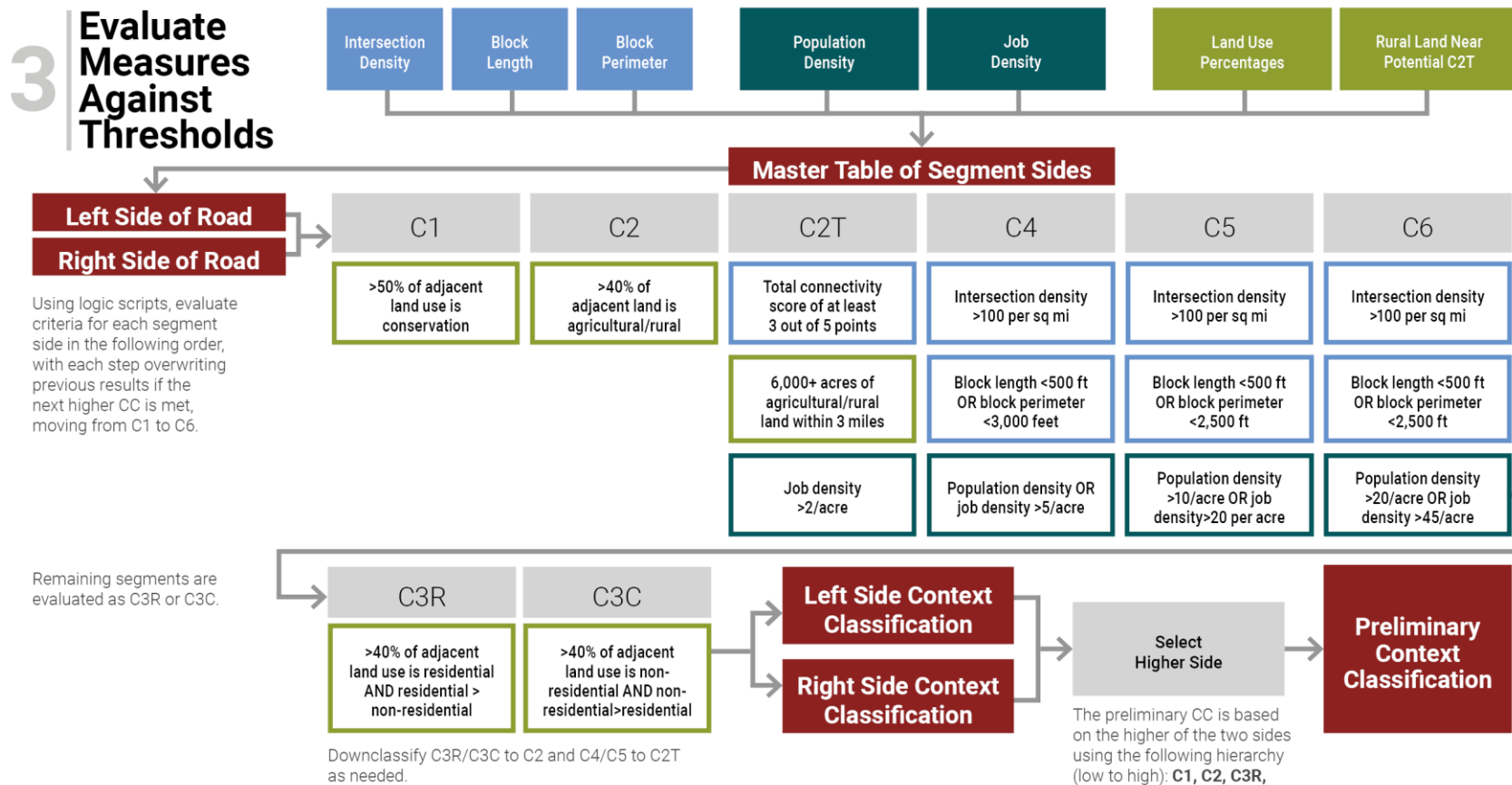


**Note:** Segment-level measures for roadway connectivity are used to identify potential C2Ts. Segment-level measures for population and job density are also calculated as a reference, but are not used in the higher-side classification process.

# STEP 3: EVALUATE MEASURES AGAINST THRESHOLDS

Figure 4 summarizes the process and thresholds for evaluating the measures for each side of the roadway. Refer to **Appendix A** for more details.

Figure 4. Summary of Step 3



# SUPPLEMENTAL ANALYSIS

During the analysis process, SCTPO staff requested that roadways being added as part of the nearly adopted 2020 functionally classified network be included in the context classification analysis. As the GIS analysis had already been completed, a manual estimation method was used for these roadways using the primary and secondary measures in the Context Classification Matrix provided in the FDOT Context Classification Guide. These manually evaluated context classifications are documented in the table attached to this **Appendix**.

## **Appendix D:** Initial Preliminary Context Classifications

Requested State Road Revisions							
Segment	From	To	Original CC	Revised CC	Reason	Commenter	KAI
US 1	Aurantia Rd.	Flounder Creek Rd.	C3R	C2	Change to C2 to be consistent with Aurantia Rd and area above C2T as all have same rural development	SCTPO	Agree
Garden St. (SR 406)	Clarewood Blvd.	Dahlia Ave.	C3R	C3C	Consider-Changing to C3C for consistency along entire corridor (Garden St.)	SCTPO	Agree
Garden St. (SR 406)	W of Forrell Ave.	E of Forrell Ave.	C3C	C4	Change to C4 for consistency along corridor	SCTPO	Agree
Garden St. (SR 406)	W of Dixie Ave.	Washington Ave. (US 1 NB)	C3C	C4	Consider C4 for consistency. Commercial uses continue with similar density as to the west.	SCTPO	Agree
US 1	SR 50	Olmstead Dr.	C4	C3C	Change to C3C, consistent with development along west side. East side is river.	SCTPO	Agree
SR 520 (EB)	E of US 1	Merritt Island Cswy. Bridge	C2/C4	C5	Change to C5 for consistency with SR 520 (WB)	SCTPO	Agree
SR 520	E of Courtenay Pkwy.	Sykes Creek Pkwy.	C3C	C4	SR 520 extend C4 designation to Sykes Creek	SCTPO	Agree
SR A1A (SB)	S 21st St.	SR A1A	C3R	C3C	Change to C3C for consistency and to reflect built environment	SCTPO	Agree
SR A1A	S of Sherry Lee Ln.	SR A1A (NB)	C4	C3C	Change to C3C	SCTPO	Agree
Pineda Cswy. (SR 404)	Patrick Dr. (SR 513)	US 1	C3R	C3C	C3C-Consistency, residential has no access to 404	SCTPO	Agree
Eau Gallie Blvd (SR 518)	E of Autumn Woods Dr.	Stewart Ave.	C4	C3C	C3C for consistency	SCTPO	Agree
Eau Gallie Blvd (SR 518) - WB Only	Pineapple Ave.	US 1	C4	C5	Change to C5, acts as urban center for Eau Gallie	SCTPO	Agree
Eau Gallie Blvd. (SR 518)	E of Pineapple Ave.	W of Patrick Dr. (SR 513)	C4	C3C	Make causeway consistent with lower class to the east, C3C	SCTPO	Remove comment
SR A1A	N of Coral Wy.	Majorca Ct.	C3C	C4	Consider all of A1A in this area C4 for consistency	SCTPO	Agree
Strawbridge Ave. (US 192)	New Haven Ave.	US 1	C4	C5	Downtown Melbourne - C5	SCTPO	Change comment's limits
SR A1A	Ocean Ave.	US 192	C4	C3R	South of US 192, C3R	SCTPO	Remove comment
SR A1A	Oak St.	S of Cherry St.	C4	C3C	SR A1A, Ocean Ave south change to C3C	SCTPO	Remove comment

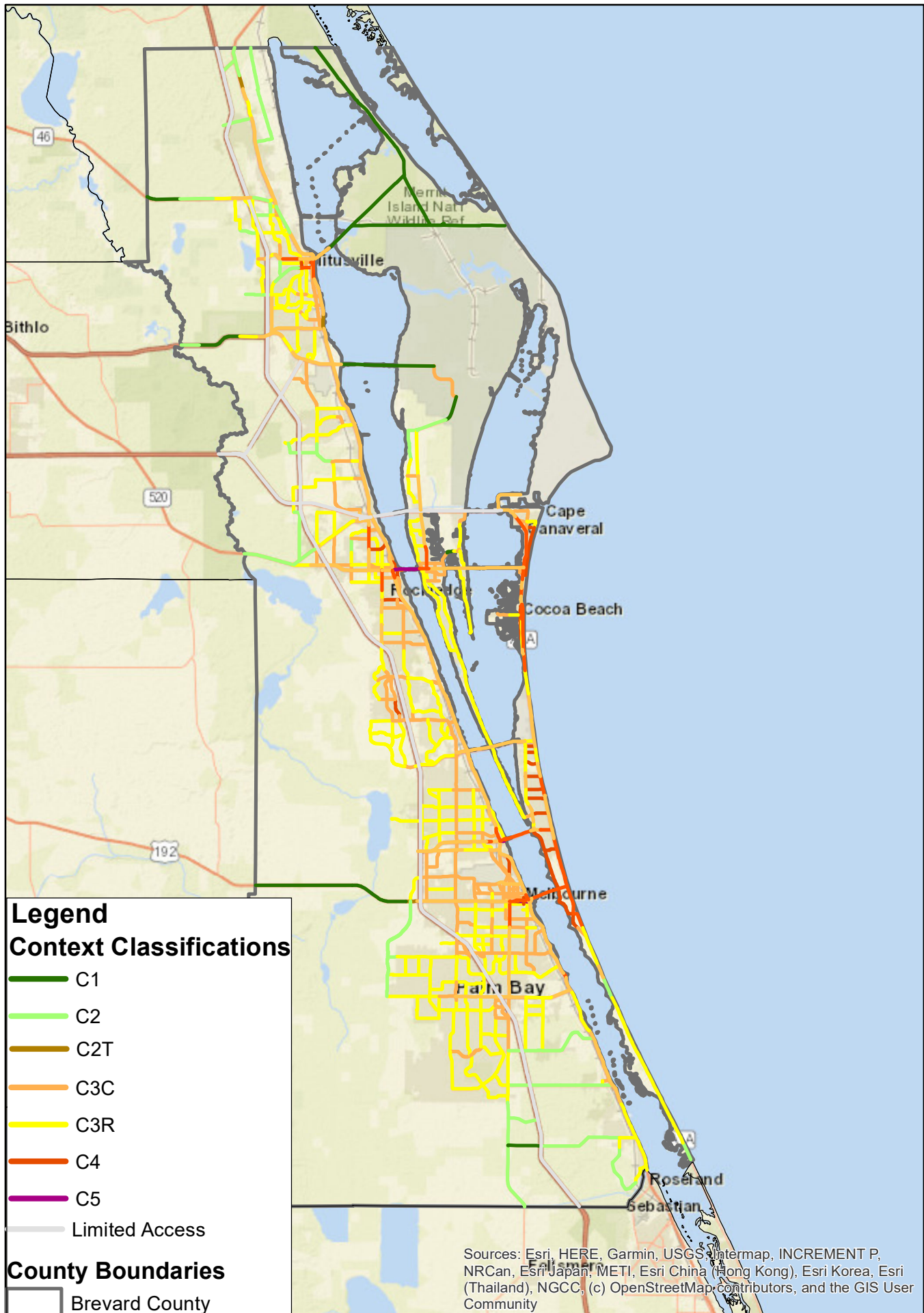


Requested Non-State Road Revisions							
Segment	From	To	Original CC	Revised CC	Reason	Commenter	KAI
Space Commerce Wy.	Kennedy Pkwy.	NASA Cswy.	C2	C3C	Space Commerce Way change to C3C	SCTPO	SD-C3C
Dixon Blvd.	Clearlake Rd. (SR 501)	US 1	C3C	C4	Dixon, change to C4, reflects same type of density as Clearlake	SCTPO	Agree
Fiske Blvd.	SR 520	Dixon Blvd.	C4	C3R	Fiske change to C3R to reflect actual function and built environment, only ends have commercial	SCTPO	Agree
Barton Blvd.	Fiske Blvd. (SR 519)	US 1	C3C	C4	Change Barton to C4 to reflect function and density of corridor	SCTPO	Agree
Lake Andrew Dr.	Napolo Dr.	Judge Fran Jamieson Wy.	C3C	C4	Lake Andrew: Wickham to Judge Fran Jamieson-C4, downtown of Viera	SCTPO	C4 from Napolo to Judge Fran Jamieson
Wickham Rd.	Forest Lake Ave.	Pinehurst Ave.	C3R	C3C	Consider changing Wickham from Forest Lake to Pinehurst from C3R to C3C for continuity.	SCTPO	Agree
Croton Rd.	Eau Gallie Blvd. (SR 518)	Post Rd.	C3C	C3R	Croton-C3R	SCTPO	Agree
Fox Lake Rd.	Carpenter Rd.	South St.	C3R	C2	Change to C2- minimal, large residential property, more alligators than people	SCTPO	Agree
Riverside Dr.	US 192	Eau Gallie Blvd. (SR 518)	C3R	C4	The density is similar to SR A1A, move to C4	SCTPO	Agree
Oak St.	Bonita Ave.	Ocean Ave.	C3R	C4	The density is similar to SR A1A, move to C4	SCTPO	Agree
St. Johns Heritage Pkwy.	US 192	I-95	C2	C3R	New housing developments being built	SCTPO	Agree

Non-SOS Functionally Classified Roadway Requested Revisions							
Segment	From	To	Original CC	Revised CC	Reason	Commenter	KAI
Fox Lake Rd.	End	Carpenter Rd.	C3R	C2	Change to C2- minimal, large residential property, more alligators than people	SCTPO	Agree, Checked density
Knox McRae Dr.	Raney Rd.	US 1	C4	C3C	Change to C3C to reflect actual density of development. Does not have development to justify C4 designation.	SCTPO	Borderline, density points more to C4
Fay Blvd.	End	Golfview Ave.	C3C	C3R	Change to C3R for consistency and reflect actual use.	SCTPO	Agree
Pineda St./Tate St.	Peachtree St.	Clearlake Rd. (SR 501)	C4	C3R	Tate and Pineda St change to C3R, residential only development, not functioning as C4	SCTPO	Agree
School St.	Lake Dr.	Wilson Ave.	C3C/C4	C3R	School street is C3R for entire corridor	SCTPO	Agree
Peachtree St.	Fiske Blvd.	Florida Ave.	C4	C3C	Change to C3C for consistency-entire corridor all the way to Florida Ave	SCTPO	Agree
Minuteman Cswy.	End	Cedar Ave.	C4	C3R	Mixture of C3C and C3R, change C4 west of Cedar, Keep C4 Cedar to N A1A	SCTPO	Agree
Ocean Blvd.	Patrick Dr. (SR 513)	US 1	C4	C3R	Change to C3R to reflect surrounding area and how it functions, suburban development	SCTPO	Not changing
Sea Park Blvd.	Patrick Dr. (SR 513)	US 1	C4	C3R	Change to C3R to reflect surrounding area and how it functions, suburban development	SCTPO	Not changing
Parkway Dr.	Wickham Rd.	Croton Rd.	C3C	C3R	Parkway, C3R	SCTPO	Agree
Banana River Dr./Pine Tree Dr.	Patrick Dr. (SR 513)	US 1	C4	C3R	C3R, residential majority of access	SCTPO	Not changing
Fee Ave.	Martin Luther King Jr.	Babcock St.	C4	C3C	Fee-make consistent with the east, C3C	SCTPO	Agree
Fee Ave.	Apollo Blvd.	US 1	C4	C3C	Fee Ave-All C3C	SCTPO	Borderline on density but agree
New Haven Ave.	Hickory St.	US 1	C4	C5	Downtown Melbourne - C5	SCTPO	Go to C5 from Hickory to US 1, same for Strawbridge
Riverside Dr./Ocean Ave.	Oak St.	US 192	C3R	C4	The density is similar to SR A1A, move to C4	SCTPO	Agree
Paradise Blvd.	Riverside Dr.	SR A1A	C3R	C4	The density is similar to SR A1A, move to C4	SCTPO	Agree
Shearwater Pkwy.	Patrick Dr. (SR 513)	SR A1A	C3R	C4	The density is similar to other east-west roads, move to C4	SCTPO	Agree
Cassia Blvd.	Patrick Dr. (SR 513)	SR A1A	C3R	C4	The density is similar to other east-west roads, move to C4	SCTPO	Agree

Manual Estimation - Requested Revisions										
Segment	From	To	Original CC	Revised CC	Reason	Commenter	Original CC	Revised CC	Reason	Commenter
Aurora St.	Rosa Jones Dr.	SR 520	C3R	C4	matches land use and density better.	JLY	C4	C3R	Aurora St: C3R	SCTPO
Rosa Jones Dr.	Aurora St.	Fiske Blvd.	C3R	C4	matches land use and density better.	JLY	C4	C3R	Rosa Jones Dr: C3R	SCTPO

# Interim CC Layers: Submitted to Local Staff



## **Appendix E:** Local Coordination

---

# Context Classification Virtual Workshop #1 Meeting Summary

## Traffic Data Report and Analysis

November 16, 2023

9:00 AM – 10:00 AM

Virtual Meeting

---

### ATTENDEES

Brad Parrish – City of Titusville

Abigail Morgan – City of Cocoa

John Cooper – City of Rockledge

Laura Carter and Sarah Kraum – Space Coast Transportation Planning Organization (SCTPO)

Andrew Garrison and Jane Lim-Yap – Kittelson & Associates, Inc. (Kittelson)

### INTRODUCTION

The purpose of the meeting was to discuss the context classification analysis conducted by Kittelson and the SCTPO and solicit feedback from the City staff.

### MEETING SUMMARY

The following points summarize the discussion from the meeting:

#### **Context Classification Adoption and Analysis Process**

- Kittelson described why the analysis is needed and how it was conducted. Kittelson also summarized each context classification designation.
  - Titusville staff asked whether FDOT’s context classification analysis considers local codes and comprehensive plans that provide regulations on fronting uses, grid networks, and other factors.
    - The preliminary analysis adopts FDOT’s process and uses a GIS based analysis of available data and only considers a subset of the measures that determine context classification, including existing land use street network, block size, and population and employment densities.
    - The GIS driven review will benefit from input from local staff on information they are aware of (e.g., any new or approved developments) that are not reflected in the GIS data.
    - This level of analysis will be used by the SCTPO as a planning tool for determining systemwide roadway capacities/LOS thresholds. However, in the future this tool and data layer can be used to support land use and transportation integration and decision-making as deemed appropriate by local governments.

---

## Context Classification Review

- Kittelson displayed an online map showing the draft context classifications and received comments from City staff on revisions to the draft context classifications.
  - Cocoa staff noted that the Adamson Creek development is being built on the east side of Adamson Road and is expected to include around 330 homes. Cocoa staff recommended changing the classification on Adamson Road to C3R from SR 524 to Saxton Road and to C3C from Saxton Road to Coconut Avenue due to the landfill on the west side of the roadway.
  - Cocoa staff noted that there are multiple housing developments on SR 524 south of I-95. They recommended changing the context classification to C3R from SR 520 to I-95.

## Miscellaneous

- Rockledge staff asked how FDOT uses their preliminary context classifications. Does this inform roadway projects?
  - Non-access limited FDOT projects now require a review of context classifications as part of the data collection phase. Context classifications will inform design criteria and standards. This includes design criteria such as design speeds, as well as roadway elements such as sidewalk width and median width.

## Next Steps

- Context Classification
  - Staff from each City will review the online map application and provide comments on the draft context classifications by Wednesday, November 29, 2023.
  - Kittelson will update and finalize the context classifications based on these comments. SCTPO will request adoption of the context classifications as a planning tool from SCTPO Board in February 2024.

---

# Context Classification Virtual Workshop #2 Meeting Summary

## Traffic Data Report and Analysis

November 16, 2023

10:00 AM – 11:00 AM

Virtual Meeting

---

### ATTENDEES

Corrina Gumm, Devin Swanson, Jeffrey Ball, Stephen Swanke, Veroncia Figueroa-Chanza, William Johnson, and Peter Nguyen – Brevard County  
Tami Gillen and Todd Corwin – City of Melbourne  
Jason Mahoney – Town of Grant-Valkaria  
Laura Carter and Sarah Kraum – Space Coast Transportation Planning Organization (SCTPO)  
Andrew Garrison and Jane Lim-Yap – Kittelson & Associates, Inc. (Kittelson)

### INTRODUCTION

The purpose of the meeting was to discuss the context classification analysis conducted by Kittelson and the SCTPO and solicit feedback from the County, City, and Town staff.

### MEETING SUMMARY

The following points summarize the discussion from the meeting:

#### **Context Classification Adoption and Analysis Process**

- Kittelson described why the analysis is needed and how it was conducted. Kittelson also summarized each context classification designation.

#### **Context Classification Review**

- Kittelson displayed an online map showing the draft context classifications and received comments from County, City, and Town staff on revisions to the draft context classifications.
  - Grant-Valkaria staff asked why Corey Road and Weber Road were shown as C3R instead of C2 since the roadways have only low-density residential land use.
    - Kittelson will review the residential densities in this area to determine whether changing these roadways to C2 is appropriate. It was also noted that changing Valkaria Road from C2 to C3R should be considered.
  - Melbourne staff requested that New Haven Avenue and US 192 be changed to C5 from US 1 to the causeway/bridge. Melbourne staff asked whether US 1 could be changed to C4 where the US 1 Streetscape project is being conducted (from University Boulevard to Crane Creek).
    - Kittelson staff will review these locations and consider changing the context classifications.



- It was noted by Brevard County staff during other conversation that the west leg of the intersection of Wickham Road and Post Road has a context classification of C3C just west of the intersection.
  - This location will be updated so that the C3R designation reaches the intersection and the C3C designation will start on the east leg.

### **Context Classification Update Implications**

- Brevard County staff noted that there are large differences between C2 and C3R capacities in the FDOT MQ/LOS Handbook. How much will that be accounted for in the determination of context classifications?
  - The context classifications will be determined without reference to the changes in capacities they may cause. However, when the adopted context classifications are used to update the roadway capacities in Spring 2024, the SCTPO and Kittelson will coordinate to determine whether any of the initial capacity changes are inappropriate. The MQ/LOS only provides planning capacities and the SCTPO can use different roadway capacities if they are more appropriate to a specific roadway.
- County staff asked how much land use is considered in the context classification analysis process. Staff also shared that the County's Future Land Use (FLU) is expected to be updated shortly in the Evaluation and Appraisal Report (EAR) process.
  - Land use is a key factor in the context classification analysis. This information about FLU updates may not be considered in this initial context classification identification process, but this can be considered in future updates.
  - County staff also noted that they would like to include the context classifications in the EAR.
    - It is a great opportunity to consider context classification for the County's land use planning and decision-making. It is up to the County to adopt this preliminary designation if they deem appropriate.
- County staff also noted that they have concerns about how changing roadway capacities will affect concurrency.
  - There was not enough time to discuss this topic in full, so a second meeting to discuss this and other County questions will be scheduled.
  - Melbourne staff requested to join this second meeting as well.
- County staff asked how often these context classifications will be updated.
  - The SCTPO expects to address change requests on an annual basis and review the entire network every 3-5 years.

### **Miscellaneous**

- Melbourne staff requested documentation showing the changes in roadway capacities from the 2020 Q/LOS Handbook to the 2023 MQ/LOS Handbook.
  - Kittelson will provide copies of both Handbooks so Melbourne staff can review these differences in roadway capacities.

---

## Next Steps

- Context Classification
  - County, City, and Town staff will review the online map application and provide comments on the draft context classifications. (Initial comment deadline is Wednesday, November 29, 2023. County may need more time after the second meeting is scheduled.)
  - Kittelson and SCTPO will coordinate with County staff to schedule a second meeting to continue discussing the implications of the context classification adoption process.
  - Kittelson will provide Melbourne staff with copies of both the 2020 and 2023 Q/LOS Handbooks to review the differences in roadway capacities.
  - Kittelson will update and finalize the context classifications based on comments from the municipalities. SCTPO will request adoption of the context classifications for use as a planning tool from the SCTPO Board in February 2024.

---

# Context Classification Virtual Workshop #3 Meeting Summary

## Traffic Data Report and Analysis

November 17, 2023

9:00 AM – 10:00 AM

Virtual Meeting

---

### ATTENDEES

Lexi Miller – City of Cape Canaveral

Jared Francis – City of Cocoa Beach

Tom Davis – City of Melbourne Beach

Laura Carter and Sarah Kraum – Space Coast Transportation Planning Organization (SCTPO)

Andrew Garrison and Jane Lim-Yap – Kittelson & Associates, Inc. (Kittelson)

### INTRODUCTION

The purpose of the meeting was to discuss the context classification analysis conducted by Kittelson and the SCTPO and solicit feedback from the City staff.

### MEETING SUMMARY

The following points summarize the discussion from the meeting:

#### **Context Classification Adoption and Analysis Process**

- Kittelson described why the analysis is needed and how it was conducted. Kittelson also summarized each context classification designation.

#### **Context Classification Review**

- Kittelson displayed an online map showing the draft context classifications and received comments from City staff on revisions to the draft context classifications.
  - Cape Canaveral staff noted that they have received comments about increased volumes on Atlantic Avenue (north of SR A1A) but did not have any context classification revision requests.
  - Cocoa Beach staff noted that SR A1A SB south of Minutemen Causeway is C3R, while the roadways surrounding SR A1A SB (Brevard Avenue and SR A1A NB) are both C4. It was also noted that Minuteman Causeway near SR A1A and the SR A1A/SR 520 area should be considered for C5 designations.
    - Kittelson staff will review these areas to determine if any context classifications should be revised. Kittelson staff will also review Cocoa Beach's CRA boundaries as a supplemental reference for these determinations.

- 
- Melbourne Beach staff noted the area south of their jurisdiction is rapidly developing and adding commuter traffic to their roadways. However, no recommendations for context classification changes were made.

### **Next Steps**

- Context Classification
  - City staff will review the online map application and provide any additional comments on the draft context classifications by Wednesday, November 29, 2023.
  - Kittelson will update and finalize the context classifications based on these comments. SCTPO will request adoption of the context classifications for use as a planning tool from the SCTPO Board in February 2024.

---

# Context Classification Virtual Workshop #4 Meeting Summary

## Traffic Data Report and Analysis

November 17, 2023

10:00 AM – 11:00 AM

Virtual Meeting

---

### ATTENDEES

Alexandra Bernard – City of Palm Bay

Laura Carter and Sarah Kraum – Space Coast Transportation Planning Organization (SCTPO)

Andrew Garrison and Jane Lim-Yap – Kittelson & Associates, Inc. (Kittelson)

### INTRODUCTION

The purpose of the meeting was to discuss the context classification analysis conducted by Kittelson and the SCTPO and solicit feedback from the City staff.

### MEETING SUMMARY

The following points summarize the discussion from the meeting:

#### **Context Classification Adoption and Analysis Process**

- Kittelson described why the analysis is needed and how it was conducted. Kittelson also summarized each context classification designation.

#### **Context Classification Review**

- Kittelson displayed an online map showing the draft context classifications and received comments from City staff on revisions to the draft context classifications.
  - Palm Bay staff noted that various developments are planned on St. Johns Heritage Parkway from Pace Drive to Emerson Drive.
    - Based on these developments, Kittelson will forward a request to FDOT to consider changing the context classification of St. Johns Heritage Parkway from C2 to C3R from Malabar Road to Emerson Drive. Kittelson will also update St. Johns Heritage Parkway to C3R from Emerson Drive to the Palm Bay city boundary, as this portion is not in the FDOT context classification layer.
  - Palm Bay staff noted that some commercial development is planned on the northeast and southeast sides of the intersection of St. Johns Heritage Parkway and Babcock Street.
    - SCTPO staff will continue to monitor this area but C2 is an appropriate classification for St. Johns Heritage Parkway in this area at this time.
  - Palm Bay staff noted that some residential development is planned on the north and south side of Micco Road east of I-95.

- 
- SCTPO staff will continue to monitor this area but C2 is an appropriate classification for Micco Road in this area at this time.

### **Miscellaneous**

- Palm Bay staff noted that they have recently adopted a new comprehensive plan. They can provide that plan if needed.

### **Next Steps**

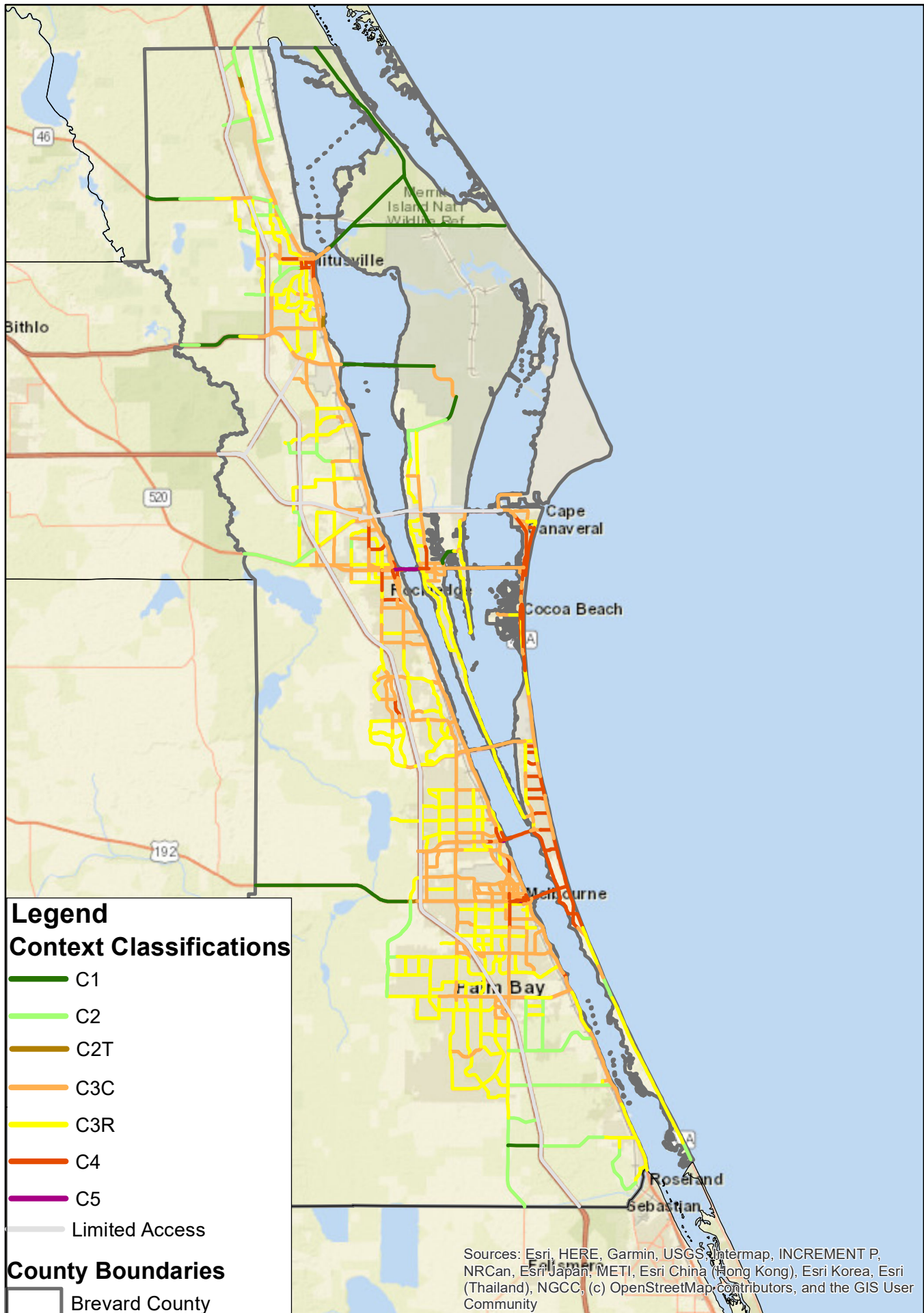
- Context Classification
  - City staff will review the online map application and provide any additional comments on the draft context classifications by Wednesday, November 29, 2023.
  - City staff will provide development plans for the areas discussed during the workshop to SCTPO and Kittelson staff.
  - Kittelson will update and finalize the context classifications based on these comments. SCTPO will request adoption of the context classifications as a planning tool from the SCTPO Board in February 2024.

Requested SR Revisions - Local Stakeholders										
Segment	Roadway ID	From	To	Original CC	Revised CC	Reason	Jurisdiction	Comment Date	Response	Action
Garden St. (SR 406)		W of Dixie Ave.	US 1	C3C	C4	C-4 should extend to US-1 for consistency. The existing and planned development pattern or urban general.	Titusville	11/16/2023	Agreed.	Already planning to provide comments on this segment to FDOT.
US 1	44	WH Jackson St	Eau Gallie River Bridge	C3C	C4	C4 from Bridge to WH Jackson	Melbourne	11/16/2023	Provide comment to FDOT.	Determine what changes to make.
US 192 WB (Strawbridge Ave.)	182	US 1	Causeway	C4	C5	Change to C5 to the Causeway	Melbourne	11/16/2023	Agreed.	Add to list of State Road CC revisions.
US 192 EB (New Haven Ave.)	209	US 1	Causeway	C3C	C5	Change to C5 to the Causeway	Melbourne	11/16/2023	Agreed.	Add to list of State Road CC revisions.
Garden St. (SR 406)	147	Park Ave.	US 1	C3C	C4	C-4 should extend to US-1 for consistency. The existing and planned development pattern or urban general.	Titusville	11/16/2023	Agreed. Already noted as a State road CC revision that will be requested.	Add to list of State Road CC revisions.
US 1 SB (Hopkins Ave.)	125	South St (SR 405)	US 1 (Two-Way)	C3C	C4	consistency. The existing and planned development pattern is urban general.	Titusville	11/16/2023	Agreed.	Add to list of State Road CC revisions.
SR 524	235	Adamson Rd.	I-95	C2	C3R	C3R from Adamson Rd to I-95 interchange	Cocoa	11/16/2023	Agreed.	Add to list of State Road CC revisions.
SR A1A SB (Orlando Ave.)	190	S 2nd St.	N 2nd St.	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach	11/17/2023	Agreed.	Add to list of State Road CC revisions.
SR A1A NB (Atlantic Ave.)	218	S 2nd St.	N 2nd St.	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach	11/17/2023	Agreed.	Add to list of State Road CC revisions.
SR A1A SB (Orlando Ave.)	13	Myrtle St.	S 2nd St.	C3R	C4	Revisit this stretch, should it be C4 to reflect the S Atlantic Ave	Cocoa Beach	11/17/2023	Agreed.	Add to list of State Road CC revisions.
Eau Gallie Blvd. (SR 518)	46	FEC RR	US 1	C3C	C4	Change Eau Gallie Blvd. from the FEC RR to US 1 to C4.	Melbourne	11/28/2023	Agreed.	Add to list of State Road CC revisions.
US 1	24	Eau Gallie River B	Eau Gallie Blvd. (SR 518)	C3C	C4	Change US 1 from the Eau Gallie River to SR 518 to C4.	Melbourne	11/28/2023	Agreed.	Add to list of State Road CC revisions.
US 1	44	Silver Palms Ave.	Hibiscus Blvd.	C3C	C4	Change US 1 from Silver Palm Ave. to Hibiscus Blvd. to C4.	Melbourne	11/28/2023	Agreed.	Add to list of State Road CC revisions.
US 1	192	W. H. Jackson St	US 192	C3C	C4	US 1 should be changed to C4 from US 192 to W. H. Jackson.	Melbourne	11/28/2023	Agreed.	Add to list of State Road CC revisions.
US 1	88	SR 50	Olmstead Dr.	C2T	C3C	The character of this segment is effectively the same as the segment to the north. I would be interested to see why it warrants a separate classification.	Titusville	11/29/2023	Agreed. Already noted as a State road CC revision that will be requested.	Add to list of State Road CC revisions.
Garden St. (SR 406)	147	Park Ave.	US 1	C3C	C4	Segments of Garden St east of Park Ave are part of our Downtown Mixed Use zoning district. I would consider Garden east of Park Ave to be of the C4 -Urban General classification.	Titusville	11/29/2023	Agreed. Already noted as a State road CC revision that will be requested.	Add to list of State Road CC revisions.
SR 520 EB (King St.)	21	Two-Way SR 520	Causeway	C2/C4	C5	Revise for consistency	Brevard County	1/11/2024	Agreed. Already noted as a State road CC revision that will be requested.	Add to list of State Road CC revisions.
US 192	19	Simon Rd.	Columbia Ln.	C2T	C3R	C3R - thousands of upcoming residential units	Brevard County	1/11/2024	Agreed.	Add to list of State Road CC revisions.
St Johns Heritage Pkwy.	36	Malabar Rd.	Palm Bay City Limit	C2	C3R	Change to C3R from Malabar to city limit/bend	Palm Bay	11/17/2023	Remove from SR layer.	Remove SHP for State Road layer.

Non-SR Revision Requests - Local Stakeholders									
Segment	From	To	Original CC	Revised CC	Comment	Agency Commenter	Comment Date	Response	Action
Singleton Ave.	Garden St. (SR 406)	Tropic St.	C2	C3R	Consider C3R for the segment of Singleton between Garden St and Tropic St. There are two commercial uses (90 S. Singleton Ave and 2835 Garden St) and a multifamily use (212 S. Singleton Ave)	Titusville	11/3/2023	Agreed.	Update to C3R from Tropic St. to Garden St. (SR 406)
Post Rd.	E of Arms Cir.	Wickham Rd.	C3C	C3R	Revise to be C3C from Wickham east, and C3R from Wickham west	Brevard County	11/16/2023	Agreed.	Update to C3R from E of Arms Cir. to Wickham Rd.
Stadium Pkwy.	Trasona Dr.	Wickham Rd.	C3R	C3C	Stadium Pkwy from Trasona Drive to Wickham is commercial	Brevard County	11/16/2023	Agreed.	Update to C3C from Trasona Dr. to Wickham Rd.
Valkaria Rd.	Weber Rd.	Magnolia Rd.	C2	C3R	Look at changing to C3R based on subdivision	Grant-Valkaria	11/16/2023	Reviewed rural density. Under 2 persons/acre. Recommended staying at C2. Check for agreement.	No action.
Weber Rd.	Valkaria Rd.	Malabar Rd.	C3R	C2	Check density regarding rural threshold. If below, change to C2	Malabar/Grant-Valkaria	11/16/2023	Review rural density. It is under 2 persons/acre. Will change to C2.	Update to C2.
Corey Rd.	Valkaria Rd.	Malabar Rd.	C3R	C2	Check density regarding rural threshold. If below, change to C2	Malabar/Grant-Valkaria	11/16/2023	Review rural density. It is under 2 persons/acre. Will change to C2.	Update to C2.
Delecon Ave.	South St. (SR 405)	Garden St. (SR 406)	C3C	C4	consistency. The existing and planned development pattern is urban general.	Titusville	11/16/2023	Agreed.	Update to C4 from South St. to Garden St.
Adamson Rd.	SR 524	Sorrell Ave.	C2	C3R	Change to C3R in the southern section. C3C at landfill	Cocoa	11/16/2023	Agreed.	Update to C3R from SR 524 to Sorrell Ave.
Main St.	Delecon Ave.	US 1	C3C	C4	consistency. The existing and planned development pattern is urban general.	Titusville	11/16/2023	Agreed.	Update to C4 from Delecon Ave. to Wilson Ave.
St Johns Heritage Pkwy.	Malabar Rd.	Palm Bay City Limit	C2	C3R	Change to C3R from Malabar to city limit/bend	Palm Bay	11/17/2023	Agreed. Will update the non-State road portion of the comment.	Update to C3R.
Minuteman Cswy.	Cedar Ave.	SR A1A NB	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach	11/17/2023	Reviewed densities and agree with change to C5. However, will do C4 for now until FDOT responses to similar comments on SR A1A. May update to C5 in future depending on FDOT's classification.	Update to C4 from Cedar Ave. SR A1A.
Brevard Ave.	S 2nd St.	N 2nd St.	C4	C5	C5 for downtown area of Minuteman and A1A, Brevard Ave, Orlando Ave consistent with redevelopment area	Cocoa Beach	11/17/2023	Reviewed densities and agree with change to C5. However, will do C4 for now until FDOT responses to similar comments on SR A1A. May update to C5 in future depending on FDOT's classification.	Update to C4 from S 2nd St. to N 2nd St.
Magnolia Ave.	Lorraine Dr.	US 1	C3C	C3R	C3R north of Lorraine to US 1	Melbourne	11/20/2023	Agreed.	Update to C3R from Lorraine Dr. to US 1
Dairy Rd.	US 192	Hibiscus Blvd.	C3R	C3C	Change Dairy Road from US 192 to Hibiscus to C3C.	Melbourne	11/28/2023	Agree.	Update to C3C.
Wickham Rd.	NASA Blvd.	Pineda Cswy.	C3C	C4	Change Wickham Road to C4 from the Pineda Causeway to NASA Blvd.	Melbourne	11/28/2023	Disagree. Pop density doesn't support it as we are mostly under 5 persons/acre. Would also be a big change.	No action.
Lake Washington Rd.	Canopy Dr.	US 1	C3R	C3C	Change Lake Washington Rd. from Canopy Dr. to US 1 to C3C.	Melbourne	11/28/2023	Agreed.	Update to C3C from Canopy Dr. to US 1
Paradise Blvd.	N Riverside Dr	A1A	C4	C3R	Change Paradise Blvd. to C3R.	Melbourne	11/28/2023	Disagree. We've discussed this area already.	No action.
Riverside Dr.	Rio Ln.	Eau Gallie Blvd. (SR 518)	C4	C3R	Change Riverside Drive to C3R from SR 518 to the southernmost municipal boundary of Melbourne	Melbourne	11/28/2023	Disagree. We've discussed this area already.	No action.
Pineapple Ave.	Eau Gallie Blvd. (SR 518)	Aurora Rd.	C3R	C4	Change Pineapple Avenue from SR 518 to Aurora Road to C4.	Melbourne	11/28/2023	Agreed.	Update to C4 from Eau Gallie Blvd. (SR 518) to Aurora Rd.
Sarno Rd.	Alexia St.	Croton Rd.	C3R	C3C	Change Sarno from Croton Road to Alexia Street to C3C.	Melbourne	11/28/2023	Disagree.	No action.
Eddie Allen Rd.	NASA Blvd.	Martin Luther King Jr Blvd.	C3C	Remove	Please remove Eddie Allen Road from the Context Classification list.	Melbourne	11/28/2023	Disagree. We're not taking FC roadways off.	No action.
Melbourne Ave.	Waverly Pl.	US 1	C3R	C3C	Change Melbourne Avenue to C3C from Waverly Place to US 1	Melbourne	11/28/2023	Agreed.	Update to C3C from Waverly Pl. to US 1.
Lipscomb St.	Florida Ave.	University Blvd.	C3C	C3R	Change Lipscomb Street from University Blvd. to Florida Ave. to C3R.	Melbourne	11/28/2023	Agreed.	Update to C3R from Florida Ave. to University Blvd.
Babcock St.	US 192	Neiman Ave.	C3C	C4	Babcock Street from US 192 to Neiman Avenue should be classified as C4.	Melbourne	11/28/2023	US 192 to Hibiscus as C4.	Update to C4 from US 192 to Hibiscus
Knox McRae Dr.	Raney Rd.	Hopkins Ave.	C3C	C3R	In my opinion this segment is C3R with the C3C beginning at S. Hopkins	Titusville	11/29/2023	Agreed.	Update to C3R from Raney Ave. to Hopkins Ave.
Babcock St.	Indian River County Line	St. Johns Heritage Pkwy.	C2	C3R	Should this be Rural based on massive development	Brevard County	11/29/2023	Wait until more development is built.	No action.
Dairy Rd.	Palm Bay Rd.	Florida Ave.	C3C	C3R		Melbourne	1/11/2024	Agreed.	Update to C3R from Palm Bay Rd. to Florida Ave.
Hollywood Blvd.	Palm Bay Rd.	Imagine Wy.	C3R	C3C	C3C south of Imagine Way	Brevard County	1/11/2024	Agreed.	Update to C3C from Palm Bay Rd. to Imagine Wy.
Babcock St.	St. Johns Heritage Pkwy.	S of Weiman Ave.	C2	C3R	C3R	Palm Bay	1/11/2024	Agreed.	Update to C3R from St. Johns Heritage Pkwy. to S of Weiman Ave.
Dairy Rd.	Florida Ave.	Louetta Cir.	C3C	C3R		Brevard County	1/11/2024	Agreed.	Update to C3R from Florida Ave. to Louetta Cir.
Sikes Creek Pkwy.	Merritt Ave.	Old Audobon Rd.	C3C	C1	C1 north of E Merritt Ave	Brevard County	1/11/2024	Agreed.	Update to C1 from Merritt Ave. to Old Audobon Rd.
Micco Rd.	Dotti Dr.	Fleming Grant Rd.	C2	C3R	Need safe design speeds for all the pedestrians in this area	Brevard County	1/11/2024	Agreed.	Update to C3R from Dotti Dr. to Fleming Grant Rd.
Babcock St.	Valkaria Rd	Foundation Park Blvd.	C3C	C3R		Brevard County	1/11/2024	Agreed.	Update to C3R from Valkaria Rd. to Foundation Park Blvd.
Cone Rd.	S Tropical Tr.	S Courtenay Pkwy.	C3C	C3R	C3R to the west?	Brevard County	1/11/2024	Agreed.	Update to C3R from Tropical Tr. to Courtenay Pkwy.
Banana River Dr.	Sandpiper St.	Martin Blvd.	C3C	C3R	C3R up to Martin Blvd?	Brevard County	1/11/2024	Agreed.	Update to C3R from Sandpiper St. to Martin Blvd.
Spyglass Hill Rd.	Murrell Rd.	Baytree Dr.	C3R	C3C	C3C with segmentation at Baytree Dr?	Brevard County	1/11/2024	Agreed.	Update to C3C from Murrell Rd. to Baytree Dr.
Fleming Grant Rd.	Thompson Rd.	Honeysuckle Dr.	C2	C3R	safer design speed for residents	Brevard County	1/11/2024	Reviewed rural density. C3R not supported.	No action.
Range Rd.	Terri Ln.	Kathi Kim St.	C2	C3R	C3R up to Kathi Kim St	Brevard County	1/11/2024	Agreed.	Update to C3R from Terri Ln. to Kathi Kim St.
St. Johns Heritage Pkwy.	1/2 Mile S of US 192	US 192	C2	C3R	C3R - thousands of upcoming residential units	Brevard County	1/11/2024	Stay at C2 for now. Wait for future development.	No action.

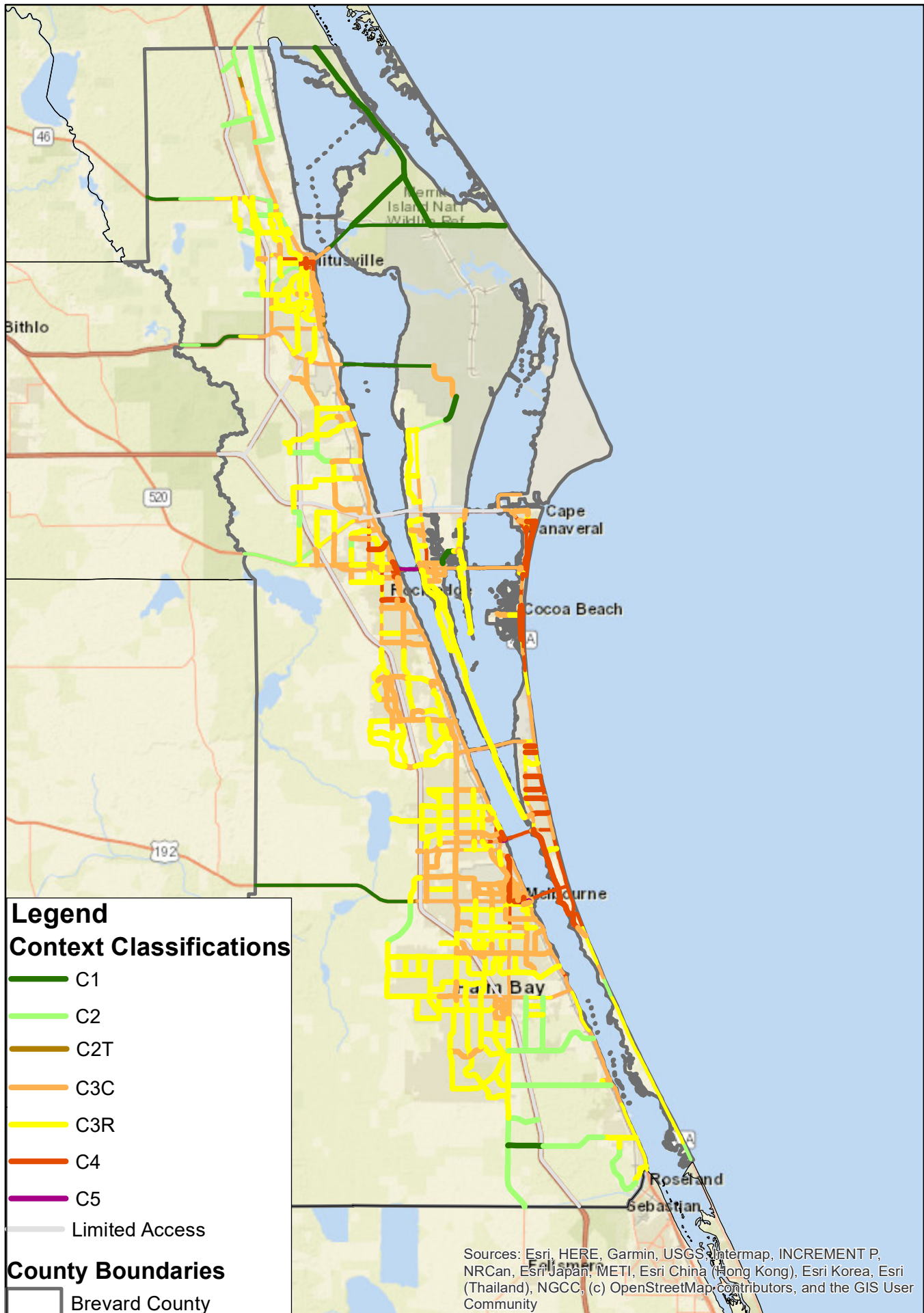


# Draft CC Layers: With Local Stakeholder Revisions



## **Appendix F:** SCTPO Adoption

# Final Adopted CC Layers



## **Appendix G:** Context Classification Revision Process



# CURRENT CONTEXT CLASSIFICATION

To: Laura Carter, Assistant Director, SCTPO

From: *City/County Staff Name Here*

RE: Current Context Classification Review

## Roadway Segment Information

Request Date: XX/XX/XXXX

City/Town/County: *Jurisdiction Name Here*

Local Name: *Road Name Here*

State /County Road Number: XX

Segment Beginning Limit: *Road Name Here*

Segment End Limit: *Road Name Here*

Current Context Classification Review					
Roadway Name	From	To	Current Context Classification	Review Results	Updated Context Classification
<i>Road Name Here</i>	<i>Road Name Here</i>	<i>Road Name Here</i>	XX	<b>SCTPO to add</b>	<b>SCTPO to add</b>

### Current Context Classification Determination Notes:

**Reason for Requested Change:** *County/City staff to add. Provide information such as context of area and why the desired change is being requested. Attach supporting documentation such as development plans or land use documents with this form.*

**Determination:** **SCTPO to add. SCTPO will provide a summary of whether the context classification will be updated and why.**

PLACE SIGNATURE HERE

Reviewed by: Laura Carter      Date: 4/5/2024  
SCTPO Assistant Director