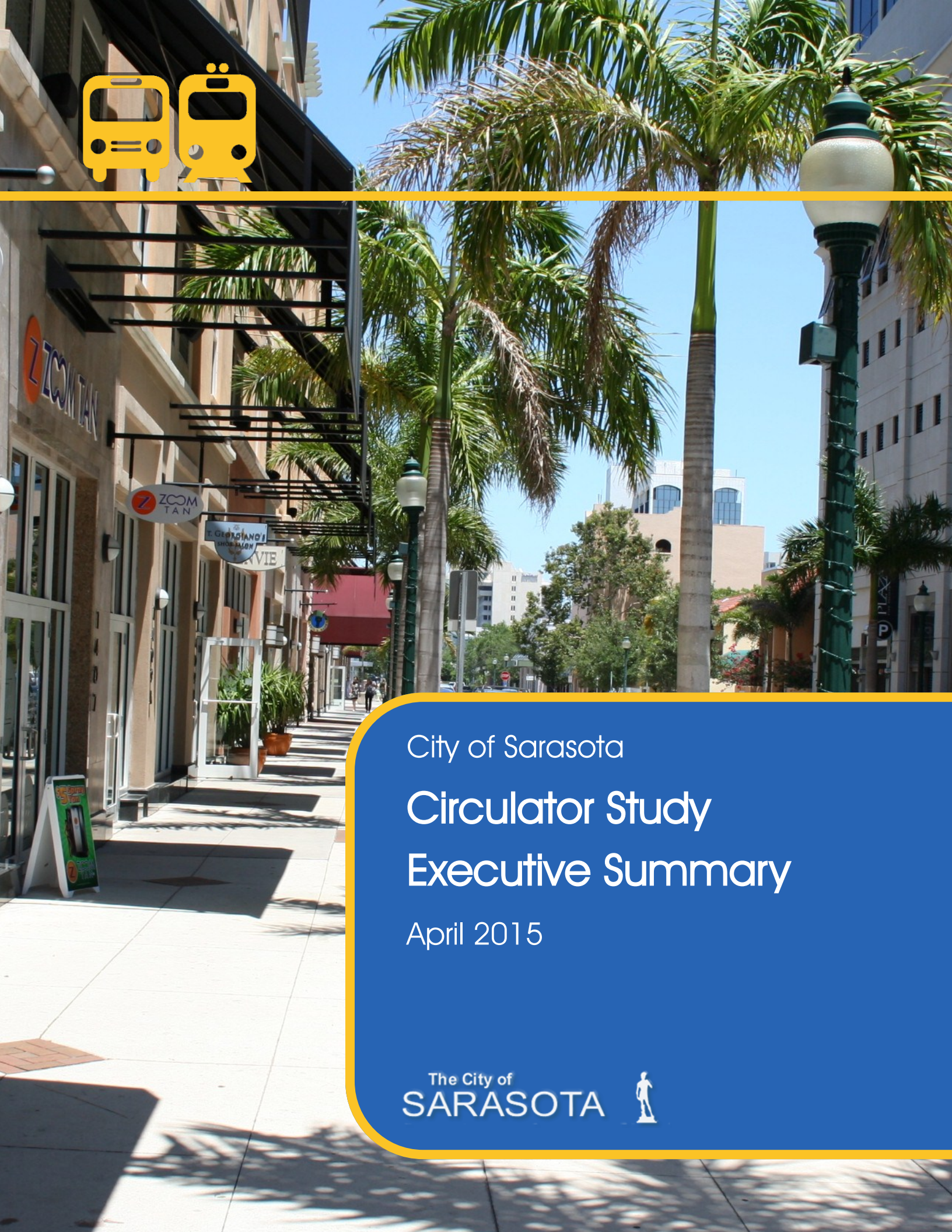


City of Sarasota

Circulator Study Executive Summary

April 2015

The City of SARASOTA

Acknowledgements

City of Sarasota Government

Department of Neighborhood and Development Services

Utilities Department

Sarasota County Area Transit (SCAT)

Sarasota County Government

Sarasota Downtown Improvement District (DID)

Sarasota Residents, Property Owners, and Business Interests

This page intentionally left blank

Table of Contents

Introduction to the Study	1
The Transit Market	3
The Choice of Mode	7
Economic Development	14
Operations	19
Public Involvement	21
Conclusion - Summary and Next Steps	23

List of Figures

Figure 1 - Downtown Sarasota Potential Circulator Alignments	2
Figure 2 - Density Threshold Analysis Map	5
Figure 3 - Sarasota Activity Centers Map	6
Figure 4 - Proposed Central Avenue Section	9
Figure 5 - Proposed Main Street Section	9
Figure 6 - Standard Bus	10
Figure 7 - BRT Style Vehicle	10
Figure 8 - Heritage Trolley	10
Figure 9 - Vintage Streetcar	11
Figure 10 - Replica Streetcar	11
Figure 11 - Modern Streetcar	11
Figure 12 - Downtown Sarasota Potential Circulator Alignments	18

List of Tables

Table 1 - Streetcar—Mixed Traffic vs. Dedicated Lane Systems	8
Table 2 - Rubber-Tire Circulator Capital Cost Range Estimate	12
Table 3 - Rubber-Tire Circulator Conceptual Operating Cost	12
Table 4 - Streetcar Cost Range Per Vehicle Type	13
Table 5 - Streetcar Circulator Conceptual Operating Cost Estimate	13
Table 6 - Base Case/Streetcar Case Statistics	17

This page intentionally left blank

Introduction to Study

In 2008, when the City of Sarasota updated its Comprehensive Plan, it emphasized a desire to "move people, not vehicles" and identified the need to develop a citywide strategy for enhancing the mobility options of all users. The City also recognized the need to apply land use and mobility strategies to encourage desired redevelopment in targeted areas of the city. Sarasota's Citywide Mobility Plan is an initiative to integrate land use, transportation system planning and design, and transportation funding to help achieve these goals.

As part of the Citywide Mobility Plan effort, a study was completed to document the potential feasibility of a transit circulator system to serve the greater Downtown Area. Because much of the future development in Sarasota is expected to occur within this area, enhancing access to existing and future businesses and residences will be important. Determining the feasibility of a circulator system serving Downtown Sarasota requires an evaluation of ridership, capital and operating costs, and development potential along different route alignments.

For this study, the City selected two initial, potential circulator alignments to be analyzed, and a third alignment was proposed as a hybrid of the first two. In addition, a fourth alternative alignment was generated later in the process by Sarasota Streetcar Initiative and is also included to illustrate another potential option, though no specific analysis was completed. (See Figure 1) These are conceptual alignments, and it is likely that more detailed analysis will lead to their modification in the future to optimize efficiency and effectiveness. However, these alignments illustrate possible ways in which the major attractors and activity centers of Downtown Sarasota could potentially be connected by transit.

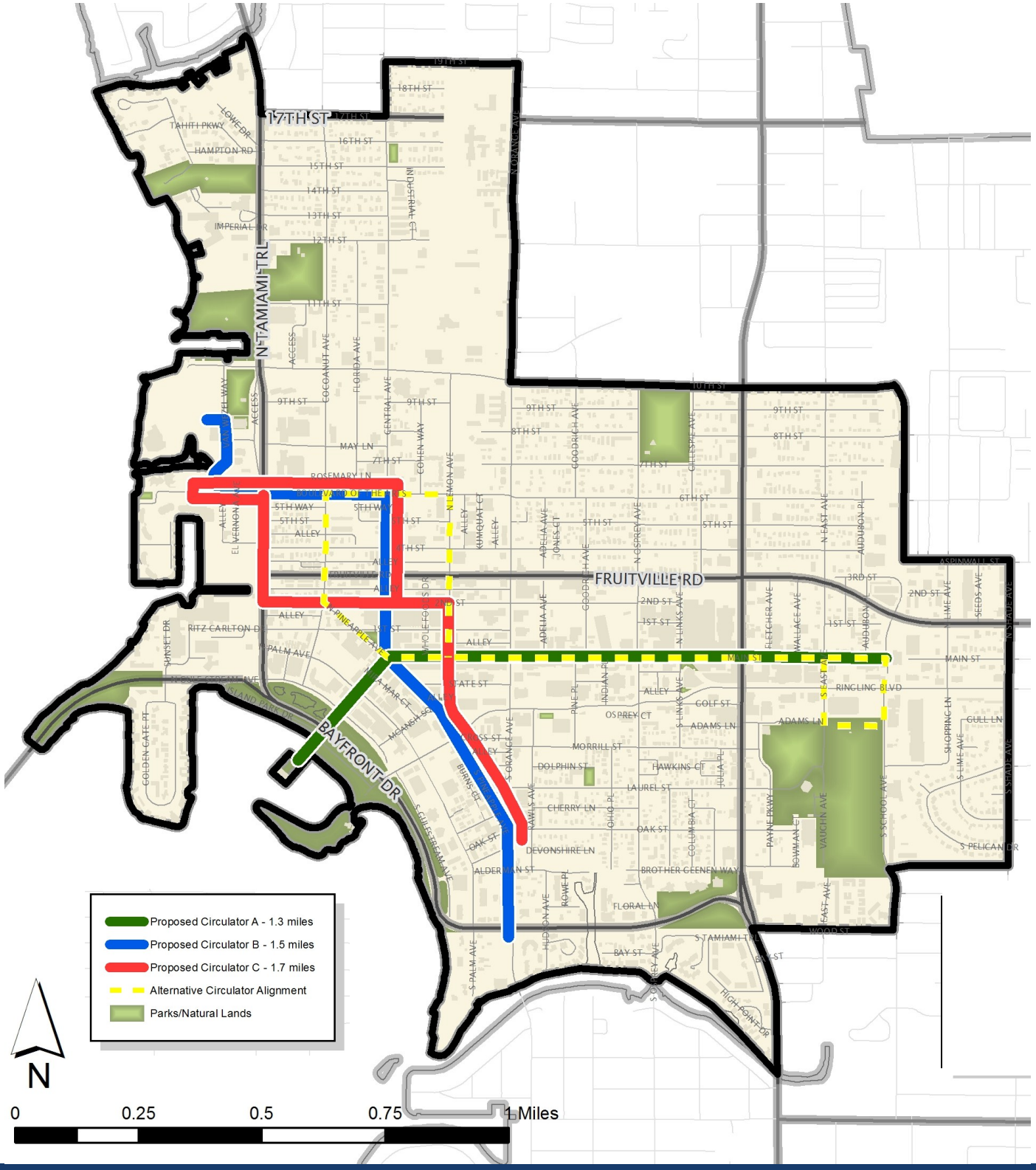
The study examined the benefits and costs of both fixed -guideway streetcar and rubber-tire trolley as possible modes to serve the potential circulator routes. It compared capital/operating costs, potential ridership, and economic development potential for each alignment. In addition, the study included public outreach in the form of public workshops and stakeholder interviews to gain a better understanding of the community's goals for a circulator system and its perspective on the potential costs/benefits.

The Downtown Circulator Feasibility Study addresses the many factors that must be considered in determining if and how a circulator would benefit the city and its citizens, and how those factors relate to the three proposed alignments. This Executive Summary provides a summary of the Feasibility Study organized in the following sections:

- Existing and Future Transit Market
- Choice of Mode
- Economic Development
- Operations and Cost
- Public Involvement
- Summary and Next Steps

The full Downtown Circulator Feasibility Study results can be found on the City of Sarasota's website. The City of Sarasota Downtown Circulator Feasibility Study serves to provide information that can assist the community and City leadership to decide whether to move forward with the next step—a more specific and detailed analysis of a specific circulator type and alignment that is most appropriate for the City's future vision.

Figure 1 - Downtown Sarasota Potential Circulator Alignments



The City of SARASOTA

The Transit Market

Downtown Sarasota is a unique and successful mixed-use urban environment that serves as the commercial and cultural heart of the city of Sarasota. It is home to a variety of assets including established residential neighborhoods, government and private-sector offices, thriving retail and restaurant uses, and arts and cultural resources. To determine if there is sufficient demand within the area to support a transit circulator system, a general analysis of potential demand was completed using existing data from a variety of sources.

Two of the most important factors in determining the presence of a market for a downtown circulator is the combined residential and employment population, and the proximity to activity centers that generate pedestrian activity. Downtown contains a wide variety of housing types, with large multi-family apartments and condominium buildings existing in close proximity to stable single-family housing in areas such as Laurel Park and Gillespie Park, both located immediately adjacent to Downtown. The dwelling unit density varies greatly, but overall reflects a downtown area with a base density of

Source: Eric Seibert

residential units supportive of a variety of transit modes. These residents have easy access to the key downtown corridors and activity centers and present a potential market for transit services. A summary of the transit supportive data can be seen in Figure 2.

In addition to those who live Downtown, there are a variety of activity centers (Figure 3) that potentially could be served by an integrated and efficient transit circulator network designed to move riders to their desired destinations within and near Downtown. These activity centers include cultural, retail, recreational facility, and employment centers. The varied mix of attractors located within Downtown Sarasota serves both tourists and local residents who live and/or work in the study area.

As shown in Figure 3, there are a number of activity centers within Downtown Sarasota that could generate potential ridership for a new circulator. In addition, a recent study sanctioned by the Sarasota Chamber of Commerce identified the four clusters of uses that act as the most significant pedestrian generators in the Downtown, identified as follows:

- **Historic Downtown**
  - ◊ Whole Foods
  - ◊ Selby Library
  - ◊ SCAT Transfer Station
- **Bayfront**
  - ◊ Bayfront Park and Marina/Island Park
  - ◊ Ringling Bridge
  - ◊ Ritz Carlton Hotel
  - ◊ Selby Gardens
- **Uptown**
  - ◊ Regal Cinemas Hollywood 20
  - ◊ Walgreens Drug Store
  - ◊ Sarasota County Government Offices
  - ◊ Payne Park
  - ◊ Downtown YMCA
- **Cultural District**
  - ◊ Publix Supermarket
  - ◊ Cultural District Complex
  - ◊ Hyatt Hotel
  - ◊ Hotel Indigo

Each of the clusters were found to generate a significant amount of pedestrian traffic (and therefore potential ridership), with the exception of the Cultural District, which generated a significant number of visits, but most of which were by automobile.

In addition to the existing generators listed above, there are other emerging generators (e.g. the Quay Property and the developing Cultural District) that could greatly affect pedestrian traffic in the future.

The location of potential pedestrian generators is an important consideration when deciding on the potential route for a circulator. A well-designed system would connect as many of these generators together as possible, increasing ridership and reducing dependence on the automobile for short trips.

Figure 2 - Density Threshold Analysis Map

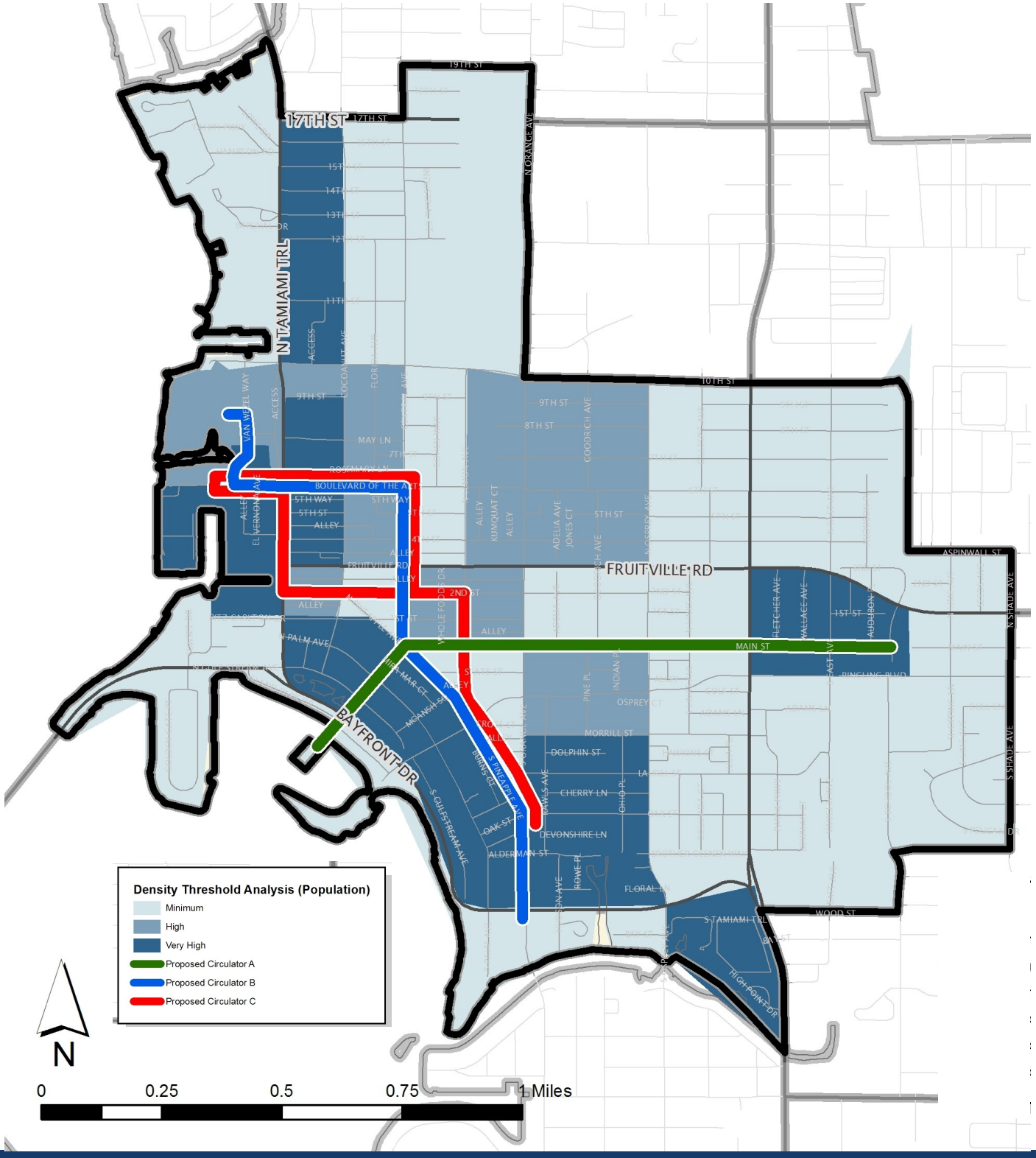
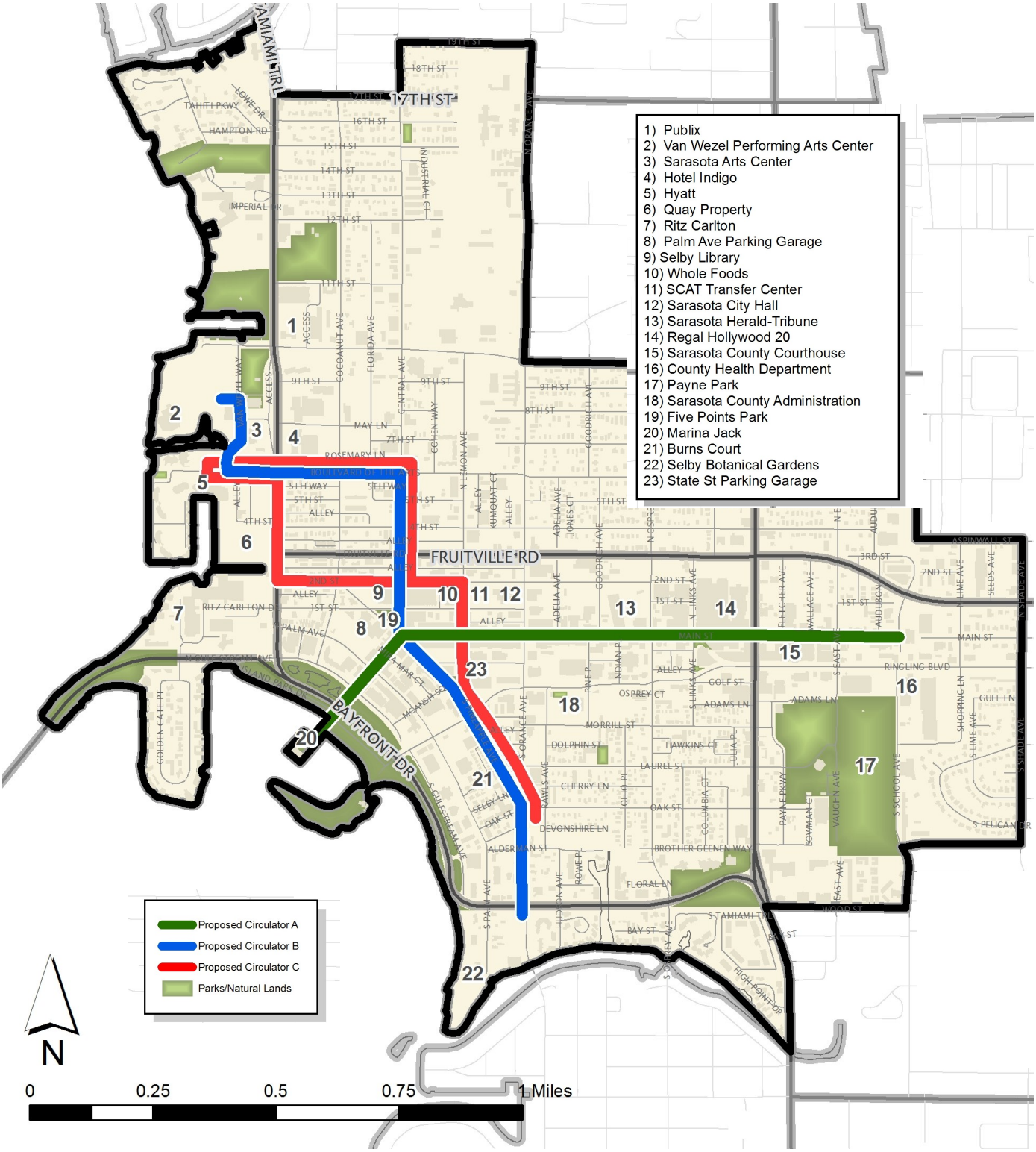


Figure 3 - Sarasota Activity Centers Map



The Choice of Mode

There are two modal choices considered in the Downtown Circulator Feasibility Study: streetcar and rubber-tire vehicles. Following is a summary of key differences between the different transit modes. A more detailed summary and analysis of the different mode choices is included in the main report document.

Fixed-Guideway Streetcar

The trend over the last 15 years has been the use of genuine or replica historic streetcars or trolleys. Now (with the exception of a handful communities, including St. Louis, Missouri), most new streetcar systems in the United States are using European tram-style cars. These modern cars offer better reliability and comfort. In addition, some of these cars have been developed for overhead wire-free or wireless operation.

Source: Light Rail Now

Streetcar systems in the U.S. are typically single-car operations and are not usually considered high-capacity transit except when operated at very high frequency. Although there is a range of streetcar types operating today, the most common streetcars generally have capacities in the range of an articulated bus—around 40–70 seated passengers with a maximum of 110 total passengers (seated and standing). Unlike light rail transit (LRT) service, streetcars are generally not strung together in "trains" with a single operator but, rather, operate as single cars on the track.

Figures 4 and 5 show conceptual cross-sections illustrating how the streetcar might work in a mixed-traffic or dedicated lane. The purpose of developing these typical roadway sections was to gain a better understanding of the physical dimensions of required envelope for a streetcar to determine if the technology could be realistically accommodated within the existing right-of-way. Table 1 summarizes some of the pros and cons of mixed traffic vs. dedicated lanes.

Figures 9 through 11 show characteristics of some of the common types of streetcar vehicles that are used by systems in the United States.

Rubber-Tire Circulator Vehicles

Much like electric streetcars, rubber-tire vehicles can vary greatly, including fully-branded BRT buses, typical buses, or trolleys with heritage design elements. The final choice of vehicle type will depend on the type of service that is eventually being proposed.

There are a number of issues to consider when choosing an appropriate vehicle for an urban circulator service. Some of these are obvious, such as cost, reliability, serviceability, etc., while others are more related to the goals and intent of the system. As is discussed in main report document, ridership can be affected significantly by vehicle type as well as operational characteristics.

There are a number of manufacturers that currently produce rubber-tire vehicles for use in the U.S. Three of the most common include Gillig, Nova, and Arboc Specialty Vehicles. There are also a number of manufacturers that custom-build vehicles for transit agencies around the country.

Sarasota County Area Transit (SCAT) currently operates a fleet that uses Gillig buses almost exclusively. The agency has a variety of buses that currently serve the system, including some BRT-style, hybrid diesel-electric buses. Ultimately, if SCAT is the entity that will be responsible for operating the circulator system, the agency may wish to continue using Gillig vehicles due to its familiarity and comfort level with the product.

The remainder of this section includes a summary of some common rolling stock options used by transit agencies for circulator and BRT services. This is not a comprehensive list but serves as an introduction to the most common typologies currently in use.

Figures 6 through 8 summarize characteristics of some of the types of rubber tire circulator vehicles that are currently being used by systems in the United States.

Table 1 - Streetcar—Mixed Traffic vs. Dedicated Lane Systems

Alignment	Pros	Cons
Mixed-Traffic	Minimizes right-of-way acquisition Minimizes impacts to existing sidewalks/ streetscape	Operation is affected by traffic congestion One-way operation only
Dedicated Lane	Two-way operation along same tracks (passing tracks) Operation is not affected by traffic congestion	Can require additional right of way Impacts to existing sidewalks/streetscape

Figure 4 - Conceptual Two-Lane Mixed Traffic Street Section

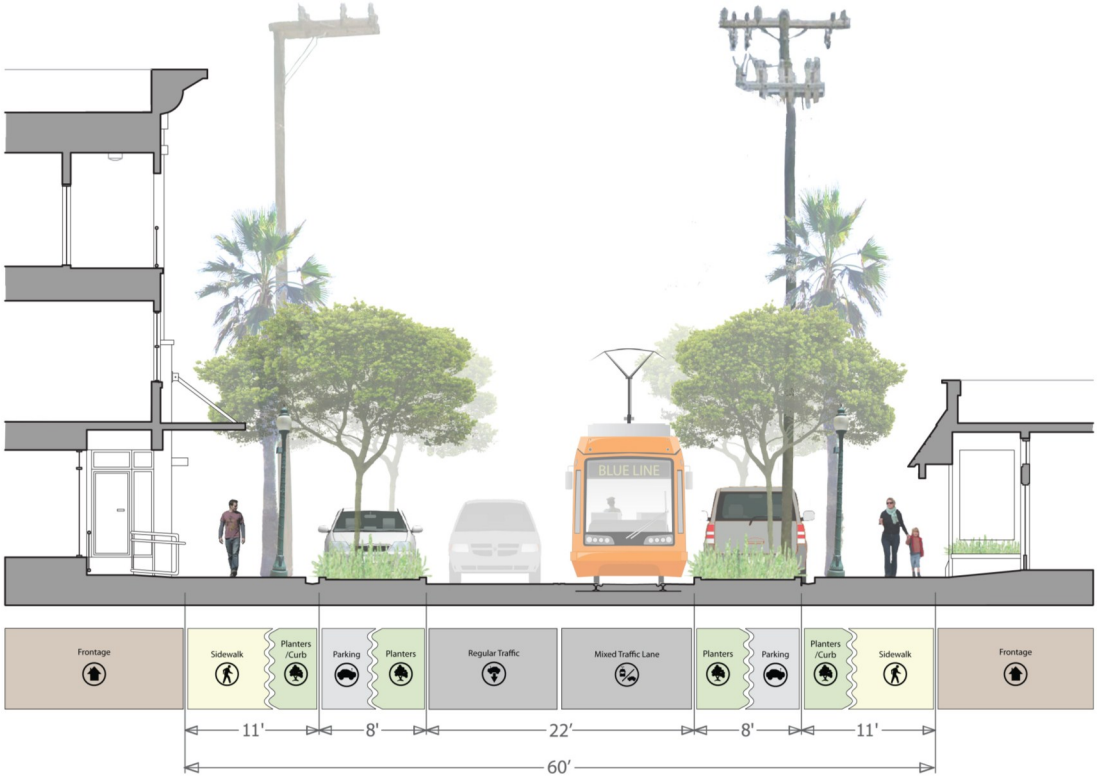
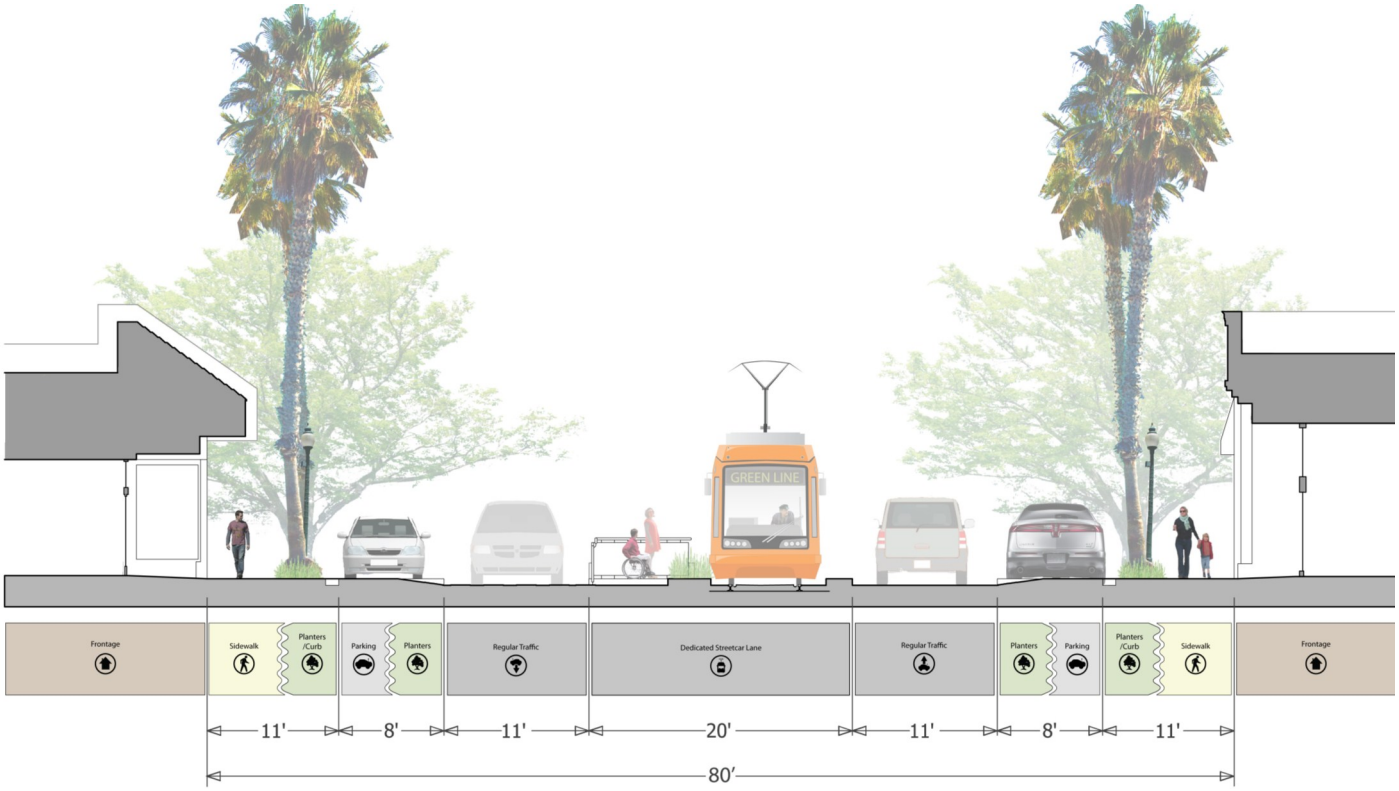


Figure 5 – Potential Dedicated Lane Street Section



Rubber-Tire Trolley

Figure 6 - Standard Bus (Source: HART)

Figure 7 - BRT Style Vehicle (Source: Your Observer)

Figure 8 - Heritage Trolley (Source: Golamers)

Many transit agencies use full-size buses or smaller versions of typical buses for providing circulator services. The smaller buses often have characteristics similar to full-size buses but are shorter, allowing for easier maneuverability and efficiency in crowded urban environments. They can retain the branding of the normal bus fleet or can have specialized branding packages to differentiate them for the specialized downtown circulator service. The larger buses are often considered the "bread and butter" of bus fleets and are generally the most affordable of vehicles in terms of efficiency and cost options for local urban circulation.

BRT vehicles differ significantly from typical buses because of the stylized features that create a unique and often more luxurious look and feel. These features are primarily cosmetic and can include sloping windshields, flush side windows, a variety of headlight/taillight arrangements, and special interior features (e.g. WiFi Internet and upgraded seats). The vehicles present a modern look and feel that is designed to attract choice transit riders, are typically branded, and often have specially-designed stops and stations and other amenities.

The trolley style bus is a rubber-tire vehicle that is designed to be a replica of early streetcars while providing the flexibility and serviceability of a modern fleet car. These vehicles have specialized branding and other aesthetic features (including wooden seats and brass accents) that differentiate them from typical bus vehicles. They have been successfully used in many cities in both downtown environments and in waterfront and beach communities across the country.

Electric / Rail

The most common heritage streetcar in operation and providing transit service in North America is the PCC streetcar, although there are many others. The PCC streetcar design was first built in the U.S. in the 1930s. The design proved successful, and after World War II it was licensed for use elsewhere in the world. The PCC car has proved to be a long-lasting icon of streetcar design and remains in service around the world today. Nearly 5,000 of these cars were built from the mid-1930s to the early 1950s, when the last traditional streetcars were built in the U.S.

Building on the traditions of America's past, replica streetcars incorporate the classic looks of vintage streetcar designs with the reliability and durability of a new vehicle. More than 50 replica streetcars were built from 1997 to 2007. Replica cars have the advantage of lower maintenance costs, higher reliability, a more predictable price and delivery schedule, and the ability to incorporate modern features such as air conditioning and Americans with Disabilities Act (ADA) accommodations as compared to original vintage vehicles.

Heritage and replica heritage streetcars are losing popularity for use in new streetcar systems because of better accessibility, higher capacity, improved performance, and the sleek contemporary look and feel of modern vehicles. The demand now is for a modern streetcar, which is resulting in an increase in the number and type of street cars available to the North American market. Four companies provide variations in design and operation, with more on the way, including several developing wireless models.

Figure 9 - Vintage Streetcar

Figure 10 - Replica Streetcar (Source: LA Visions)

Figure 11 - Modern Streetcar (Source: Heritage Trolley)

Capital & Operating Costs

RUBBER-TIRE CIRCULATOR

CAPITAL COSTS

The development of a mixed-traffic rubber-tire circulator system requires much less capital investment than that of a fixed-guideway streetcar or a modified BRT system. This is primarily due to the relatively minimal amount of new infrastructure (track, overhead wires, etc.) required to make the system operational. Generally speaking, the capital costs will include the purchase of new vehicles (which, for the proposed alignments, will be 2–3 vehicles each) and the construction of new bus stops and/or special signage along the route.

Detailed information regarding system costs can be found in the main report. The summary total estimated capital costs for the three conceptual alignments is shown in Table 2.

Table 2 - Rubber-Tire Circulator Capital Cost Range Estimate

Alignment	Low Cost*	High Cost**
Circulator A	$838,350	$1,347,800
Circulator B	$1,183,350	$1,922,800
Circulator C	$1,183,350	$1,922,800

*Cost assumes use of existing roadways for providing service
**Cost includes vehicles and station costs.

OPERATING COSTS

The operating costs for rubber-tire circulators are typically included with those for regular fixed-route bus service. Because of this, the easiest way to estimate costs is to use the operating expense per revenue hour for all fixed-route bus service. Since SCAT already operates buses in Sarasota, their operating expense ratios were used for this cost estimate. According to the National Transit Database (NTD), SCAT has an average operating cost of $68.25 per revenue hour.

To illustrate a range of potential operating costs, two operating scenarios were developed (A and B) that varied in the amount of revenue hours that the system operates. Table 3 below illustrates conceptual operating costs for both operating scenario A and B. More detailed information regarding these scenarios can be found in the main report document.

Table 3 - Rubber-Tire Circulator Conceptual Operating Cost Estimates

Alignment	Cost Per Revenue Hour	Revenue Hours	Estimated Cost
Scenario A	$68.25	13,140	$896,805
Scenario B	$68.25	8,112	$553,644

STREETCAR

CAPITAL COSTS

Vehicle Type

Capital costs for streetcars typically are significantly higher than for buses, but substantially lower than for light rail vehicles. The cost of streetcars ranges from $200,000 to $4,500,000+, depending upon type and condition. Table 4 contains potential cost ranges for a variety of car types.

Track Design

The types of trackway materials generally available for use include concrete slab (shallow bed and deep bed), unit paver, and turf/grass. The selection of trackway

material will be dependent on site conditions and community requirements. Track bed type cost varies by type and site conditions.

Table 4 - Streetcar Cost Range Per Vehicle Type

Car Type	Cost Range Per Vehicle		
	Average	High	Low
Vintage*	$500,000	$1,000,000	$200,000
Replica (Used)*	$1,000,000	$1,500,000	$200,000
Replica (New)**	$900,000	$2,500,000	$800,000
Modern Car	$3,500,000	$4,500,000	$3,000,000

*Condition at purchase is an important consideration.
** Potential Issues: maintenance, parts, less capacity than modern cars

Maintenance Facility

A facility specifically to support the operation, maintenance, and storage of streetcars will be required as will be fixed system equipment, such as substation gear and shop machinery. Cost and complexity will vary by equipment type.

Utility Issues

The cost of installing tracks will vary greatly depending on the utilities beneath the proposed track bed. Any selected alignment will strongly consider the track design, any necessary relocation of utilities, or any right of way constraints or above ground issues.

The typical "all-in" cost for a rail streetcar system construction is currently in the $25–$50 million per track mile, although there are examples of both more and considerably less expensive systems, depending upon community goals and evolving technology (See Full Report Section 5.2 for more information).

The "all-in" cost includes vehicles, stations, utility relocations, track construction, etc.

The capital cost ranges are generally based on the experience of recently planned/completed streetcar systems. It is important to note that these technologies and their associated costs are evolving quickly, and could vary greatly.

OPERATING COSTS

Operating costs for streetcar systems also vary widely, depending on the type of equipment used and desires of the community. Staffing, maintenance and capital maintenance costs, parts replacement, and related expenses must be initially budgeted and monitored for efficiency.

Operating costs will fluctuate depending on the selection of rolling stock, final hours of operation, and headways. Table 5 summarizes the potential operating costs for streetcar systems based on an average cost per revenue hour that was calculated using existing example systems (see Section 5.3 in the main report document for more information). The operating cost estimate is calculated for two scenarios (A and B) that vary in the amount of revenue hours that they operate.

Table 5 - Streetcar Conceptual Operating Cost Estimates

Alignment	Cost Per Revenue Hour	Revenue Hours	Estimated Cost
Scenario A	$156.75	13,140	$2,059,695
Scenario B	$156.75	8,112	$1,271,556

Economic Development

This section of the study forecasted the market growth potential property tax revenues resulting from the introduction of a circulator transit system in Downtown Sarasota and proximate adjacent urban areas. The study is based primarily on the research and a review of center-city Sarasota characteristics and identifies three types of growth:

- Growth associated with general, and specific, community improvements and/or an increasingly strong economic environment
- Growth associated with capital improvements to existing properties
- Growth associated with new residential and commercial development

The results of the analysis included potential incremental growth in property tax revenues that the City is projected to receive through the study period (2012-2032). These results, considered to be conservative, were developed for both a Base Case and a Streetcar Case. The remainder of this section includes results of both of these scenarios.

Source: The Oakland Streetcar Plan

The Base Case scenario is based on the projected growth trends in Downtown Sarasota without the investment in a fixed-guideway streetcar system. The Streetcar Case assumes that an investment in fixed-guideway streetcar has been made.

TRENDS & ASSUMPTIONS

Sarasota's population growth has not kept pace with Sarasota County or the state of Florida. The city's population actually declined by 1.5% from 2000 to 2010. This slower growth may be attributed to community choices, economic factors, new suburban development, or some combination thereof. Regardless of the cause, the slower growth of the city versus the county and state results in less intergovernmental funding based on pro-rata population and a declining ability to keep up with the increased demand for, and cost of, public services. It should be noted that while citywide population declined slightly from 2000 to 2010, the population of Downtown Sarasota increased due to the efforts of the City to stimulate urban redevelopment in that area. This factor influenced the market potential analyses described later in this section.

The assessed value of residential properties experienced steady growth from 2001 to 2006, rapid growth from 2006 to 2007, flat value 2007 to 2008, and sharp declines from 2008 to 2010, reflecting the economic downturn. Commercial and service properties and industrial properties experienced modest growth from 2000 to 2008 and modest decline from 2008 to 2010.

In 2007, State legislation was enacted that set maximum millage rates for non-voted levies of counties and municipalities. The legislation created a "Rolled-Back Rate" that, when levied on the current year's tax roll, would provide the same revenue as was raised the previous year, adjusted for growth and other factors, such as new construction. The rolled-back rate allows a cost of living increase equal to the increase of per capita income statewide. It is important to note that new construction value is not affected by the rolled-back rate and allows City and County revenues to grow beyond the increase of statewide per capita income. In addition, the taxable value of higher density and intensity development in the urban center is especially valuable to a community, because it occurs on smaller parcels of land where the necessary infrastructure and public services already exist to serve it.

BASE CASE

Research around the United States has shown bus service to have little direct effect on economic or land development investment decisions in urban areas. Because a rubber-tire circulator route can be changed or eliminated easily, real estate developers do not typically base permanent investments on their location. Therefore, if a rubber-tire trolley is chosen as the mode for the Sarasota Downtown area circulator, it should not be expected to contribute to the urban redevelopment impetus in the city's urban center. However, it would add some vitality and multimodal convenience to the area even if it is not expected to translate to increased property tax revenues.

The Base Case for future economic growth in the city's urban center is positive, as a result of the City's past efforts to encourage and stimulate urban redevelopment over the past decade or more. There is potential for additional residential, commercial, hospitality, and retail development in the area, and as the economy improves in the area, that growth will also begin to appear.

The cost/benefit analysis of that growth, measured against the City's future goals, financial needs, and

priorities throughout the city, will validate its sufficiency.

STREETCAR CASE

The Streetcar Case examined the potential for economic development within a ¼-mile radius (the walk -up distance for transit) of the three conceptual alignments studied. The economic development impact findings follow. Figure 12 is a map of the study area and potential routes.

CIRCULATOR A

This impact area, generally along Main Street, has a total of approximately 31.2 acres of vacant land, including single-family residential (4.2 acres), multi-family residential, and commercial (17.6 acres) in addition to properties that may be redeveloped. The most likely residential development through the future along this corridor will be multi-family properties and commercial development. There has been considerable development success in the past decade, which established that a market for urban residential housing and mixed-use exists in downtown Sarasota.

CIRCULATOR B

The most prominent development contributing to taxable value in this impact area is multi-family residential. Commercial and service development are also significant components and, when combined, represent a large segment of taxable value. The ¼-mile radius also encompasses single-family residential development in established neighborhoods along the corridor, where ownership interest would likely increase. The taxable value of vacant properties for all use categories is 3.4% in the impact area.

This impact area has a total of approximately 46.9 acres of vacant land, including single-family residential (8.4 acres), multi-family residential (1.6 acres), and commercial (24.4 acres). The most likely residential development through the future in this area will be multi-family and, possibly, mixed-use properties. Therefore, a re-evaluation of allowable densities and intensities, particularly with a fixed-guideway transit investment, is recommended in areas that may be able to accommodate greater intensity. In recent years, there have been several zonings approved for multi-family projects, totaling 1,799 dwelling units.

CIRCULATOR C

The most prominent development contributing to taxable value in this impact area is multi-family residential. Commercial and service development are also significant components and, when combined, represent a significant segment of taxable value as well. The ¼-mile radius also encompasses single-family residential development in established neighborhoods along the corridor., where ownership interest would likely increase. The taxable value of vacant properties for all use categories is 4.2% in the impact area.

This impact area has a total of approximately 49.5 acres of vacant land, including single-family residential (7.6 acres), multi-family residential (1.6 acres), and commercial (27.3 acres) (categorized totals include only parcels of 0.2 acres or larger). The most likely residential development through the future in this area will be multi-family and mixed-use properties. Therefore, a re-evaluation of the land use regulations, particularly with a fixed-guideway transit investment, is recommended in areas that may be able to accommodate greater intensity. In recent years, there have been several zonings approved for multi-family projects, totaling 1,943 dwelling units.

SUMMARY

The average incremental revenues between the two cases can be seen in Table 6 below. This table clearly shows that while there is growth in incremental revenues expected under the Base Case scenario, there is a significant increase in potential incremental revenues under the Streetcar Case.

In addition to the incremental property tax revenue growth projected under each of the two scenarios, a Special Services District (SSD) revenue number has been included under the Streetcar Case. In many systems around the country, including Tampa, Florida, local governments pass localized property taxes to help raise revenue for the purposes of funding streetcar operations. The SSD was added to the table below to show the potential additional revenue that the City could expect tor raise if such a tax was created.

For the Base Case, In the next two decades, the total cumulative incremental revenue that could be expected is between $40,014,828 for the Circulator A route and $51,399,462 for the Circulator C route. For the Streetcar Case the total cumulative increment revenue could range from $78,749,043 for the Circulator A route to $97,387,675 for the Circulator C route. The potential cumulative SSD revenues range from $15,734,855 for Circulator A to $20,259,338 for Circulator C.

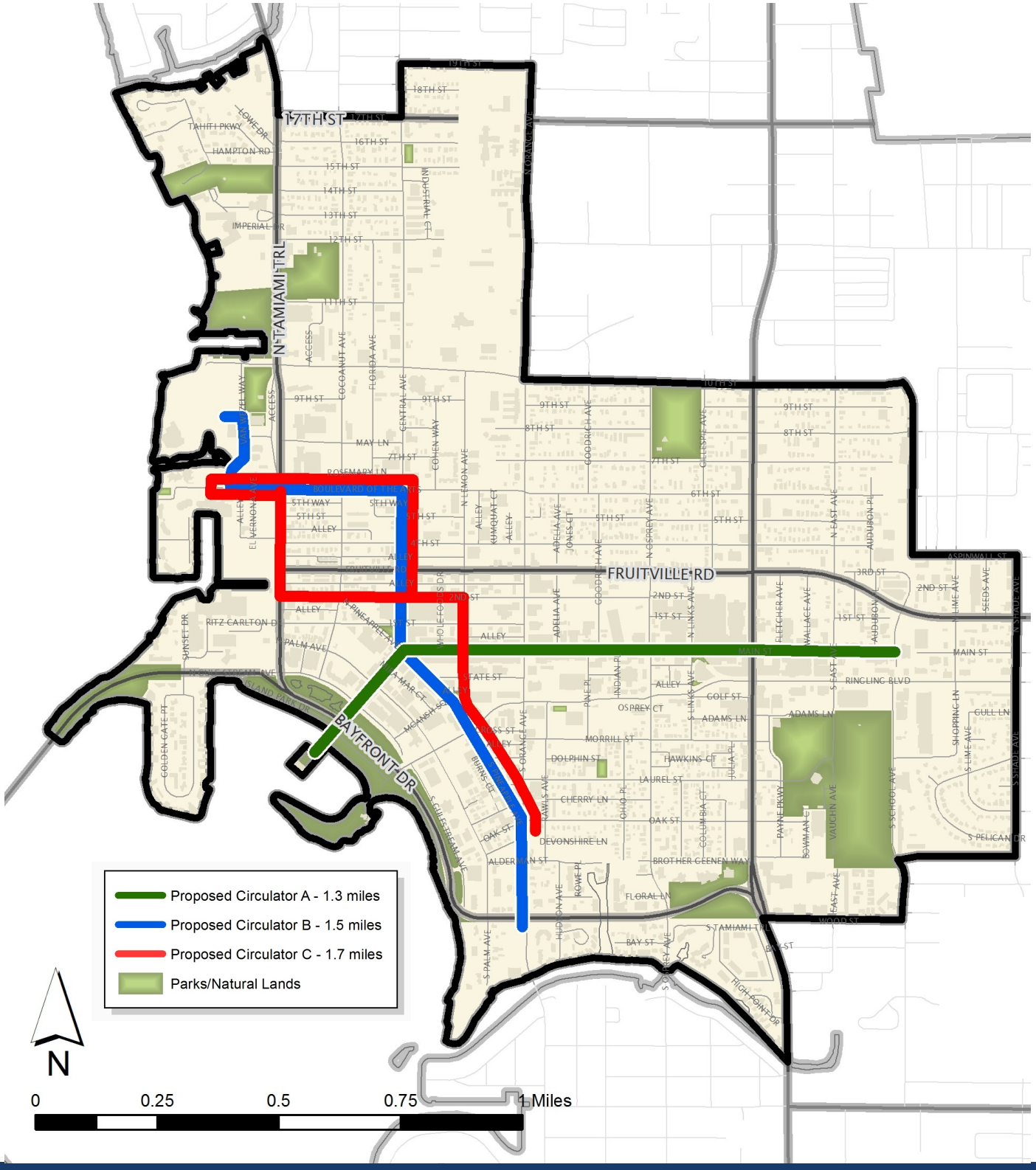
While the capital, operating, and maintenance costs of the Streetcar Case are significantly higher than the Base Case, the potential revenue difference is notable. The City will need to determine if the potential return in the long-term is worth the significant capital investment and challenges of maintenance and operations.

Table 6 - Base Case/Streetcar Case—Incremental Revenue by Proposed Circulator Alignment*

Cumulative Incremental Revenue Summary (2012 Base Year)					
Alignment/Scenario	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**
Green Alignment					
Base Case					
Incremental Revenue	**$2,293,321**	**$6,632,495**	**$12,076,719**	**$19,012,294**	**$40,014,828**
Streetcar Case					
SSD Revenue	**$2,161,325**	**$3,085,440**	**$4,351,165**	**$6,136,925**	**$15,734,855**
Incremental Revenue	**$4,133,528**	**$12,243,173**	**$23,350,634**	**$39,021,709**	**$78,749,043**
Blue Alignment					
Base Case					
Incremental Revenue	**$2,762,450**	**$7,845,542**	**$14,127,824**	**$22,037,606**	**$46,773,422**
Streetcar Case					
SSD Revenue	**$2,657,574**	**$3,677,157**	**$5,051,974**	**$6,970,544**	**$18,357,249**
Incremental Revenue	**$4,566,985**	**$13,514,419**	**$25,579,233**	**$42,415,793**	**$86,076,431**
Red Alignment					
Base Case					
Incremental Revenue	**$3,054,616**	**$8,623,461**	**$15,506,098**	**$24,215,288**	**$51,399,462**
Streetcar Case					
SSD Revenue	**$2,886,941**	**$4,033,163**	**$5,583,791**	**$7,755,443**	**$20,259,338**
Incremental Revenue	**$5,234,644**	**$15,293,404**	**$28,901,062**	**$47,958,565**	**$97,387,675**

* Revenue projections were completed in 2012 and based off of the property tax rolls of that year. Updated trends and projections may be different as a result of changing economic conditions.

Figure 12 - Downtown Sarasota Potential Circulator Alignments



Operations

Business models for new urban circulator systems in the United States have been largely driven by the public sector and public funding, in keeping with most transportation facilities in the U.S. for the past 50 years.

Although there are exceptions where private vendors are engaged for operations, public-sector leadership will remain important as long as local, state, and federal funds are used to build and/or operate the system and rules of public accountability that safeguard the capital investment of public funds are in place. Virtually without exception, the private sector has been an instrumental partner in the development and operation of urban circulators, much as it was with the original development of passenger and streetcar systems in the U.S. for more than a century, particularly in the areas of associated development, operating funding, and system marketing

STREETCAR

There are several basic business models that address capital/construction, ownership, and operating for the growing number of streetcar systems in the United States, including:

- Municipal
- Transit agency
- Non-profit
- Combination of Above

In each case, the entity (or entities) owning the system may contract out the operation of the system to a private vendor to reduce operating costs. It is important to note that the capital and operating funding scenarios for urban streetcar systems is in an ongoing state of creative flux. As federal funding availability changes, City, County, and transit agency budgets rise and fall and the interest of the private sector to participate in the funding for such systems shifts, depending on the state of the economy. In many respects, the approach taken is most dependent upon the circumstances in each particular community in question. The following is a brief summary of business model types and permutations.

MUNICIPAL

In this instance, the City takes a leadership role and owns all or part of the capital equipment and infrastructure. It may operate the system or contract its operations to the local/regional transit agency or to a private vendor. Cities without a history of running a transit system generally do not choose the option of operating it themselves and will most often turn to the local or regional transit agency, or private vendor.

TRANSIT AGENCY

This model is also common, in which the local or regional transit agency provides the leadership, helps raise the required local capital funding and, with the local metropolitan planning organization (MPO), secures capital financing from state and federal sources. The transit agency then constructs and operates the system as a functional part of a larger transit operation. Ownership of capital equipment remains with the transit agency, and operating funding comes from a variety of sources.

NON-PROFIT

In this model, a non-profit entity will take the lead in developing and/or operating a streetcar system. This type of model can allow for interested citizens and business interests to organize and operate a system, though typically these organization require close coordination with local government and transit agencies to build and mange a system. A recent example of a system run by a non-profit organization is currently being developed in St. Louis, Missouri.

RUBBER-TIRE CIRCULATOR

The business model for a rubber-tire circulator is a often a somewhat less complicated matter; however, the City, local transit agency, and business community, particularly merchants and attraction operators, are all important partners. The process of successfully choosing equipment, circulation routes, and hours of operation are important to success, which is generally judged by both ridership and improved retail activity along the route. Operating funding for special service trolleys, addressed in more detail in the case study section of the main report, is often provided by a combination of public- and private-sector contributors.

Public Involvement

The Downtown Circulator Feasibility Study included an interactive public involvement program with both Downtown stakeholders and the general public. The cost and benefit considerations of circulator services make it necessary and essential to have a sound community understanding and stakeholder buy-in for each phase of planning, development, marketing, and ongoing operations of any new circulator system.

The study's examination of the costs and opportunities of both rubber-tire circulator buses and fixed-guideway streetcars in serving the needs of the community in the Downtown Sarasota area requires consensus about the purpose, need, and goals of the circulator if the community and its elected officials are to make sound decisions about moving forward with either alternative.

STAKEHOLDER MEETINGS

To understand the perspectives of local businesses, organizations, and other Downtown stakeholders, a series of stakeholder interviews was held. In all nine interviews were conducted.

The stakeholders expressed a variety of perspectives on the issue of mobility and circulation in Downtown Sarasota. Many expressed an interest in improved transit services to major attractors and were concerned about the potential cost of a new system and where that funding might come from.

PUBLIC WORKSHOP

In November 2012, a workshop was held at Sarasota City Hall where the consultant's findings were presented to the general public. The presentation was in seven parts, the first explaining how the Downtown Circulator Feasibility Study was based on the City's commitment to quality growth through a variety of planning efforts. In addition, the presentation addressed the three potential alignments, the choices for vehicle types and modes, ridership estimates, potential funding sources, and funding case studies, followed by an interactive polling session of the public in attendance.

PUBLIC INVOLVEMENT SUMMARY

The results of the public involvement process completed during the study indicated an interest in developing a circulator system, but skepticism and concern about the potential capital and ongoing operating costs that such a system would require, especially for a fixed-rail system. As is discussed more in the following section, it will be important for the City to work with the public, and particularly Downtown stakeholders, to ensure that clear common goals and objectives for a circulator system are developed and serve as the guiding framework moving forward.

One of the most interesting things that emerged from the public involvement process was a fourth alignment proposal, which was formulated by the Sarasota Streetcar Initiative to capture advantages of the three analyzed as part of the study.

While the fourth proposed conceptual alignment was not evaluated in the same manner as Circulator A & B (client selected) or Circulator C (consultant selected), it is an important concept warranting further study. This alternative captures the development potential of the Rosemary District, the current activity and infill potential along Main Street and the development potential at the East end of the line, near Payne Park. The originators of the alignment, all local residents and business persons, also stressed the need for a low capital cost system, able to be upgraded in the future, and a new special assessment district to support operations.

The comments and recommendations received during the public involvement process are evidence of the many different perspectives found in the Sarasota community. Future studies should continue to engage a variety of stakeholders to ensure that a circulator system exceeds community expectations.

Summary & Next Steps

The Downtown Circulator Feasibility Study evaluated the key components of both a fixed-guideway streetcar and a rubber-tire circulator on three potential alignments in downtown Sarasota. These components included an economic baseline analysis and the transit case (streetcar) analysis in the areas of economic development, land use and transit conditions, potential transit demand, a technology assessment, engineering considerations, a range of system capital and operating costs and revenues, economic growth and related benefits, and organizational business models.

The study was expressly not intended to make a recommendation for either a rubber-tire circulator or a streetcar, nor to select a particular alignment for further study. Rather, it was designed to develop enough new information to allow the community and City leadership to make a decision on whether to move forward with a more detailed analysis of either alternative transit mode. If the City decides to move forward with further analysis on either transit

mode, a series of recommended next steps should be considered. These are described in more detail below. In the short-term, the key will be to undertake additional community outreach to better define the desired routes and goals and objectives for the system. These goals and objectives will help to define the specific mode and vehicle types, as well as whether the service will be a mixed-traffic service or in a dedicated lane.

STREETCAR NEXT STEPS

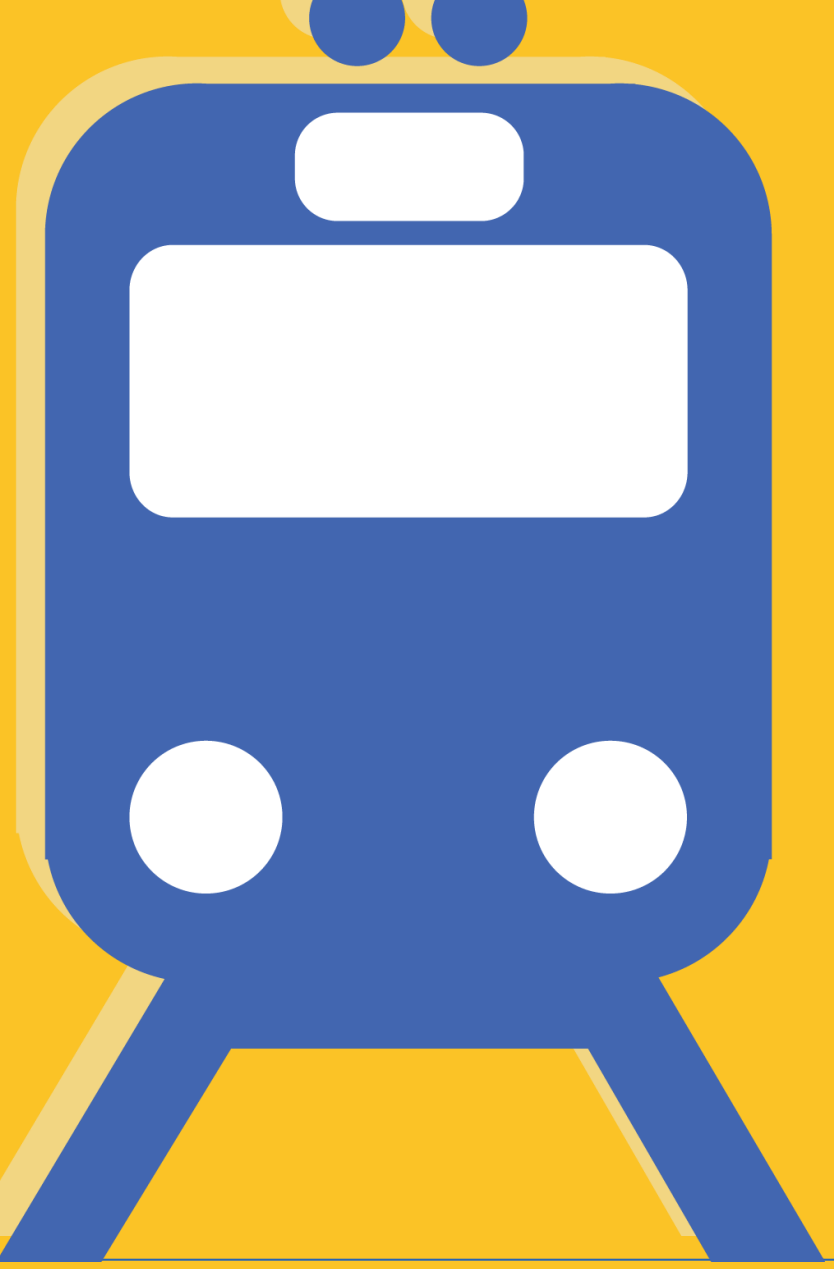
- A more detailed land use analysis should be conducted within the study area for either a preferred alignment or the alternative alignments. This study should evaluate specific redevelopment and development opportunities, and the potential for providing greater density and intensity potential for the development of transit oriented projects.
- Additional economic analysis should be completed that will include specific land development potential and tax revenues generated. This will result in a clearer understanding of economic benefits to the community.
- A more detailed ridership analysis should be generated using specific projections of additional residents and development in the area, in addition to the projection of current local and visitor ridership. This will allow for a more alignment-specific estimate of future ridership.
- A more in-depth engineering analysis of underground utilities should be conducted to determine with more specificity the potential need for utility relocations and the associated effects on construction costs. This analysis will be important to establish an alignment and a capital budget to carry forward with any discussions with potential funding partners.
- In conjunction with the engineering analysis, a more detailed technology assessment will be needed, including track and track bed requirements, specific rolling stock choices and costs, the need for overhead catenary and a maintenance facility, etc. This will result in a more concise and detailed capital cost estimate for system construction and outfitting, tailored to the system costs appropriate for Sarasota.
- A funding source analysis for capital costs and identification of funding partners should be conducted. This analysis could be accompanied by initial discussions with potential funding partners. The Wave, Fort Lauderdale's new streetcar system, is fully funded for both capital and operating costs and represents a very current Florida model for funding. Atlanta and Tucson also are currently building new streetcar systems and are current funding models.
- A revenue and operations analysis and preliminary operating plan for operating costs should be conducted. Based on a reasonable estimate of the operating protocol (hours of operation, headways, maintenance requirements, staffing costs), potential funding sources should be specifically identified, analyzed, and discussed with community funding partners.
- A governance plan and system partners should become a part of the discussion, along with the potential for an oversight Board of Directors.
- A consensus-building process to include all key stakeholders that includes the Sarasota County Commission, SCAT, the MPO, the Florida Department of Transportation, state and federal elected officials, the Federal Transit Administration (FTA), the City Commission, the Sarasota

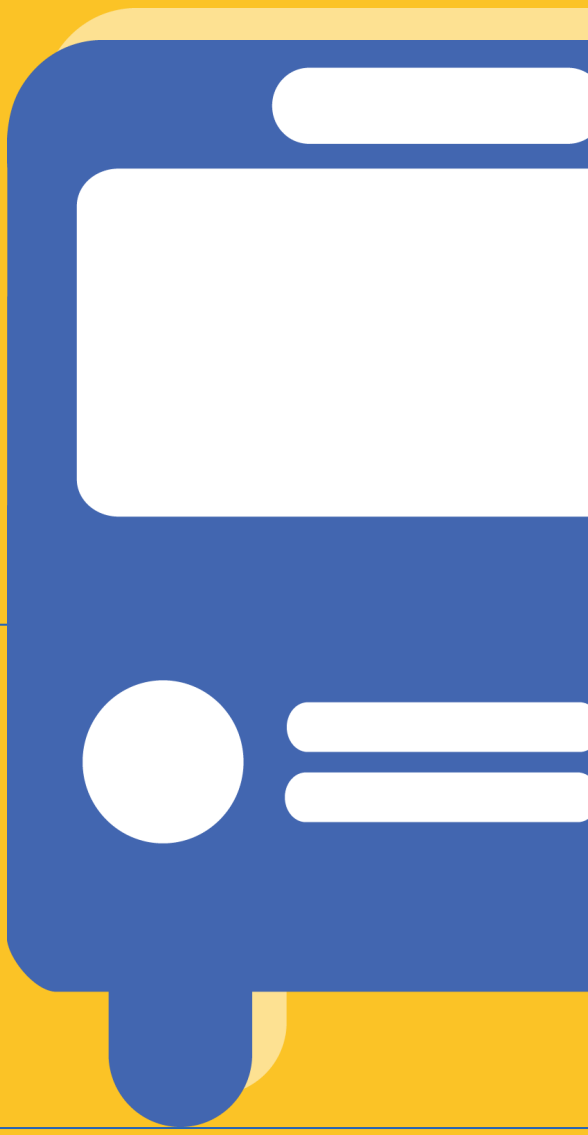
Downtown Improvement District (DID), the Sarasota Streetcar Initiative, affected property owners, downtown area developers, and area residents.

- Discussions and preliminary consensus should be conducted on an organizational model, including system governance, financial responsibilities for any federal grants, and system operator.
- Fact-finding trips for interested parties should be made to at least two cities with operating streetcar systems. Interviews with City and transit officials and facility tours are an invaluable source of information and reality-testing for communities considering a streetcar system.
- Initial contact should be made with FTA, congressional and state representatives, and FDOT officials, and the development of support for the concept.

RUBBER-TIRE CIRCULATOR NEXT STEPS

- A funding source analysis for capital costs, including a capital cost formula, and identification of funding partners should be conducted. This analysis could be accompanied by initial discussions with potential funding partners.
- A revenue and operations analysis and preliminary operating plan for operating costs should be conducted. Based on a reasonable estimate of the operating protocol (hours of operation, headways, maintenance requirements, staffing costs), potential funding sources for operating should be specifically identified, analyzed, and discussed with the system's community funding partners.
- A preliminary consensus on an organizational model should be developed, including system governance, financial responsibilities for any grants, and system operator.
- A governance plan and system partners should become a part of the discussion, along with the potential for an oversight Board of Directors.





UDMS
Urban Development and Mobility Solutions

Prepared By:

Tindale Oliver design