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LeeTran – Lee County Transit

COMPREHENSIVE OPERATIONS ANALYSIS

November 2020

PREPARED BY

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Section 1 INTRODUCTION

A Comprehensive Operations Analysis (COA) is designed to examine and evaluate a transit system to determine where improvements can be made to make transit operations more effective and efficient across the network. It is important to note that a COA differs from a visioning effort, the most significant difference being that a COA is primarily a data analysis of an existing network used as a tool to improve operations in the short-term with service modifications that include input from riders, staff, and stakeholders. Conversely, a visioning effort involves a comprehensive public involvement effort to include community needs and interests to help guide the future growth and evolution of a transit system. This distinction is important to understand the context within which the recommendations are made. Whereas there are guiding principles established for the COA that incorporate elements similar to a visioning process, ones that are useful to incorporate in the crafting of recommendations, the identification of services to be modified relies most heavily on analysis of the existing network.

There can be numerous reasons for the effectiveness or ineffectiveness of each route, just as there can be many different solutions to the issues that need to be addressed. The primary goal of a COA is to focus on identifying where improvements in productivity and efficiency in transit operations are most reasonable, based on data analysis of the existing system's characteristics and the land use context that changes over time. These factors inform the decisions on where resources should be intensified, reallocated, or discontinued.

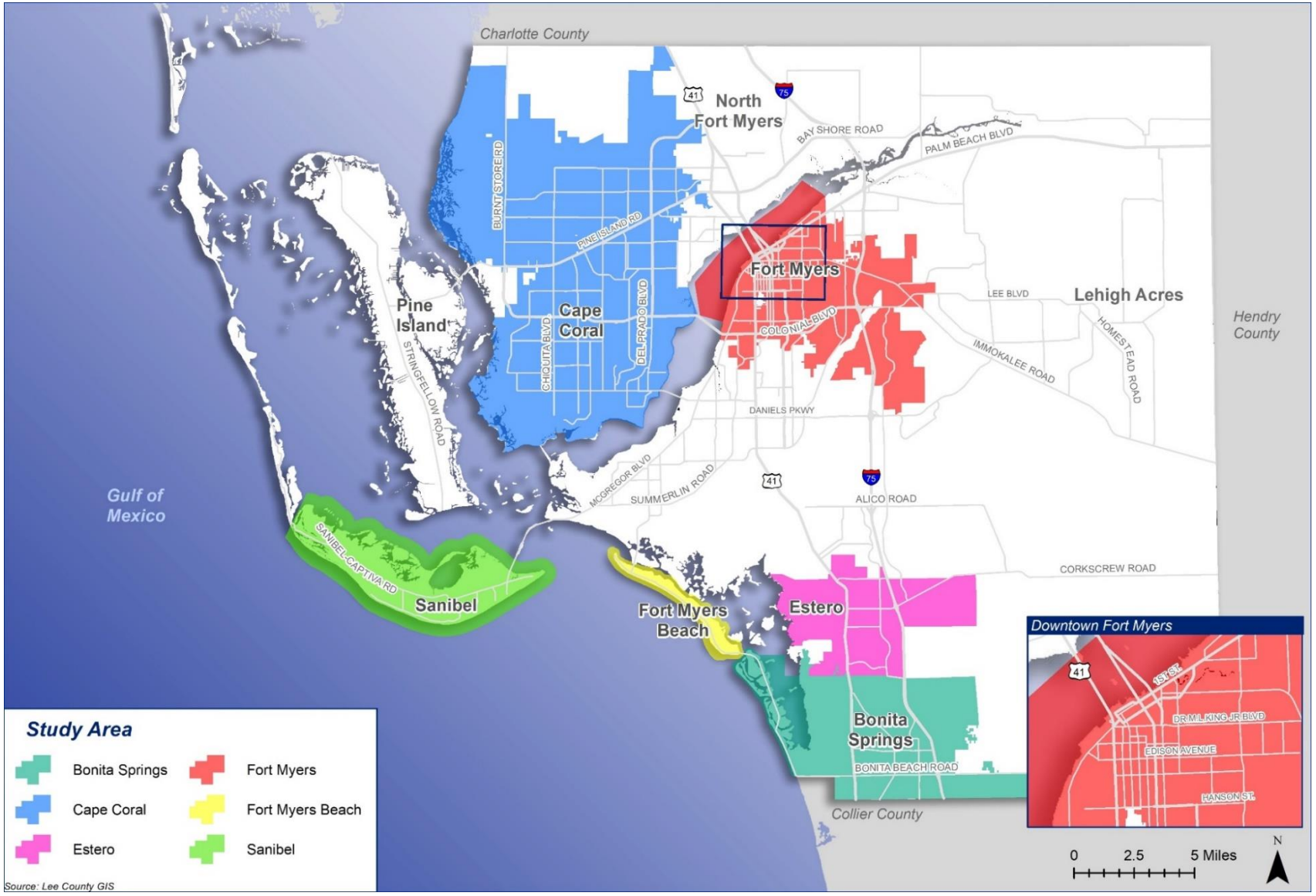
Working with LeeTran staff, the project team collected data to document and assess the pertinent conditions to familiarize themselves with the surrounding communities and the existing services that are provided. This exercise is useful for diagnosing the services currently provided and to establish a base-level of data needed for completing additional tasks. Historical data on service and ridership were collected for the routes in the study area. The data were analyzed and integrated into the assessment and evaluation of transit alternative concepts that will be developed throughout the project. The following information is included in this analysis:

- Description of study area and related densities
- Latent demand analysis
- Existing transit services and ridership in study area
- Route-level operating characteristics and performance statistics
- Fare structure and farebox data
- Gap analysis
- System-level operational and financial information
- Prior patron surveys and profiles
- Recent and planned service changes

Physical Description of Study Area

The COA study area includes the entire LeeTran service area. Lee County is located in Southwest Florida and bordered on the south by Collier County, on the east by Hendry County, and on the north by Charlotte County, as shown in Map 1-1. Lee County covers 785 square miles of land area with approximately 900 people per square mile. There are five major roadways that intersect Lee County: I-75, US-41, SR-31, SR-80, and SR-82. Lee County considers its 47 miles of beaches to be the number one environmental and economic asset.

Map 1-1: Study Area - Lee County and LeeTran Service Area



Population Characteristics and Trends

Socioeconomic trends in Lee County from 2000 to 2010 are shown in Table 1-1. These data were gathered from the Census and 2019 American Community Survey (ACS) with 5-year Estimates (2014-2018).

The population increased 63 percent from 2000 to 2018. The population from 2010 to 2018 increased 16 percent. Over the 18-year period, Estero had the highest rate of population growth. However, Cape Coral, Bonita Springs, Fort Myers, and Unincorporated areas of Lee County all had a greater absolute population increase. The largest population increase, likely due to new development, occurred in Estero. Most of the household growth occurred between 2000 and 2010, while only 5 percent occurred in the eight-year period from 2010 to 2018. Overall, population and the number of workers have grown significantly since 2000, although the number of households has grown at a slightly slower rate; these trends suggest that the County is becoming more dense over time.

Table 1-1: Lee County Population Profile and Trends (2000-2018)

Characteristic	2000	2010	2018	% Change 2000–2018	% Change 2010–2018
Population	**440,888**	**618,754**	**718,679**	**63%**	**16%**
Bonita Springs	32,797	43,857	53,812	64%	23%
Cape Coral	102,286	154,305	178,593	75%	16%
Estero	9,261	21,392	32,220	248%	51%
Fort Myers	48,208	62,298	76,591	59%	23%
Fort Myers Beach	6,561	6,277	6,966	6%	11%
Sanibel	6,064	6,469	7,224	19%	12%
Unincorporated	235,711	324,156	363,273	54%	12%
Households	**188,599**	**259,818**	**271,861**	**44%**	**5%**
Bonita Springs	14,807	15,509	22,074	49%	42%
Cape Coral	40,768	60,767	64,981	59%	7%
Estero	4,608	10,444	14,716	219%	41%
Fort Myers	19,107	24,968	29,111	52%	17%
Fort Myers Beach	3,425	3,444	3,609	5%	5%
Sanibel	3,049	3,359	3,678	21%	9%
Unincorporated	102,835	141,327	133,692	30%	-5%
Workers	**182,581**	**250,778**	**293,718**	**61%**	**17%**
Bonita Springs	13,283	16,307	19,768	49%	21%
Cape Coral	46,914	67,664	79,156	69%	17%
Estero	3,020	7,231	11,163	270%	54%
Fort Myers	20,079	26,557	32,263	61%	21%
Fort Myers Beach	2,455	2,564	1,993	-19%	-22%
Sanibel	2,015	2,022	2,243	11%	11%
Unincorporated	94,815	128,433	147,132	55%	15%

Source: 2000 Census, 2010 Census, and American Community Survey 2014-2018 5-Year Estimates

Population and Employment Densities

Population Density

Population density is one of the key indicators of a healthy transit market. High population density means more residents within the traditional ¼-mile rider-shed of a single bus stop. Areas with high population density are also typically associated with more land uses and activities that generate greater multimodal transit use and include more amenities that promote pedestrian and bicycle activity.

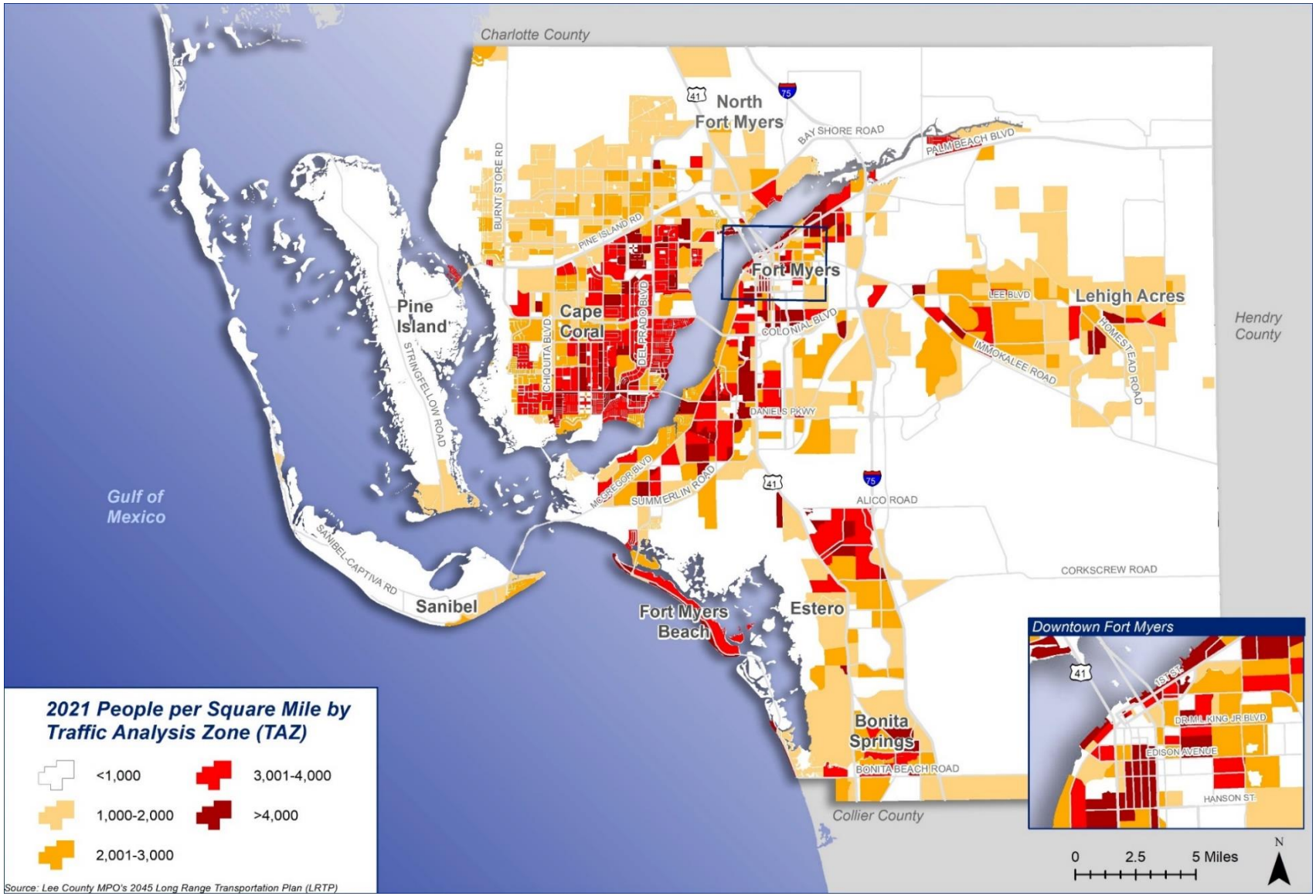
Lee County currently has a countywide average population density of 900 persons per square mile, with much higher densities in the urban areas and much lower density in rural and unincorporated areas. Map 1-2 shows the projected population density, persons per square mile by Traffic Analysis Zone (TAZ) for 2021 (TDP base year), calculated based on socioeconomic data that were developed for the Lee County MPO's 2045 Long Range Transportation Plan (LRTP). Higher-density TAZs (3,000 persons per square mile) are concentrated along the coastline of the Caloosahatchee River in both downtown Fort Myers and Cape Coral, between US-41 and I-75 in Estero, in Fort Myers Beach, and in central Lehigh Acres along Homestead Road. Map 1-3 shows the projected population density for 2030.

Employment Density

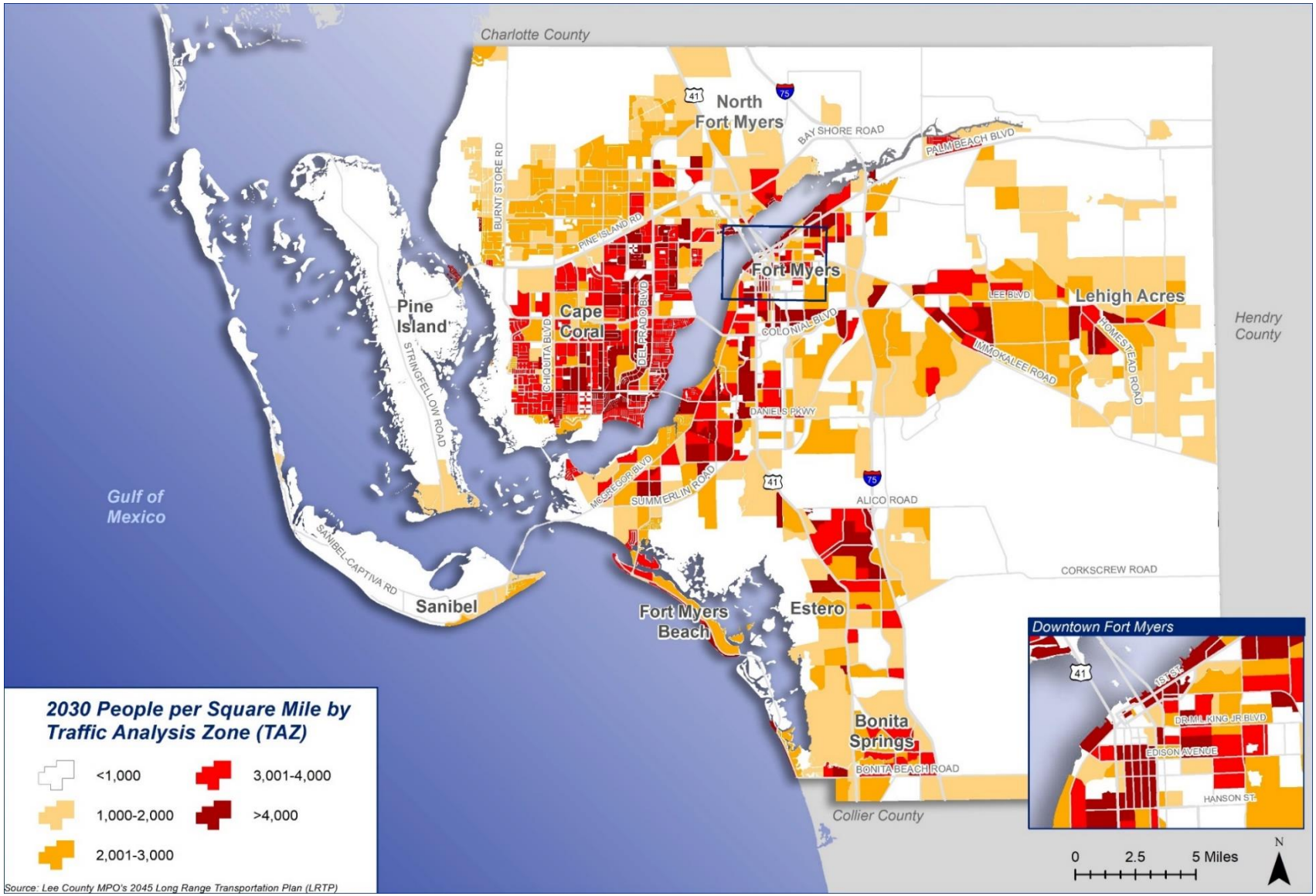
Employment density is another important factor to consider when analyzing a transit market. Areas of high employment density often include activity centers that cluster shopping centers, medical offices, and/or educational centers that attract transit trips. Downtowns also have higher employment densities and often limited parking capacities, which also can help increase transit demand.

Map 1-4 shows the projected employment density, jobs per square mile by TAZ for 2021, calculated based on socioeconomic data that were developed for the Lee County MPO's 2045 LRTP. The highest concentrations of employment density are in Fort Myers along US-41, in downtown Fort Myers, adjacent to Pine Island Road in Cape Coral, in northern Fort Myers Beach, in Lehigh Acres along Homestead Road, and along US-41 in Bonita Springs. These areas report clusters of 2,000 jobs or more per square mile, with some TAZs exceeding 3,000 jobs per square mile. Map 1-5 shows the projected employment density for 2030.

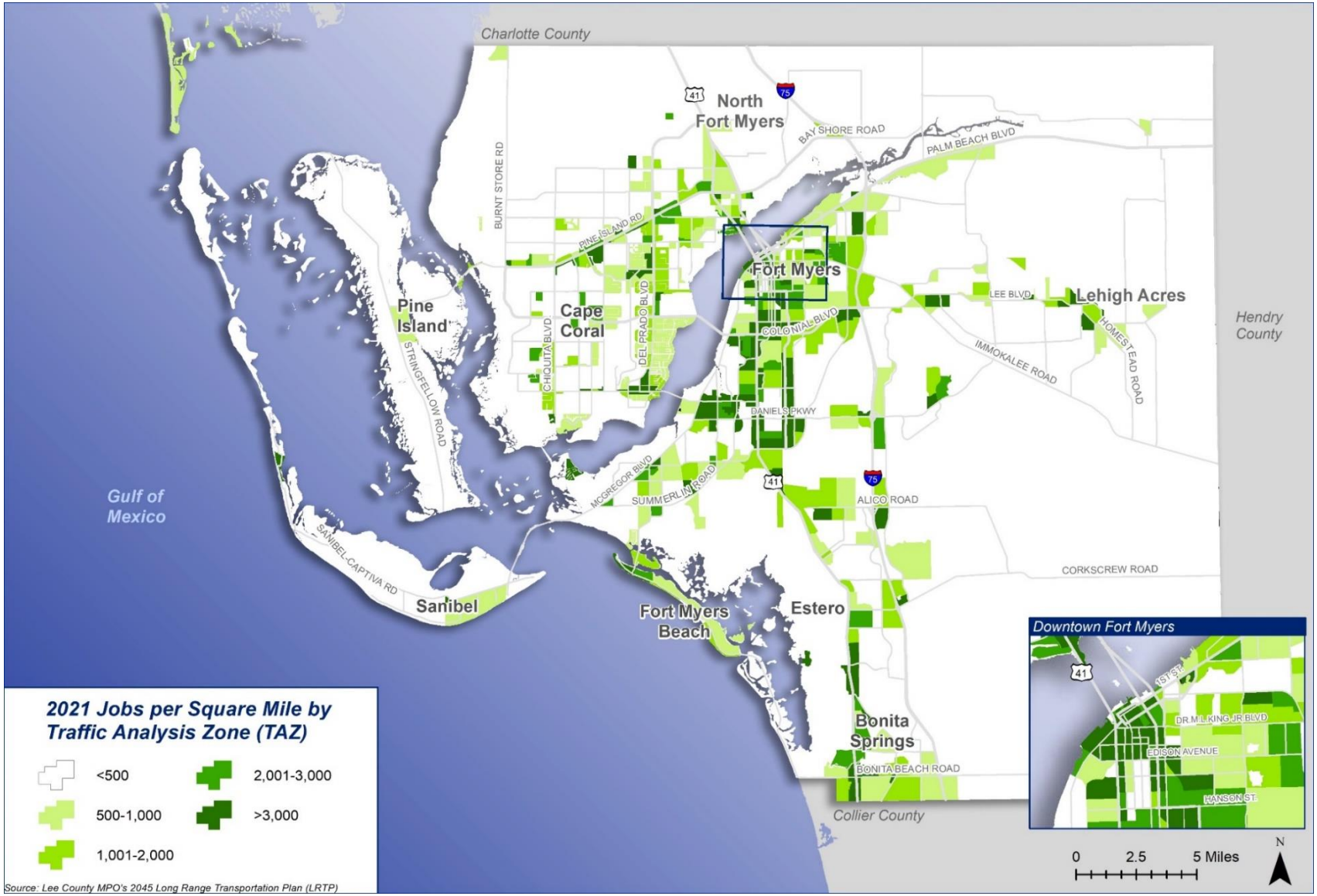
Map 1-2: 2021 Population Density



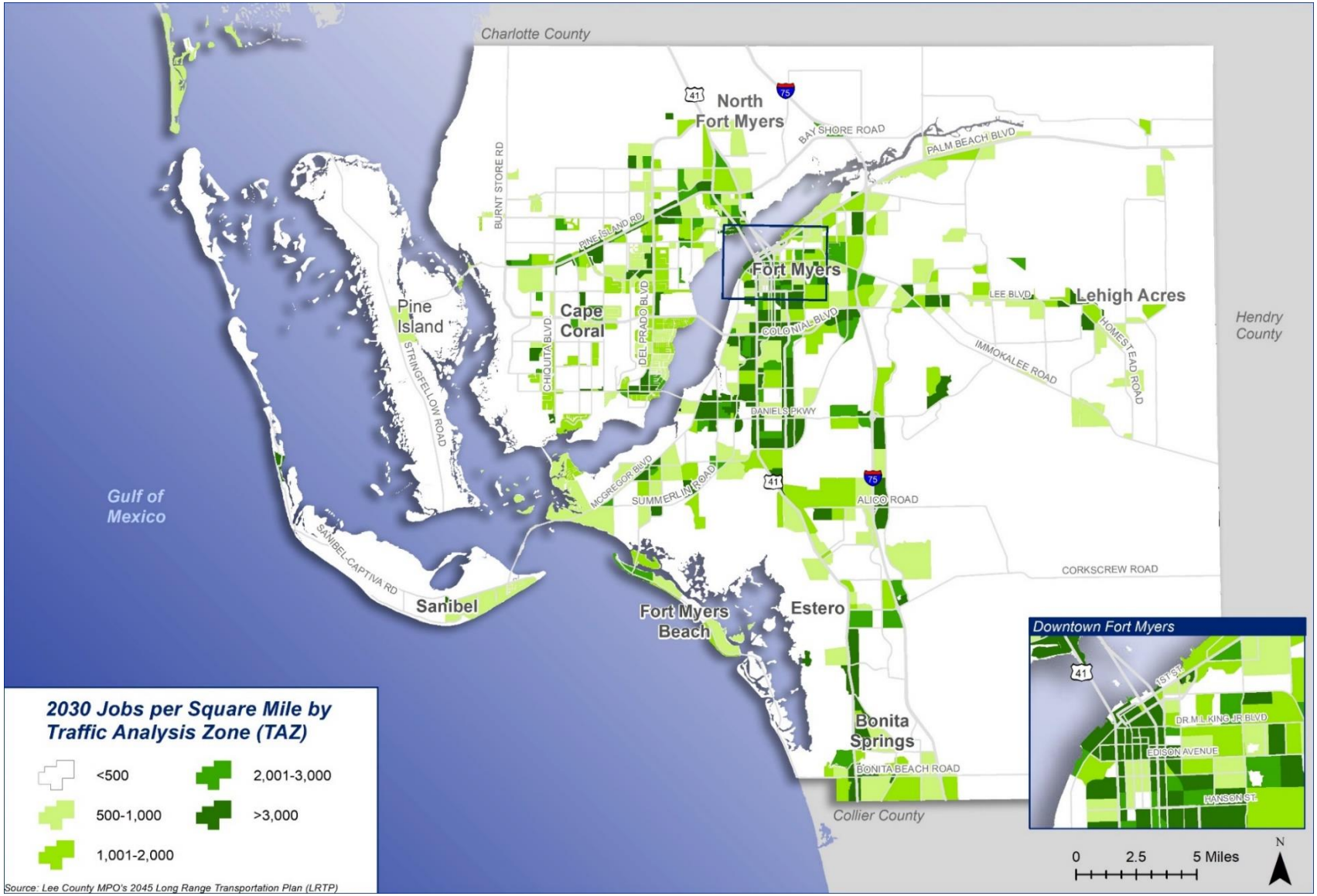
Map 1-3: 2030 Population Density



Map 1-4: 2021 Employment Density



Map 1-5: 2030 Employment Density



Section 2 LATENT DEMAND ANALYSIS

This section presents an examination of the demographic profile of the LeeTran service area, including graphical representations of common indicators for transit dependency, including dwelling unit density, younger adult and older adult populations, low-income, and zero-vehicle households.

Two GIS-based analysis tools were also utilized to expand the use of population and employment data, summarized previously. One tool measures the levels of transit dependency within a particular geographical area to help assess existing transit coverage in comparison to areas with population that have a propensity for potential transit use. The other supplements these findings by illustrating the relationship between the discretionary market (i.e., persons living in higher-density areas of the region who can drive and have access to an available vehicle, but may be a potential transit rider because of some willingness to use alternative modes for travel) and the use of transit as a commuting alternative.

The tools include a Density Threshold Assessment (DTA) to analyze the discretionary rider market and a Transit Orientation Index (TOI) to analyze traditional rider markets, all of which have a higher propensity for potential transit use. The transit markets and the corresponding market assessment tool used to measure each are described below.

Discretionary Rider Markets

As noted, the discretionary market consists of potential riders residing in higher-density areas of Lee County that may choose to use transit as a commuting or transportation alternative. The analysis was conducted using industry-standard density thresholds to identify the areas in Lee County that exhibit transit-supportive residential and employee density levels today as well as in the future. Socioeconomic data for Lee County, including dwelling unit and employment data based on information developed for the Lee County MPO's 2040 LRTP, were used to calculate the DTA for 2021 and 2030.

Three density thresholds, developed based on industry standards/research, were used to indicate whether an area contains sufficient density to sustain some level of fixed-route transit operations:

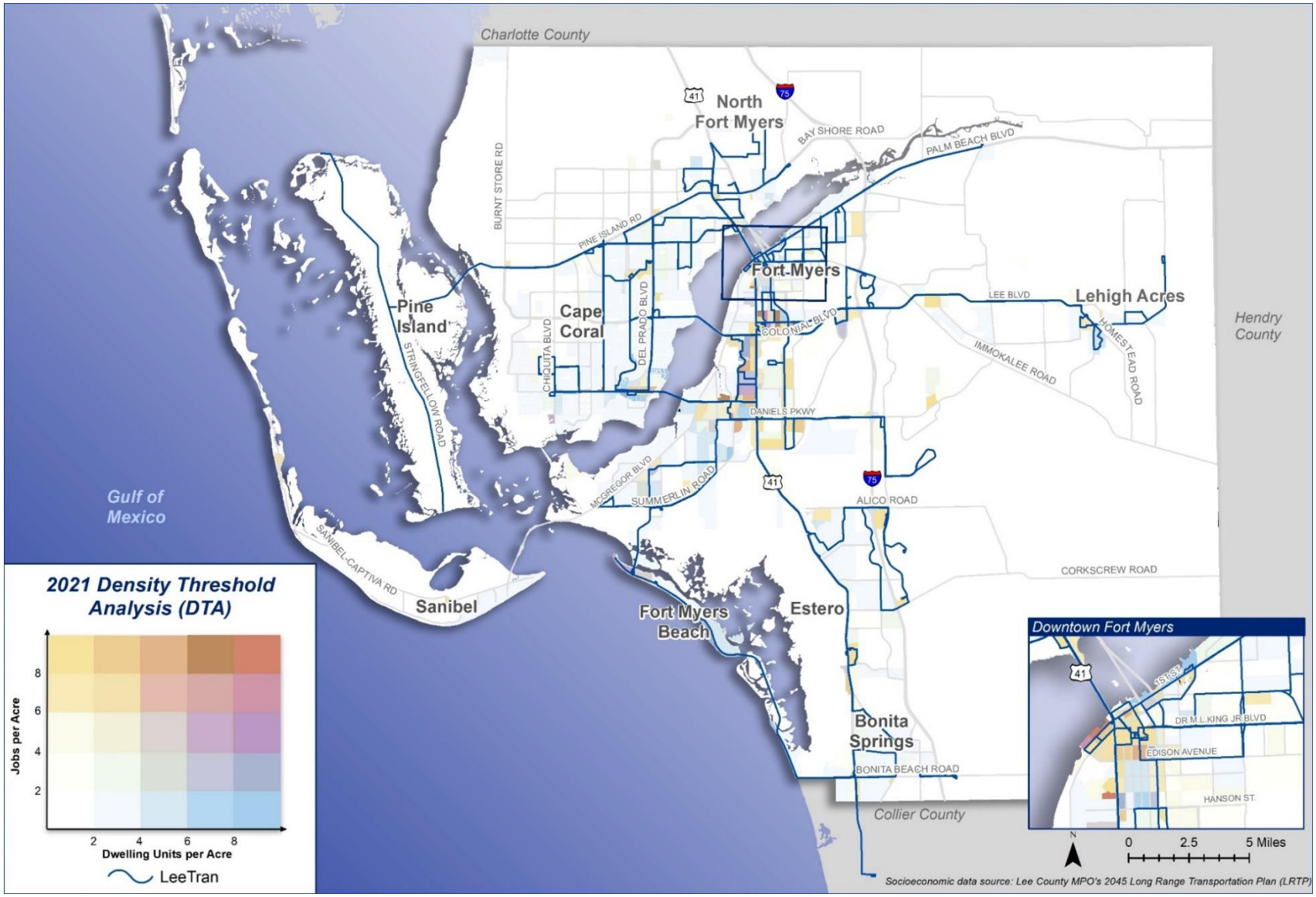
- *Minimum Investment* – reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., local fixed-route bus service).
- *High Investment* – reflects increased dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., more frequent service, longer service span, etc.) than areas meeting only the minimum density threshold.
- *Very High Investment* – reflects very high dwelling unit or employment densities that may be able to support more significant levels of transit investment (i.e., very frequent services, later service hours, weekend service, etc.) than areas meeting the minimum or high-density thresholds.

Maps 2-1 and 2-2, illustrate the results of the 2021 and 2030 DTA analyses conducted for Lee County, identifying areas that support different levels of transit investment in 2021 and in 2030, based on

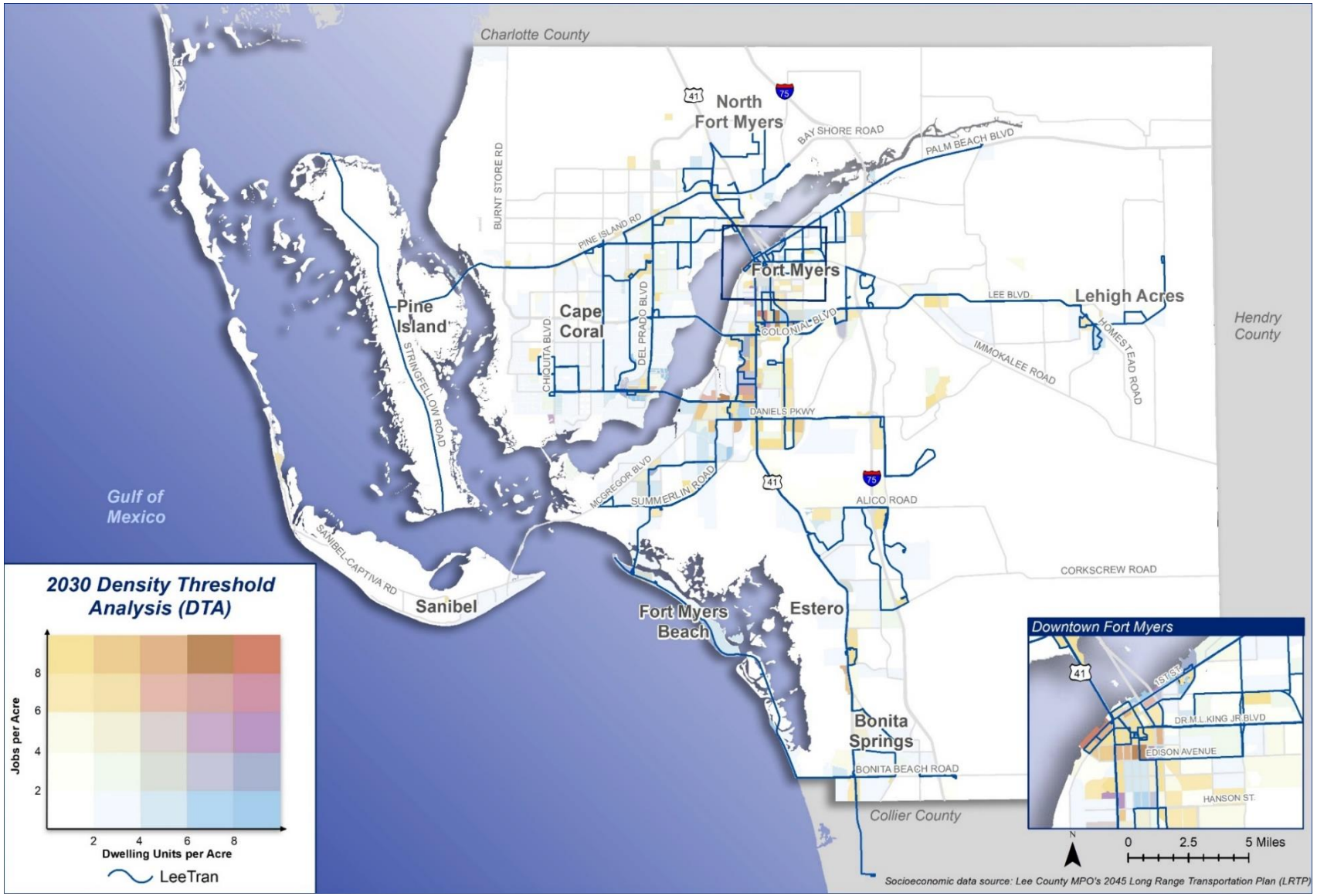
existing and future dwelling unit and employment densities. These maps also include the existing LeeTran routes to gauge how well the current transit network covers the areas of Lee County that are considered supportive of at least a minimum level of transit investment.

The majority of areas with minimum dwelling unit densities are located near the coast of Cape Coral, Fort Myers, and Fort Myers Beach. Areas with minimum jobs are sporadically located throughout Lee County, primarily located along corridors such as US-41, I-75, and Pine Island Road. All areas that are considered to meet the "very high" dwelling unit thresholds for transit investment are located along the Caloosahatchee River in Fort Myers between Seaboard Street and First Street, as well as areas west of US-41 between Hanson Street and Colonial Boulevard. Areas in Cape Coral that meet the "very high" dwelling unit threshold for transit investment are located between Cape Coral Parkway and El Dorado Parkway, and along the Caloosahatchee River between Beach Parkway and SE 40th Terrace.

Map 2-1: 2021 Density Threshold Analysis



Map 2-2: 2030 Density Threshold Analysis



Traditional Rider Markets

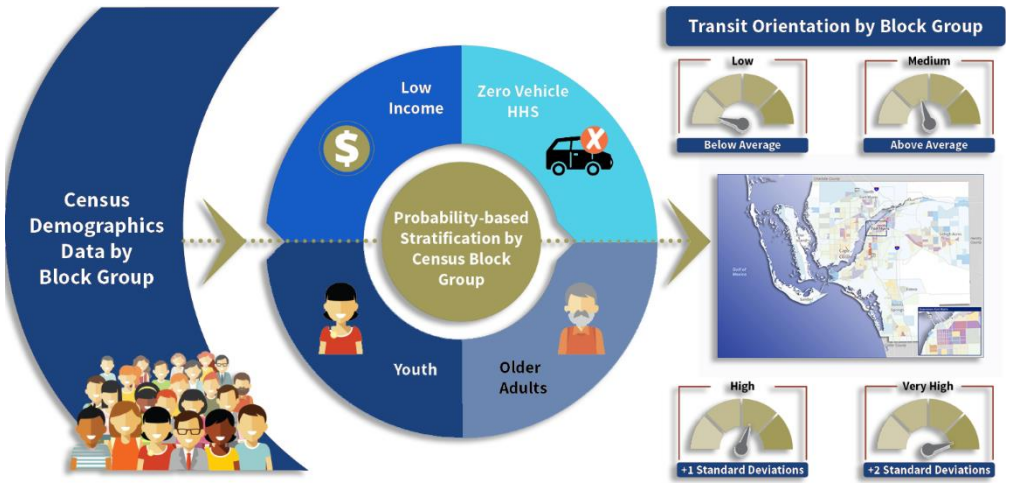
A traditional transit market refers to population segments that historically have had a higher propensity to use transit and be dependent on public transit for their transportation needs. Traditional transit users typically include older adults, youth, and households that are low-income and/or have zero vehicles. A Transit Orientation Index (TOI) assessment assists in identifying areas of a service area where a traditional transit market exists. Table 2-1 shows the TOI variables used for the COA.

Table 2-1: Lee County TOI Variables

TOI Variable	Units
Population Age 14 and Under	Youth residents
Low-Income Population	$25,000 or less annual income for 4-person household
Households with Zero Vehicles	Zero-vehicle households
Population Age 65 and Over	Older adults

Map 2-3 illustrates the 2019 TOI, reflecting areas throughout the county with varying traditional market potential. The existing transit route network shows how well LeeTran covers those areas. The methodology and benchmarks are shown in Figure 2-1.

Figure 2-1: Transit Orientation Index Methodology



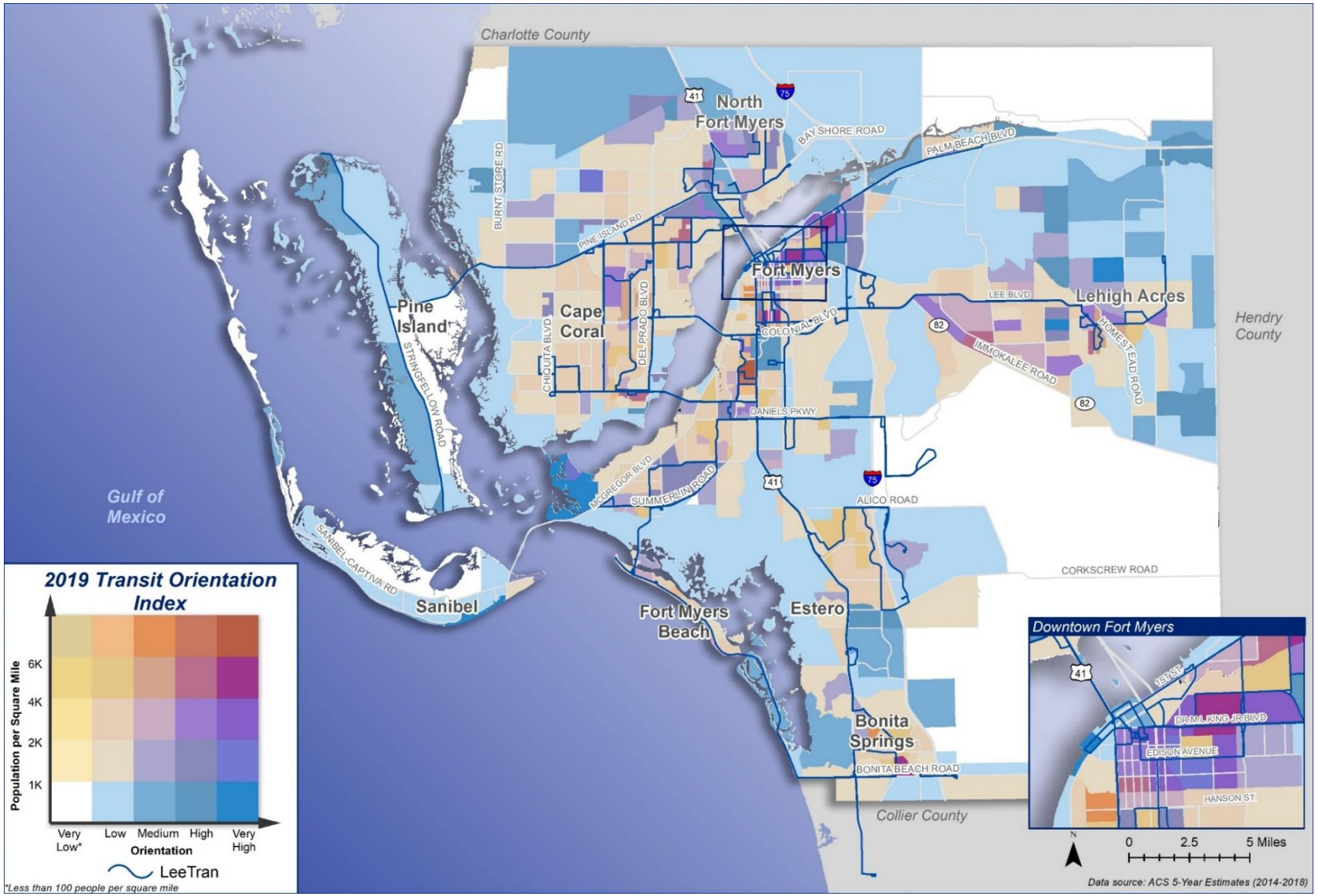
The areas that exhibit “high” or “very high” orientation towards transit and have a higher population density are concentrated in established areas such as Fort Myers, Cape Coral, and Lehigh Acres.

As shown, the areas showing “very high” TOI are clustered east of US-41 between Boy Scout Drive and College Parkway. Areas exhibiting a “very high” orientation towards transit with high population density are located in Bonita Springs, and north of Bonita Beach Road between Old 41 Road and Imperial Parkway. Additionally, there are lower population density block groups with a “very high” orientation towards transit investment adjacent to the coastline on south Sanibel Island and north of McGregor Boulevard, adjacent to the mouth of the Caloosahatchee River.

Areas considered to have a “high” orientation with high population density are located in downtown Fort Myers between Fowler Street and Cleveland Avenue and in Cape Coral south of Pine Island Road adjacent to Santa Barbara Boulevard and south of Pondella Road between Hancock Bridge Parkway and Orange Grove Boulevard. In the eastern section of the county, in Lehigh Acres, those with a “high” orientation towards transit and a high population density are adjacent to SR-82 and Lee Boulevard and east of Alabama Road between Cherokee Avenue and Gifford Avenue.

Areas that are considered to have “medium” orientation with higher population density are found in Fort Myers Beach adjacent to Estero Boulevard. The majority of areas that have a “medium” or higher orientation to transit with high population density are adjacent to a transit route.

Map 2-3: Transit Orientation Index (2019)



Section 3 TRAVEL BEHAVIOR AND COMMUTING TRENDS

This section evaluates the typical travel behavior for persons within the LeeTran service area, as well as the commuting trends occurring within and between surrounding counties.

Commute Choice

Table 3-1 shows that the most popular commute choice for those in Lee County is to drive alone (79.9%). Driving alone has increased marginally from 78.7 percent in 2000, as carpooling and walking also decreased from 13.7 percent to 9.8 percent and from 1.5 percent to 1.0 percent, respectively. The share working from home increased the most, from 3.5 percent to 5.6 percent, while using public transit decreased marginally from 0.8 percent in 2000 to 0.7 percent in 2018.

Table 3-1: Commuting Choices (2000 and 2018)

Commute Choice	2000	2018
Drove alone	78.7%	79.9%
Carpooled	13.7%	9.8%
Public transportation (excluding taxi, Uber, Lyft)	0.8%	0.7%
Walked	1.5%	1.0%
Worked at home	3.5%	5.6%
Other	1.8%	3.0%

Source: 2000 Census and American Community Survey 2014-2018 5-Year Estimates

Commuting Patterns

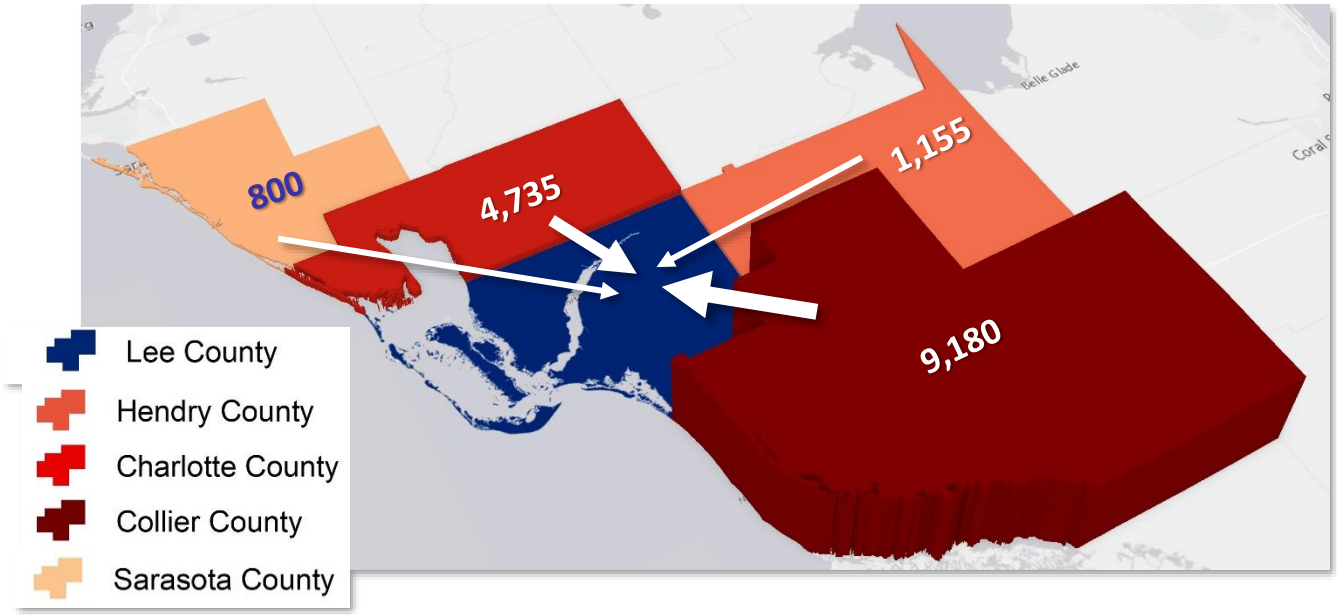
For the purposes of the COA, reviewing commuting patterns is important for evaluating directional travel to areas outside the LeeTran service area. The most common inflow and outflow is between Collier County and Lee County; over 22,000 residents leave Lee County for work in Collier County (Figure 3-1) while nearly 9,200 Collier County residents commute to Lee County (Figure 3-2). Table 3-2 shows that the three most significant commute trends, besides Collier County, are commuters traveling from Charlotte County (4,735 workers) to Lee County, Lee County residents traveling to Charlotte County (2,155 workers), and Hendry County residents commuting to Lee County (1,155 workers). Lee County residents typically work within the County, but more workers commute from Lee County than external counties commute to Lee County.

Table 3-2: Inflow and Outflow, Lee County (2016)

County	Inflow (to Lee County)	Outflow (from Lee County)
Collier County	9,180	22,045
Charlotte County	4,735	2,155
Hendry County	1,155	1,130
Miami-Dade County	100	1,005
Sarasota County	800	600
Broward County	170	580

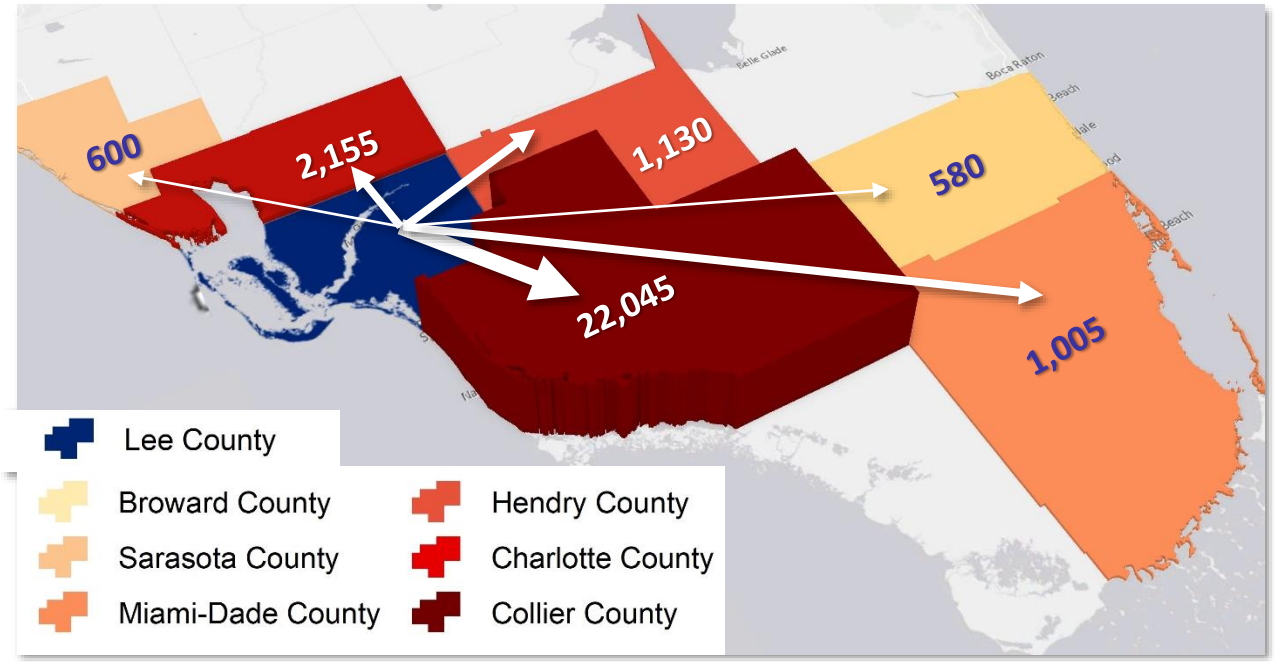
Source: Census Transportation Planning Products (CTPP) 2012-2016 Estimates

Figure 3-1: Commuter Inflow to Lee County (2016)



Source: Census Transportation Planning Products (CTPP) 2012-2016 Estimates

Figure 3-2: Commuter Outflow from Lee County (2016)



Source: Census Transportation Planning Products (CTPP) 2012-2016 Estimates

Section 4 EXISTING TRANSIT SERVICES

LeeTran has provided service to Lee County and currently serves Bonita Springs, Cape Coral, Estero, Fort Myers, North Fort Myers, and Lehigh Acres. Existing service includes 23 routes that operate all year and 3 seasonal routes that operate from November to April. Map 4-1 shows the existing LeeTran network.

All-Year Routes

As of June 2020, there are 23 LeeTran routes that run throughout the year. The majority (53%) operate Monday through Sunday, while the rest operate six days a week with the exceptions of Routes 80 and 160. Weekday route frequencies range from 20 minutes to two-and-a-half hours, but most are operated every hour. Most routes that operate seven days a week have consistent frequencies and spans for weekdays and Saturdays, with limited Sunday service.

Service spans also may vary by route and Route 400, connecting south Fort Myers and Fort Myers Beach, has the longest service span for all seven days of the week, serving residents from 5:00 AM to 10:30 PM with 20-minute headways. Most of LeeTran services are clustered in the City of Fort Myers with mostly hourly service available all seven days a week, while Pine Island is served by only one route on one day a week with low frequencies of approximately two hours (Route 160). The most frequent service is on Routes 140 and 400 with 20-minute headways and the least frequent service is Route 160, which has headways of approximately two hours and operates only on Thursdays. The earliest bus operation begins at 5:00 AM with Routes 20, 110, and 140, and 400, and ends with Route 400 at 10:36 PM.

LeeTran Seasonal Routes

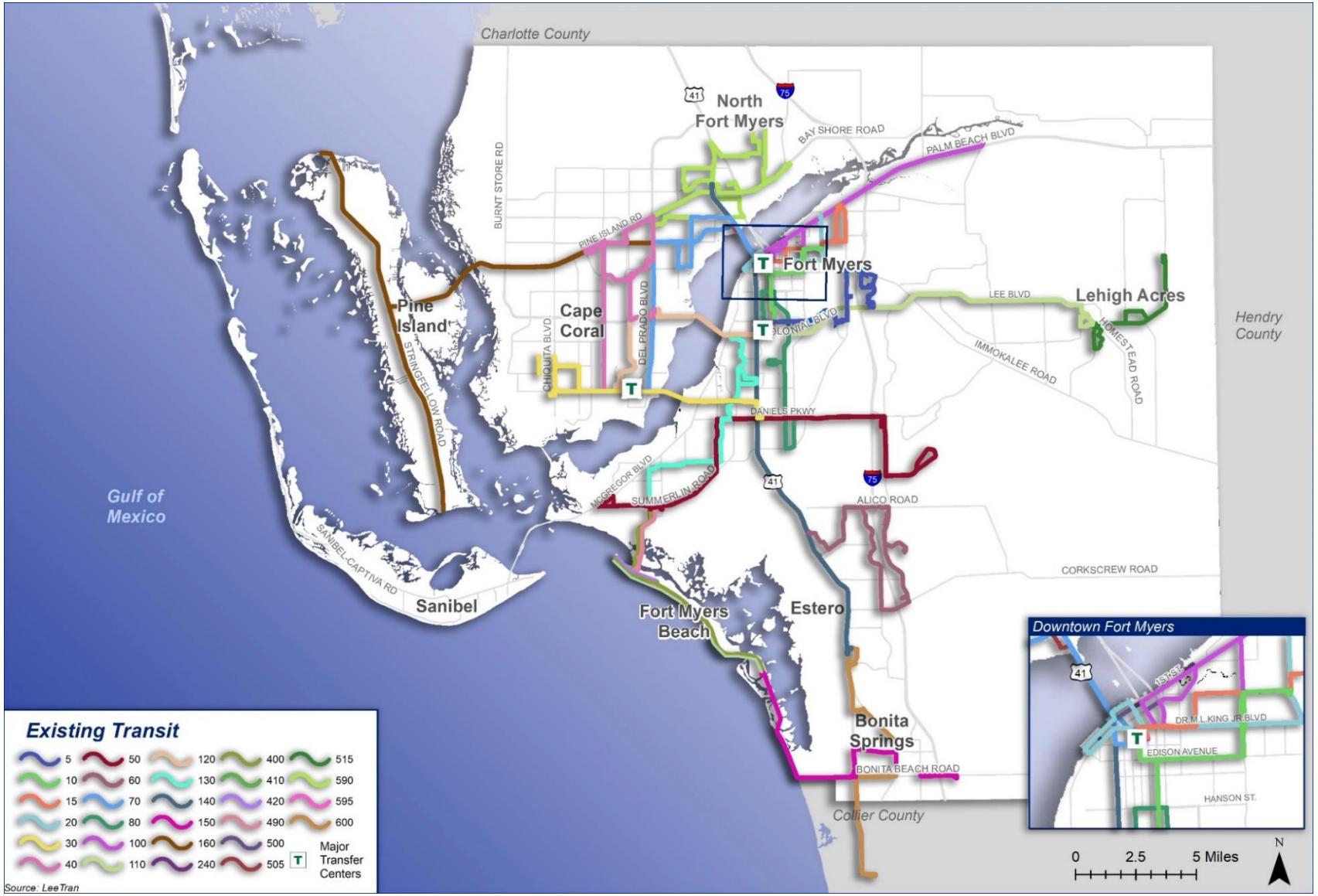
The LeeTran route network also includes a number of seasonal routes, which operate from November to April. As of January 2020, there are three seasonal routes: the River District Trolley (Gold and Blue Routes) and the 420 Fort Myers Beach Tram.

The fare-free River District Trolley (Blue) operates every 25 minutes from 11:00 AM to 7:52 PM on Sunday through Wednesday and from 11:00 AM to 10:55 PM, Thursday through Saturday. The Trolley's corresponding Gold Route operates from 11:00 AM to 10:55 PM Thursday through Sunday and from 12:00 PM to 7:55 PM Monday through Wednesday with 30-minute headways. The River District Trolley has designated stops, but also allows riders to flag down a ride anywhere on First Street between Lee Street and Monroe Street.

Route 420, the Fort Myers Beach Tram, operates every 20 minutes from 8:00 AM to 7:50 PM in Fort Myers Beach.

Other All-Year routes, including Routes 150, 400, and the LinC, operate all year, but have their schedules adjusted during November to April for the increased demand. These routes run Monday through Sunday at varying levels of frequency ranging from 20 minutes to over an hour. Service generally begins at 5:00 AM and operates until about 10:30 PM with Route 400.

Map 4-1: Existing LeeTran Network (2020)



Section 5 EXISTING RIDERSHIP IN THE STUDY AREA

Route level ridership in the study area is shown in Figure 5-1 through Figure 5-5, which shows typical ridership by month over a three-year period. As shown, the lowest ridership is on Routes 80, 150, and 160. The highest ridership occurs on Routes 70, 140, and 400.

Figure 5-1: Typical Monthly Ridership by Route (Routes 5 through 30)

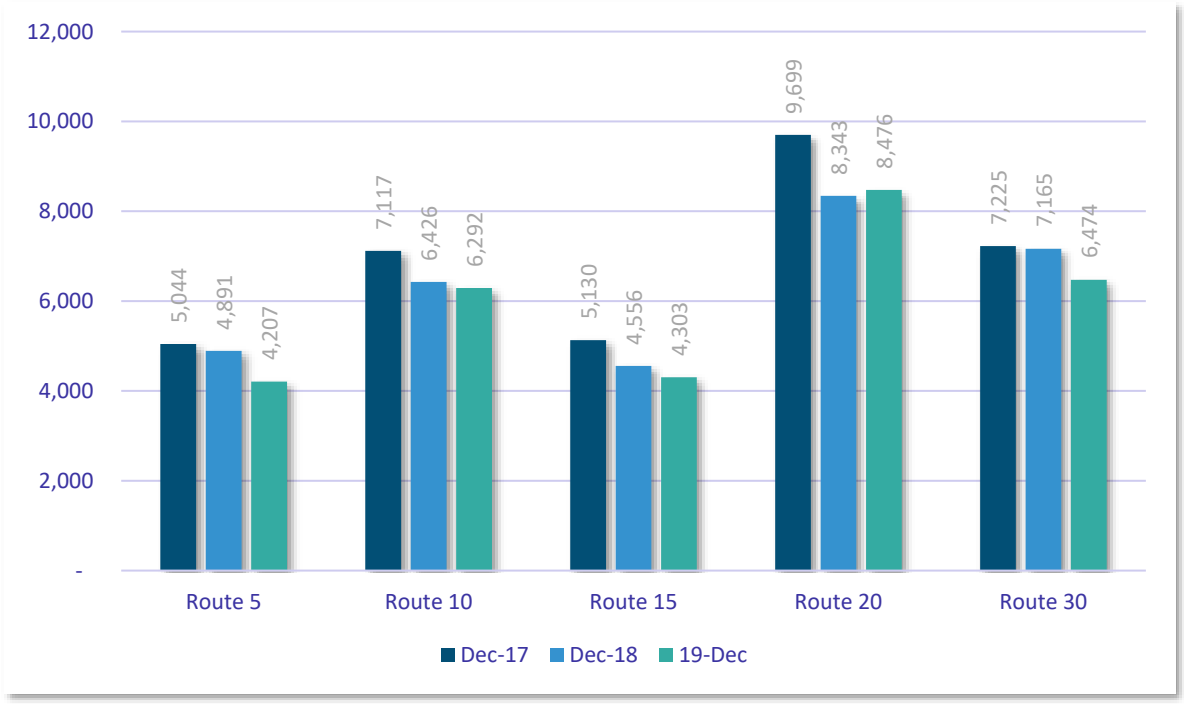


Figure 5-2: Typical Monthly Ridership by Route (Routes 40 through 80)

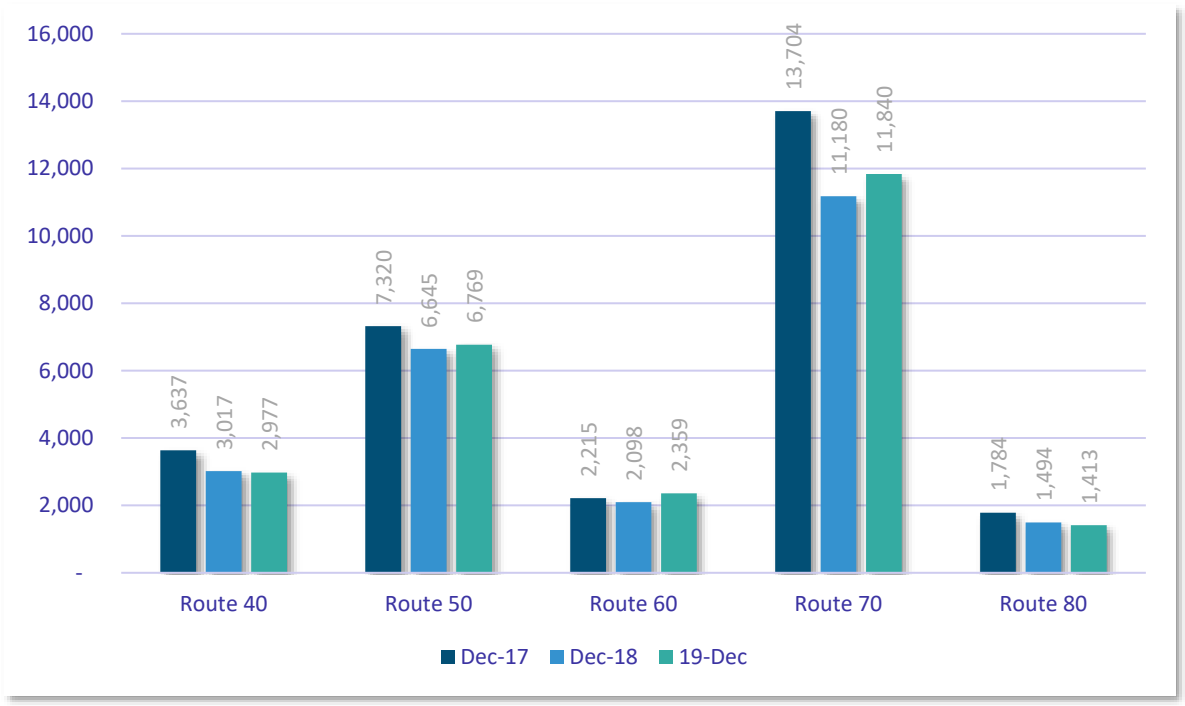


Figure 5-3: Typical Monthly Ridership by Route (Routes 100 through 140)

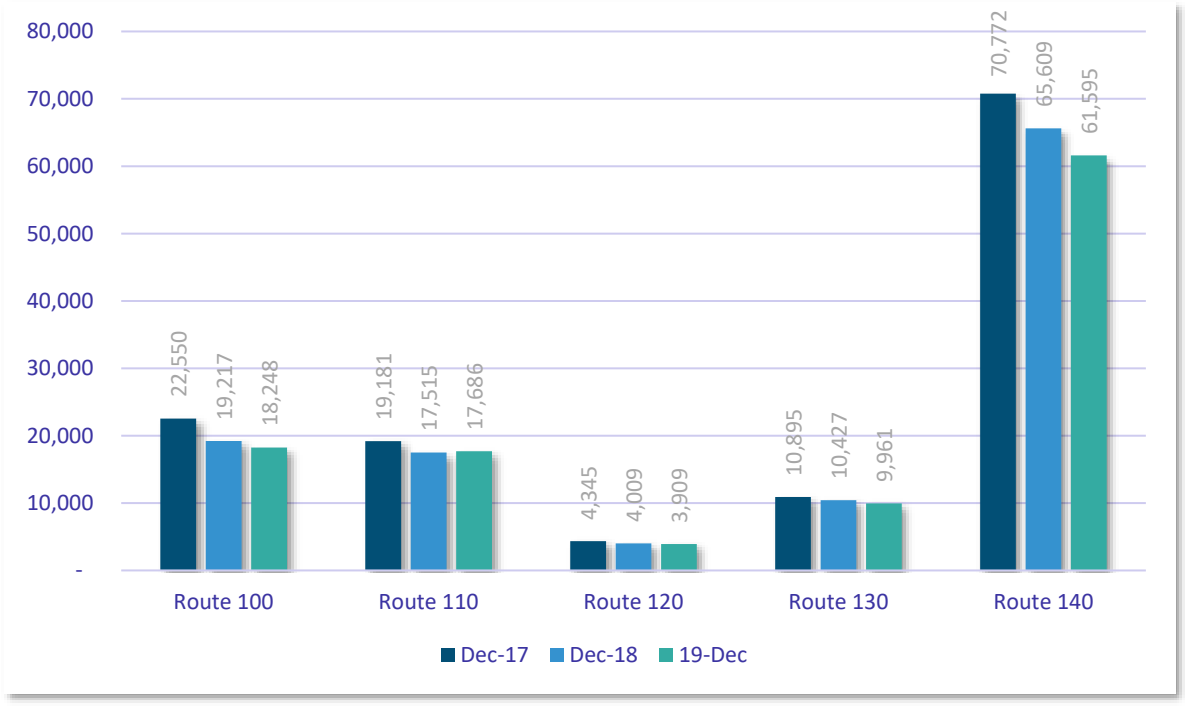


Figure 5-4: Typical Monthly Ridership by Route (Routes 150 through 500)

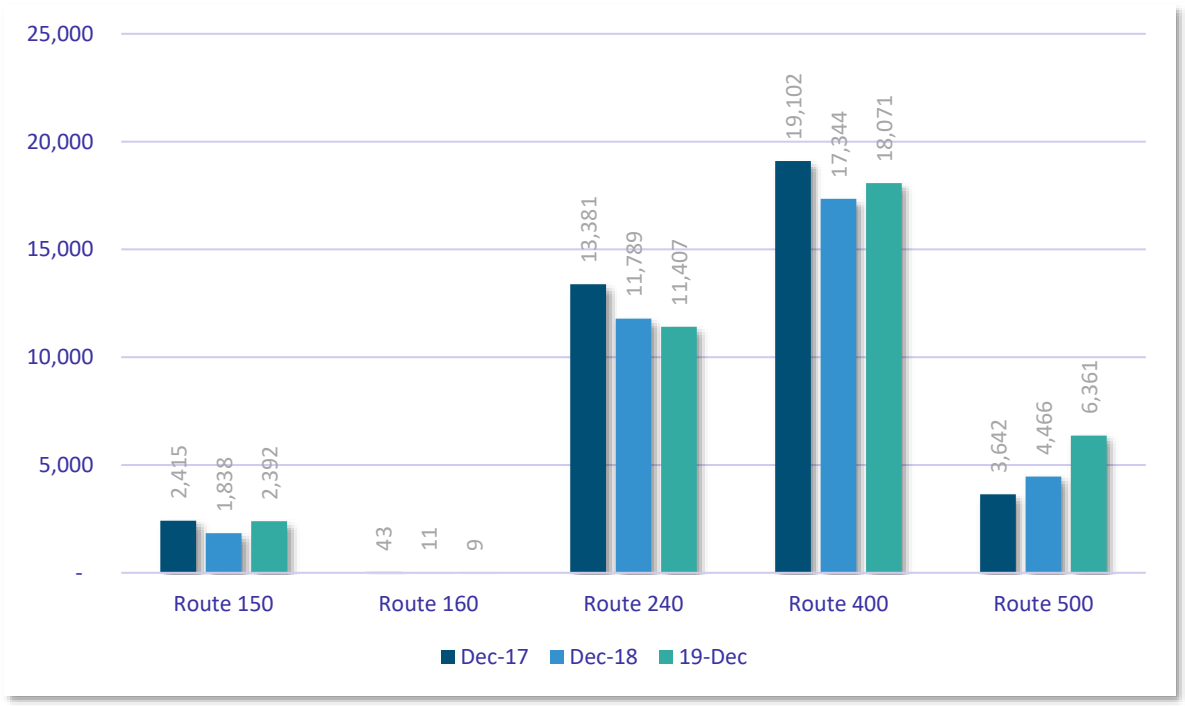
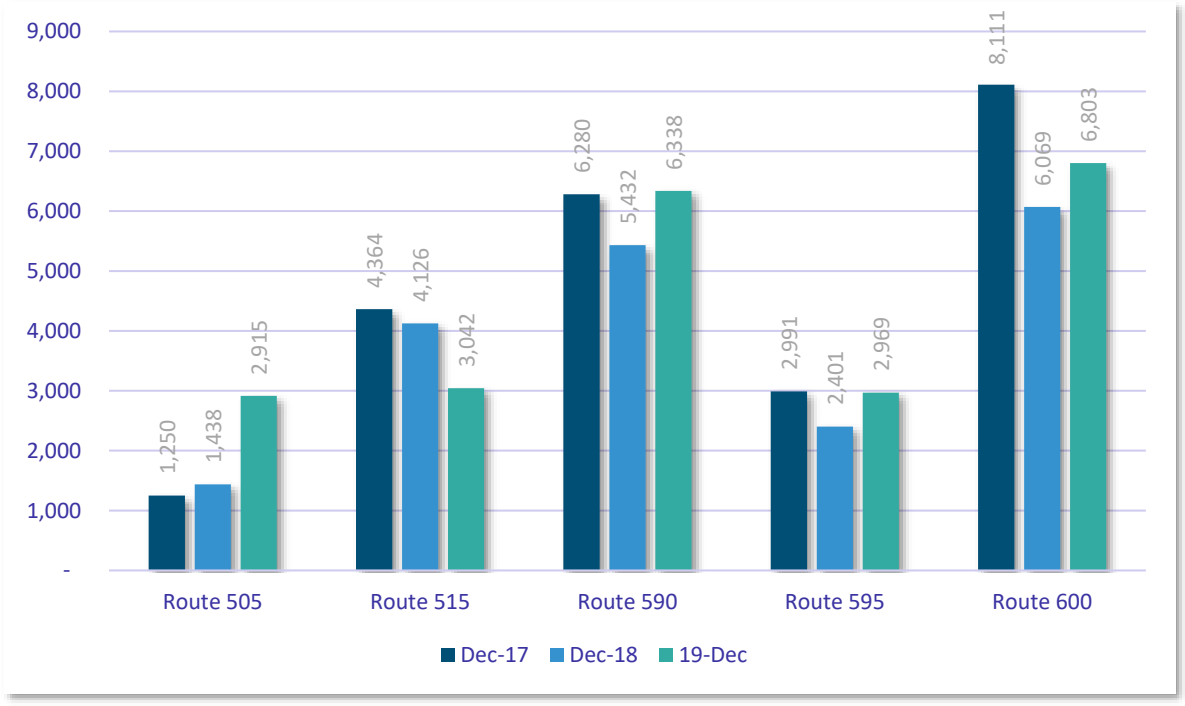


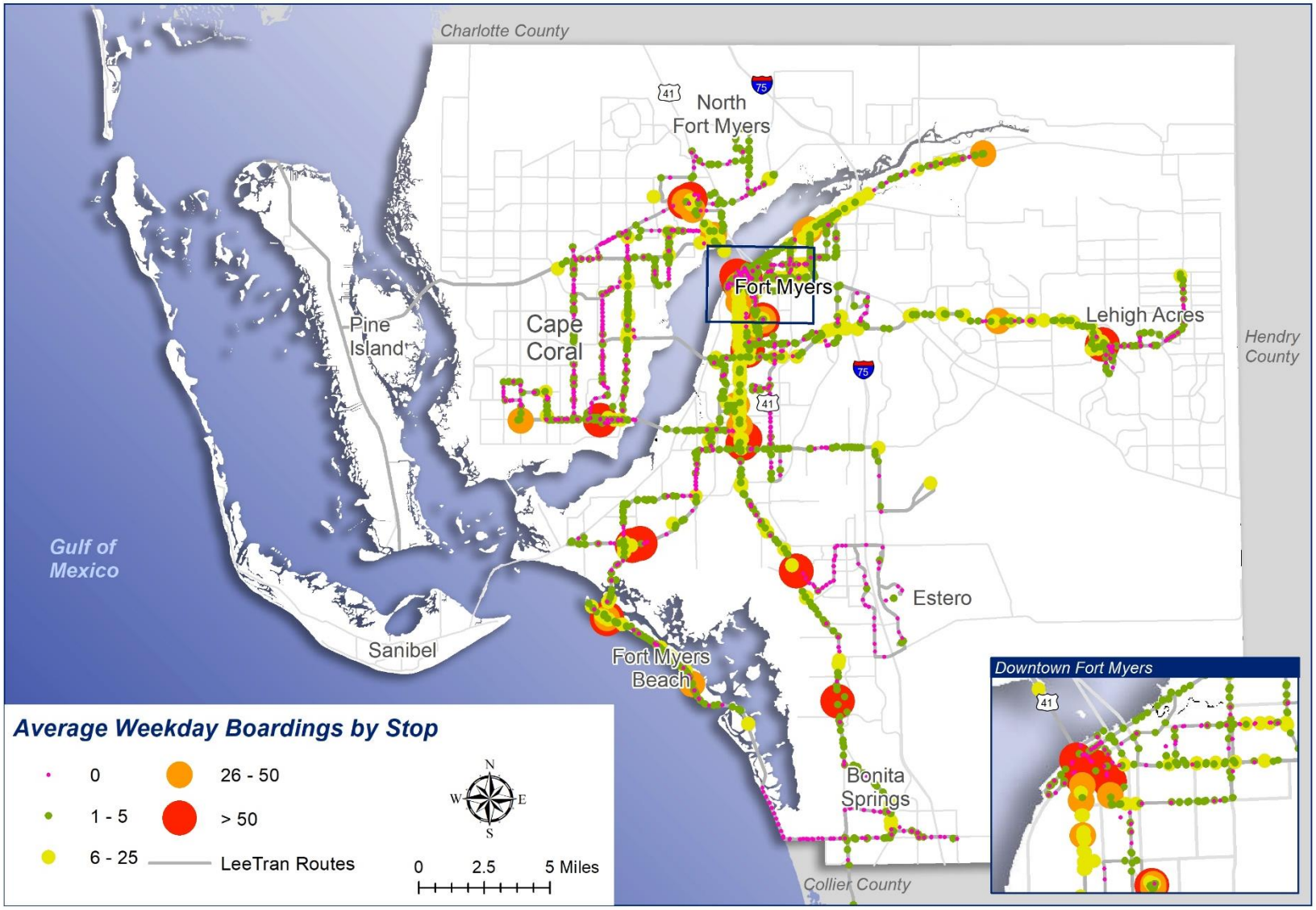
Figure 5-5: Typical Monthly Ridership by Route (Routes 505 through 600)



Individual route-level bus stop boarding and alighting data are included in Appendix A for weekdays. Maps 5-1 illustrates the average daily boardings per stop gathered through Automatic Passenger Count (APC) data provided by LeeTran. These data identify stops along each route that have the highest average daily ridership or where stops have the lowest average daily ridership. The APC is an important tool used in route modification for the COA.

Based on the APC data, areas that have the lowest ridership occur in Cape Coral along Santa Barbara Boulevard and Country Club Boulevard, as well as along Agualinda Boulevard and Pine Island Boulevard. Other areas that have no ridership include Estero and Bonita Beach Road.

Map 5-1: Lee Weekday Average Boarding per Stop



Source: LeeTran, 2020

Section 6 SYSTEM/ROUTE LEVEL OPERATING CHARACTERISTICS AND PERFORMANCE STATISTICS

This section summarizes the indicators that help paint the picture of the overall trajectory of the transit agency and can be useful for addressing negative trends before their impact to the agency becomes too burdensome. The indicators included reveal an agency that has been declining over the past four years or potentially moving in the wrong direction, as shown in Table 6-1. Note "Trip(s)" in the table below represent passenger boardings.

Table 6-1: Performance Indicators (2016-2019)

Performance Indicator	2016	2017	2018	2019
Trips/Hour	17.40	16.49	15.96	15.36
Trips/Mile	1.13	1.07	1.04	0.99
Cost/Service Mile	$5.62	$5.61	$6.14	$5.92
Cost/Service Hour	$86.45	$86.75	$93.83	$91.58
Cost/Trip	$4.97	$5.26	$5.88	$5.96

Source: NTD, 2019

A brief data-based review of the level of investment in transit within the LeeTran's service area is provided in Table 6-2. The table reflects transit investment in terms of a series of service density metrics that help describe how much service is being provided and consumed within the service area on a per-person (or per-square mile) basis. These measures are effective for LeeTran to use moving forward in helping shape policy decisions about the agency since the information is readily comparable to other peer agencies or communities. In addition, Table 6-2 uses service area and service area population from LeeTran's National Transit Database (NTD) reports of 814 square miles and 735,148 persons, respectively. Additionally, Table 6-2 uses vehicle revenue hours (193,428), passenger trips (2.97 million), and operating cost from the LeeTran NTD reports through FY 2019.

Table 6-2: Transit Investment

Service Density Metric	Measure
Vehicle revenue hours per capita	0.26
Vehicle revenue hours per square mile	238
Passenger trips per capita	4.04
Operating cost per capita	$24.10

Source: NTD, 2019

On-time performance was analyzed to determine which LeeTran routes may have service reliability issues to possibly help identify where improvements may be prudent and beneficial for route schedules as they are considered for modification in the redesign process. Specifically, on-time performance can be useful for evaluating route segments where lower ridership and consistent delay may warrant an alignment modification, a schedule adjustment, or some other mitigating treatment(s).

On-time performance from October 2017 to September 2018 is included in Table 6-3 through Table 6-5. As shown in Table 6-3, 2 of the 24 routes are not on-time more than 60 percent of the time. In addition, 22 out of the 24 routes are on-time over 60 percent of the time. Weekend on-time performance is mostly above 60 percent, with the exception of Route 130 on Sunday, as shown in Table 6-5. Figures 6-1 through 6-3, show route-level on-time performance compared to the system-wide average.

Table 6-3: Weekday On-time Performance (FY 2017 – FY 2018)

FY 17 – FY 18		STATUS					
		EARLY		ON TIME		LATE	
		Rank	Percent	Rank	Percent	Rank	Percent
ROUTE	5	15	7.8%	17	69.4%	6	22.8%
	10	18	6.2%	4	82.4%	22	11.4%
	15	23	3.2%	2	84.3%	19	12.5%
	20	7	11.2%	9	75.2%	17	13.6%
	30	11	8.8%	13	71.2%	10	20.0%
	40	1	19.4%	21	64.5%	15	16.1%
	50	16	7.3%	8	76.5%	14	16.2%
	60	8	9.7%	5	82.3%	23	8.0%
	70	14	8.1%	18	69.2%	7	22.6%
	80	2	17.7%	14	70.7%	21	11.5%
	100	5	11.8%	15	70.3%	13	17.9%
	110	9	9.4%	11	72.5%	12	18.1%
	120	19	5.9%	10	74.5%	11	19.7%
	130	20	5.7%	23	50.8%	2	43.5%
	140	17	6.4%	12	72.2%	8	21.4%
	150	10	8.9%	7	76.7%	16	14.4%
	240	22	3.6%	16	69.9%	4	26.5%
	400	6	11.4%	22	62.7%	5	25.9%
	500-Blue	3	15.3%	24	37.9%	1	46.8%
	505-Gold	24	1.9%	1	91.5%	24	6.7%
	515	12	8.4%	6	78.6%	18	12.9%
	590	4	14.5%	19	64.6%	9	20.9%
	595	21	4.5%	3	84.0%	20	11.6%
	600	13	8.4%	20	64.6%	3	27.0%

Source: LeeTran

Figure 6-1: Weekday On-time Performance (FY 2017 – FY 2018)

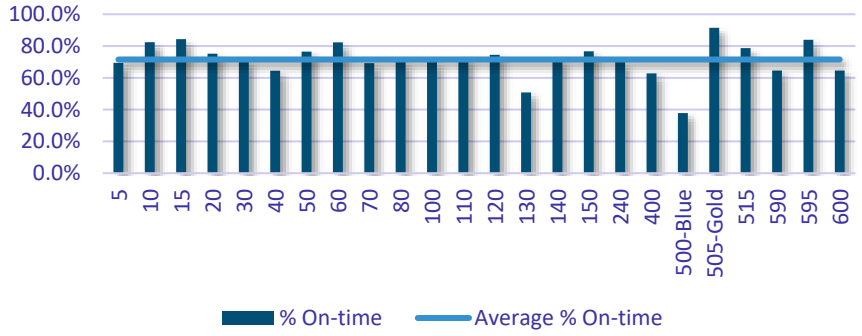


Table 6-4: Saturday On-time Performance (FY 2017 – FY 2018)

FY 17 – FY 18		STATUS					
		EARLY		ON TIME		LATE	
		Count	Rank	Count	Rank	Count	Rank
ROUTE	5	5	16.3%	12	75.9%	17	7.7%
	10	11	11.4%	4	87.1%	22	1.5%
	15	21	3.2%	10	78.6%	4	18.1%
	20	14	10.7%	20	64.8%	2	24.4%
	30	8	14.1%	14	74.6%	11	11.2%
	40	6	15.8%	15	74.4%	14	9.7%
	50	15	10.4%	5	81.4%	16	8.2%
	60	4	18.5%	11	77.9%	20	3.6%
	70	7	14.3%	13	74.6%	12	11.1%
	100	18	5.4%	17	73.0%	3	21.6%
	110	12	11.1%	6	80.5%	15	8.4%
	120	22	1.2%	2	88.3%	13	10.5%
	130	3	19.7%	22	64.4%	8	15.9%
	140	17	9.7%	9	78.9%	10	11.4%
	150	9	13.1%	7	79.8%	18	7.1%
	240	20	3.5%	8	78.9%	5	17.5%
	400	19	4.3%	21	64.8%	1	30.9%
	500	1	25.7%	23	61.6%	9	12.7%
	505	23	0.0%	1	99.2%	23	.8%
	515	16	9.8%	3	87.9%	21	2.2%
	590	10	13.0%	19	69.9%	6	17.1%
	595	2	21.8%	16	73.8%	19	4.4%
	600	13	10.8%	18	72.6%	7	16.6%

Source: LeeTran

Figure 6-2: Saturday On-time Performance (FY 2017 – FY 2018)

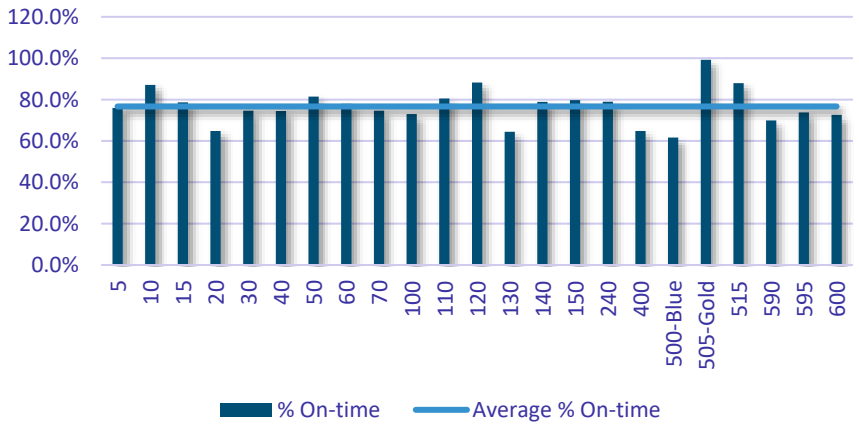
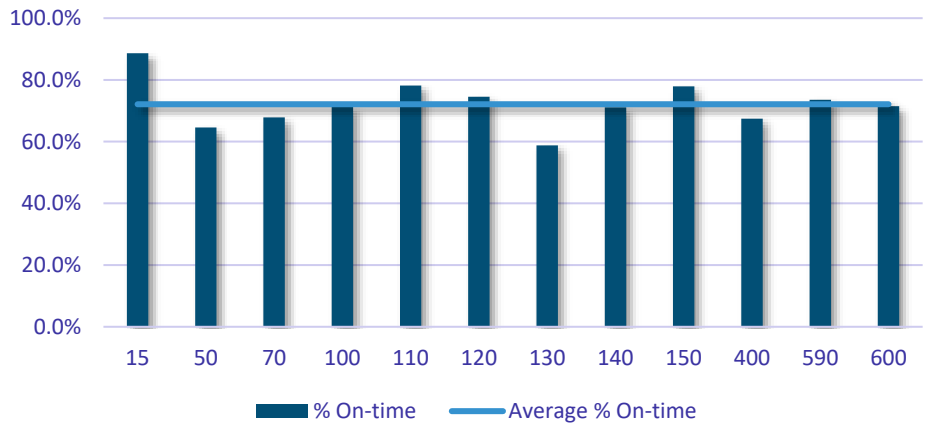


Table 6-5: Sunday On-time Performance (FY 2017 – FY 2018)

FY 17 – FY 18		STATUS					
		EARLY		ON TIME		LATE	
		Count	Rank	Count	Rank	Count	Rank
ROUTE	15	71	8.3%	756	88.6%	26	3.0%
	50	85	9.4%	585	64.6%	236	26.0%
	70	240	16.3%	999	67.9%	233	15.8%
	100	98	12.0%	582	71.3%	136	16.7%
	110	232	14.7%	1232	78.2%	112	7.1%
	120	15	2.9%	392	74.5%	119	22.6%
	130	115	16.9%	401	58.8%	166	24.3%
	140	761	11.7%	4635	71.1%	1123	17.2%
	150	136	17.3%	613	77.9%	38	4.8%
	400	137	10.4%	886	67.4%	291	22.1%
	590	131	21.5%	448	73.6%	30	4.9%
	600	217	14.0%	1109	71.5%	226	14.6%

Source: LeeTran

Figure 6-3: Sunday On-time Performance (FY 2017 – FY 2018)

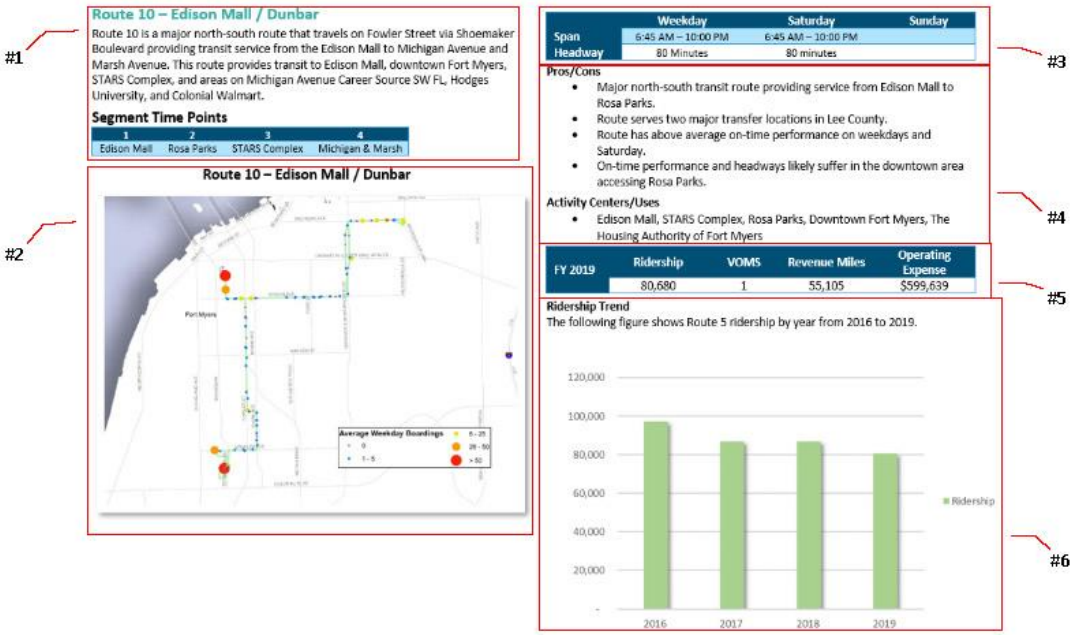


Section 7 ROUTE PROFILES

This section presents FY 2019 route-by-route profiles for each transit route to highlight an analysis of each route's performance and the challenges it faces. In addition, the route profiles include information on where each route operates, daily and yearly ridership levels, span and headway information, project team observations, considerations for alternatives, and activity centers/uses served. Figure 7-1 highlights the elements located in each route profile.

1. Describes the route in the route profile and highlights major areas served along the route. A segment key is also provided that highlights major time points along the route.
2. Illustrates the average daily boardings gathered through the APC data provided by LeeTran. This identifies stops along each route that have the highest average daily ridership or where stops have the lowest average daily ridership. The APC is an important tool used in route modification for the COA.
3. Shows span and headway information for each route. This is an important metric to reference when considering headway modifications to new routes or existing routes.
4. This section provides pros/cons by route, as well as observations gathered during the project team field visit. This section also provides preliminary route modification notes, which were considered as the project team developed route modifications. In addition, this section also highlights activity centers and uses served along each route.
5. Provides FY 2019 ridership information, financial metrics, vehicles operated in maximum service (VOMS), and passenger trips per revenue mile data derived through LeeTran's performance statistics and financial information.
6. Shows ridership by year from 2016 to 2019.

Figure 7-1: Route Profile Key



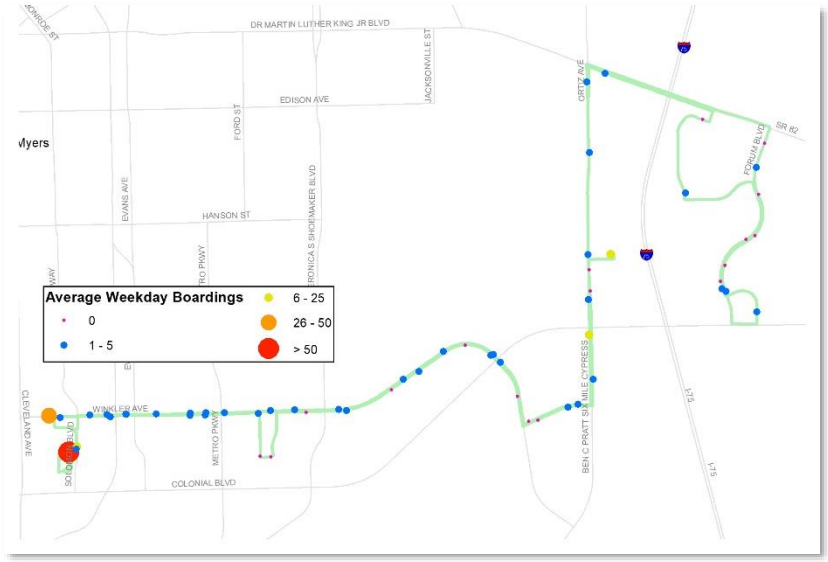
Route 5 – Edison Mall / The Forum

Route 5 travels east-west on Winkler Avenue providing transit service from The Forum to Edison Mall. This route also provides transit to Career Source SW FL, Hodges University, and Colonial Walmart.

Segment Time Points

1	2	3	4	5	6
Edison Mall	Career Source SW FL	Winkler & Colonial	Colonial Walmart	Ortiz & MLK	Colonial & Forum Blvd

Route 5 – Edison Mall / The Forum



	Weekday	Saturday	Sunday
Span	6:05 AM – 8:35 PM	6:05 AM – 8:35 PM	
Headway	80 Minutes	80 minutes	

Pros/Cons

- Local east-west route providing transit from Edison Mall to The Forum.
- Route 5 operates slightly below the LeeTran on-time performance system average.
- Below system average on-time performance is likely due to deviations along the route.
- May be difficult for new riders to understand because of multiple route deviations.
- Opportunity for streamlining the route to improve on-time performance.
- Ridership is lowest along Forum Boulevard.

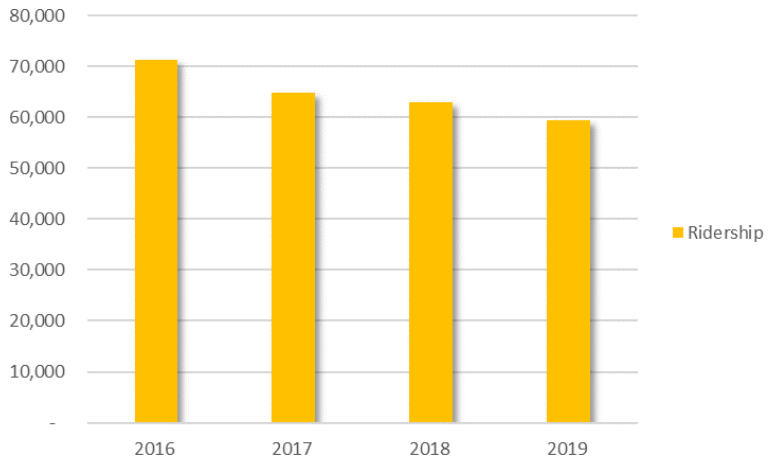
Activity Centers/Uses

- Hodges University, Lee County Corrections, Publix, Calusa Nature Center and Planetarium, Career Source, Edison Mall, The Forum

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	59,398	1	70,415	$570,052

Ridership Trend

The following figure shows Route 5 ridership by year from 2016 to 2019.



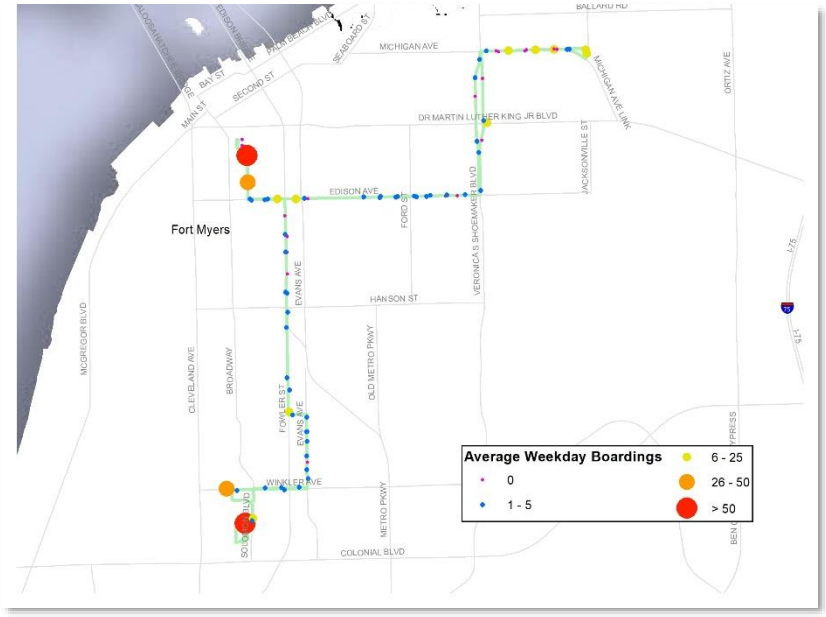
Route 10 – Edison Mall / Dunbar

Route 10 is a major north-south route that travels on Fowler Street and Veronica Shoemaker Boulevard, as well as Edison Avenue. Using these major thoroughfares, Route 10 provides transit service from the Edison Mall to Michigan Avenue and Marsh Avenue. This route provides transit to Edison Mall, downtown Fort Myers, STARS Complex, and areas on Michigan Avenue.

Segment Time Points

1	2	3	4
Edison Mall	Rosa Parks	STARS Complex	Michigan & Marsh

Route 10 – Edison Mall / Dunbar



	Weekday	Saturday	Sunday
Span	6:45 AM – 10:00 PM	6:45 AM – 10:00 PM	
Headway	80 Minutes	80 minutes	

Pros/Cons

- Major north-south transit route providing service from Edison Mall to Rosa Parks.
- Route serves two major transfer locations in Lee County.
- Route has above average on-time performance on weekdays and Saturday.
- On-time performance and headways likely suffer in the downtown area accessing Rosa Parks.

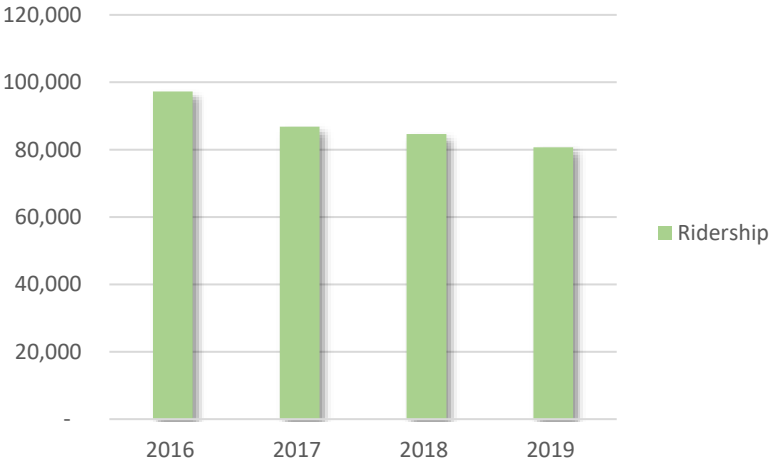
Activity Centers/Uses

- Edison Mall, STARS Complex, Rosa Parks, downtown Fort Myers, Housing Authority of Fort Myers

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	80,680	1	55,105	$599,639

Ridership Trend

The following figure shows Route 10 ridership by year from 2016 to 2019.



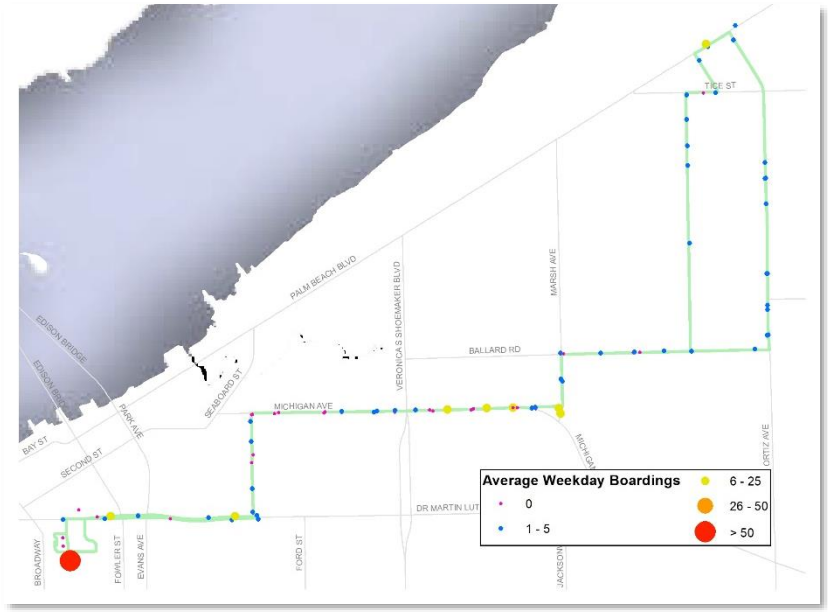
Route 15 – Rosa Parks / Tice

Route 15 is a short downtown route that travels on Dr. Martin Luther King Boulevard, Michigan Avenue, and Ballard Road. Route 15 provides service between the Rosa Parks Transportation Center and Ortiz Avenue and Tice Street. Additionally, this route provides transit to downtown Fort Myers, Fort Myers Technical College, and the Housing Authority of Fort Myers.

Segment Time Points

1	2	3
Rosa Parks	Michigan & Marsh	Ortiz & Tice

Route 15 – Rosa Parks / Tice



	Weekday	Saturday	Sunday
Span	5:45 AM – 9:30 PM	5:45 AM – 9:30 PM	5:45 AM – 6:55 PM
Headway	60 Minutes	60 Minutes	60 Minutes

Pros/Cons

- Short downtown route provides service from Ortiz Avenue and Tice Street to Rosa Parks.
- Best performing fixed-route in the system in terms of on-time performance.
- Other than at Rosa Parks, the highest ridership is at Marsh Avenue and Michigan Avenue Link.
- This is a potential mobility on demand area.
- Opportunity for simplifying route.

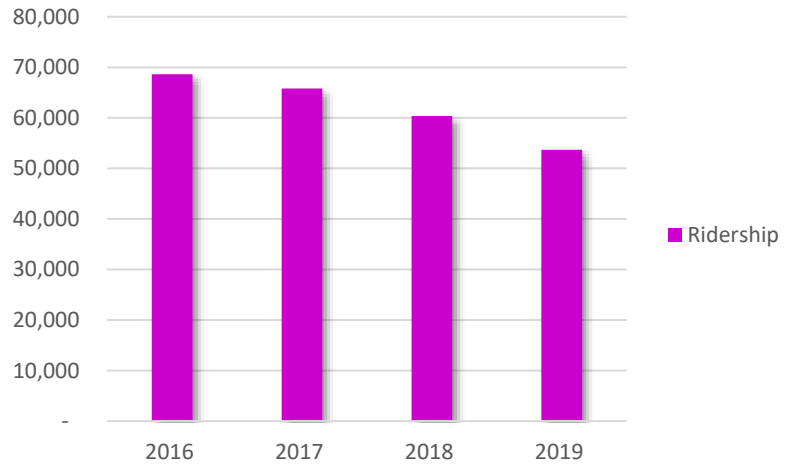
Activity Centers/Uses

- Downtown Fort Myers, Rosa Parks, Housing Authority, Fort Myers Technical College.

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	53,672	1	67,030	$707,001

Ridership Trend

The following figure shows Route 15 ridership by year from 2016 to 2019.



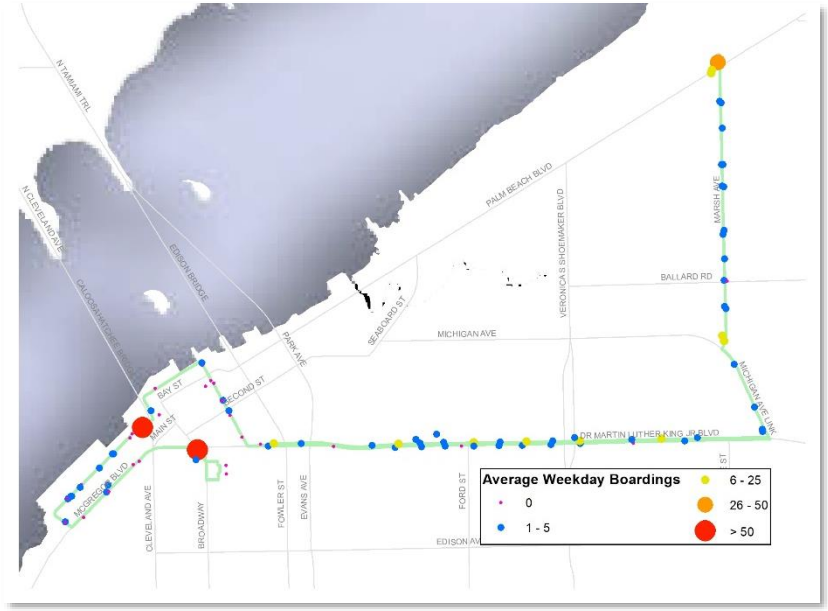
Route 20 – Dunbar / Rosa Parks

Route 20 is a local downtown route providing transit from Rosa Parks to Palm Beach Boulevard and Marsh Avenue via Dr. Martin Luther King Boulevard. Additionally, this route provides service to 1st Street and McGregor Boulevard after serving Rosa Parks Transportation Center. This route provides service to downtown Fort Myers, Lee County Government offices, Publix, Edison and Ford Winter Estates, IMAG History and Science Center, Fort Myers Dream Center, Fleamasters Flea Market, and the Housing Authority of Fort Myers.

Segment Time Points

1	2	3	4	5
Rosa Parks	Fort Myers Post Office	Fort Myers Dream Center	Michigan & Marsh	Palm Beach & Marsh

Route 20 – Dunbar / Rosa Parks



	Weekday	Saturday	Sunday
Span	5:00 AM – 9:07 PM	5:30 AM – 8:22 PM	
Headway	30 Minutes	60 Minutes	

Pros/Cons

- Major downtown transit route providing service from Rosa Parks and downtown Fort Myers to areas along Dr. Martin Luther King Boulevard and Marsh Avenue.
- Route 20 operates slightly above the LeeTran on-time performance system average.
- Impacts on on-time performance are likely due to congestion in the downtown core.
- Opportunity for simplifying downtown route network to improve on-time performance and reduce redundancy.

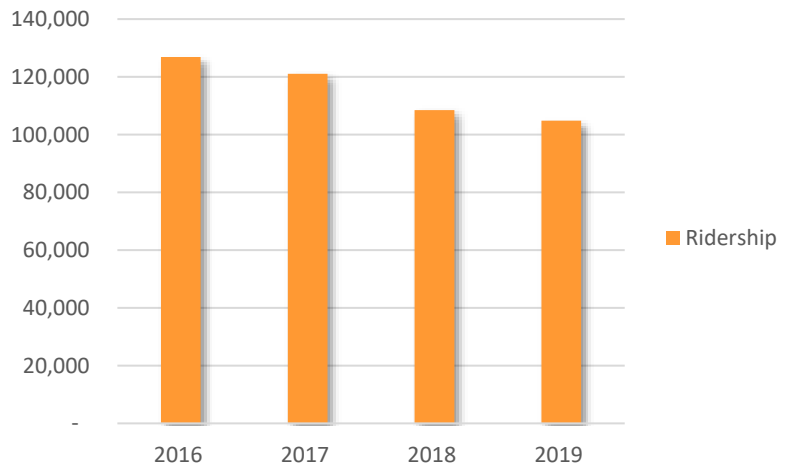
Activity Centers/Uses

- Downtown Fort Myers, Lee County Government offices, Publix, Edison and Ford Winter Estates, IMAG History and Science Center, Fort Myers Dream Center, Fleamasters Flea Market, Housing Authority of Fort Myers

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	104,806	2	108,587	$1,102,741

Ridership Trend

The following figure shows Route 20 ridership by year from 2016 to 2019.



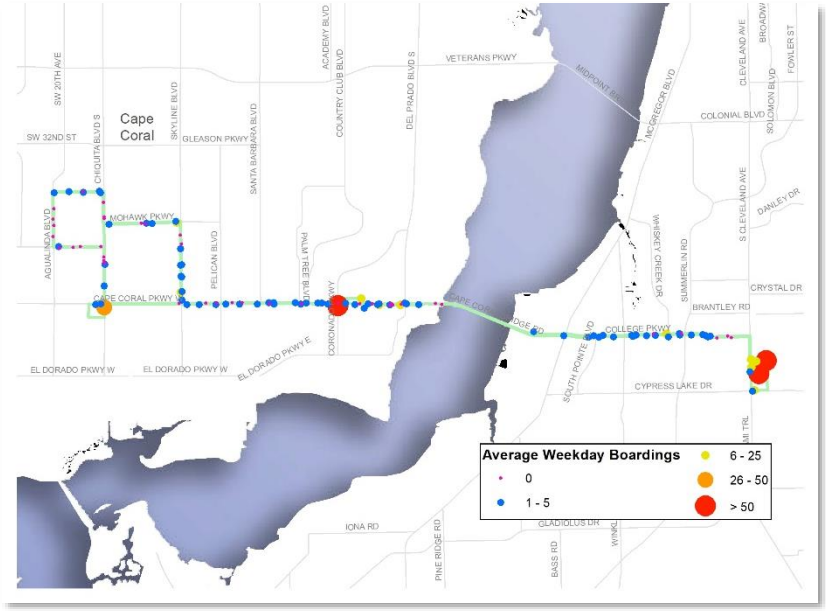
Route 30 – Bell Tower Shops / Camelot Isles

Route 30 is a major east-west route that travels on Cape Coral Parkway providing transit service from Bell Tower Shops to Cape Coral. This route provides transit to Bell Tower Shops, Florida SouthWestern State College, Camelot Isles, Cape Transfer Center, and Cape Coral Library.

Segment Time Points

1	2	3	4	5	6
Bell Tower Shops	Florida SouthWestern	Cape Transfer Center	Cape Coral Library	Agualinda Blvd & Beach Pkwy	Camelot Isles

Route 30 – Bell Tower Shops / Camelot Isles



	Weekday	Saturday	Sunday
Span	6:00 AM – 9:24 PM	6:00 AM – 9:24 PM	
Headway	60 Minutes	60 Minutes	

Pros/Cons

- Major east-west route providing service from Cape Coral to the shopping opportunities in Fort Myers.
- Below system average on-time performance, likely due to length and congestion impacts
- May be difficult for new riders to understand because of multiple route deviations.
- Opportunity for clarifying scheduling by eliminating different loops in the Cape.
- No distinct route identity because route is trying to do too much.

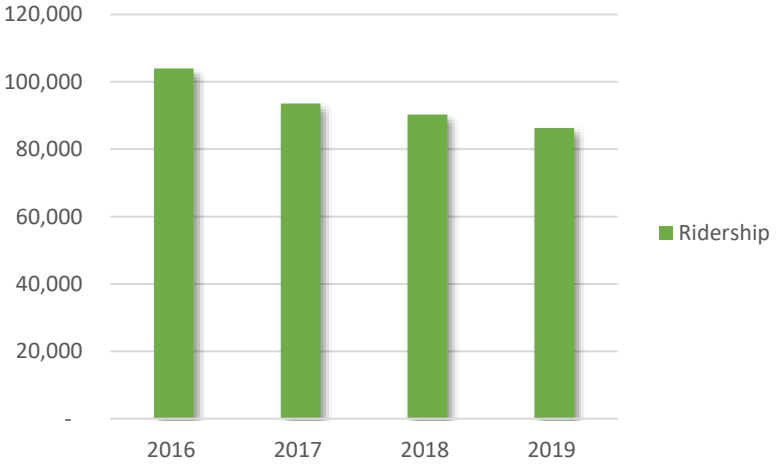
Activity Centers/Uses

- Bell Tower Shops, Florida SouthWestern State College, Camelot Isles, Cape Transfer Center, and Cape Coral Library

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	86,298	2	133,395	$1,159,407

Ridership Trend

The following figure shows Route 30 ridership by year from 2016 to 2019.



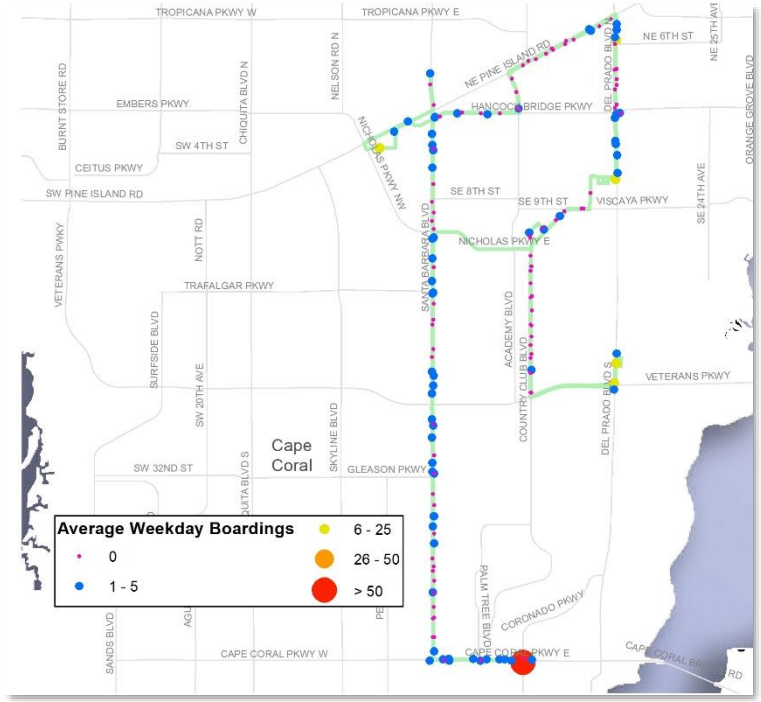
Route 40 – Cape Transfer Center / Coralwood Mall

Route 40 is north-south route providing transit service between Coralwood Mall and Cape Coral Transfer Center. Additionally, this route provides service to Cape Coral Hospital.

Segment Time Points

1	2	3	4	5	6
Cape Transfer Center	Sun Splash	Cape Coral Technical College	Cape Coral Hospital	Cape Coral Post Office	Coralwood Mall

Route 40 – Cape Transfer Center / Coralwood Mall



	Weekday	Saturday	Sunday
Span	5:40 AM – 8:40 PM	5:40 AM – 7:35 PM	
Headway	84 Minutes	130 Minutes	

Pros/Cons

- Major north-south Cape Coral route providing service between Coralwood Mall and Cape Coral Transfer Center via Santa Barbara Boulevard.
- Route 40 operates below the LeeTran on-time performance system average.
- Impacts on on-time performance are likely due to poor routing near Pine Island Road.
- Opportunity for streamlining route network to improve on-time performance.

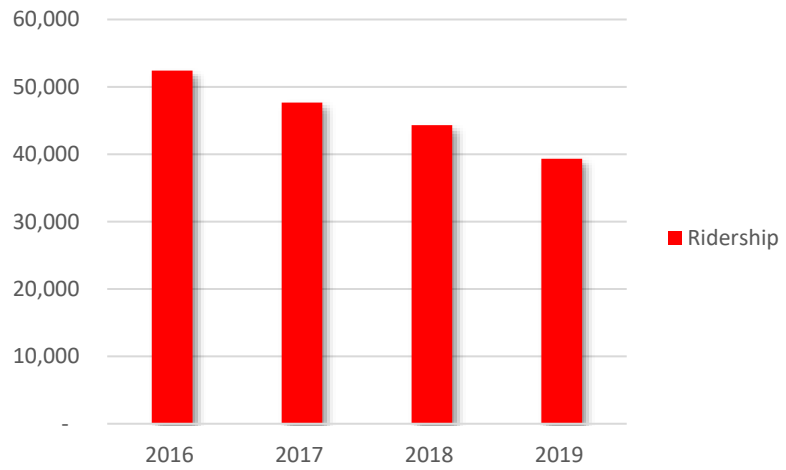
Activity Centers/Uses

- Cape Coral Transfer Center, Sun Splash, Cape Coral Technical College, Cape Coral Hospital, Coralwood Mall, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	39,332	2	119,162	$811,316

Ridership Trend

The following figure shows Route 40 ridership by year from 2016 to 2019.



Route 50 – Airport / Beach Park-and-Ride

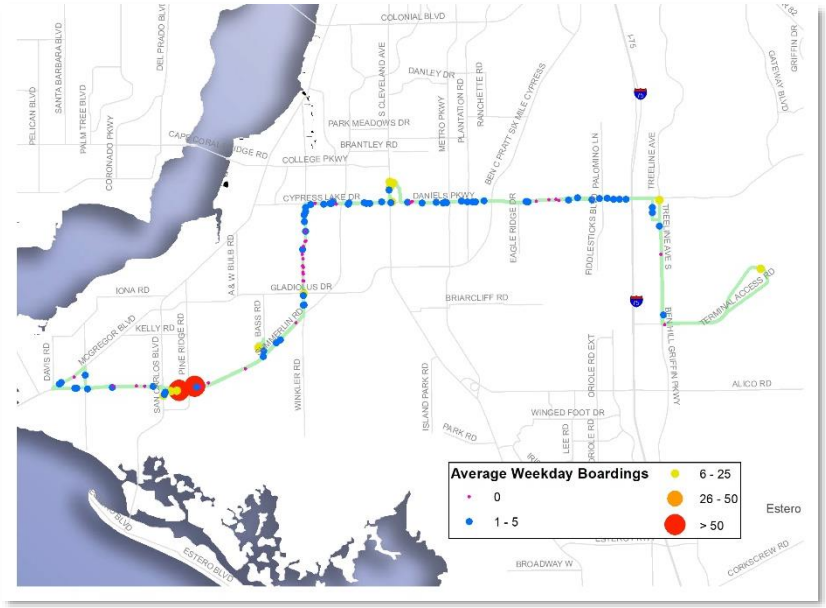
Route 50 is a major east-west route that serves LeeTran's Beach Park-and-Ride and Southwest Florida International Airport. In addition, this route provides transit service to Bell Tower Shops and areas along Summerlin Road.

Segment Time Points

1	2	3	4	5	6
Southwest Florida Int. Airport	Daniels & Jetport	Daniels & Treeline	Bell Tower Shops	Winkler & Summerlin	HealthPark

7	8
Sanibel Outlets	Beach Park-and-Ride

Route 50 – Airport / Beach Park-and-Ride



	Weekday	Saturday	Sunday
Span	6:20 AM – 9:31 PM	6:20 AM – 9:31 PM	6:45 AM – 7:18 PM
Headway	70 Minutes	70 Minutes	135 Minutes

Pros/Cons

- Major east-west transit route providing service to major transit infrastructure in Fort Myers.
- Route 50 is operating slightly above the on-time performance system average but could be improved through routing modifications.
- On-time performance is likely impacted by length and congestion along Daniels Parkway.
- There may be an opportunity to restructure this route to improve frequency and on-time performance.

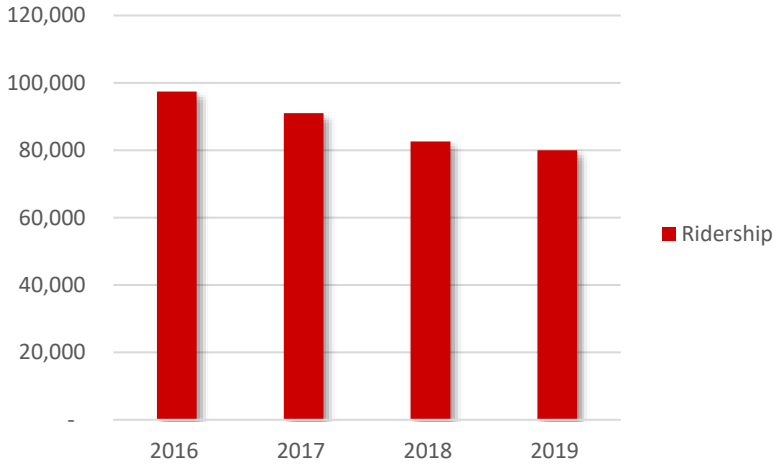
Activity Centers/Uses

- Bell Tower Shops, HealthPark, Sanibel Outlets, Southwest Florida International Airport, Beach Park-and-Ride, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	80,013	2	174,725	$1,255,163

Ridership Trend

The following figure shows Route 50 ridership by year from 2016 to 2019.



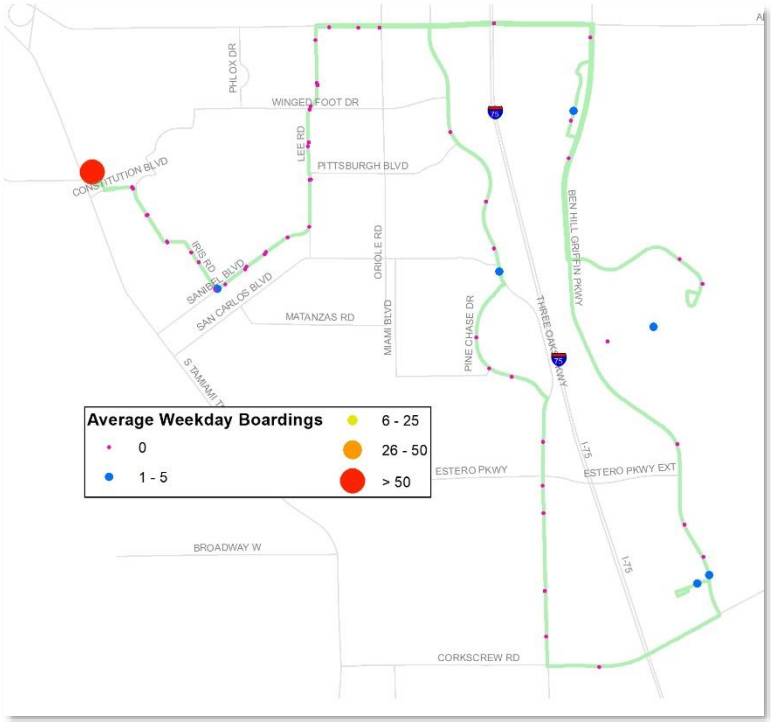
Route 60 – San Carlos Park / Gulf Coast Town Center

Route 60 is a loop style route providing transit service to Florida Gulf Coast University and Miromar Outlets. Additionally, this route provides connections to Route 240 on US-41.

Segment Time Points

1	2	3	4	5	6
US-41 & Constitution	Drews Comm. Center	S. County Library	Miromar Outlets	FGCU	Gulf Coast Town Center

Route 60 – San Carlos Park / Gulf Coast Town Center



	Weekday	Saturday	Sunday
Span	6:20 AM – 9:45 PM	7:05 AM – 8:20 PM	
Headway	85 Minutes	85 Minutes	

Pros/Cons

- Only route providing transit service to Florida Gulf Coast University, Gulf Coast Town Center, Hertz Arena, and Miromar Outlets.
- Compared to other routes in the LeeTran service, Route 60 operates at the on-time performance system average.
- Congestion along Ben Hill Griffin Parkway or Three Oaks Parkway is low, which results in better on-time performance.
- Poor ridership; this could be a potential mobility on demand area.

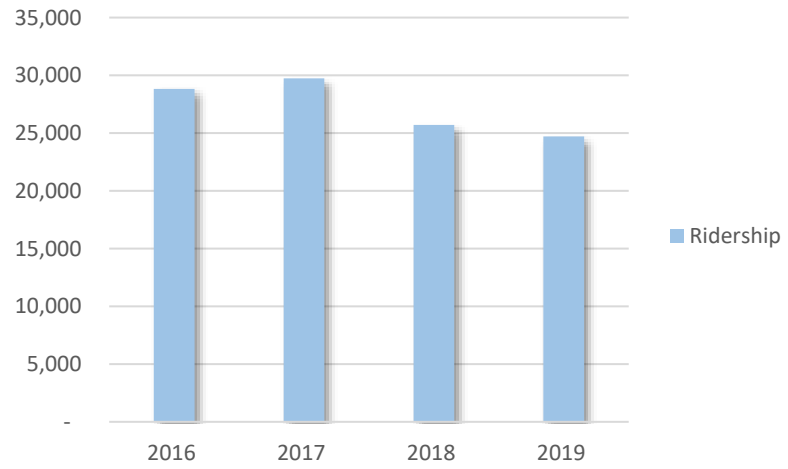
Activity Centers/Uses

- Gulf Coast Towne Center, Florida Gulf Coast University, Hertz Arena, Miromar Outlets, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	24,710	1	80,820	$591,953

Ridership Trend

The following figure shows Route 60 ridership by year from 2016 to 2019.



Route 70 – Rosa Parks / Cape Transfer Center

Route 70 is north-south route providing transit service between Cape Coral Transfer Center and Rosa Parks Transportation Center. Additionally, this route provides service to Cape Coral Hospital and Coralwood Mall.

Segment Time Points

1	2	3	4	5	6
Cape Transfer Center	Coralwood Mall	Cape Coral Hospital	Pondella & Orange Grove	US-41 & Pondella	Rosa Parks

Route 70 – Rosa Parks / Cape Transfer Center

	Weekday	Saturday	Sunday
Span	5:30 AM – 10:15 PM	6:05 AM – 9:25 PM	6:40 AM – 8:10 PM
Headway	65 Minutes	65 Minutes	65 Minutes

Pros/Cons

- Route 70 provides transfer opportunities at four transfer locations.
- Route 70 operates slightly below the LeeTran on-time performance system average.
- Impacts on on-time performance are likely due to downtown congestion and route deviations near Hancock Bridge Parkway.
- Opportunity for streamlining route network to improve on-time performance and route alignment.

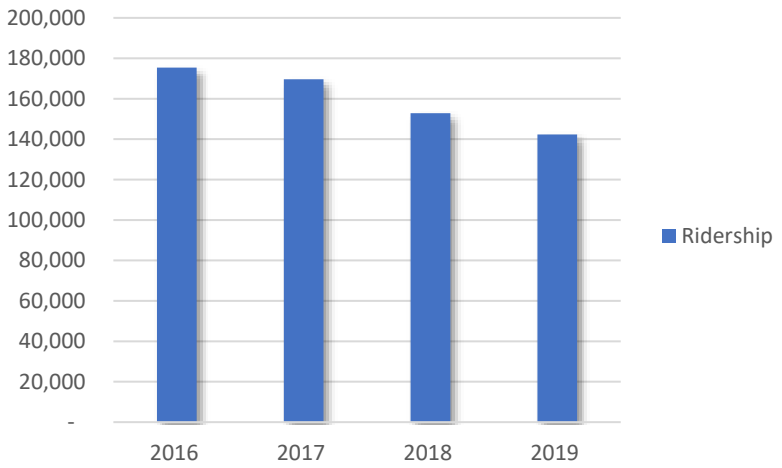
Activity Centers/Uses

- Cape Coral Transfer Center, Cape Coral Hospital, Coralwood Mall, Publix, downtown Fort Myers

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	142,349	2	179,879	$1,420,854

Ridership Trend

The following figure shows Route 70 ridership by year from 2016 to 2019.



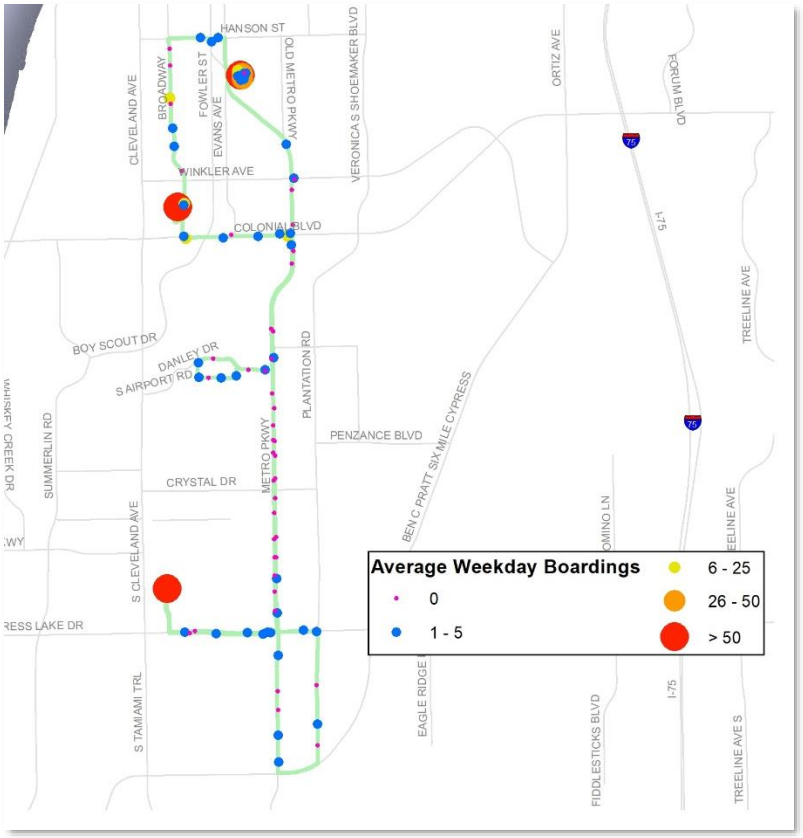
Route 80 – Edison Mall / Bell Tower Shops

Route 80 is a weekly north-south route providing transit service between Bell Tower Shops and Edison Mall, as well as the LeeTran Headquarters.

Segment Time Points

1	2	3	4	5	6
Bell Tower Shops	South Fort Myers High	Gulf Coast Hospital	Center & 4th	LeeTran Headquarters	Edison Mall

Route 80 – Edison Mall / Bell Tower Shops



	Weekday	Saturday	Sunday
Span	6:40 AM – 7:31 PM		
Headway	97 Minutes		

Pros/Cons

- Route 80 is the only route serving the LeeTran Headquarters.
- On-time performance for Route 80 is at the LeeTran system average.
- Impacts relating to on-time performance are likely due to route serving Page Field.
- Ridership on Route 80 has been steadily decreasing over the four-year period from 2016 to 2019.

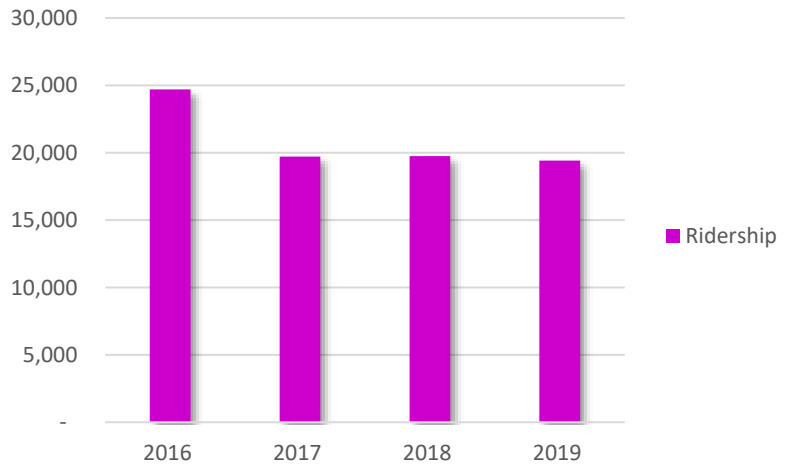
Activity Centers/Uses

- Bell Tower Shops, Gulf Coast Hospital, LeeTran Headquarters, Edison Mall

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	19,414	1	51,371	$421,332

Ridership Trend

The following figure shows Route 80 ridership by year from 2016 to 2019.



Route 100 – Rosa Parks / Riverdale

Route 100 is a major east-west route providing transit service between Riverdale and Rosa Parks in downtown Fort Myers.

Segment Time Points

1	2	3	4
Riverdale	Marsh & Palm Beach	Michigan & Marsh	Rosa Parks

Route 100 – Rosa Parks / Riverdale

	Weekday	Saturday	Sunday
Span	5:25 AM – 10:00 PM	5:30 AM – 9:35 PM	7:35 AM – 8:10 PM
Headway	30 Minutes	40 Minutes	90 Minutes

Pros/Cons

- Downtown east-west route providing service along Caloosahatchee River.
- Route 100 operates at the LeeTran on-time performance system average.
- Impacts on on-time performance are likely due to congestion and circulation in downtown Fort Myers.
- Opportunity for streamlining route network to improve on-time performance in downtown Fort Myers.

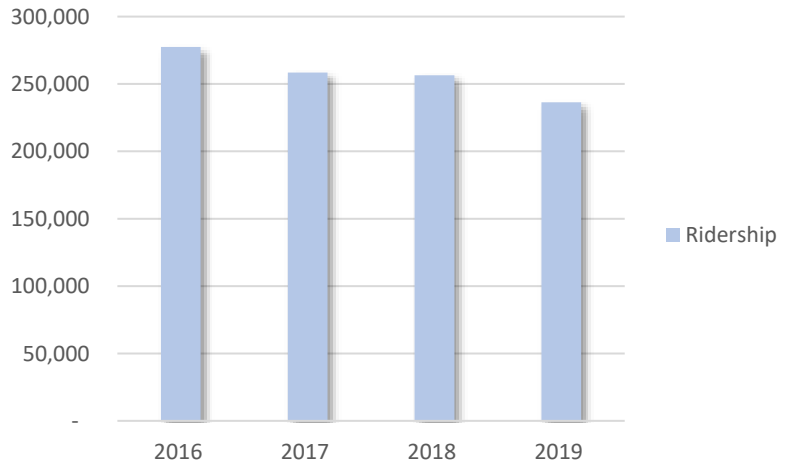
Activity Centers/Uses

- Downtown Fort Myers, Rosa Parks, Housing Authority of Fort Myers, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	236,441	3	253,729	$1,791,856

Ridership Trend

The following figure shows Route 100 ridership by year from 2016 to 2019.



Route 110 – Edison Mall / Lehigh Acres

Route 110 is a major east-west route connecting Lehigh Acres with Fort Myers. Additionally, this route is the only route in the LeeTran service area that provides transit to/from Lehigh Acres on weekdays, Saturday, and Sunday.

Segment Time Points

1	2	3	4	5
Edison Mall	Colonial at The Forum	Lee & Gunnery	Broad & Woodward	Homestead Plaza

Route 110 – Edison Mall / Lehigh Acres

	Weekday	Saturday	Sunday
Span	5:00 AM – 10:04 PM	5:00 AM – 10:04 PM	6:10 AM – 9:03 PM
Headway	60 Minutes	60 Minutes	60 Minutes

Pros/Cons

- Major east-west route connecting riders from Lehigh Acres to Fort Myers.
- Route 110 operates at the LeeTran on-time performance system average.
- Impacts on on-time performance are likely due to congestion in Lehigh Acres relating to construction.
- Opportunity for streamlining route network in Lehigh Acres with a new park-and-ride facility.

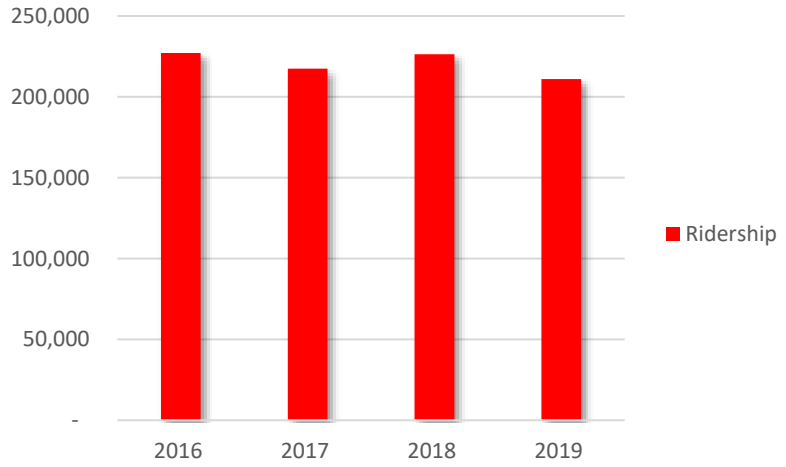
Activity Centers/Uses

- Edison Mall, Social Security Administration, Lehigh Acres, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	210,975	2	200,056	$1,495,495

Ridership Trend

The following figure shows Route 110 ridership by year from 2016 to 2019.



Route 120 – Edison Mall / Cape Transfer Center

Route 120 is an east-west route connecting Edison Mall to Cape Transfer Center. Additionally, this route provides service to Camelot Isles on Sundays.

Segment Time Points

1	2	3	4
Edison Mall	Coralwood Mall	Cape Transfer Center	Camelot Isles

Route 120 – Edison Mall / Cape Transfer Center

	Weekday	Saturday	Sunday
Span	6:00 AM – 9:10 PM	6:00 AM – 9:10 PM	8:30 AM – 6:25 PM
Headway	80 Minutes	80 Minutes	100 Minutes

Pros/Cons

- Major Cape Coral route providing service between Coralwood Mall and Cape Coral Transfer Center via Country Club Boulevard.
- Route 120 operates slightly above the LeeTran on-time performance system average.
- Route 120 is the only route operating on the Midpoint Bridge.
- Average daily boardings are low on Country Club Boulevard.

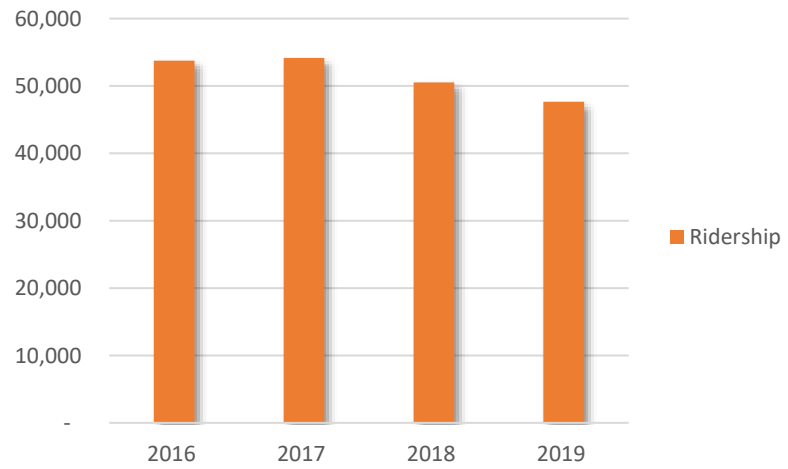
Activity Centers/Uses

- Coralwood Mall, Cape Coral Transfer Center, Edison Mall, Southern Technical College, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	47,662	1	91,136	$662,376

Ridership Trend

The following figure shows Route 120 ridership by year from 2016 to 2019.



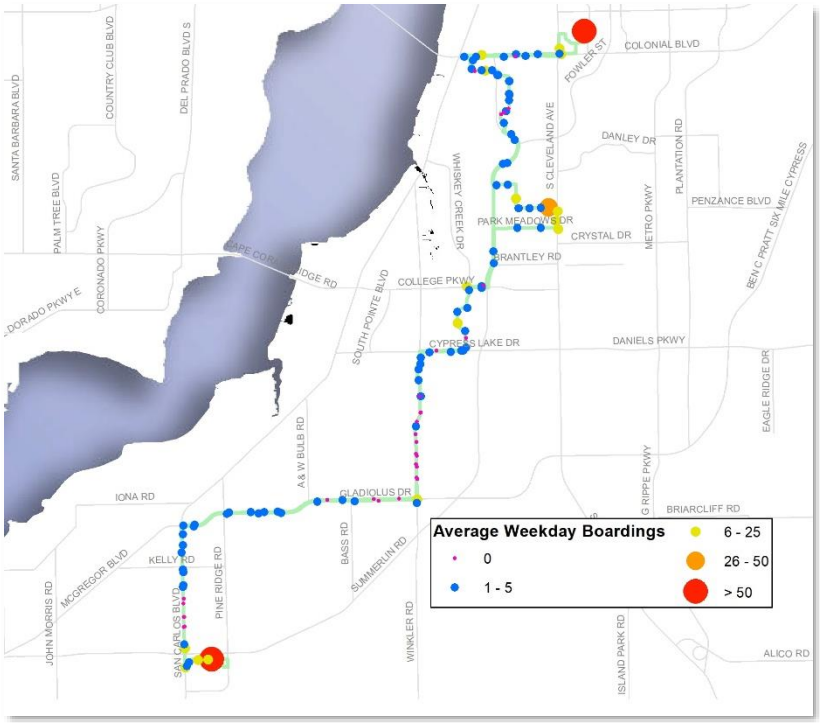
Route 130 – Edison Mall / Beach Park-and-Ride

Route 130 is a major north-south route providing transit service from Edison Mall to the Beach Park-and-Ride on weekdays, Saturday, and Sunday.

Segment Time Points

1	2	3	4	5	6
Edison Mall	Barkley & Matthew	US-41 & Palm Drive	FSW	Gladiolus & Bass	Beach Park-and-Ride

Route 130 – Edison Mall / Beach Park-and-Ride



	Weekday	Saturday	Sunday
Span	6:25 AM – 9:07 PM	6:25 AM – 8:25 PM	8:35 AM – 6:30 PM
Headway	60 Minutes	120 Minutes	120 Minutes

Pros/Cons

- Major north-south route providing service between Edison Mall and Beach Park-and-Ride via Summerlin Road.
- Based on on-time performance, Route 130 is one of the poorest performing routes in the LeeTran system on weekdays, Saturday, and Sunday.
- Impacts on on-time performance is likely due to length of route and meandering alignment.

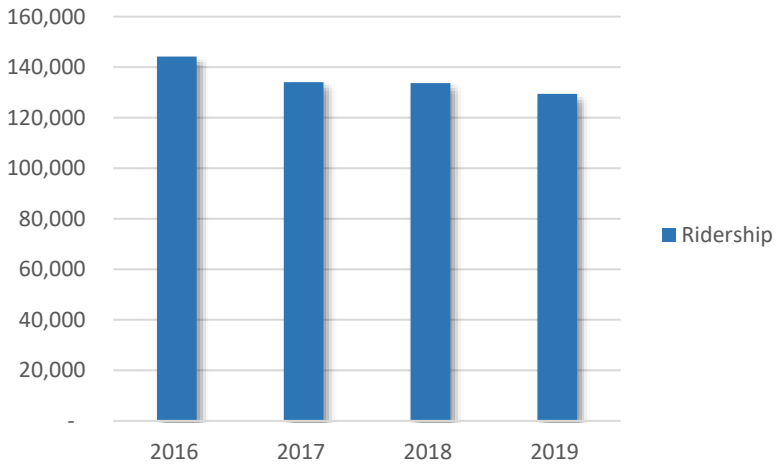
Activity Centers/Uses

- Edison Mall, Florida SouthWestern State College, Golisano Children's Hospital, Beach Park-and-Ride, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	129,446	2	135,957	$1,095,227

Ridership Trend

The following figure shows Route 130 ridership by year from 2016 to 2019.



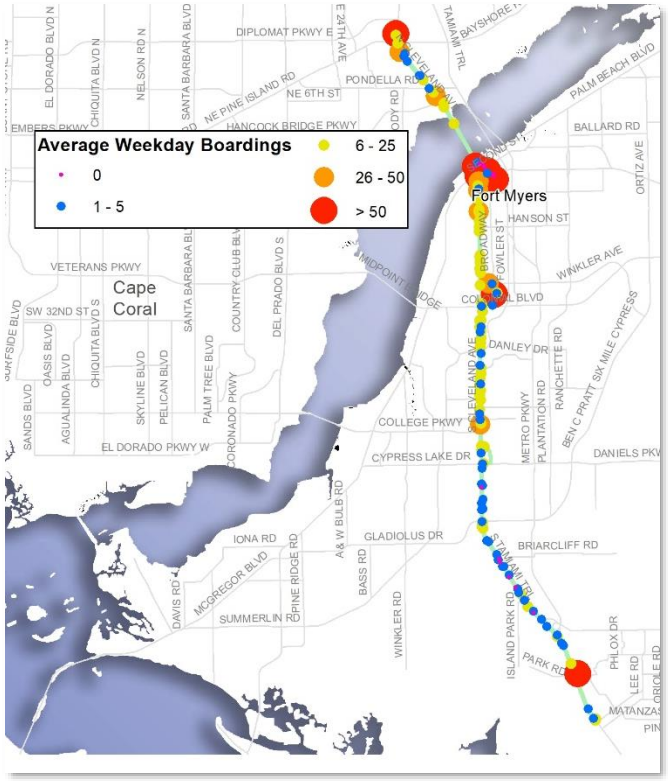
Route 140 – Merchants Crossing / Bell Tower Shops

Route 140 is LeeTran's key north-south route providing transit along Cleveland Avenue to major destinations in Fort Myers, as well as transfer opportunities to most routes in the LeeTran system.

Segment Time Points

1	2	3	4	5	6
Merchants Crossing	Rosa Parks	Edison Mall	Bell Tower Shops	US-41 & Constitution	US-41 & Sanibel Blvd
7					
Coconut Point Mall					

Route 140 – Merchant Crossing / Bell Tower Shops



	Weekday	Saturday	Sunday
Span	5:00 AM – 9:55 PM	5:00 AM – 9:55 PM	6:05 AM – 8:55 PM
Headway	20 Minutes	20 Minutes	65 Minutes

Pros/Cons

- Major north-south route providing service between Merchants Crossing and Bell Tower Shops on weekdays and Saturday. On Sunday, Route 140 provides service to the Coconut Point Mall.
- Route 140 operates at the LeeTran's on-time performance system average.
- Route 140 has some of the highest frequencies in the LeeTran service.
- Impacts to on-time performance likely due to peak congestion on US 41.
- Opportunity for improving route alignment to allocate resources to other parts of the service.

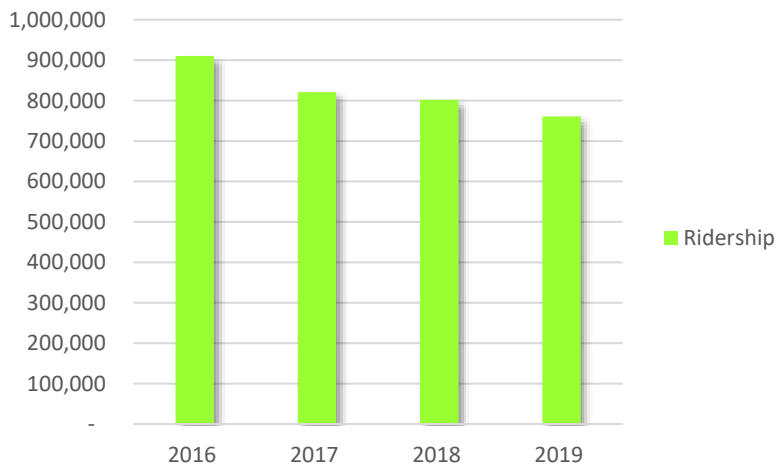
Activity Centers/Uses

- Merchants Crossing, downtown Fort Myers, Bell Tower Shops, Coconut Point Mall, Edison Mall, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	760,830	6	394,389	$3,953,444

Ridership Trend

The following figure shows Route 140 ridership by year from 2016 to 2019.



Route 150 – Bonita Grande / Lovers Key

Route 150 is an east-west route providing transit service between Bonita Springs and Lovers Key State Park. In addition, Route 150 also provides connections to the current Route 400 and Route 600.

Segment Time Points

1	2	3	4	5
Publix at Bonita Grande	Old 41 & Reynolds	Center of Bonita Springs	Bonita Beach & Hickory	Lovers Key State Park

Route 150 – Bonita Grande / Lovers Key

	Weekday	Saturday	Sunday
Span	6:52 AM – 5:58 PM	6:52 AM – 5:58 PM	7:36 AM – 5:58 PM
Headway	95 Minutes	95 Minutes	95 Minutes

Pros/Cons

- Route 150 is an east-west route providing local beach service from Bonita Springs to Lovers Key State Park.
- Route 150 operates above the LeeTran on-time performance system average likely due to low levels of congestion.
- Route has zero average daily boardings on the beach south of Lovers Key State Park.

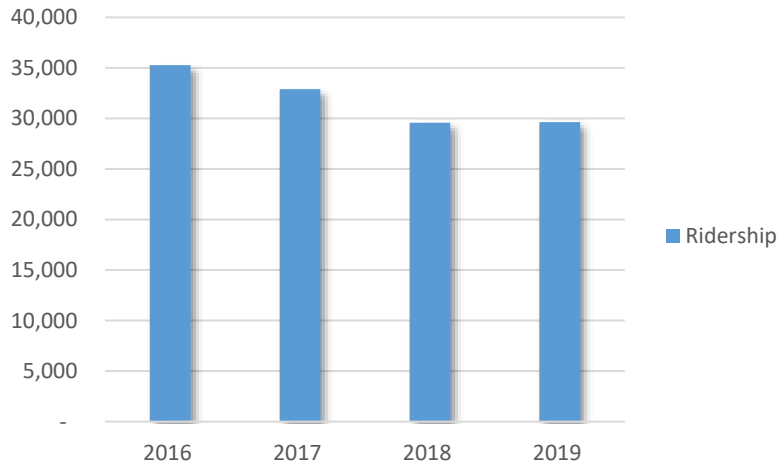
Activity Centers/Uses

- Lovers Key State Park, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	29,638	1	68,519	$473,919

Ridership Trend

The following figure shows Route 150 ridership by year from 2016 to 2019.



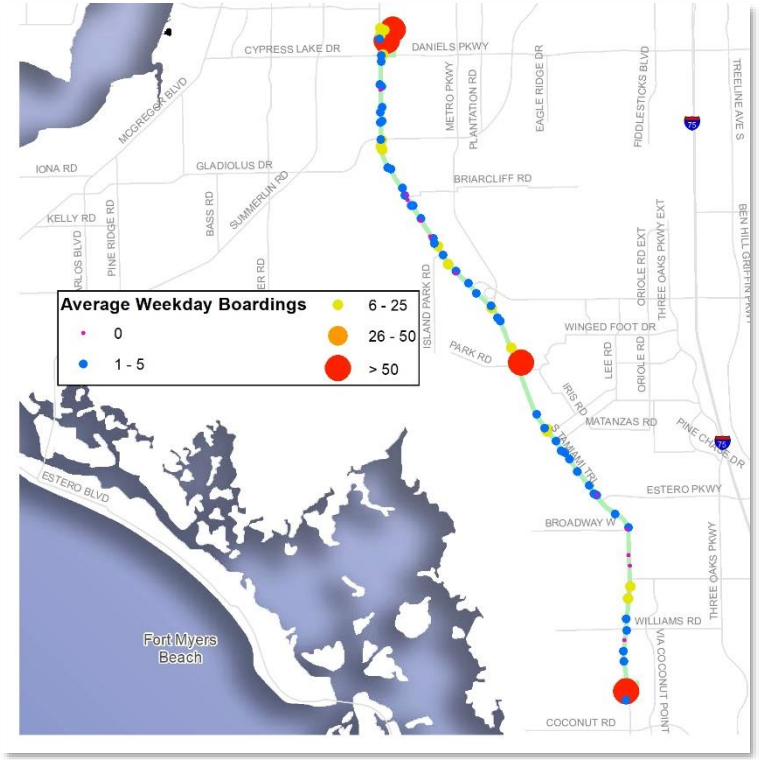
Route 240 – Coconut Point Mall / Bell Tower Shops

Route 240 is a major north-south route connecting riders from Route 600 to LeeTran's Route 140, the major route in LeeTran's service. Route 240 also connects riders to Route 60, which provides service to Florida Gulf Coast University.

Segment Time Points

1	2	3
Bell Tower Shops	US-41 & Constitution	Coconut Point Mall

Route 240 – Coconut Point Mall / Bell Tower Shops



	Weekday	Saturday	Sunday
Span	6:00 AM – 10:12 PM	6:00 AM – 10:12 PM	
Headway	45 Minutes	45 Minutes	

Pros/Cons

- Major north-south route providing connections between Route 140 and Route 600.
- Route 240 operates at the LeeTran on-time performance system average. However, on Saturday, Route 240 operates slightly above the LeeTran on-time performance system average.
- On-time performance is likely impacted by the length of the route.
- Opportunity for improving route alignment by combining with Route 140.

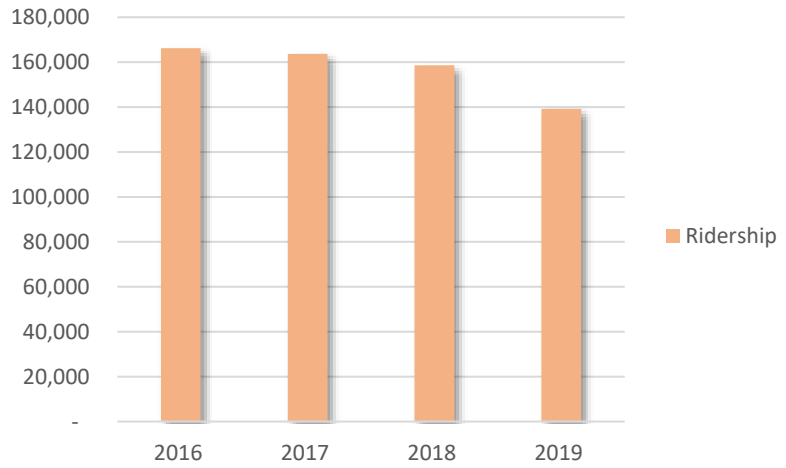
Activity Centers/Uses

- Bell Tower Shops, Coconut Point Mall, Edison Mall, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	139,263	2	162,520	$1,223,102

Ridership Trend

The following figure shows Route 240 ridership by year from 2016 to 2019.



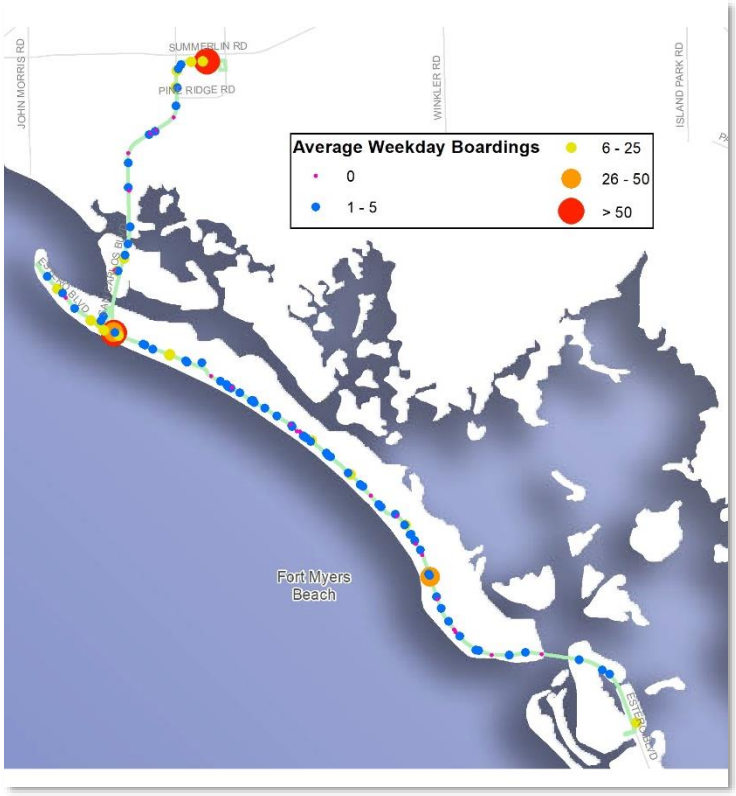
Route 400 – Beach Park-and-Ride / Lovers Key

Route 400 is LeeTran's beach route providing service from the Beach Park-and-Ride to Lovers Key State Park weekdays, Saturday, and Sunday.

Segment Time Points

1	2	3	4	5	6
Beach Park-and-Ride	Bowditch Park	Times Square	Beach Library	Publix	Santini Plaza
7	**8**				
Lovers Key State Park	Estero at Crescent				

Route 400 – Beach Park-and-Ride / Lovers Key



	Weekday	Saturday	Sunday
Span	5:00 AM – 10:36 PM	5:00 AM – 10:36 PM	5:00 AM – 10:36 PM
Headway	20-45 Minutes	20-45 Minutes	20-45 Minutes

Pros/Cons

- Route 400 is LeeTran's only off-season fixed-route beach service
- Due to congestion and limited right-of-way (ROW), Route 400 has some of the poorest on-time performance
- Impacts on on-time performance is likely due to congestion, limited ROW, and number of stops.

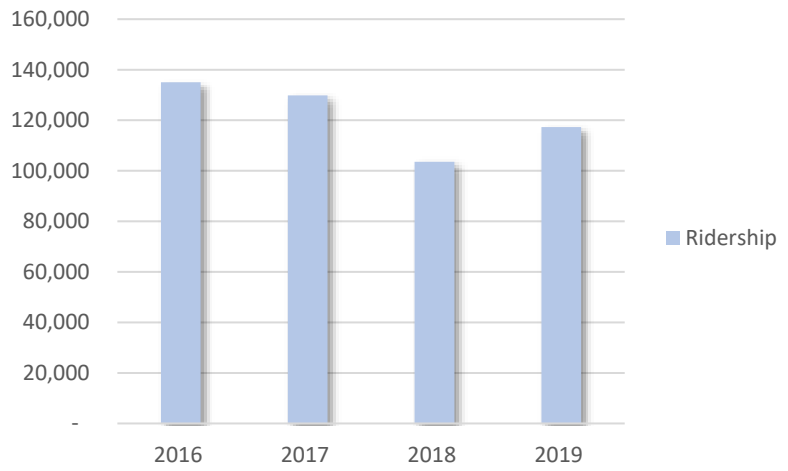
Activity Centers/Uses

- Lovers Key State Park, Santini Plaza, Times Square, Beach Park-and-Ride, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	117,269	2	121,982	$881,076

Ridership Trend

The following figure shows Route 400 ridership by year from 2016 to 2019.



Route 515 – Lehigh Acres Circulator

Route 515 is one of two routes that provide transit service to Lehigh Acres. Route 515 is a circulator route that provides service to Homestead Plaza, as well as connections to Route 110.

Segment Time Points

1	2	3	4
Homestead Plaza	Palm & Andros	Leeland Heights & Richmond	East 12th & Joel

Route 515 – Lehigh Acres Circulator

	Weekday	Saturday	Sunday
Span	5:15 AM – 9:04 PM	5:10 AM – 9:04 PM	
Headway	60 Minutes	60 Minutes	

Pros/Cons

- Main fixed route in Lehigh Acres providing direct service to Route 110 or to other areas in Lehigh Acres.
- Route 515 operates above the system on-time performance average on weekdays and Saturday.
- On-time performance and ridership would likely improve once construction is complete in the area.
- Opportunity for improving transit service in Lehigh Acres with an alternative transit option.
- Ridership is increasing, showing a demand for transit, unlike other routes in the LeeTran system.

Additional Considerations for Alternatives Development

- Potential implementation of Mobility on Demand area
- Potential opportunity for a future park-and-ride location

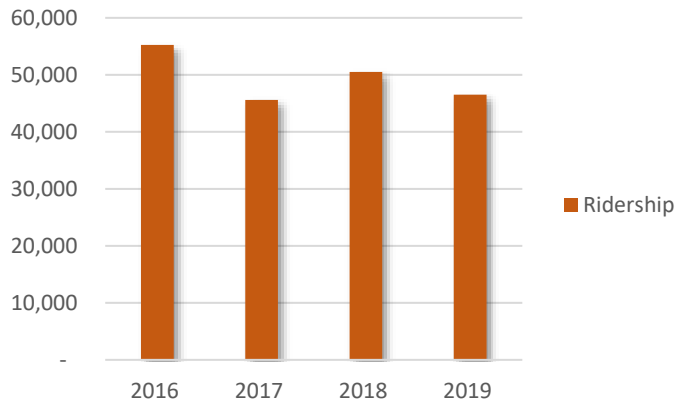
Activity Centers/Uses

- Homestead Plaza, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	46,524	1	87,701	$624,242

Ridership Trend

The following figure shows Route 515 ridership by year from 2016 to 2019.



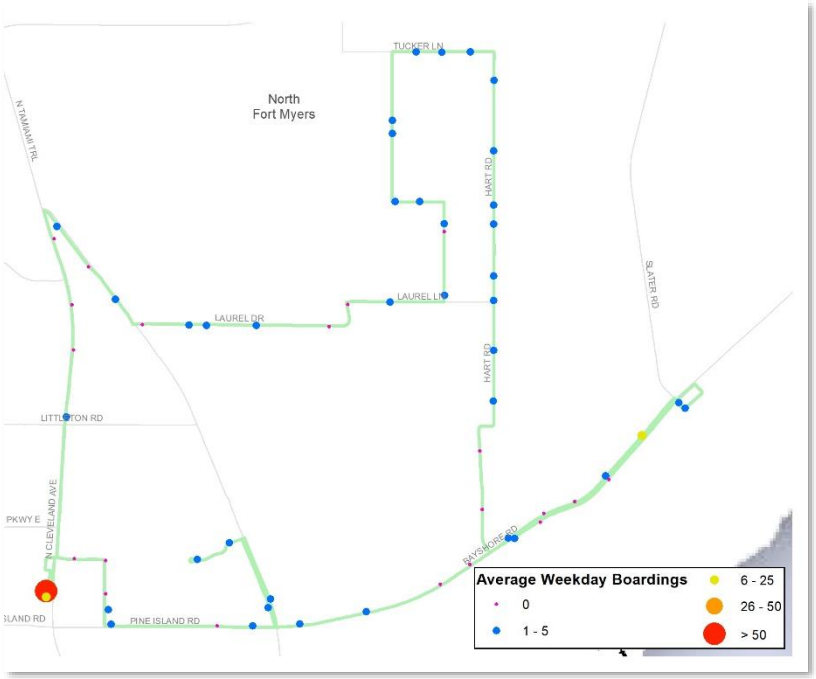
Route 590 – Merchants Crossing / Suncoast

Route 590 operates as a circulator route in North Fort Myers connecting riders to Route 595 and Route 140.

Segment Time Points

1	2	3	4	5	6
Merchants Crossing	Laurel & Garden	Tucker & Ebson	Bayshore & Hart	Bayshore & Coon	Pine Island & Business 41
7					
North Fort Myers Library					

Route 590 – Merchant Crossing / Suncoast



	Weekday	Saturday	Sunday
Span	5:15 AM – 9:05 PM	5:15 AM – 9:05 PM	8:50 AM – 5:50 PM
Headway	60 Minutes	60 Minutes	120 Minutes

Pros/Cons

- Route 590 is the only fixed route that serves North Fort Myers.
- Route 590 operates below the LeeTran on-time performance system average.
- On-time performance is likely impacted by the meandering route alignments on Ebson Drive and Tucker Lane, as well as to east Bayshore Road and north Tamiami Trail.

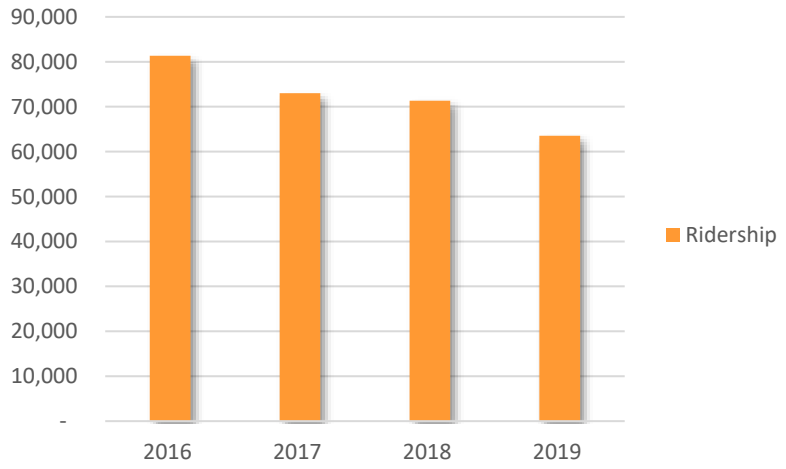
Activity Centers/Uses

- Merchants Crossing, North Fort Myers Library, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	63,547	1	88,159	$646,826

Ridership Trend

The following figure shows Route 590 ridership by year from 2016 to 2019.



Route 595 – Merchants Crossing / Pondella Road

Route 595 is LeeTran's western loop route that provides service to North Fort Myers along with Route 590. Specifically, this route provides transit to the gap on Pine Island Road and Pondella Road between US-41 and Del Prado Boulevard.

Segment Time Points

1	2	3	4	5
Merchants Crossing	VA Clinic	Del Prado & NE 6th Street	Pondella & Orange Grove	Pondella & Business 41

Route 595 – Merchants Crossing / Pondella Road

	Weekday	Saturday	Sunday
Span	5:05 AM – 8:45 PM	5:05 AM – 8:45 PM	10:00 AM – 6:45 PM
Headway	60 Minutes	60 Minutes	120 Minutes

Pros/Cons

- Route 595 is LeeTran's northwest loop service providing transit to the VA Clinic.
- Route 595 operates well above the LeeTran on-time performance system average. However, on Saturday and Sunday, Route 595 operates at LeeTran's on-time performance system average.
- Many segments of Route 595 do not include stops, which is likely why on-time performance is better than other routes in the system.

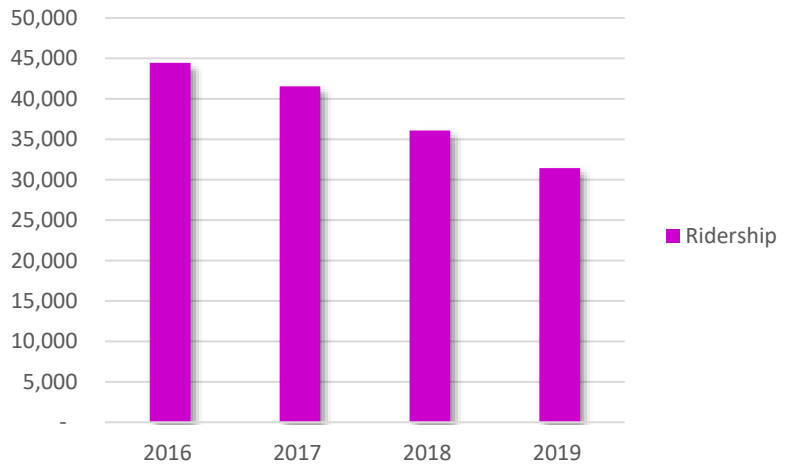
Activity Centers/Uses

- Merchants Crossing, VA Clinic, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	31,437	1	79,065	$647,662

Ridership Trend

The following figure shows Route 595 ridership by year from 2016 to 2019.



Route 600 – Coconut Point / Immokalee Road

Route 600 is LeeTran's regional connection to Collier County. This route operates on weekdays, Saturday, and Sunday from the Creekside Transfer Center to Coconut Point Mall.

Segment Time Points

1	2	3	4	5	6
Coconut Point Mall	US-41 & Bernwood	Old 41 & Reynolds	US-41 & Bonita Beach	US-41 & Wiggins Pass	Creekside Transfer Center

Route 600 – Coconut Point / Immokalee Road

	Weekday	Saturday	Sunday
Span	6:00 AM – 7:19 PM	6:00 AM – 7:19 PM	7:35 AM – 4:25 PM
Headway	90 Minutes	90 Minutes	120 Minutes

Pros/Cons

- Route 600 is the only fixed route that provides service to Collier County, as well as the Creekside Transfer Center.
- Route 600 operates slightly below the LeeTran on-time performance system average on weekdays, Saturday, and Sunday.
- On-time performance is likely impacted by the length of the route and congestion near the Creekside Transfer Center.

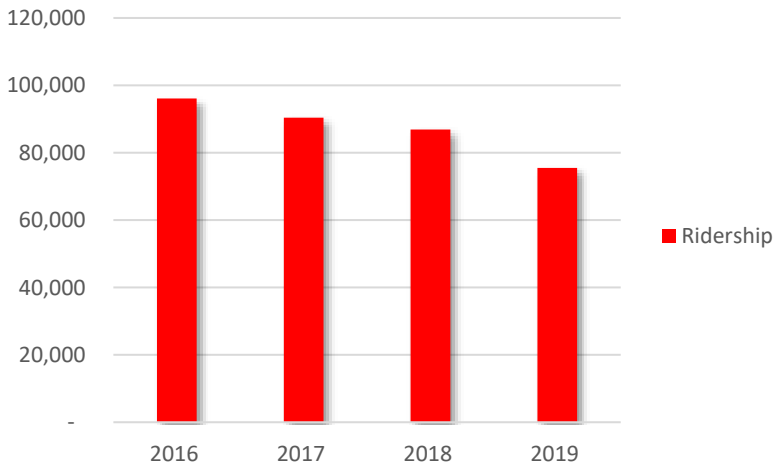
Activity Centers/Uses

- Coconut Point Mall, Creekside Transfer Center, Bonita Springs City Hall, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	75,473	1	79,065	$567,510

Ridership Trend

The following figure shows Route 600 ridership by year from 2016 to 2019.



Blue Trolley (500) - Downtown Fort Myers Trolley

The Blue Trolley is LeeTran's downtown Fort Myers trolley, which operates weekdays, Saturday, and Sunday. The Blue Trolley travels east-west along First Street/Palm Beach Boulevard, as well as on McGregor Boulevard, Second Street, and Seaboard Street.

Segment Time Points

1	2	3	4	5	6
Oasis & Palm Beach	Palm Beach & Fowler St	W First & Clifford St	W First & McGregor	Rosa Parks	Second St & Cranford

Blue Trolley – Downtown Fort Myers Trolley

	Weekday	Saturday	Sunday
Sunday - Wednesday	11:00 AM – 7:52 PM		11:00 AM – 7:52 PM
Thursday - Saturday	11:00 AM – 10:55 PM	11:00 AM – 10:55 PM	
Headway	30 Minutes	30 Minutes	30 Minutes

Pros/Cons

- The Blue Trolley is LeeTran's downtown circulator service providing transit to all major destinations in the city core.
- Compared to other routes in LeeTran's system, the Blue Trolley is the worst performing route based on on-time performance.
- Impacts to on-time performance are likely due to congestion in downtown Fort Myers along First Street.

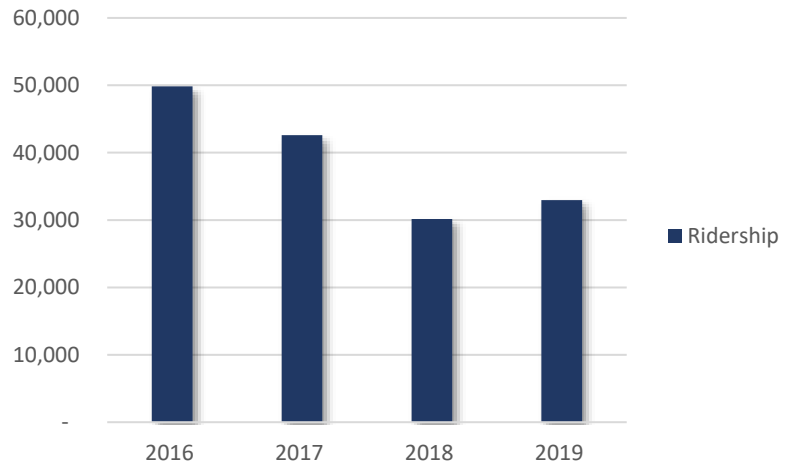
Activity Centers/Uses

- Downtown Fort Myers, Fort Myers Regional Library, Rosa Parks, Publix

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	32,963	2	20,359	$360,537

Ridership Trend

The following figure shows Blue Trolley ridership by year from 2016 to 2019.



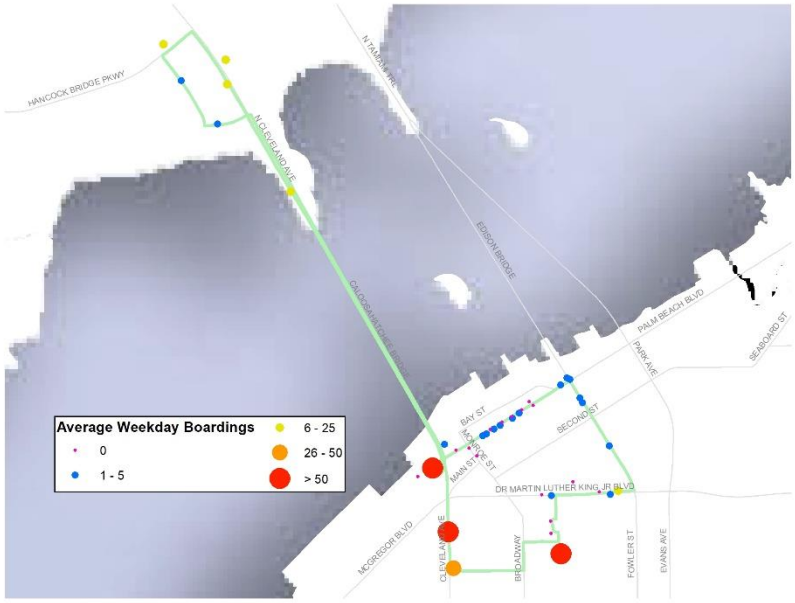
Gold Trolley (505) - North Fort Myers Trolley

Gold Trolley is LeeTran's northern trolley service, which provides service to North Fort Myers via the Caloosahatchee Bridge. The Gold Trolley also serves portions of downtown Fort Myers and Rosa Parks.

Segment Time Points

1	2	3	4	5
Rosa Parks	Us 41 & Hancock	Moody Rd & Moody River Blvd	Us 41 & N Key	Downtown Library

Gold Trolley – North Fort Myers Trolley



	Weekday	Saturday	Sunday
Span	11:00 AM – 10:50 PM	11:00 AM – 10:50 PM	11:00 AM – 10:50 PM
Headway	30 Minutes	30 Minutes	30 Minutes

Pros/Cons

- The Gold Trolley is LeeTran's northwest trolley loop service between the hotels near Hancock Bridge Parkway to destinations in downtown Fort Myers.
- The Gold Trolley is the best performing route in LeeTran's system based on on-time performance.
- Gold Trolley has maintained ridership over the last three years, while other routes in the LeeTran system have gradually declined.

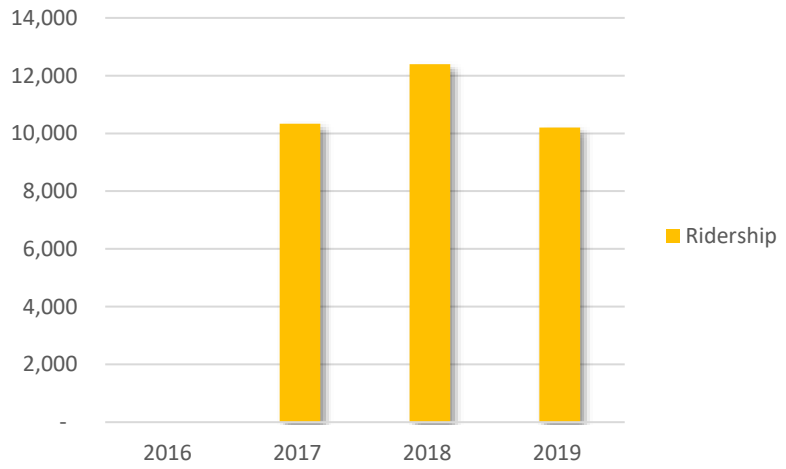
Activity Centers/Uses

- Downtown Fort Myers, Rosa Parks, Fort Myers Regional Library, North Fort Myers hotels

FY 2019	Ridership	VOMS	Revenue Miles	Operating Expense
	10,205	1	17,603	$186,655

Ridership Trend

The following figure shows Gold Trolley ridership by year from 2017 to 2019. No ridership was recorded in 2016.



Section 8 GAP ANALYSIS

This section presents the gap analysis completed as part of the COA, which is an evaluation process that compares existing service coverage to potential needs using the TOI analysis results for the LeeTran service area. This is an approach that is becoming increasingly common as a component of assessing the performance of public transit in meeting the needs of the transit dependent populations within a service area.

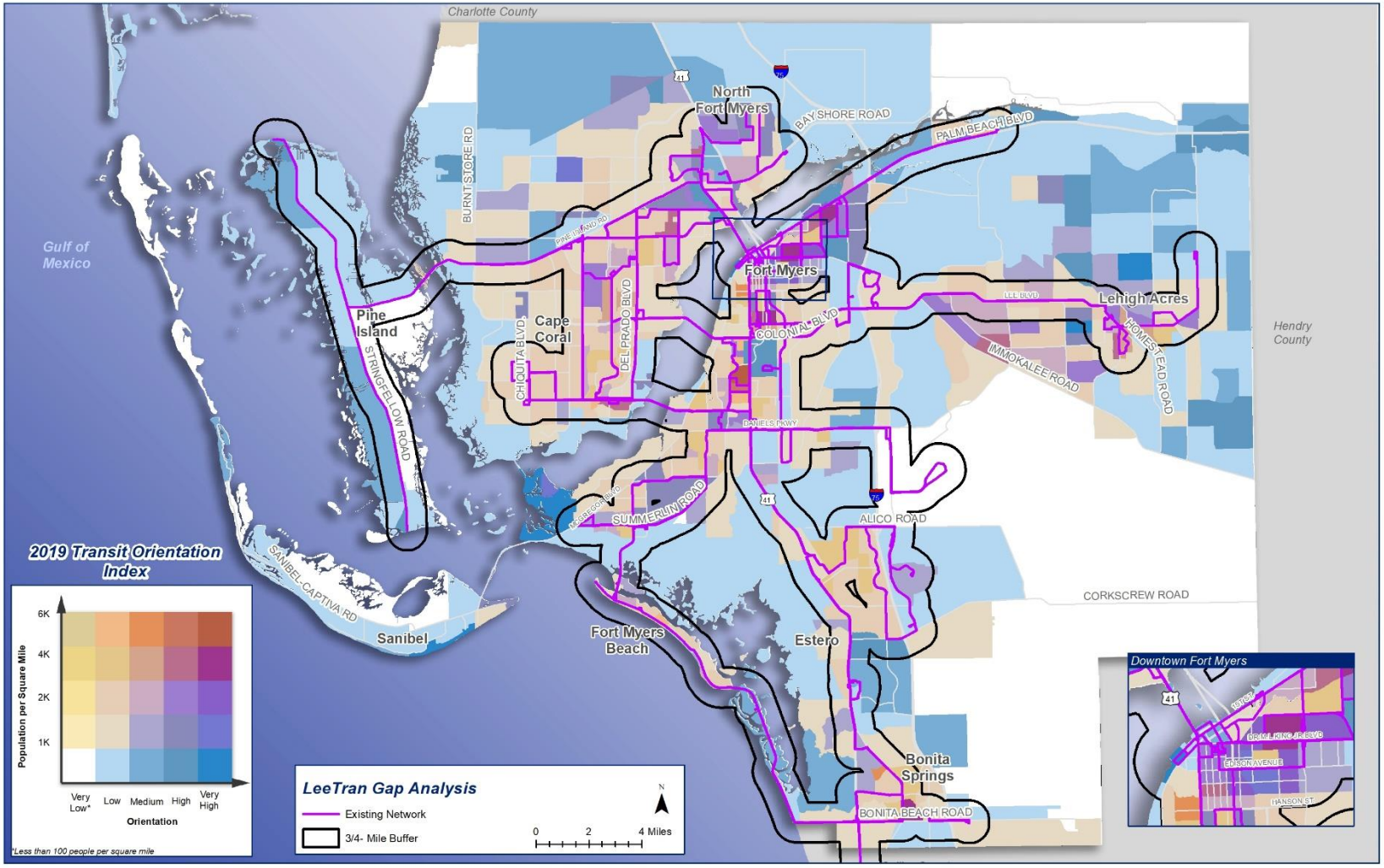
Gap Analysis Overview

The gap analysis aims to identify geographical gaps in public transit where travel needs are high, but services are non-existent (unserved) or insufficient (underserved). This is a twofold process that uses socioeconomic data and ArcGIS. The first step involves determining transit service subareas with high transit TOI scores, using factors such as youth and younger adult populations, older adult populations, households in poverty, and zero-vehicle households. The TOI score is then mapped to the LeeTran service area. The second step uses geographic analyses to determine the extent of each route's service reach by using ArcGIS buffer and erase tools. Ultimately, the two outputs are overlaid with one another to identify general gaps in the LeeTran transit service, and more specifically, high priority TOI areas that are served, unserved, or underserved. Note that areas beyond the route catchment area (the buffered area along the route) are considered to be unserved.

LeeTran does a decent job providing coverage to areas within ¾-miles of areas with "high" and "very high" TOI. However, areas that noticeably may have the potential for being underserved are located north of Pine Island Road in North Fort Myers, north and south of Lee Boulevard in Lehigh Acres, and around Shell Point, as shown in Map 8-1.

Once the gap analysis is prepared, service planning is applied to develop strategies to mitigate the gaps in service, especially in areas that resonate "high" in terms of TOI score. LeeTran has several options for serving targeted services gaps including modifications to existing routes – adjusting route alignments, service spans, and/or service frequencies; using flex-routes; and/or applying Mobility on Demand (MoD) strategies.

Map 8-1: LeeTran Gap Analysis



Section 9 SYSTEM LEVEL FINANCIAL INFORMATION

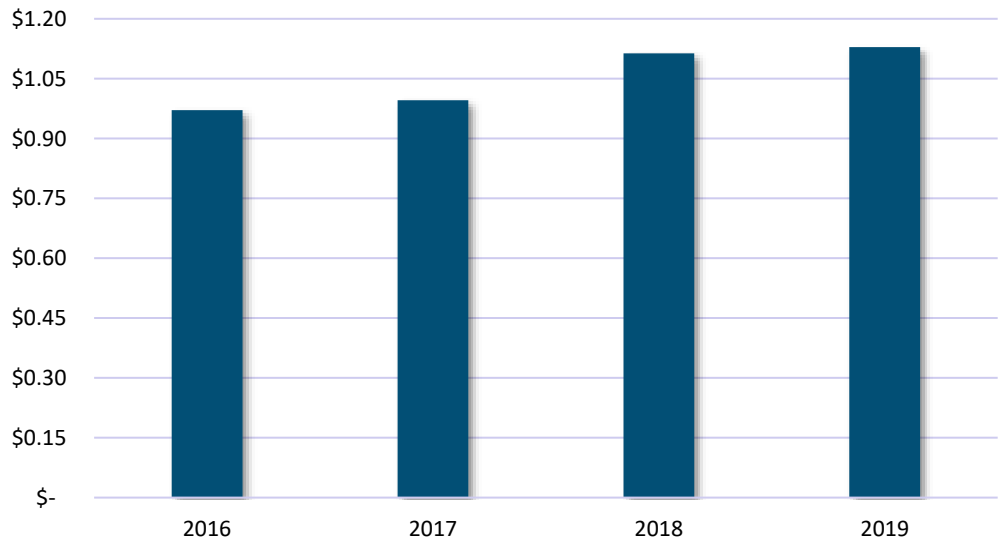
In order to examine LeeTran's recent performance in terms of cost efficiency, financial data were compiled from NTD for the last six years from 2016 to 2019. This section summarizes the trends that were identified for the following financial characteristics.

- Operating Expense per Passenger Mile
- Operating Expense per Passenger Trip
- Operating Expense per Revenue Hour
- Operating Expense per Revenue Mile
- Operating Expense per Service Area Capita
- Total Maintenance Expense
- Total Operating Expense

Operating Expense per Passenger Mile

Reported as operating expense per passenger mile, this cost measure reflects the efficiency of the agency's fixed-route services in terms of its operating outlay for each passenger mile of service consumed by its patrons. This measure considers the impact that trip length has on performance since, based on the nature and layout of any given transit agency, it is the case that some riders will make long trips while others will make shorter ones. Overall, the cost per passenger mile metric has increased over the past four years reflecting some combination of increasing system operating costs with riders making shorter trips on LeeTran routes, as shown in Figure 9-1.

Figure 9-1: Operating Expense per Passenger Mile

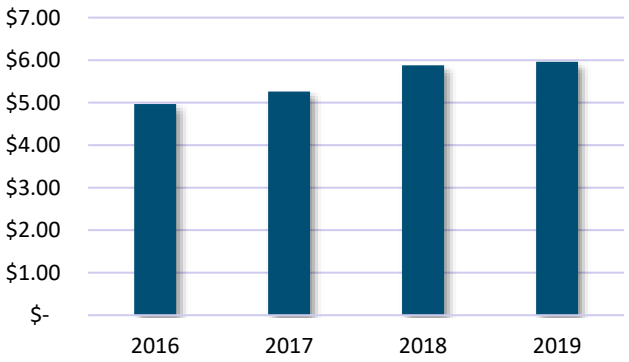


Source: NTD

Operating Expense per Passenger Trip

Operating expense per passenger trip is similar to the prior cost measure involving passenger miles in that it measures the general cost efficiency of transporting riders, but this trip-based metric does not account for the variability in trip length to help explain cost performance. This measure is often considered a key indicator of comparative performance since it reflects both the efficiency with which service is delivered and the market demands for the service. For LeeTran, operating expense per passenger trip has been steadily increasing since 2016, as shown in Figure 9-2.

Figure 9-2: Operating Expense per Passenger Trip

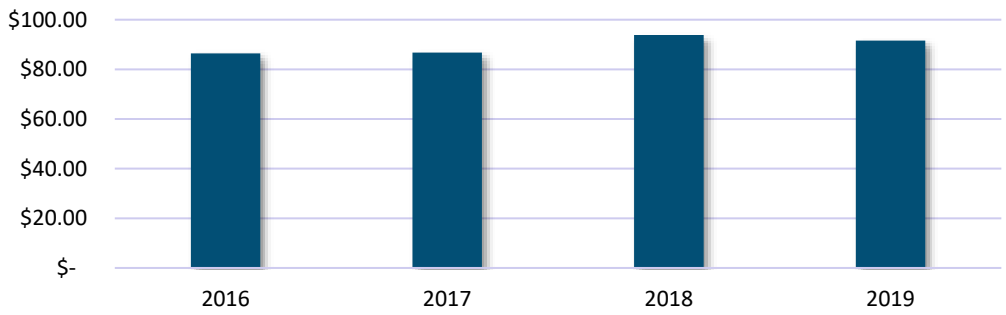


Source: NTD

Operating Expense per Revenue Hour

Operating expense per revenue hour is one of two key cost measures that examines the efficiency with which service delivery is occurring for an agency. A stable or decreasing trend in this measure ensures that transit service is being delivered efficiently on a per-revenue hour basis while controlling the costs associated with its provision. The revenue hour component of the measure is determined by the total number of hours that an agency's fixed-route vehicles are available to pick up, transport, and drop off passengers for a fare (i.e., in revenue service), including any scheduled layovers between trips. Over the last four years, LeeTran's cost per revenue hour metric increased through 2018, but decreased in 2019, as shown in Figure 9-3, suggesting more recent stabilization in the measure.

Figure 9-3: Operating Expense per Revenue Hour

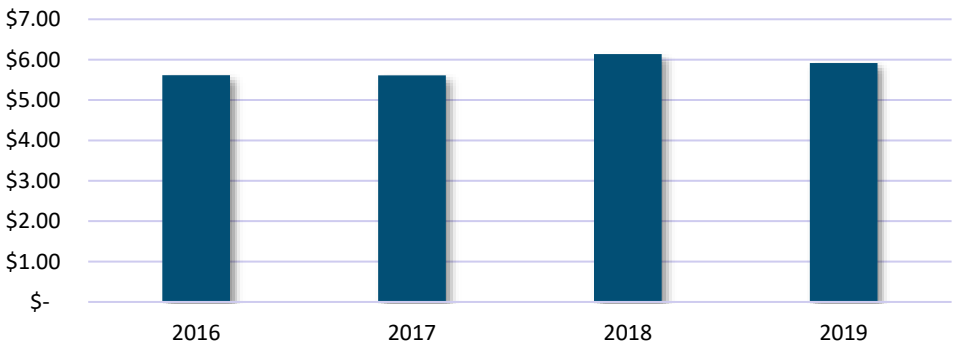


Source: NTD

Operating Expense per Revenue Mile

The other key cost measure that can highlight the efficiency with which service delivery is occurring for an agency is operating expense per revenue mile. This measure is similar to the revenue hour measure except that the amount of revenue service provided over the course of a year is measured in terms of distance rather than time. In fact, the LeeTran goal for efficiency is measured by the operating expense per revenue mile metric. The operating expense per revenue mile for LeeTran increased 9% from 2016 to 2018, but also has slightly deceased in 2019, as shown in Figure 9-4.

Figure 9-4: Operating Expense per Revenue Mile

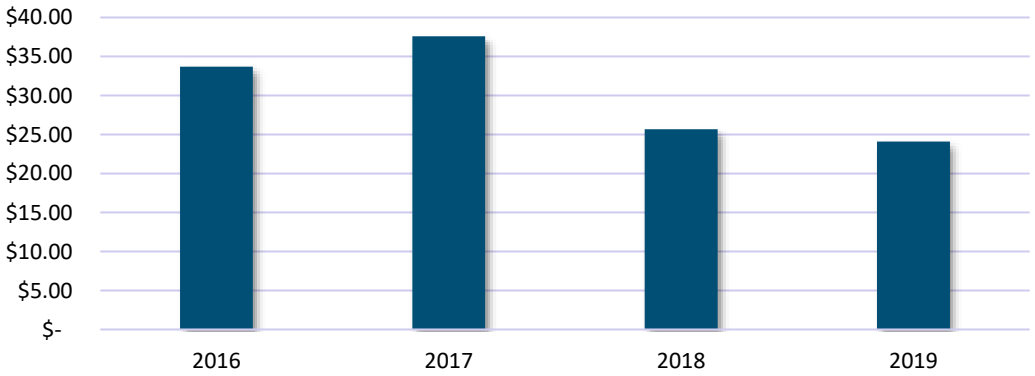


Source: NTD

Operating Expense per Service Area Capita

This measure divides an agency's total operating expense by the number of persons within its service area. Regardless of whether everyone in a community uses transit, the metric is used as a proxy indicator for the total resource commitment made to transit within the community measured on a per-person basis. Over the past four years, the operating cost per capita for LeeTran peaked in 2017 and has decreased since then, which is likely due to a service area change in 2018 to include the whole county. Figure 9-5 shows the trend in this cost measure for LeeTran from 2016 to 2019.

Figure 9-5: Operating Expense per Service Area Capita

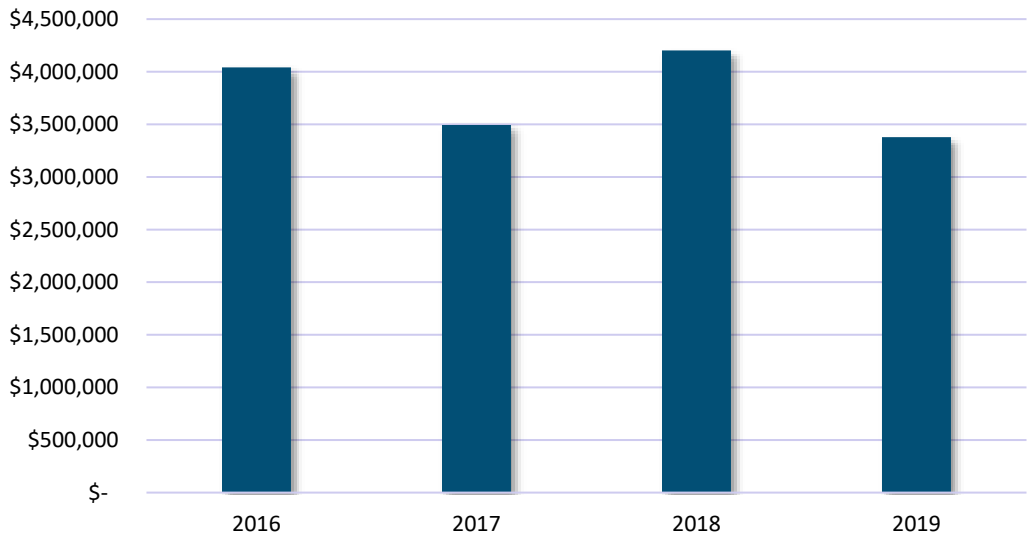


Source: NTD

Total Maintenance Expense

An important factor in both the provision and utilization of transit service is its reliability. If vehicles constantly break down or are in a state of disrepair, patrons will look for other mobility options. While there are several indicators available within the NTD to ascertain the condition of an agency's vehicle fleet and how they are performing in terms of reliability, a basic yet key indicator to consider is total maintenance expense. This measure includes all expenses involved in the maintenance of an agency's vehicle fleet and is a subset of total operating expense. Sudden increases without a corresponding logical cause (i.e., increase in fleet size) in this expense indicator can highlight an issue with the fleet that may be having an impact on performance. As shown in Figure 9-6, maintenance costs grew more significantly in 2018, resulting in an overall increase of 4 percent over the 3-year trend, but decrease drastically since then. Without an otherwise apparent cause, this increase in cost is assumed to be equated with an aging fleet with decreasing warranty protections and increasing maintenance issues.

Figure 9-6: Total Maintenance Expense

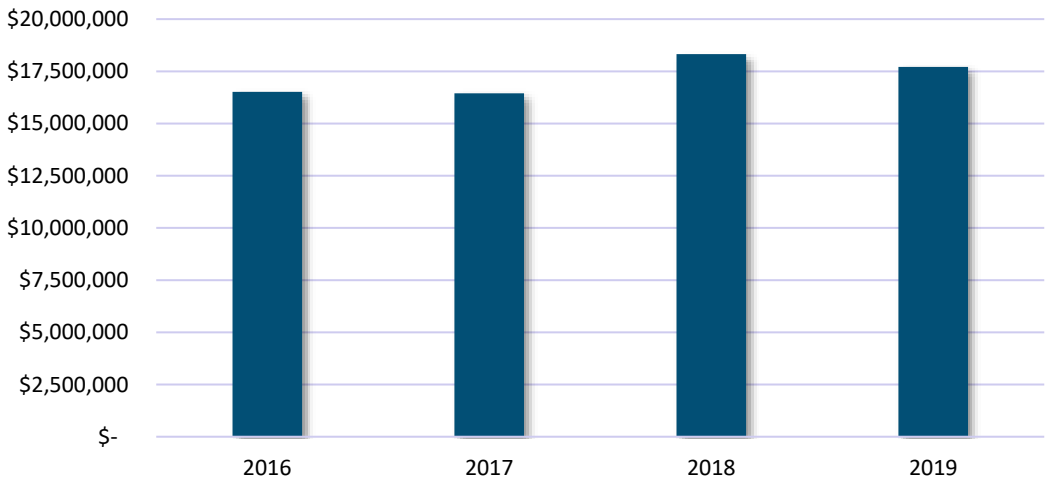


Source: NTD

Total Operating Expense

Total operating expense is a measure of the total spending of a transit agency on its operations, including administration, maintenance, and operation of its service vehicles. While this indicator typically is examined in conjunction with other service characteristics to ascertain various aspects of system performance from the cost efficiency perspective, it also can be beneficial to consider its trend and ensure that it does not reflect wild fluctuations and/or precipitous increases. To this end, Figure 9-7 shows the total operating expense trend for LeeTran, which has increased from $16,515,537 in 2016 to $17,713,698 in 2019, an increase of seven percent over the four-year period. The steady increase over time is typical of total transit cost trends as external factors are always going to have inflationary impacts on costs in the absence of any changes to system service levels. However, only a small percent can be explained away by inflation, so, during the COA process, the project team examined new ways LeeTran may be able to moderate its total operating expenses going forward.

Figure 9-7: Total Operating Expense



Source: NTD

Section 10 FARE STRUCTURE AND FAREBOX DATA

The fares that LeeTran charges its customers are included in Table 10-1, below. As shown, a local fixed-route service ride costs $1.50 for the base cash fare. LeeTran also offers passes that range from $2.00 to $40.00. In addition, discounted fares are available to older adults (65 and over), those with disabilities, and full-time students. Passes can be purchased at all Lee County Publix stores, as well as the following locations listed in Table 10-2.

Table 10-1: LeeTran Fare Structure

Fares	
Tolley Fare	$0.75
Discounted Trolley Fare	$0.35
Cash Fare	$1.50
Discounted Cash Fare	$0.75
One-Day Trolley Pass	$2.00
Three-Day Trolley Pass	$4.00
All-Day Pass	$4.00
7-Day Pass	$15.00
Senior/Disabled 7-Day Discounted Pass	$11.00
Student 7-Day Discounted Pass	$12.00
12-Trip Pass	$13.50
Senior/Disabled 12-Trip Discounted Pass	$6.50
Student 12-Trip Discounted Pass	$6.75
31-Day Pass	$40.00
Senior/Disabled 31-Day Discounted Pass	$23.00
Student 31-Day Discounted Pass	$25.00

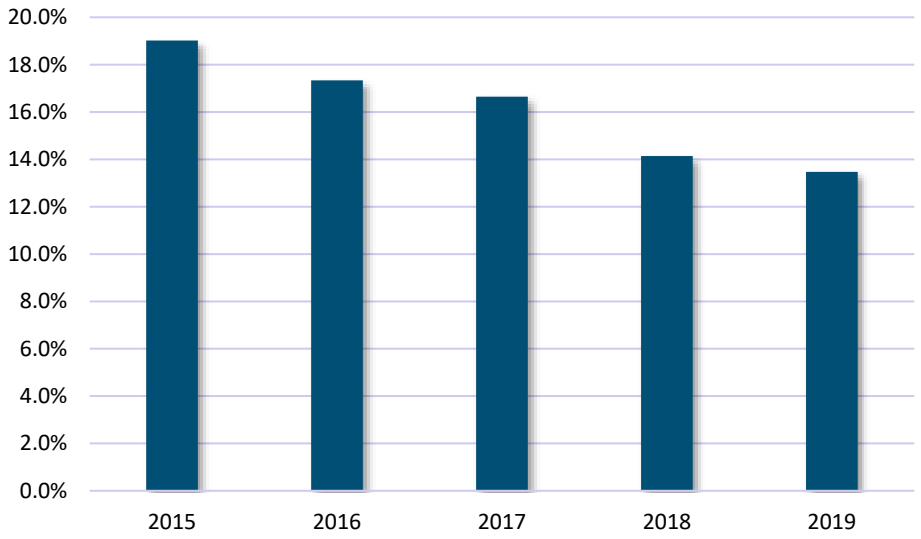
Table 10-2: LeeTran Pass Outlets

Fort Myers	
Rosa Parks Transportation Center	2250 Widman Way
LeeTran Headquarters	3401 Metro Parkway
Florida SouthWestern State College Bookstore	8099 College Parkway
Lakes Regional Library	15290 Bass Road
Riverdale Branch Library	2421 Buckingham Road
Edison Mall Transfer Station	4125 Cleveland Avenue
Beach Park and Ride	11101 Summerlin Square Drive
Cape Coral	
Cape Coral City Hall	1012 Cultural Park Boulevard
Cape Coral Lee County Public Library	921 SW 39th Terrace
North Fort Myers	
North Fort Myers Public Library	2001 North Tamiami Trail
Lehigh Acres	
East County Regional Library	881 Gunnery Road

Farebox Recovery Ratio

The farebox recovery ratio is the percentage of transit operating expense that is covered by revenues from transit fares. Since 2015, the farebox recovery ratio has been in decline, which is a direct result of LeeTran's decreasing ridership and increasing operating expense during this time, coupled with a fare structure that has not changed in several years. Figure 10-1 shows the farebox recovery ratio for the LeeTran fixed-route service for the five-year trend from 2015 to 2019.

Figure 10-1: Farebox Recovery Ratio



Section 11 PRIOR STUDY SURVEY RESULTS, PRIOR RECOMMENDATIONS, AND INPUT FINDINGS

It often can be instructive to examine prior transit study results before embarking on present day changes to a transit system's network and/or services. The study results may offer additional context with which to understand existing service needs and issues, provide more community input to consider before addressing those needs and issues, and even offer logical recommendations that still may have applicability today. To take advantage of such potential insights, prior LeeTran study results and recommendations are examined in this section. Additionally, summary findings from the recent informal meetings that were held with LeeTran operators also are included herein to further help flesh out the scope of the various needs and issues that may be important to consider for improvement during the COA process.

Review Committee Suggestions

The previous TDP developed for LeeTran included a review committee that helped guide the overall TDP update effort. The representatives included Lee MPO, FDOT District 1, the local Workforce Development Board, and various departments of Lee County. Throughout this effort, the committee members provided suggestions that are being considered during the COA process. Suggestions are listed below:

- LeeTran does not want the TDP to include blanket 15-minute service, but rather should include a vision with enhanced frequencies along trunk lines with a hierarchy of service.
- Provide better frequency to Lehigh Acres and downtown Fort Myers connecting with Coconut Point Mall.
- Express Route service from Lehigh Acres (Homestead Plaza) to downtown Fort Myers along SR 82.
- Additional service within the City of Cape Coral.
- Potential park-and-ride lots in the vicinity of Bell Tower Shops and Tamiami Trail/South Fort Myers, as well as in Lehigh Acres near Homestead Plaza.

Online Public Participation Poll

LeeTran developed a question of the week contest on their website during the development of the last TDP effort. Below are a few results gathered during that process.

- Majority of respondents, from the previous TDP, believed that both transit service to new areas and increased frequencies on existing services were needed.
- Majority of respondents selected better frequency defined as 20-minutes or better.

Stakeholder Suggestions

Stakeholders were interviewed to gather input concerning the vision for public transportation in their community. Some of the input received during these interviews is summarized below for consideration during the COA effort.

- Concentrate on the core routes of the county.
- Place bus stops strategically to improve efficiency.

- Additional transit service is warranted in Alva, Lehigh Acres, north Cape Coral, Sanibel and Fort Myers Beach, Florida Gulf Coast University (student housing), and any major destination that is not currently served by transit.

Public Workshops/Discussion Groups

Multiple public workshops and discussion groups were held to gather information from both riders and non-riders. At each location, attendees were asked to complete a brief survey relating their preferences for the future of transit in Lee County.

- A third of respondents (34%) said there was a need for additional transit.
    - Overall, 12 respondents said Lehigh Acres and the beaches need new service opportunities.
- Other locations included North Fort Myers and hubs, such as recreation centers, libraries, and medical facilities.

Bus Operator Interviews

LeeTran's bus operators were interviewed to obtain perspective on the transit needs and frequent challenges based on the operator's experience in the field. The following summarizes key findings that were considered in the COA analysis.

- Add a 5:15 a.m. trip to Route 590 and take that route farther north on US 41.
- The Route 140 to 590 connection at Merchant Crossings is an unreliable connection in the morning rush hour because of traffic.
- Have every other trip on the Route 140 serve Bell Tower Shops.
- On Route 140, reduce time point at Hanson and US-41 to 12:12 p.m. (currently on paddle as 12:15 p.m. timepoint); reallocate those minutes to increase travel time between Edison Mall and Rosa Parks (requested 8 minutes).
- The Route 30 to 140 connection is unreliable.
- The last run of the Route 50 from the airport does not arrive at the transfer center in time to catch any other bus.
- Add buses to the Route 110 and extend service in Lehigh Acres.
- Extend service in Cape Coral and Pine Island.
- Modify Route 70 by eliminating Birkdale Avenue and SE 24th Avenue, extending service on Del Prado over the river and return on Coronado.
- Create a route from Lehigh Acres more directly to the airport.
- Route 100 should stay straight on Palm Beach Parkway because of duplicated service with Routes 10, 20, and 15.
- Create a direct route from Bell Tower Shops to Lehigh Acres (*came up multiple times*).
- On Route 600, add more stops on US-41 between Bonita Beach Road and Immokalee Road.
- Improve scheduling to better connect the LinC (Route 600) with CAT service in Collier County.
- Increase frequency of connections between Routes 150 and 600 (LinC).
- Add service to more of McGregor Boulevard.
- Create a new, direct route that connects Joel Boulevard / Lehigh Acres to North Fort Myers area (i.e., Route 515 or Route 100).

On-board Survey

An on-board survey was conducted during the previous TDP to gather customer service and satisfaction questions relating to improvements to enhance service. Survey respondents wanted to see more frequent service on existing routes, as well as later service and more weekend service. Overall, the majority of respondents were satisfied with LeeTran service, but were open to seeing some additional improvements to streamline the service.

Transfer Analysis

As a part of the on-board survey, passengers were asked to list routes they were going to use to complete their one-way trip. Of the passengers who responded to the question, 388 passengers used more than one bus to complete their one-way trip. Additionally, of these 388 passengers, 89 transferred three times to complete their one-way trip. Table 11-1 shows the top single transfers in the LeeTran system during the on-board survey. The greatest number of transfers occurred between Routes 20 and 140. Table 11-2 shows top two-transfer combinations between routes.

Table 11-1: Single Transfers

One-Transfer Combinations by Route Number			Total Count
30	→	70	3
50	→	30	3
110	→	130	3
130	→	140	3
140	→	10	3
140	→	15	3
140	→	100	3
150	→	400	3
240	→	60	3
240	→	140	3
590	→	595	3
5	→	120	4
100	→	140	4
140	→	130	4
240	→	600	4
595	→	140	4
15	→	140	5
70	→	40	5
140	→	240	5
60	→	240	6
140	→	50	6
140	→	590	6
20	→	140	7

Table 11-2: Two-Transfer Combinations

Two-Transfer Combinations by Route Number	Total Count
15 ⇒ 70 ⇒ 40	2
50 ⇒ 30 ⇒ 70	2
100 ⇒ 140 ⇒ 50	2
100 ⇒ 140 ⇒ 110	2
100 ⇒ 140 ⇒ 130	2
595 ⇒ 140 ⇒ 595	2
110 ⇒ 140 ⇒ 50	3
110 ⇒ 515⇒ 110	3
140 ⇒120 ⇒ 140	3
240 ⇒ 600 ⇒ 240	3
60 ⇒ 240 ⇒ 30	4

Section 12 TRANSIT NEEDS ASSESSMENT

As presented in previous sections, a significant level of analysis was completed on the LeeTran system and its service area. Such analysis is critical in a COA as it provides both context and structure for the development of potential recommendations for new service and/or service modifications and enhancements. Using these various data and analyses, the project team evaluated the local service area, service demand, and service supply to identify any existing geographical/temporal gaps between identified needs and existing services so that these could be accounted for in the COA process.

Following are the key items (presented in more detail in those prior sections) that were assessed to identify transit needs within the current LeeTran service area. Each is summarized briefly in this section to further highlight the various pertinent issues and needs and how they were considered in the development of the network redesign concepts.

- Population Trends and Characteristics – Used to identify where potential growth is occurring and where ridership potential may be located.
- Labor Force and Employment – Used to locate where higher concentrations of employment occur and where opportunities for work-based transit is most needed.
- Transit Dependent Populations – A traditional rider market, or transit dependent population, refers to population segments that historically have had a higher propensity to use transit or are dependent on public transit for their transportation needs.
- Discretionary Markets – The discretionary market analysis (DTA) describes potential riders living in higher-density areas who may choose to use transit.
- Gap Analysis – A criteria-based method that reviews coverage and assesses potential connectivity gaps in the service area.

Population Trends and Characteristics

Housing and population demographics are important metrics used to identify where growth is occurring and where ridership potential can be met. Densities in Fort Myers in 2030 are similar to those in 2021. However, Cape Coral, Estero, and Lehigh Acres are expected to see major growth, resulting in new residential construction, as well as retail development. The project team examined ways to provide more frequent service to such areas in Lee County by streamlining routes and removing duplication.

Furthermore, younger residents generally have different expectations of what transit service should be, including that it should be flexible, modern, and connected to multimodal networks. A variety of reports document this growing desire to drive less and use transit more (APTA, “Millennials and Mobility: Understanding the Millennial Mindset,” 2016). Although more older adult residents tend to use transit less often and have different perceptions about its role, there exists an opportunity to provide crucial transit service to those who desire to age in place, reduce their automobile reliance, or who are physically unable to drive. Given the needs of these diverse populations, the project team sought to develop a streamlined network that still provides direct transit service to numerous areas throughout

the LeeTran service area, but also will continue to provide the opportunity for younger and older residents to drive less and reduce their automobile reliance.

Labor Force and Employment

LeeTran must accommodate a variety of work schedules and trip destinations to adequately support a diverse base of riders in Lee County. In addition, the highest concentrations of employment density are in Fort Myers along US-41, in downtown Fort Myers, adjacent to Pine Island Road in Cape Coral, in northern Fort Myers Beach, in Lehigh Acres along Homestead Road, and along US-41 in Bonita Springs. The project team sought to design routes that better serve these industrial uses by providing express routes that do not meander to underutilized areas.

Discretionary Markets

The discretionary market refers to the potential riders living in higher-density areas of the service area who may choose to use transit as a commute or transportation alternative though they have other options with which to meet their mobility needs. As noted in previous sections, areas that are considered to meet the "very high" dwelling unit thresholds for transit investment areas are located along the Caloosahatchee River in Fort Myers between Seaboard Street and First Street, along US-41 in south Fort Myers between Hanson Street and Colonial Boulevard, in Cape Coral between the Cape Coral Parkway and El Dorado Parkway, and along the Caloosahatchee River between Beach Parkway and SE 40th Terrace.

The project team used this tool to determine whether existing routes serve areas of Lee County considered to be transit-supportive for the corresponding transit market.

Transit Dependent Populations

Transit dependent or the traditional transit market refers to populations that historically have a higher propensity to use transit and depend on public transit for their transportation needs. Based on the evaluation, areas showing "very high" TOI are clustered in south Fort Myers east of US-41 between Boy Scout Drive and College Parkway. Areas exhibiting a "very high" orientation towards transit with high population density are located in Bonita Springs and north of Bonita Beach Road between Old 41 Road and Imperial Parkway. The project team used this information to help guide the realignment of routes and consolidation of service to fill in service gaps that were underserved by existing LeeTran service.

Gap Analysis

The project team conducted a gap analysis aimed to identify geographical gaps in public transit where travel needs are high, but services are non-existent (unserved) or insufficient (underserved). As discussed in previous sections, areas that noticeably may have the potential for being underserved are located north of Pine Island Road in North Fort Myers, north and south of Lee Boulevard in Lehigh Acres, and around Shell Point. These analysis results were used in the service planning process to help develop strategies to mitigate gaps in service, especially in areas that resonate in terms of high TOI score. Some

considerations to mitigate gaps in service include realigning route alignments, adjusting service span, modifying service frequencies, limiting duplication on major corridors, and applying resources where they may be more effectively utilized.

Section 13 TRANSIT ROUTING RECOMMENDATIONS

Due to the specific focus of the study, transit routing and operating modifications were analyzed and prioritized throughout the life of the project to develop an implementable set of service recommendations. Extensive data collection and analyses were performed in the early stages of the project to evaluate existing service performance, coverage, and potential new markets, as well as determine whether existing service levels and types were effective in providing the necessary mobility to the community. Recommendations were vetted with LeeTran staff and modified in response to their feedback. The following section describes the routing recommendation process that will be phased in the short-term (0-2 years) final tiered implementation and financial plan. A mid-term (3-10 years) approach is also included, which involves more improved frequencies and additional mobility on demand zones.

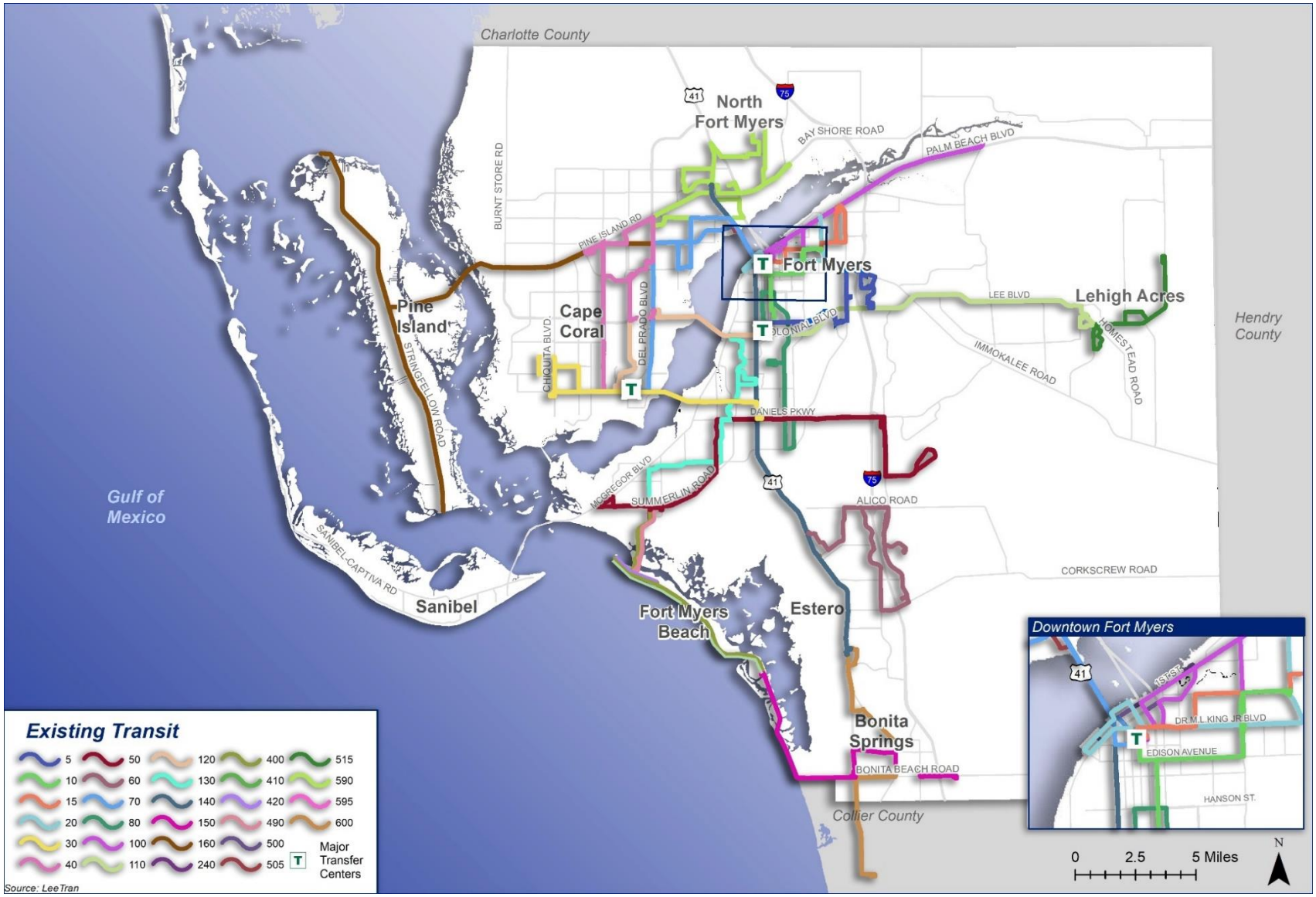
Transit Network Modifications

An important initial recommendation for the COA was to first focus on modifications to the existing network to address existing operational issues negatively affecting the performance of the overall service and ridership. These issues result from a variety of both internal and external factors that include increased congestion throughout the service area, overextension and redundancy in service coverage (existing network is shown in Map 13-1), and subsequent longer travel times connecting to distant areas that make it difficult to meet existing time points and, therefore, prevent passengers from connecting to other routes or destinations on time. As a result, key goals for the COA include:

- Minimize impacts to existing ridership while increasing system operational efficiencies
- Preserve coverage, but realign routes where they are negatively impacting ridership, travel times, and on-time performance on existing routes
- Reduce redundancy to better utilize resources to bolster other services
- Implement Mobility on Demand (MoD) where suitable

A key item to note for the remainder of this section is that route naming conventions have been kept consistent to minimize subsequent confusion with any implementation of proposed modified services. All new routes that end up being implemented must be advertised in individual route brochures similar to the way existing routes are currently treated. It also is recommended that there be a section on the reverse of each route brochure that shows the corridor frequencies associated with routes leaving the downtown areas to indicate the variety of options passengers have for travel along each corridor throughout a typical weekday, Saturday, or Sunday.

Map 13-1: LeeTran Existing Network



Short-Term Routing Recommendations and Descriptions

As previously discussed, the routes were reconceptualized in conjunction with LeeTran staff to develop a revised short-term (0-2 years) network that would attempt to adhere to the precepts that derived this initial vision for LeeTran's services, but would do so in a manner that would reduce impacts to riders and operations. The result was the COA network, as shown in Map 13-2. Table 13-1 shows the existing route frequencies and service spans, while Table 13-2 shows the recommended route frequencies and service spans transitioning to a clock-face frequency.

In addition, Map 13-3 shows the LeeTran frequencies by route for the existing LeeTran network and Maps 13-4 and 13-5 show the recommended LeeTran frequencies based on seasonal and non-seasonal operations. Based on the recommendations from the COA, much of the network has been streamlined to eliminate redundancy and improve operability. One of the most noticeable changes is the improved frequency on LeeTran's Route 140, which experiences the highest ridership in the system each year. Other changes include the addition of the Lehigh Acres MoD zone, which will be discussed in more detail following the routing recommendations.

Map 13-2: Recommended COA Network

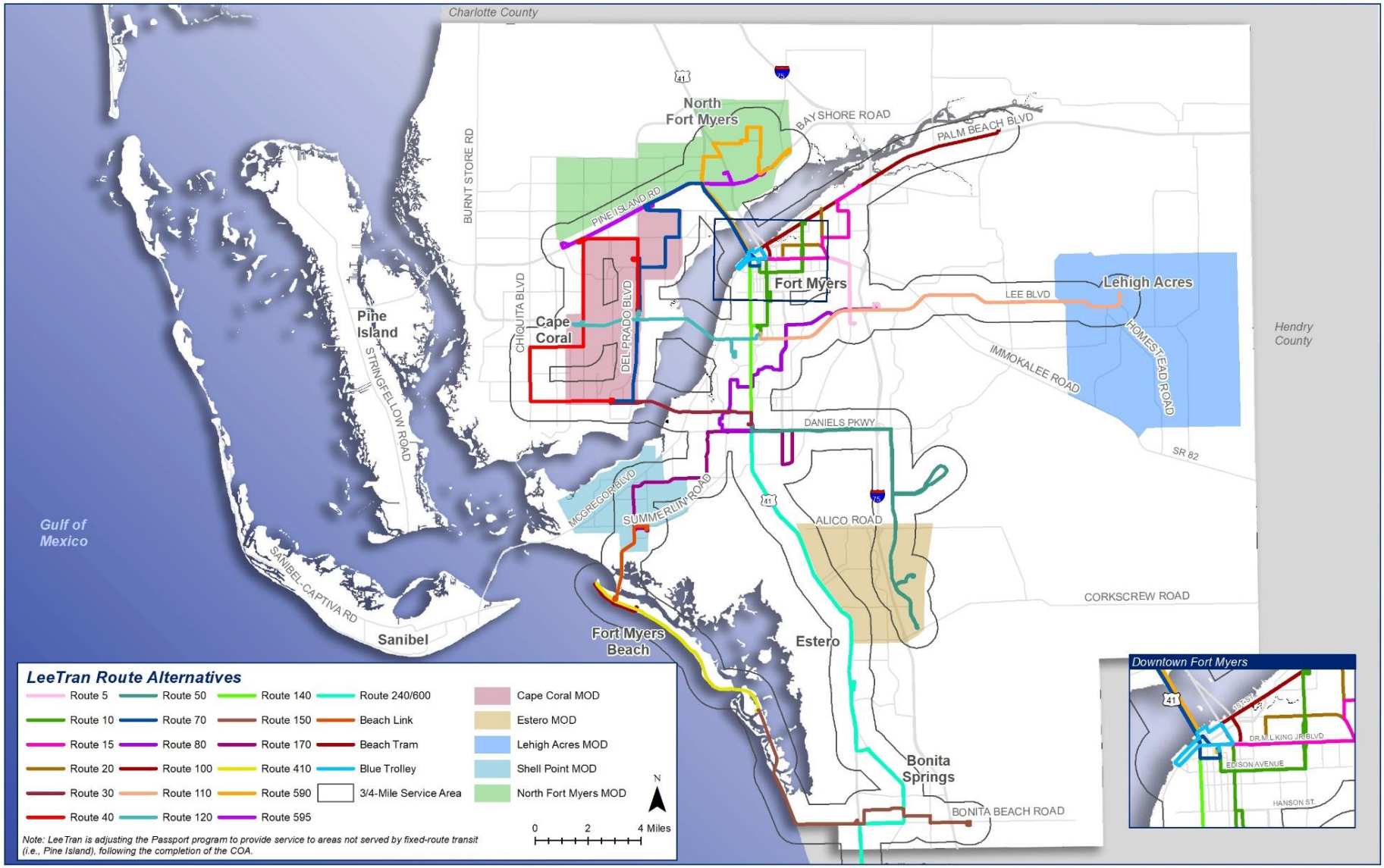


Table 13-1: LeeTran Service Characteristics – Existing

Route	Weekday		Saturday		Sunday	
	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span
5	80	6:05 AM - 8:35 PM	80	6:05 AM - 8:35 PM	-	-
10	80	6:45 AM - 10:00 PM	80	6:45 AM - 10:00 PM	-	-
15	60	5:45 AM - 9:30 PM	60	5:45 AM - 9:30 PM	60	6:05 AM - 6:30 PM
20	30	5:00 AM - 9:07 PM	60	5:30 AM - 8:22 PM	-	-
30	60	6:00 AM - 9:24 PM	60	6:00 AM - 9:24 PM	-	-
40	84	5:40 AM - 8:40 PM	130	5:40 AM - 7:35 PM	-	-
50	70	6:20 AM - 9:31 PM	70	6:20 AM - 9:31 PM	135	6:45 AM - 7:18 PM
60	85	6:20 AM - 9:45 PM	85	7:05 AM - 8:20 PM	-	-
70	65	5:30 AM - 10:15 PM	65	6:05 AM - 9:25 PM	65	6:40 AM - 8:10 PM
80	97	6:40 AM - 7:31 PM	-	-	-	-
100	30	5:25 AM - 10:00 PM	40	5:30 AM - 9:35 PM	90	7:35 AM - 8:10 PM
110	60	5:00 AM - 10:04 PM	60	5:00 AM - 10:04 PM	60	6:10 AM - 9:03 PM
120	80	6:00 AM - 9:10 PM	80	6:00 AM - 9:10 PM	100	8:30 AM - 6:25 PM
130	60	6:25 AM - 9:07 PM	120	6:25 AM - 8:25 PM	120	8:35 AM - 6:30 PM
140	20	5:00 AM - 9:55 PM	20	5:00 AM - 9:55 PM	65	6:05 AM - 8:55 PM
150	95	6:52 AM - 5:58 PM	95	6:52 AM - 5:58 PM	95	7:36 AM - 5:58 PM
160	150	8:00 AM - 5:50 PM	-	-	-	-
240	45	6:00 AM - 10:12 PM	45	6:00 AM - 10:12 PM	-	-
400	20	5:00 AM - 10:36 PM	20	5:00 AM - 10:36 PM	20	5:00 AM - 10:36 PM
420	20	8:00 AM - 7:50 PM	20	8:00 AM - 7:50 PM	20	8:00 AM - 7:50 PM
515	60	5:15 AM - 9:04 PM	60	5:10 AM - 9:04 PM	-	-
590	60	5:15 AM - 9:05 PM	60	5:15 AM - 9:05 PM	120	8:50 AM - 5:50 PM
595	60	5:05 AM - 8:45 PM	60	5:05 AM - 8:45 PM	120	10:00 AM - 6:45 PM
600	90	5:35 AM - 7:19 PM	90	5:35 AM - 7:19 PM	100	7:35 AM - 4:25 PM
RDT - Blue (500)	25	11:00 AM - 7:52 PM	25	11:00 AM - 10:55 PM	25	11:00 AM - 7:52 PM
RDT - Gold (505)	30	11:00 AM - 10:50 PM	30	11:00 AM - 10:50 PM	30	11:00 AM - 10:50 PM

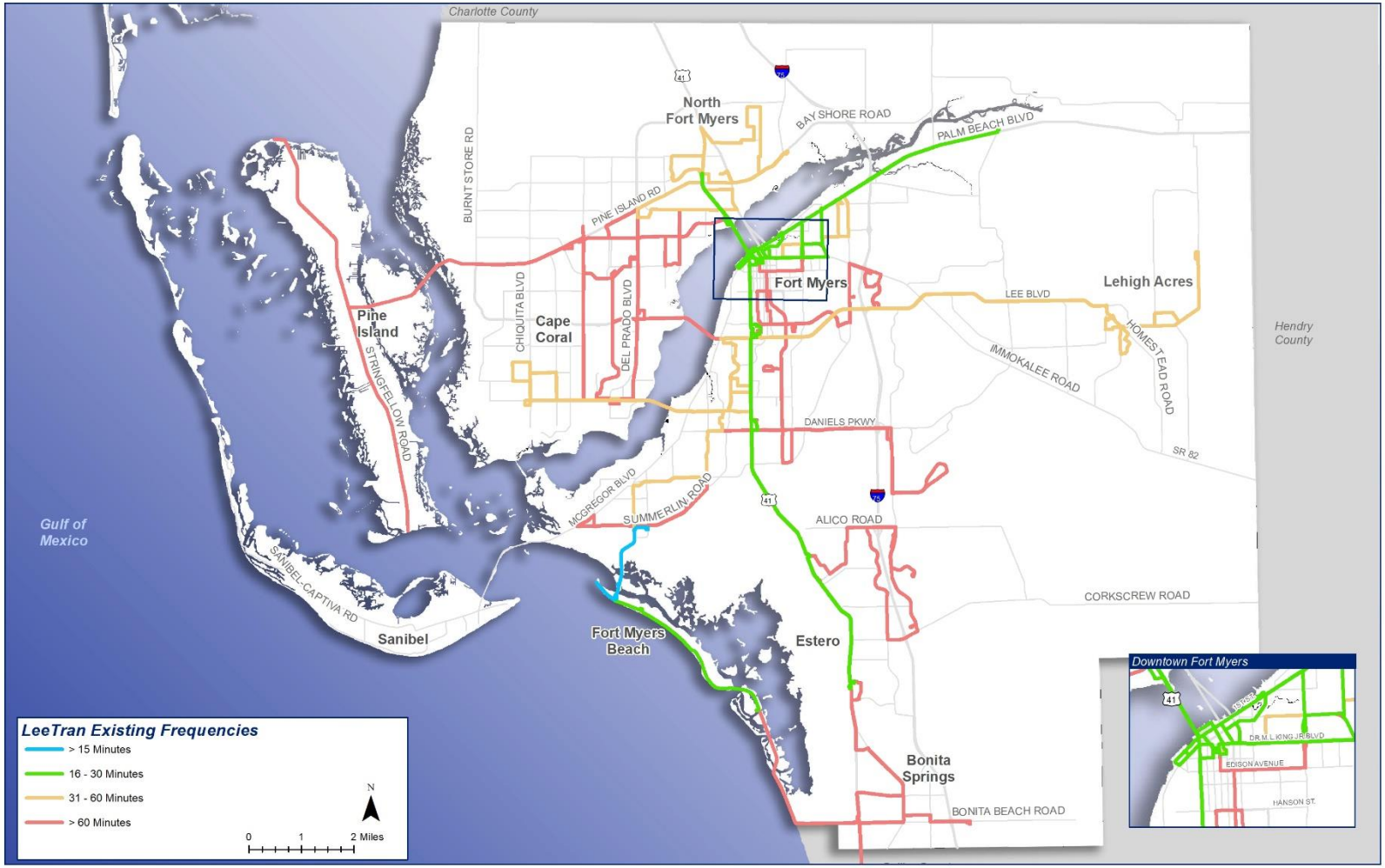
Source: LeeTran; RDT=River District Trolley
Note: Routes highlighted in **green** are seasonal routes and operate from January to April and routes highlighted in **orange** are routes that operate annually and the schedule is adjusted from November to April.

Table 13-2: LeeTran Recommended Service Characteristics – Short-Term

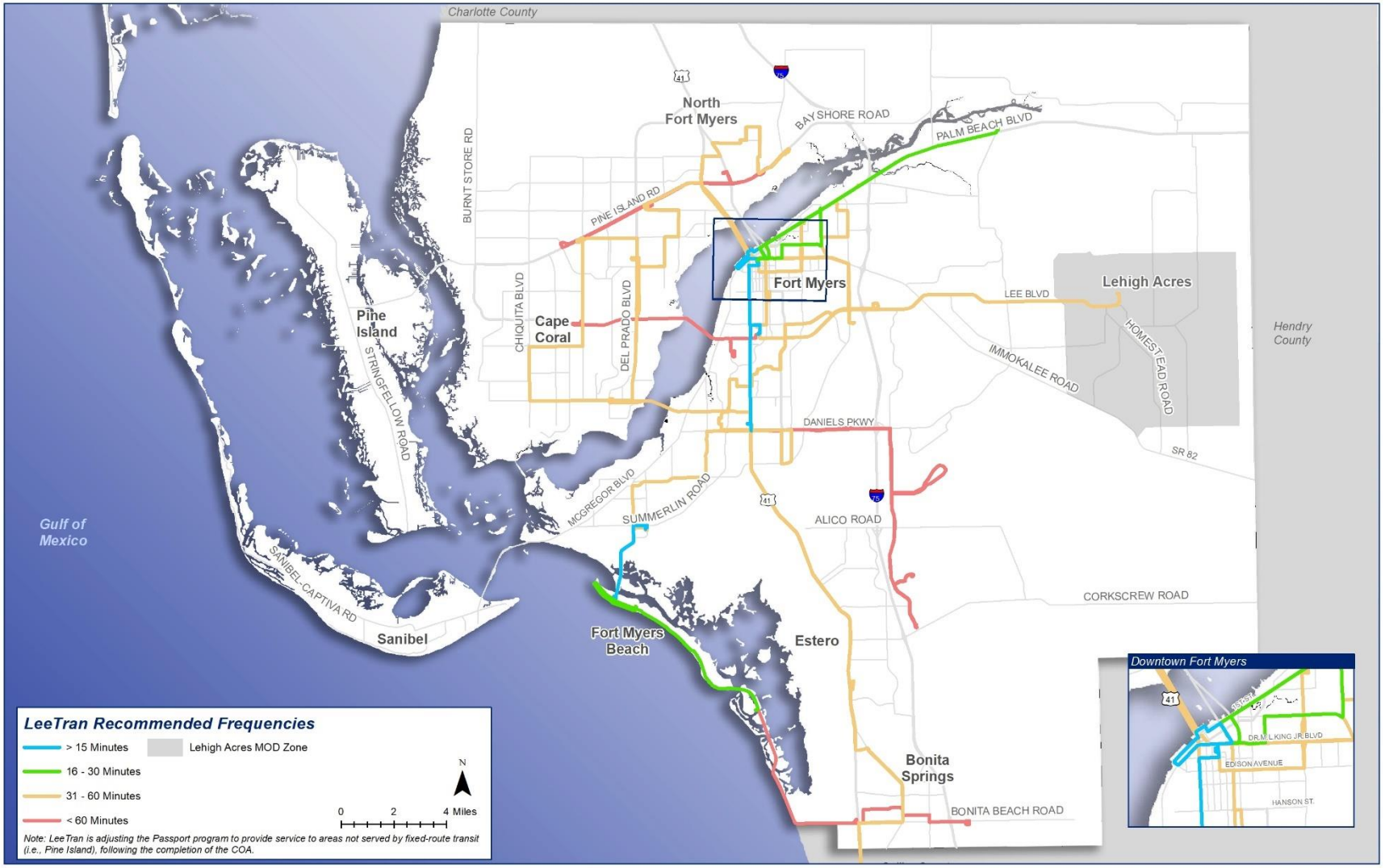
Route	Weekday		Saturday		Sunday	
	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span
5	60	6:05 AM - 8:35 PM	60	6:05 AM - 8:35 PM	-	-
10	60	6:45 AM - 10:00 PM	60	6:45 AM - 10:00 PM	-	-
15	60	5:45 AM - 9:30 PM	60	5:45 AM - 9:30 PM	60	7:05 AM - 6:30 PM
20	30	5:30 AM - 9:00 PM	30	5:30 AM - 9:00 PM	-	-
30	60	5:30 AM - 9:24 PM	60	5:30 AM - 9:24 PM	-	-
40	60	5:45 AM - 8:15 PM	60	5:45 AM - 8:15 PM	-	-
50	70	6:30 AM - 9:45 PM	70	6:30 AM - 9:45 PM	70	6:45 AM - 7:18 PM
70	60	5:30 AM - 9:24 PM	60	5:45 AM - 9:24 PM	60	6:40 AM - 8:10 PM
80	45	6:30 AM - 8:00 PM	-	-	-	-
100	30	5:30 AM - 10:00 PM	30	5:30 AM - 9:35 PM	60	7:35 AM - 8:10 PM
110	60	5:00 AM - 10:00 PM	60	5:00 AM - 10:00 PM	60	6:10 AM - 9:03 PM
120	70	6:00 AM - 9:10 PM	70	6:00 AM - 9:10 PM	70	8:30 AM - 6:25 PM
140	15	5:00 AM - 9:55 PM	15	5:00 AM - 9:55 PM	15	6:05 AM - 8:55 PM
150	85	6:50 AM - 6:00 PM	85	6:50 AM - 6:00 PM	85	8:27 AM - 6:00 PM
170	60	6:30 AM - 9:00 PM	60	6:30 AM - 9:00 PM	120	8:30 AM - 7:00 PM
410	30	6:00 AM - 10:00 PM	30	6:00 AM - 10:00 PM	30	6:00 AM - 10:00 PM
410	60	6:00 AM - 9:00 PM	60	6:00 AM - 9:00 PM	60	6:00 AM - 9:00 PM
590	60	5:15 AM - 9:00 PM	60	5:15 AM - 9:00 PM	120	8:50 AM - 6:00 PM
595	80	5:05 AM - 8:45 PM	80	5:05 AM - 8:45 PM	90	8:00 AM - 6:45 PM
240/600	60	6:00 AM - 10:00 PM	60	6:00 AM - 10:00 PM	60	7:30 AM - 6:00 PM
RDT - Blue (500)	25	11:00 AM - 11:00 PM	25	11:00 AM - 11:00 PM	25	11:00 AM - 10:00 PM
Beach Link	15	6:00 AM - 10:00 PM	15	6:00 AM - 10:00 PM	15	6:00 AM - 10:00 PM
Beach Link	30	6:00 AM - 9:00 PM	30	6:00 AM - 9:00 PM	30	6:00 AM - 9:00 PM
Beach Tram	20	8:00 AM - 9:00 PM	20	8:00 AM - 9:00 PM	20	8:00 AM - 9:00 PM

Source: LeeTran; RDT=River District Trolley
Note: Routes highlighted in **green** are seasonal routes and operate from January to May and routes highlighted in **orange** are routes that operate May to December.

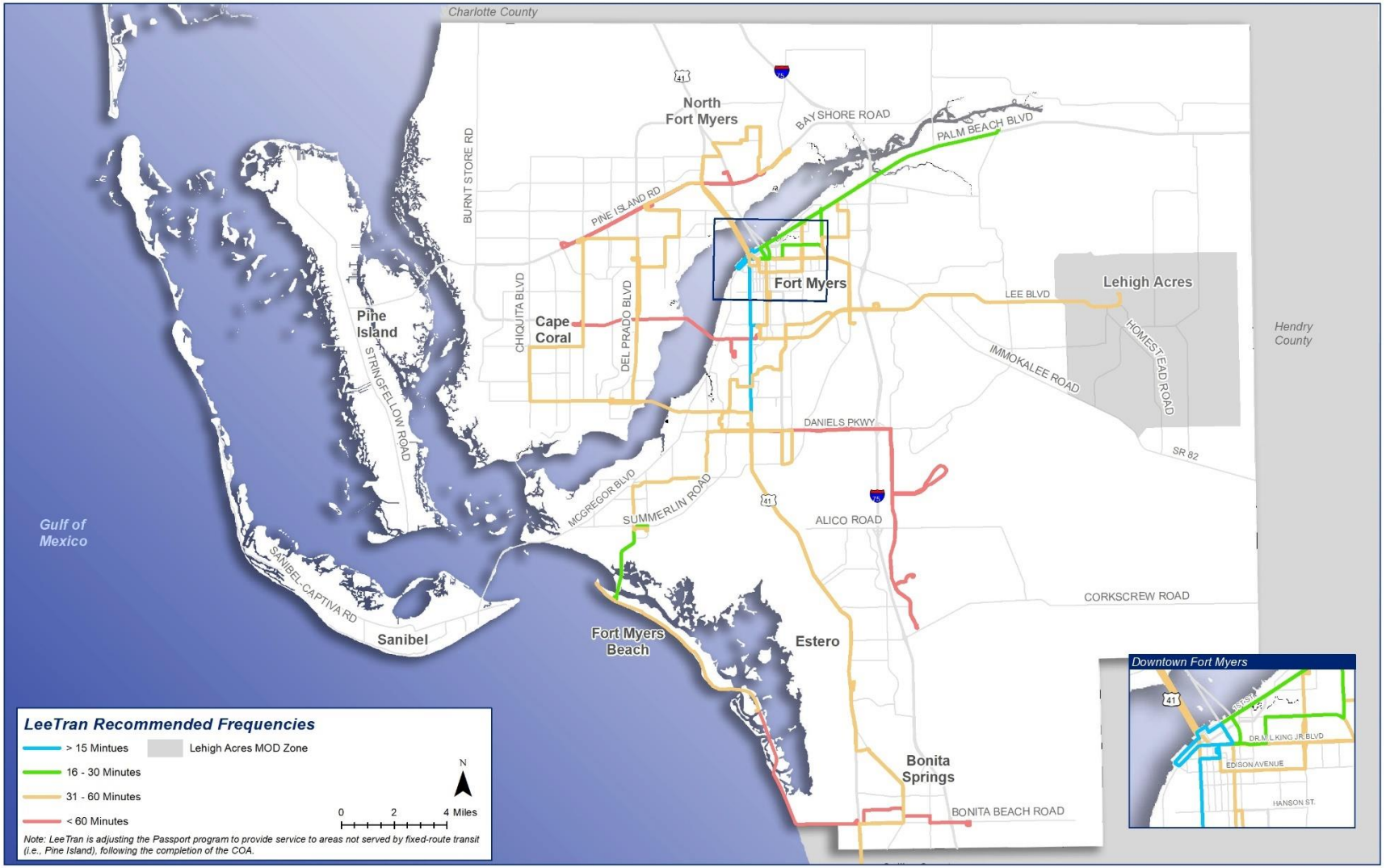
Map 13-3: Existing Network Frequencies



Map 13-4: Recommended Short-Term Network Frequencies (In-Season)



Map 13-5: Recommended Short-Term Network Frequencies (Off-Season)



Route 5

The recommended east-west route provides service to the Omni and The Forum areas from the downtown Fort Myers Rosa Parks Transfer Station, as shown in Map 13-6. The restructured Route 5 will provide transfer opportunities to Route 80 and Route 110 at The Forum before Route 5 travels back to Rosa Parks.

Currently, the Route 5 uses Winkler Avenue to serve the Omni and The Forum. The restructured Route 5 will now only serve the Omni and The Forum via Martin Luther King Boulevard. From Rosa Parks, Route 5 will travel east on Martin Luther King Boulevard and south on Ortiz Avenue to the Publix. The route will continue north on Ortiz after serving Publix, east on Colonial Boulevard, north on Forum Boulevard, and east on Dynasty Drive. After making the final stop on the outbound alignment on Dynasty Avenue, the inbound route travels west on Colonial Boulevard in the same pattern back to Rosa Parks.

Recommendations for Route 5 will streamline the routing by eliminating meandering along Winkler Avenue, a segment with stops that show no ridership. These recommendations allow the project team to improve frequency and realign resources to other routes in the LeeTran network, as well as saving an estimated $13,521 and 188 service hours. In addition, these recommendations offer transfer opportunities from the Route 110 to downtown Fort Myers, which is currently not an opportunity provided by the LeeTran network. Table 13-3 shows the recommendations for Route 5 and Table 13-4 shows the net changes.

Below is a list of activity centers the new Route 5 will serve:

- Downtown Fort Myers
- Fleamasters Fleamarket
- Cypress Woods Shopping Center
- Publix
- Omni
- The Forum
- Salvation Army
- Genoa Healthcare

Table 13-3: Recommended Route 5

Day	Weekday		Saturday		Sunday	
Time	6:05 AM	8:35 PM	6:05 AM	8:35 PM		
Headways (Minutes)	60		60			

Table 13-4: Route 5: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
4,451	$320,116	4,263	$306,595	-188	-$13,521

Map 13-6: Recommended Route 5

Route 10 (Interlined with Route 110)

The recommended north-south Route 10 provides service to downtown Fort Myers, Edison Mall, and Veronica Shoemaker Boulevard, as shown in Map 13-7. The simplified Route 10 will provide transfer opportunities at Rosa Parks and Edison Mall, as well as Palm Beach Boulevard.

Currently, the Route 10 deviates on Evans Avenue traveling north and south between Rosa Parks and Edison Mall. The recommended Route 10 will now stay on Fowler Street to improve frequency and streamline service. In addition, the current Route 10 terminates at the Michigan Avenue Link. The recommended Route 10 will now serve Veronica Shoemaker rather than terminating at the Michigan Avenue Link. Traveling north from Edison Mall, Route 10 will travel east on Winkler Avenue, north on Fowler Street, and west on Martin Luther King Boulevard to the Rosa Parks Transit Center. The route will then travel south on Jackson Street, east on Edison Avenue, and north on Veronica Shoemaker Boulevard. The route will travel back to Rosa Parks and Edison Mall by traveling east on Washington Avenue, south on Luray Avenue, and west on Madison Avenue before traveling back south on Veronica Shoemaker Boulevard.

Recommendations for Route 10 will streamline the routing by eliminating meandering along Evans Avenue to stops that show no ridership. These recommendations allow the project team to improve headways from 80 minutes to 60 minutes for weekdays and Saturday, as well as reduce redundancy and realign resources to other routes in the LeeTran network. In addition, these recommendations allow the project team to streamline downtown routing along Martin Luther King Boulevard, Michigan Avenue, Marsh Avenue, and Ortiz Avenue. Route 10 will begin service at 6:45 AM on weekdays and Saturday once Route 110 completes the first inbound trip from Lehigh Acres.

Below is a list of activity centers the new Route 10 will serve:

- Downtown Fort Myers
- Rosa Parks
- Edison Mall

Route 110 (Interlined with Route 10)

The project team did not make many changes to the Route 110, which provides service to/from Lehigh Acres to Edison Mall, as shown subsequently in Map 13-16. However, LeeTran staff recommended improving headways on this route to 30 minutes in the mid-term, which will drastically improve headways for a crucial route. For now, Route 100 will maintain 60-minute headways. In addition, this route will serve the planned Lehigh Acres Park-and-Ride, which is north of the Lehigh Acres Community Park and south of Pelican's SnoBalls and Mini Golf. In Lehigh Acres, the proposed MoD service will meet the recommended Route 110 at the Lehigh Acres Park-and-Ride facility. Route 110 will complete the first inbound trip from Lehigh Acres at 5:00 AM on weekdays and Saturday. Once Route 110 arrives at Edison Mall, it will turn into Route 10. Route 110 will not interline with Route 10 on Sunday because Route 10 will not be operating.

Below is a list of activity centers the new Route 110 will serve:

- Edison Mall
- Lehigh Acres

For scheduling purposes, the project team recommended interlining Route 10 with Route 110 at Edison Mall to decrease VOMS and decrease service hours, as well as increase utilization. The routes will begin interlining at 6:45 AM. Route 110 will still operate one inbound trip from Lehigh Acres to Edison Mall beginning at 5:00 AM, which is discussed in more detail throughout this section. Table 13-5 shows the recommendations for Route 10 and Route 110 once the routes begin interlining at 6:45 AM. Table 13-6 shows the net changes.

Table 13-5: Recommended Route 10 and Route 110

Day	Weekday		Saturday		Sunday	
Time	5:00 AM	10:00 PM	5:00 AM	10:00 PM	6:10 AM	9:03PM
Headways (Minutes)	60		60		60	

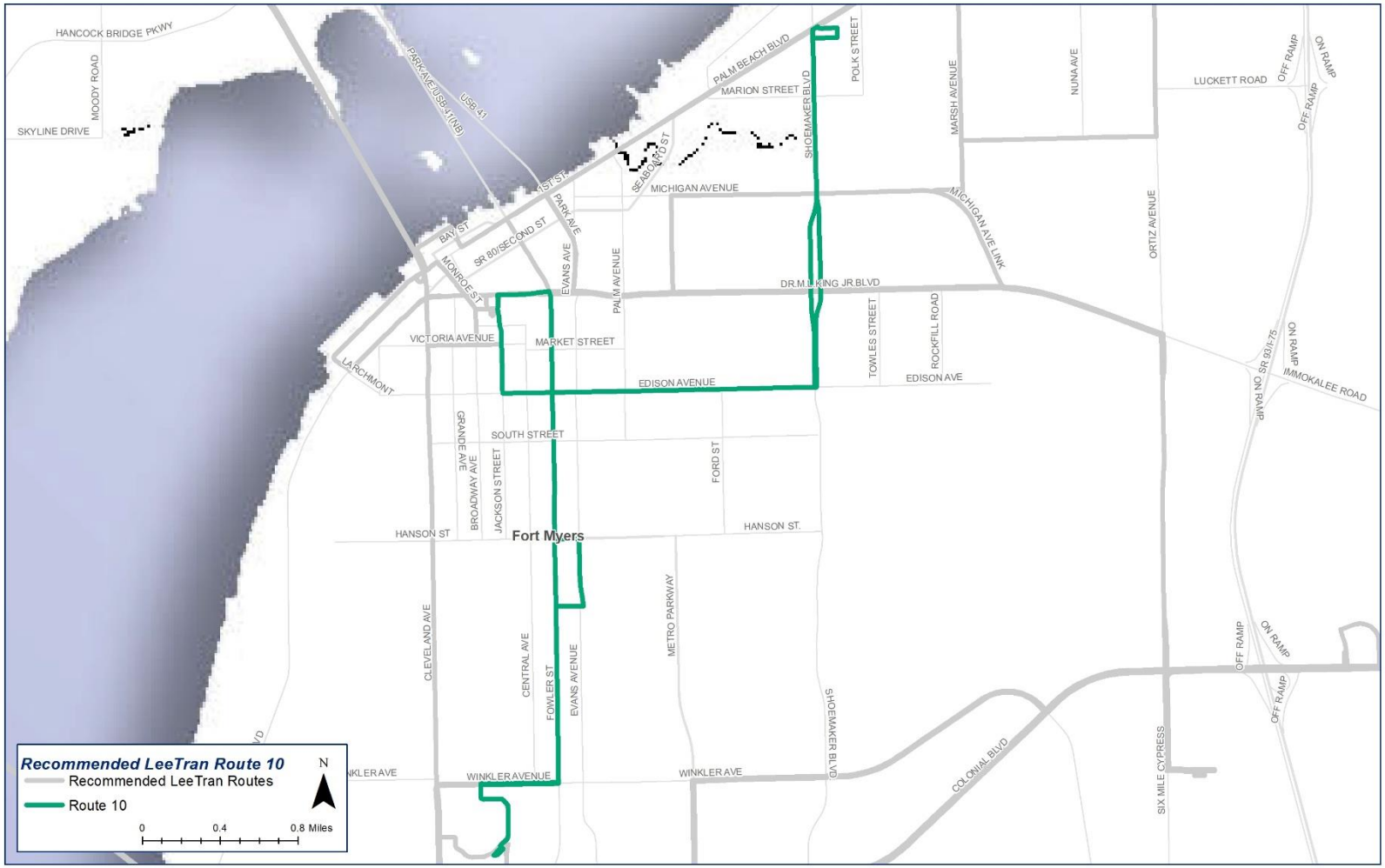
Note: Route 10 will not operate on Sunday.

Table 13-6: Route 10 and Route 110: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
16,358	$1,176,467	15,794	$1,135,904	-564	-$40,563

Note: This information is also reflected for the description of the Route 110 recommendations. These savings apply to the net impact of interlining the Route 10 and Route 110.

Map 13-7: Recommended Route 10



Route 15

The recommended north-south and east-west route provides service to downtown Fort Myers, areas along Martin Luther King Boulevard, Ortiz Avenue, and retail on SR 80. The restructured Route 15 will provide transfer opportunities at Rosa Parks and to retail on SR 80, as shown in Map 13-8.

Currently, Route 15 travels east-west on Michigan Avenue, along with Route 10. The project team eliminated overlap on Michigan Avenue and streamlined the routes. The recommended Route 15 now travels outbound via Martin Luther King Boulevard, north on the Michigan Avenue Link, north on Marsh Avenue, east on Ballard Road, north on Ortiz Avenue, and east on SR 80 before terminating at the Morse Shores shopping center. The route will travel back inbound the same direction.

Recommendations for Route 15 will streamline the Fort Myers routing by eliminating redundancy and realigning resources to other routes in the LeeTran network. In addition, these recommendations will likely improve on-time performance and reliability to downtown routes. Table 13-7 shows the recommendations for Route 15 and Table 13-8 shows the net changes.

Below is a list of activity centers the new Route 15 will serve:

- Downtown Fort Myers
- Rosa Parks
- Morse Shores Shopping Center
- Housing Authority of Fort Myers

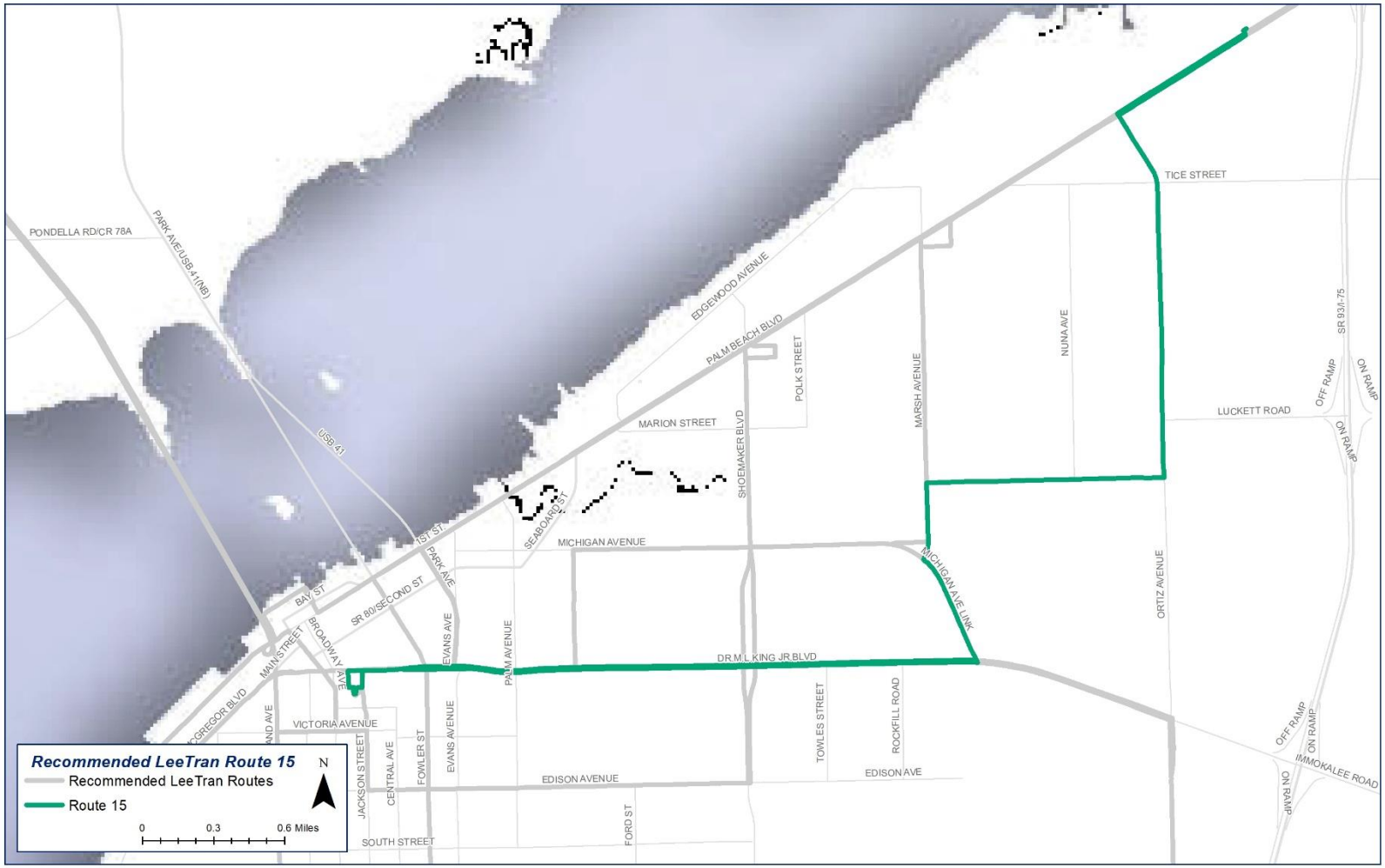
Table 13-7: Recommended Route 15

Day	Weekday		Saturday		Sunday	
Time	5:45 AM	9:30 PM	5:45 AM	9:30 PM	7:05 AM	6:30 PM
Headways (Minutes)	60		60		60	

Table 13-8: Route 15: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
5,502	$396,998	5,515	$396,639	-5	-$360

Map 13-8: Recommended Route 15



Route 20

The recommended north-south and east-west route provides service to downtown Fort Myers and areas along Michigan Avenue and Marsh Avenue, as shown in Map 13-9. The simplified Route 20 allowed the project team to realign resources of Route 100 and improve frequency.

Currently, the Route 20 travels east-west on Martin Luther King Boulevard, along with segments of Route 100. The project team recommended changes to other routes, which streamlined the east-west routing of Route 20. The recommended Route 20 will depart Rosa Parks Transit Center and travel east on Martin Luther King Boulevard, north on High Street, east on Michigan Avenue, north on Marsh Avenue, east on SR 80, and south on Fairview Avenue. After making a stop adjacent to McDonald's, the route will travel east on Glenwood Avenue and south on Marsh Avenue using the same alignment as the outbound routing.

Recommendations for Route 20 will improve frequency to the neighborhoods surrounding Fort Myers by streamlining the route and realigning resources to other routes in the LeeTran network. In addition, these recommendations will likely improve on-time performance and frequency to other downtown routes. The recommendations to Route 20 will save LeeTran approximately $285,666 and 3,972 service hours, as well as one vehicle on the weekdays and Saturday. Table 13-9 shows the recommendations for Route 20 and Table 13-10 shows the net changes.

Below is a list of activity centers the new Route 20 will serve:

- Downtown Fort Myers
- Rosa Parks
- Housing Authority of Fort Myers

Table 13-9: Recommended Route 20

Day	Weekday		Saturday		Sunday	
Time	5:30 AM	9:00 PM	5:30 AM	9:00 PM		
Headways (Minutes)	30		30			

Table 13-10: Route 20: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
8,610	$619,231	6,547	$470,860	-2,063	-$148,371

Map 13-9: Recommended Route 20

Route 30 (Interlined with Route 70)

The recommended east-west route will provide service between the Cape Coral Transfer Center and new South Area Transfer Center, as shown in Map 13-10. This vital route will provide frequent services to two growing areas of Lee County.

Currently, the Route 30 travels east-west across the Cape Coral Bridge to connect riders from southwest Cape Coral to Bell Tower Shops. The project team made slight modifications to this route to improve frequency and create a vital "connector" type route between Cape Coral and Fort Myers. Instead of continuing west on Cape Coral parkway to serve areas like Mohawk and Savona Parkways, the Route 30 will now stop at Cape Coral Transfer Center before traveling back to the future South Area Transfer Center.

Recommendations for Route 30 will drastically improve on-time performance and reliability to a vital LeeTran connector route. Similar to Route 10 and Route 110, the project team determined there was a greater savings to be achieved by interlining the Route 30 and Route 70 at the Cape Coral Transfer Center.

Below is a list of activity centers the new Route 30 will serve:

- Cape Coral Transfer Center
- Future South Area Transfer Center (replacing Bell Tower Shops)

Route 70 (Interlined with Route 30)

The recommended Route 70 is a north-south route serving the eastern side of Cape Coral and connecting riders to downtown Fort Myers. In addition, the recommended Route 70 will continue to serve Coralwood Mall, Cape Coral Hospital, and Rosa Parks Transfer Center. However, the recommended Route 70 will now extend to the Target on Pine Island Road and to the intersection of Pine Island Road and US-41 where riders will be able to transfer to Routes 590 and 595. Riders will also be able to access Merchants Crossing and Walmart on the east side of U- 41, as shown subsequently in Map 13-13.

Currently, the Route 70 has below average on-time performance likely due to the deviations near Hancock Bridge Parkway, which is the only segment on Route 70 that does not have any ridership. The recommended Route 70 will still operate in the same pattern, but after Route 70 serves Cape Coral Hospital, it will travel on Viscaya Parkway, 24th Avenue, Orange Grove Boulevard, and Pondella Road. The route will serve the Target on Pondella Road to maintain on-time performance. The route will travel inbound/outbound on Pine Island Road to serve US-41, where the route will travel to Rosa Parks Transfer Center.

Eliminating the deviations near Hancock Bridge Parkway will improve on-time performance and reliability. It also allowed the project team to improve headways to 60-minutes. These recommendations to the Route 70 will also provide more transfer opportunities in North Fort Myers, which is currently not provided. Table 13-11 shows the recommendations for Route 30 and Route 70 on

weekdays and Saturdays and Table 13-12 shows the net changes. Route 70 will still operate on Sunday, which is discussed in greater detail elsewhere in this section.

Below is a list of activity centers the new Route 70 will serve:

- Cape Coral Hospital
- Merchants Crossing
- Downtown Fort Myers
- Cape Coral Transfer Center
- Coralwood Mall

For scheduling purposes, the project team recommended interlining Route 30 with Route 70 at Cape Coral Transfer Center to decrease VOMS and decrease service hours, as well as increase utilization. The routes will interline weekdays and Saturday. Route 70 will still operate on Sunday. By interlining the Route 30 and Route 70, LeeTran will save approximately $411,527 and 5,722 service hours, as well as one vehicle on weekdays and Saturday.

Table 13-11: Recommended Route 30 and Route 70

Day	Weekday		Saturday		Sunday	
Time	5:30 AM	9:24 PM	5:30 AM	9:24 PM	6:40 AM	8:10 PM
Headways (Minutes)	60		60		60	

Note: Route 30 will not operate on Sunday.

Table 13-12: Route 30 and Route 70: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
20,145	$1,448,829	14,423	$1,037,302	-5,722	-$411,527

Note: This information is also reflected for the description of the Route 70 recommendations. These savings apply to the net impact of interlining the Route 30 and Route 70.

Map 13-10: Recommended Route 30

Route 40

The recommended Route 40 is the major Cape Coral route, connecting riders from north Cape Coral or North Fort Myers to other areas throughout Cape Coral, as shown in Map 13-11. The improvements to Route 40 offer transfer opportunities to Routes 30, 70, 120, and 595. The simplified Route 40 allowed the project team to realign resources to other routes and eliminate areas with little to no ridership activity.

Currently, Route 40 travels north-south on Santa Barbara Boulevard and Country Club. This route also meanders on and off Pine Island Road, serving Publix and other shopping centers in north Cape Coral. The majority of Country Club has little to no average daily boardings, as well as portions of Pine Island Road. The project team restructured this route to serve the Coralwood Mall, Cape Coral Hospital, and Cape Coral Transfer Center. This route was also realigned to serve Chiquita Boulevard and Cape Coral Parkway, which are two corridors currently served by Route 30 and Route 120. The improvements to Route 40 will likely improve the reliability and on-time performance, as well as the frequency and ridership potential.

Although the service hours and costs increase, the recommendations to the Route 40 will improve frequency to the neighborhoods surrounding Cape Coral by streamline the route and realigning resources to other routes in the LeeTran network. In addition, no additional vehicles are required to operate the recommended service and frequencies are realigned to more clockface headways at 60 minutes. Table 13-13 shows the recommendations for Route 40 and Table 13-14 shows the net changes.

Below is a list of activity centers the new Route 40 will serve:

- Cape Coral Hospital
- Cape Coral Transfer Center
- Publix
- Coralwood Mall

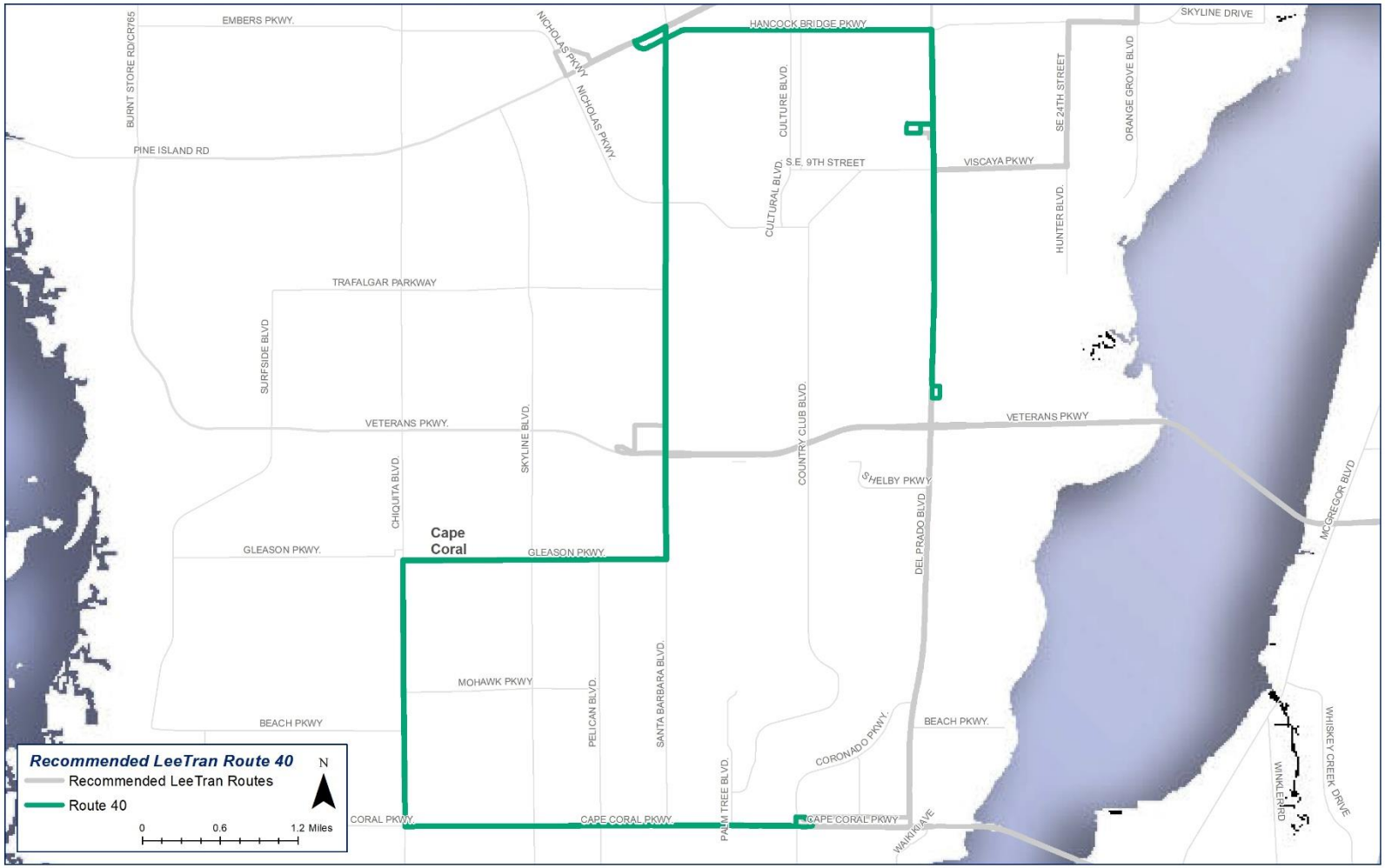
Table 13-13: Recommended Route 40

Day	Weekday		Saturday		Sunday	
Time	5:45 AM	8:15 PM	5:45 AM	8:15 PM		
Headways (Minutes)	60		60			

Table 13-14: Route 40: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
6,334	$455,541	8,781	$631,530	2,447	$175,988

Map 13-11: Recommended Route 40



Route 50

The recommended Route 50 is a north-south and east-west route serving major activity centers east of I-75. In particular, this is the only route that provides transit service to Southwest Florida International Airport, as shown in Map 13-12. In addition, the revamped Route 50 will be the only route that serves Florida Gulf Coast University and Miromar Outlets. The shortened Route 50 allowed the project team to realign resources to other routes and adjust frequencies.

Currently, the Route 50 is a major east-west route that travels from the Sanibel Outlets to the Southwest Florida International Airport. It also serves Bell Tower Shops and the Beach Park-and-Ride. Likely due to length and congestion, this route has poor on-time performance and frequency. The redesigned Route 50 will only serve the new South Area Transfer Center. On the outbound trip, the new Route 50 will travel east on Daniels Parkway, south on Treeline Avenue, and east to the Southwest Florida International Airport. After serving the airport, the route will continue south to Florida Gulf Coast University and Miromar Outlets. The route will travel inbound using the same pattern after serving Miromar Outlets. The overall length of the new Route 50 is half of what is currently operating today.

Recommendations for Route 50 should improve its on-time performance, as well as provide connectivity between FGCU and the airport, which was not supported by the existing network in a reasonable way. In addition, no additional vehicles are required to operate the recommended service. Table 13-15 shows the recommendations for Route 50 and Table 13-16 shows the net changes.

Below is a list of activity centers the new Route 50 will serve:

- Future South Area Transfer Center (replacing Bell Tower Shops)
- Florida Gulf Coast University
- Miromar Outlets
- Southwest Florida International Airport

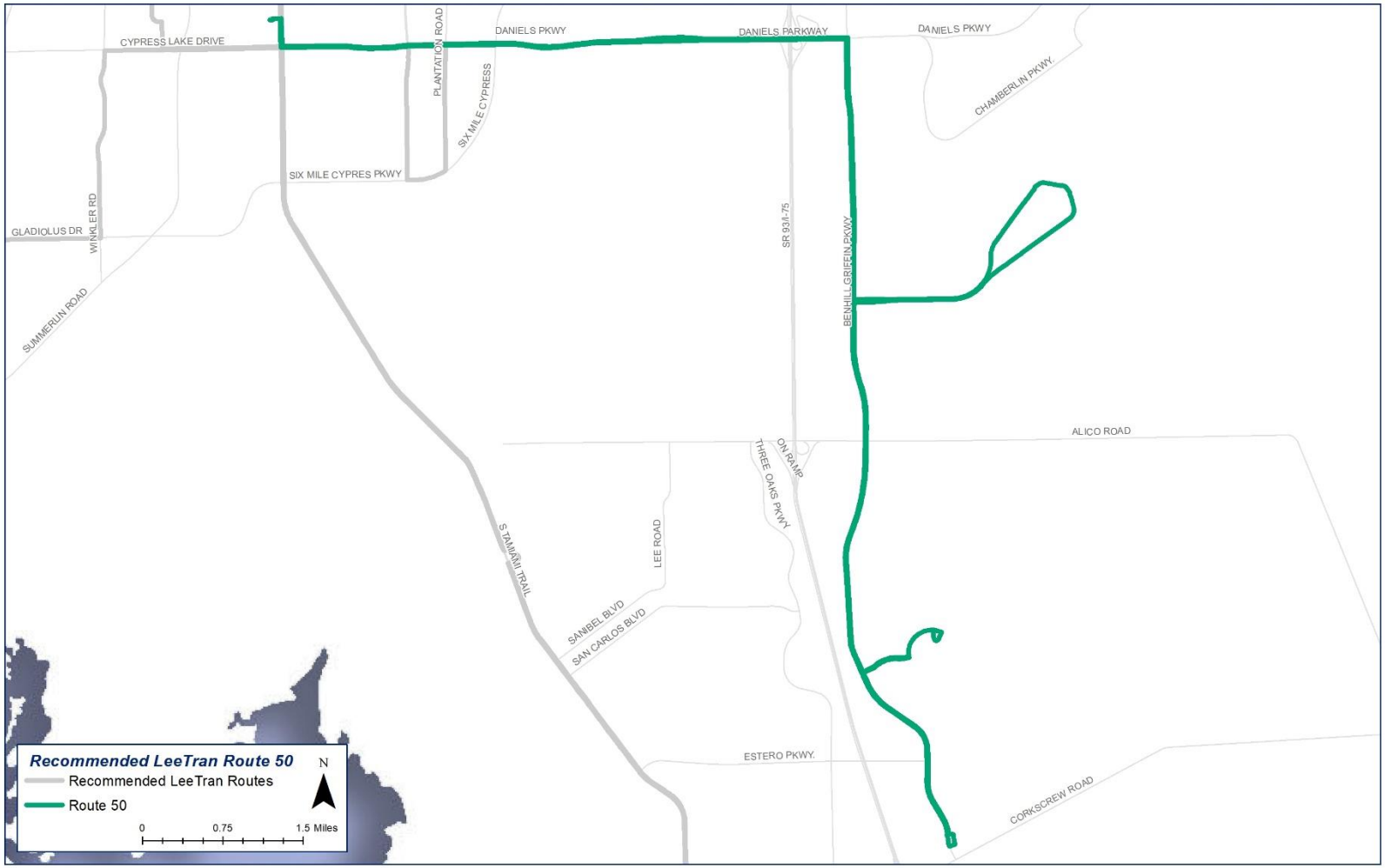
Table 13-15: Recommended Route 50

Day	Weekday		Saturday		Sunday	
Time	6:30 AM	9:45 PM	6:30 AM	9:45 PM	6:45 AM	7:18 PM
Headways (Minutes)	70		70		70	

Table 13-16: Route 50: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
9,800	$704,816	10,720	$770,982	920	$66,166

Map 13-12: Recommended Route 50



Route 70

As previously discussed, the recommended Route 70 is a north-south route serving the eastern side of Cape Coral and connecting riders to downtown Fort Myers, as shown in Map 13-13. The project team determined that a greater savings could be achieved by interlining Route 30 and Route 70 at the Cape Coral Transfer Center; however, on Sunday, Route 30 does not operate, so Route 70 will not be interlined with Route 30 on Sunday. On weekdays and Saturday, Route 70 will operate from 5:30 AM to 9:24 PM with 60-minute headways. On Sunday, the recommended Route 70 will operate from 6:40 AM to 8:10 PM with 60-minute headways.

Table 13-17 shows the recommendations for Route 70 and Table 13-18 shows the net changes by interlining the two routes.

Below is a list of activity centers the new Route 70 will serve:

- Cape Coral Hospital
- Merchants Crossing
- Downtown Fort Myers
- Cape Coral Transfer Center
- Coralwood Mall

Table 13-17: Recommended Route 70 and Route 30

Day	Weekday		Saturday		Sunday	
Time	5:30 AM	9:24 PM	5:30 AM	9:24 PM	6:40 AM	8:10 PM
Headways (Minutes)	60		60		60	

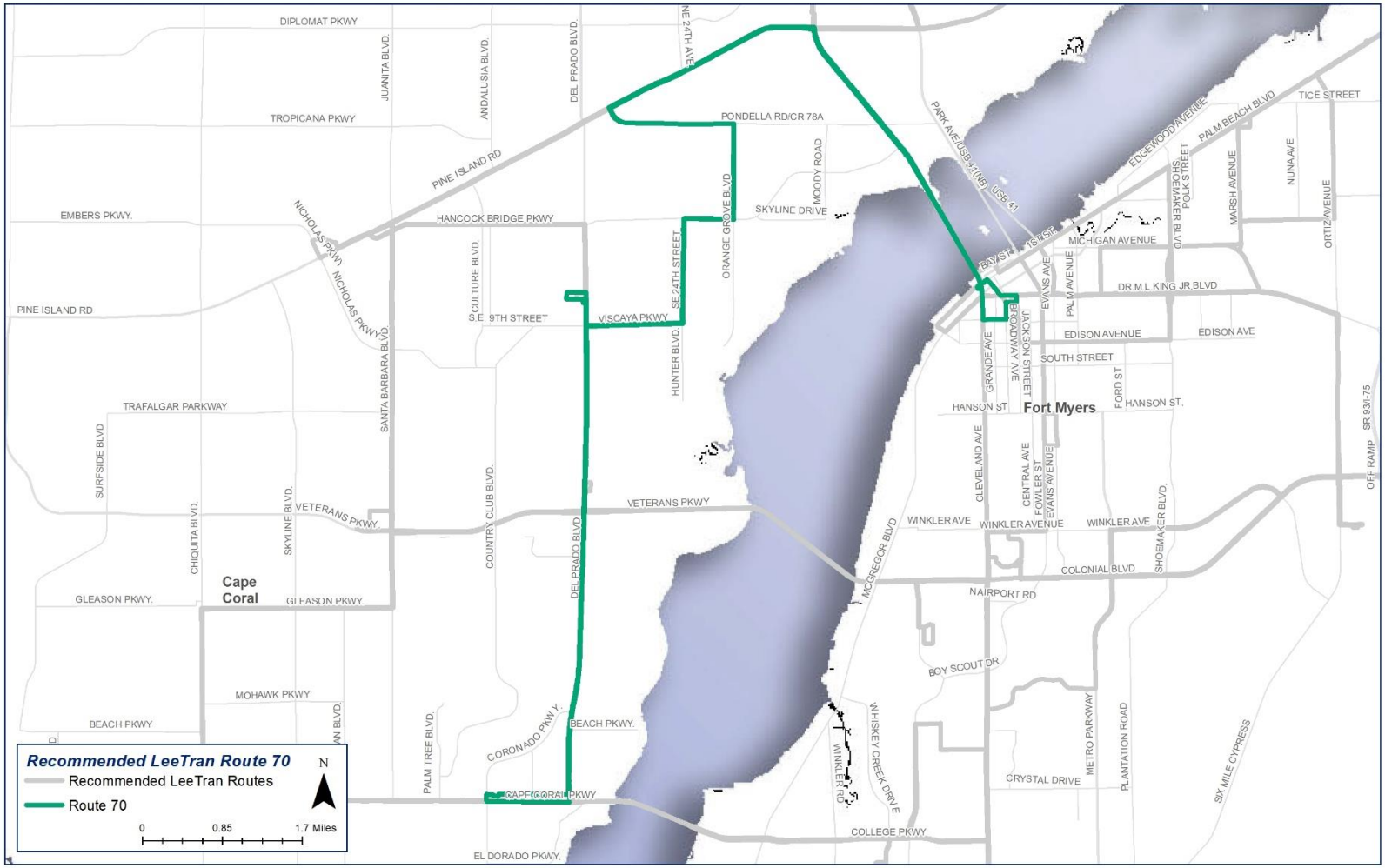
Note: Route 30 will not operate on Sunday.

Table 13-18: Route 70 and Route 30: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
20,145	$1,448,828	14,423	$1,037,302	-5,722	-$411,526

Note: This information is also reflected for the description of the Route 30 recommendations. These savings apply to the net impact of interlining the Route 30 and Route 70.

Map 13-13: Recommended Route 70



Route 80

The redesigned Route 80 will now serve as a major north-south route providing service from The Forum to the new South Area Transfer Center, as shown in Map 13-14. Additionally, the redesigned Route 80 will serve Florida SouthWestern State College and Pine Manor east of US-41.

Currently, Route 80 serves Metro Parkway, which has poor ridership. The current alignment also serves LeeTran Headquarters and Broadway before terminating at Edison Mall. Traveling outbound, the redesigned Route 80 will travel east on Daniels Parkway, north on FSW Parkway, north on Summerlin Road, east on Maple Drive, south on Eighth Avenue, and east on Palm Drive. Continuing outbound, the route will travel north on US-41, east on Danley Drive, north on Metro Parkway, and east on Winkler Avenue. The route will travel east on Lee Boulevard to The Forum. The route will make the same inbound pattern after laying over at The Forum. The redesigned route will provide transfer opportunities to numerous routes in the LeeTran system, such as Routes 5, 30, 50, 110, 140, and 170.

The redesigned Route 80 will improve headways from 97 minutes to 60 minutes, which is a more consistent clockface headway. This change will also improve on-time performance and reliability. Table 13-19 shows the recommendations for Route 80 and Table 13-20 shows the net changes.

Below is a list of activity centers the new Route 80 will serve:

- Bell Tower Shops
- Page Field
- Florida SouthWestern State College
- Omni
- The Forum

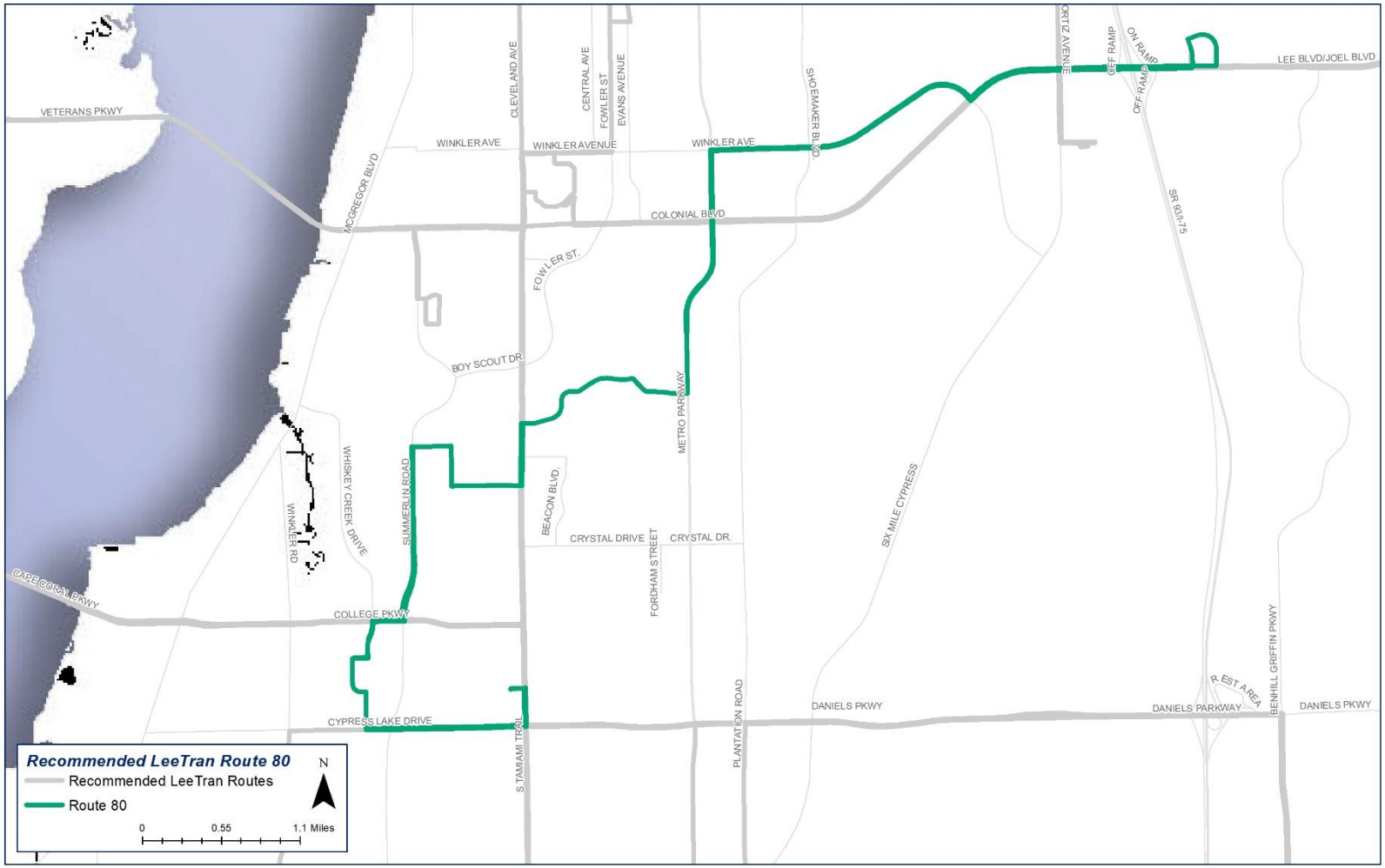
Table 13-19: Recommended Route 80

Day	Weekday		Saturday		Sunday	
Time	6:30 AM	8:00 PM				
Headways (Minutes)	50					

Table 13-20: Route 80: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
3,290	$236,617	5,301	$381,248	2,011	$144,631

Map 13-14: Recommended Route 80



Route 100

The recommended Route 100 is an east-west route serving Palm Beach Boulevard and downtown Fort Myers (see Map 13-15). The recommended Route 100 is a streamlined route that will operate solely along Palm Beach Boulevard from Rosa Parks to the Winn Dixie at Buckingham Road.

Currently, the Route 100 uses Second Street on the outbound alignment. There are improvements occurring to First Street between Fowler Street and Seaboard Street that will change traffic patterns from one-way to bidirectional, which will allow the recommended Route 100 to operate solely on First Street and Palm Beach Boulevard for the entire alignment of service. These recommendations allowed the project team to streamline downtown routing and reduce redundancy. In addition, the project team improved headways on Saturday to 30 minutes, as well as 60 minutes on Sunday, as shown in Table 13-21. Table 13-22 shows the net changes to Route 100.

Below is a list of activity centers the new Route 100 will serve:

- Downtown Fort Myers
- Rosa Parks Transfer Center
- Lee County Parks and Recreation
- Winn Dixie

Table 13-21: Recommended Route 100

Day	Weekday		Saturday		Sunday	
Time	5:30 AM	10:00 PM	5:30 AM	9:35 PM	7:35 AM	8:10 PM
Headways (Minutes)	30		30		60	

Table 13-22: Route 100: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
13,990	$1,006,161	15,195	$1,092,824	1,205	$86,664

Map 13-15: Recommended Route 100

Route 110

As previously discussed, the project team determined that a greater savings could be achieved by interlining the Route 10 and Route 110 at Edison Mall. However, the existing Route 110 operates earlier than Route 10, so the project team maintained that service span from Lehigh Acres beginning at 5:00 AM to 6:45 AM. At 6:45 AM, Route 10 and Route 110 will begin interlining on weekdays and Saturday. Route 10 does not operate on Sunday, so Route 110 will not be interlining with it on that day.

Route 110 will continue to provide service between Lehigh Acres and the Edison Mall, as shown in Map 13-16. Table 13-23 shows the recommendations for Route 110 on weekday and Saturday, as well as Sunday. Table 13-24 shows the net changes.

Below is a list of activity centers the new Route 110 will serve:

- Edison Mall
- Lehigh Acres

Table 13-23: Recommended Route 110 and Route 10

Day	Weekday		Saturday		Sunday	
Time	5:00 AM	10:00 PM	5:00 AM	10:00 PM	6:10 AM	9:03 PM
Headways (Minutes)	60		60		60	

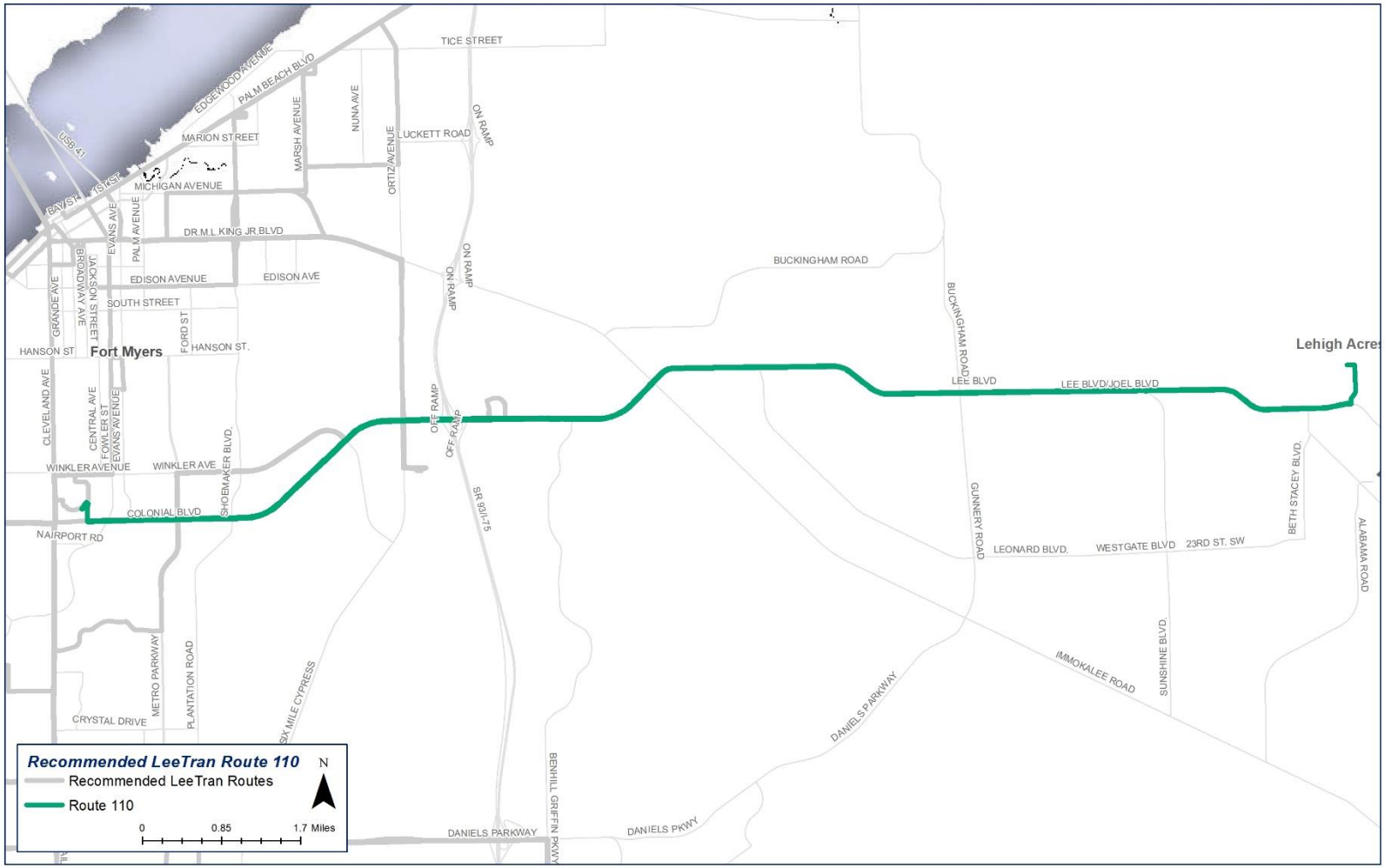
Note: Route 10 will not operate on Sunday.

Table 13-24: Route 110 and Route 10: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
16,358	$1,176,467	15,794	$1,135,904	-564	-$40,563

Note: This information is also reflected for the description of the Route 10 recommendations. These savings apply to the net impact of interlining the Route 10 and Route 110.

Map 13-16: Recommended Route 110



Route 120

The recommended east-west route will provide service between Edison Mall, Coralwood Mall, and the Target on Santa Barbara Boulevard, as shown in Map 13-17. Similar to Route 30, Route 120 will provide a vital east-west connection between Cape Coral and Fort Myers.

Currently, Route 120 serves Cape Coral Transfer Center once it travels across the Midpoint Bridge. The project team removed this segment due to a lack of ridership on County Club Boulevard. Now the Route 120 will terminate at the Target on Santa Barbara Boulevard after serving Coralwood Mall, providing an additional connection to Route 40 in west Cape Coral. This change will streamline services and improve on-time performance and headways from 80 minutes to 60 minutes for weekdays, Saturday, and Sunday.

The recommended Route 120 will also serve the medical complexes on Barkley Circle, which is south of Colonial Boulevard and east of Summerlin Road. Table 13-25 shows the recommendations for Route 120 and Table 13-26 shows the net changes.

Below is a list of activity centers the new Route 120 will serve:

- Coralwood Mall
- Edison Mall
- Target

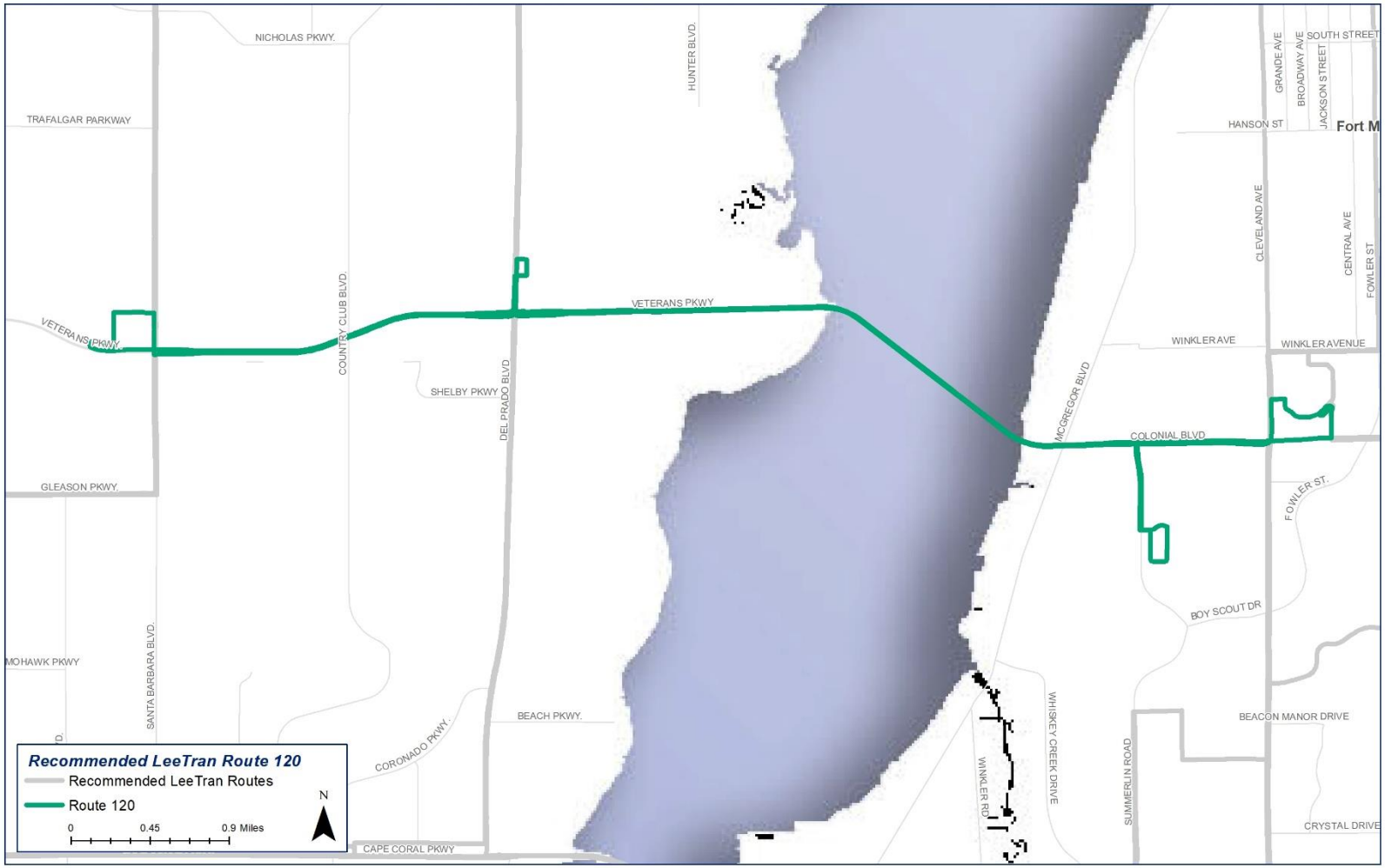
Table 13-25: Recommended Route 120

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	9:10 PM	6:00 AM	9:10 PM	8:30 AM	6:25 PM
Headways (Minutes)	60		60		60	

Table 13-26: Route 120: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
5,172	$371,970	5,584	$401,601	412	$29,631

Map 13-17: Recommended Route 120



Route 140

This north-south route is LeeTran's major US-41 trunkline. It provides frequent local service from Bell Tower Shops to Merchants Crossing. However, on-time performance is occasionally impacted due to congestion and route length. The project team and LeeTran staff modified this route to drastically improve headways along US-41. The recommended Route 140 will now serve riders from the new South Area Transfer Center to Rosa Parks, as shown in Map 13-18. By removing Route 140 out of North Fort Myers, the project team is able to improve headways to 15 minutes, a drastic improvement from the current Route 140 operational characteristics.

Additionally, the Route 140 will serve Edison Mall via Winkler Avenue rather than the Edison Mall frontage road. This improvement will close the gap on the west portion of the mall along Cleveland Avenue. Based on the recommendations from the project team, LeeTran will save approximately $98,315, which can be applied to other routes in the LeeTran network. In addition, the project team was able to operate this route with five vehicles rather than six. Table 13-27 shows the recommendations for Route 140 and Table 13-28 shows the net changes.

Below is a list of activity centers the new Route 140 will serve:

- Downtown Fort Myers
- Edison Mall
- Future South Area Transfer Center (replacing Bell Tower Shops)

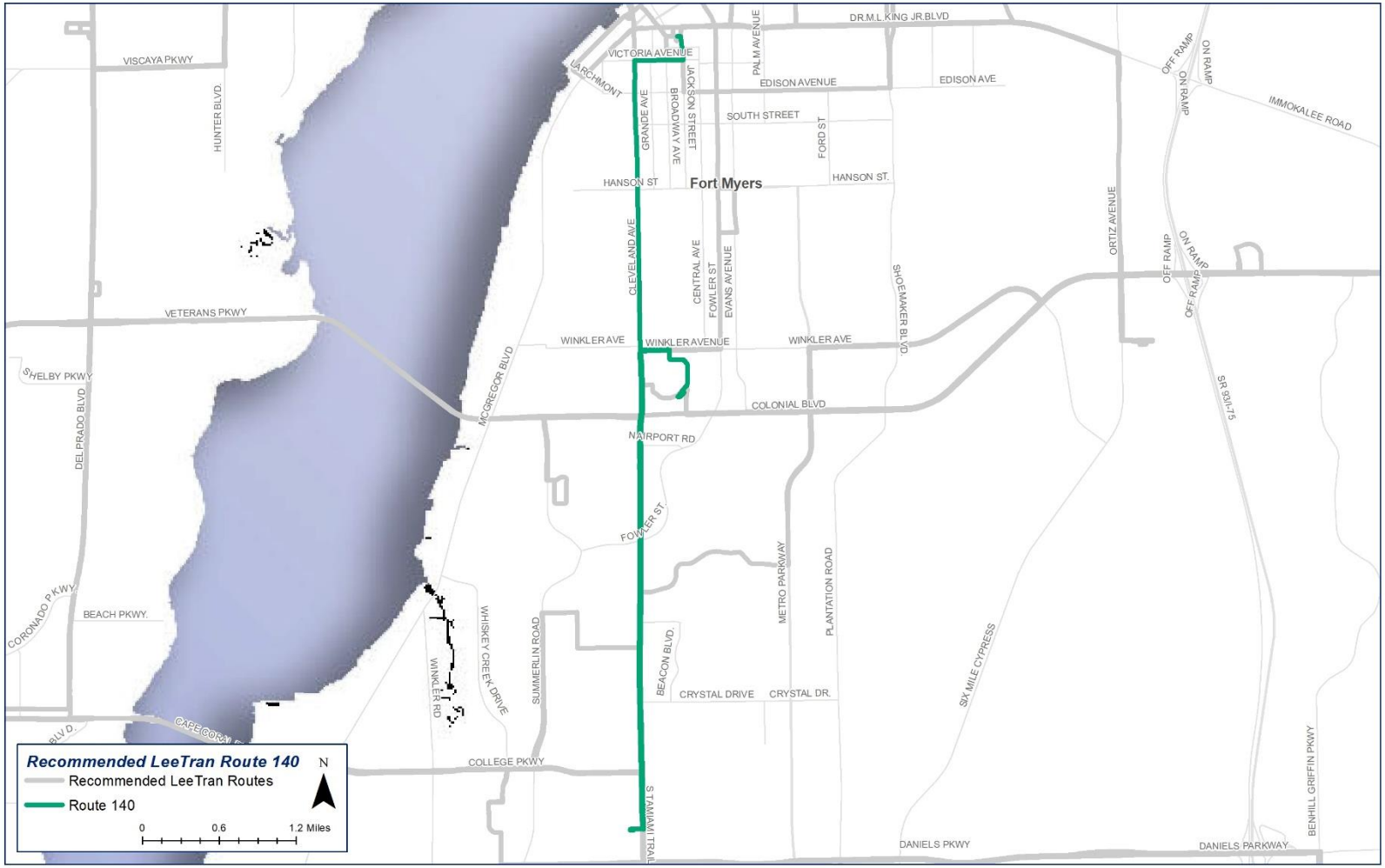
Table 13-27: Recommended Route 140

Day	Weekday		Saturday		Sunday	
Time	5:00 AM	9:55 PM	5:00 AM	9:55 PM	6:05 AM	8:55 PM
Headways (Minutes)	15		15		15	

Table 13-28: Route 140: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
30,867	$2,219,955	29,500	$2,121,640	-1,367	-$98,315

Map 13-18: Recommended Route 140



Route 150

The project team made a minor routing modification to Route 150 by removing it from Terry Street. The segment on Terry Street has poor ridership based on recorded APC data. The routing modification will allow LeeTran to directly serve the neighborhoods on the north-south side of Pennsylvania Avenue, which is more densely populated than the proximate portions of Terry Street. The modified Route 150 will provide service to/from Bonita Springs to Lovers Key State Park, as shown in Map 13-19. The overall goal is to improve the route's headways to 60 minutes, which is a more clockface headway. However, at this time, Route 150 did not warrant the need for such a major improvement, so the project team instead recommended operating Route 150 with 85-minute headways rather than 95-minute headways. The adjustment improves the recovery time and does not require an additional vehicle. Additional headway improvements to the Route 150 have been considered in the mid-term, which is highlighted in Table 13-47. Table 13-29 shows the recommendations for Route 150 and Table 13-30 shows the net changes.

Below is a list of activity centers the new Route 150 will serve:

- Fort Myers Beach
- Lovers Key State Park
- Publix

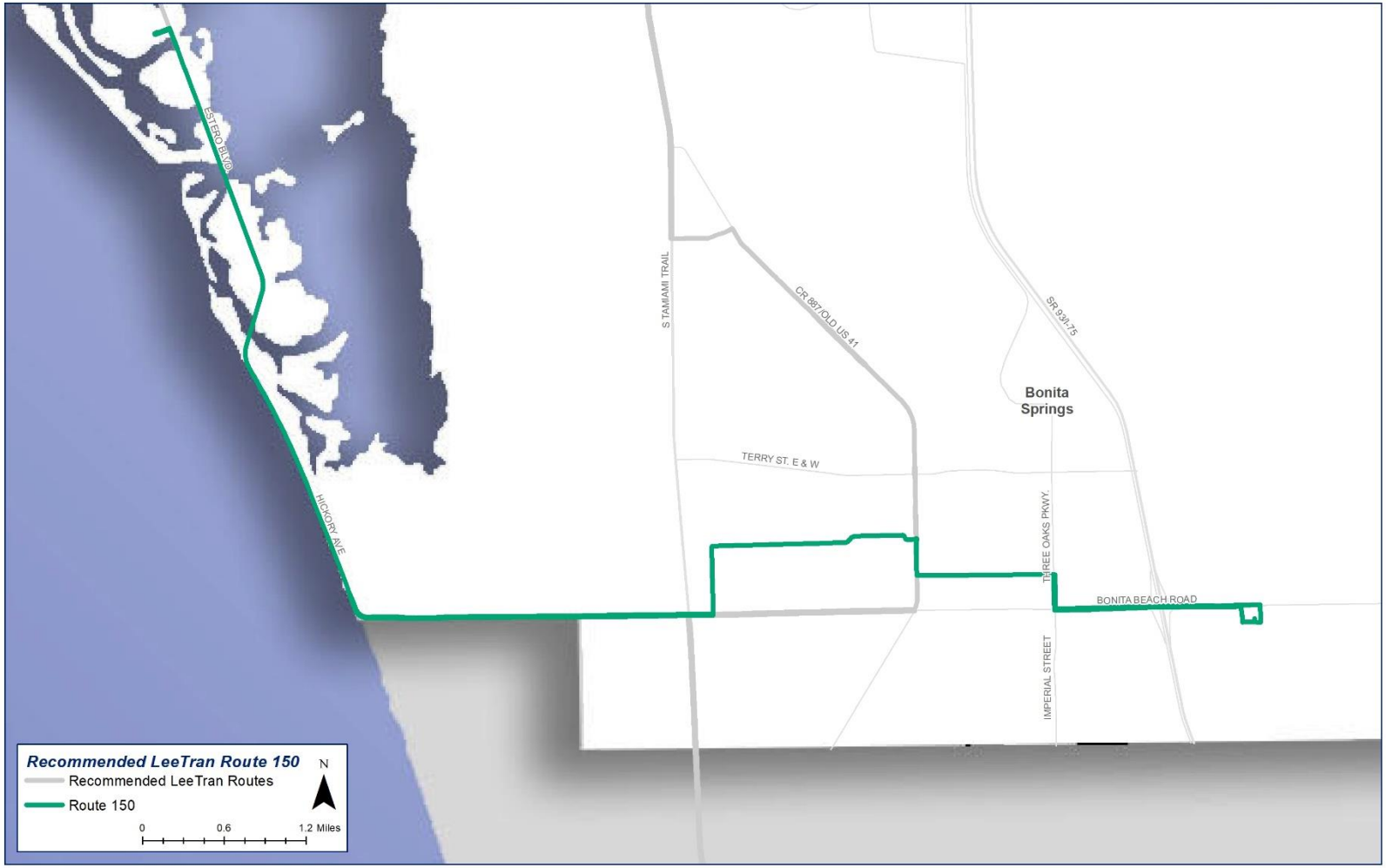
Table 13-29: Recommended Route 150

Day	Weekday		Saturday		Sunday	
Time	6:50 AM	6:06 PM	6:50 AM	6:06 PM	8:27 AM	6:00 PM
Headways (Minutes)	85		85		85	

Table 13-30: Route 150: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
3,700	$266,104	3,939	$283,293	239	$17,189

Map 13-19: Recommended Route 150



Route 170

The new Route 170 is an east-west route that provides service from the new South Area Transfer Center to the Beach Park-and-Ride, as shown in Map 13-20. The route also provides service to the southern portion of Metro Parkway and Plantation Road, which is currently served by Route 80. Ultimately, this route was designed to provide a more frequent east-west route to the beach, which currently took too long due to length and poor on-time performance.

Traveling inbound from the Beach Park-and-Ride, the new Route 170 will travel north on San Carlos Boulevard, east on Gladiolus Drive, north on Winkler Road, and east on Cypress Lake Drive. The route will travel south on Plantation Road, west on Six Mile Cypress Parkway, and north on Metro Parkway. After serving the southern portion of Metro Parkway, the route will travel back to the South Area Transfer Center. The outbound alignment will travel in the same direction serving Plantation Road and Metro Parkway first before traveling to the Beach Park-and-Ride. Table 13-31 shows the recommendations for Route 170 and Table 13-32 shows the net changes.

Below is a list of activity centers the new Route 170 will serve:

- Bell Tower Shops
- Gulf Coast Medical Center
- Florida SouthWestern State College
- Fort Myers Beach
- Minnesota Twins Spring Training Facility

Table 13-31: Recommended Route 170

Day	Weekday		Saturday		Sunday	
Time	6:30 AM	9:00 PM	6:30 AM	9:00 PM	8:30 AM	7:00 PM
Headways (Minutes)	60		60		120	

Table 13-32: Route 170: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
--	--	8,034	$577,805	8,034	$577,805

Map 13-20: Recommended Route 170

Route 410

The recommended operational characteristics for Route 410 will improve on-time performance on Fort Myers Beach. The Route 410 currently serves Fort Myers Beach between Bowditch Park and Lovers Key State Park between January and May. However, in order to improve on-time performance on Fort Myers Beach, the project team and LeeTran staff recommended operating the Route 410 in-season and off-season. The recommended Route 410 will now operate in-season with 30-minute headways and off-season with 60-minute headways, as shown in Table 13-33 and Table 13-34. In addition, in-season, the Route 410 will operate until 10:00 PM and off-season until 9:00 PM. Table 13-35 shows the net changes for the Route 410. Map 13-21 shows the recommended alignment for the Route 410, which is consistent with LeeTran's existing alignment.

Below is a list of activity centers the new Route 410 will serve:

- Fort Myers Beach
- Lovers Key State Park

Table 13-33: Recommended Route 410: In-Season

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	10:00 PM	6:00 AM	10:00 PM	6:00 AM	10:00 PM
Headways (Minutes)	30		30		30	

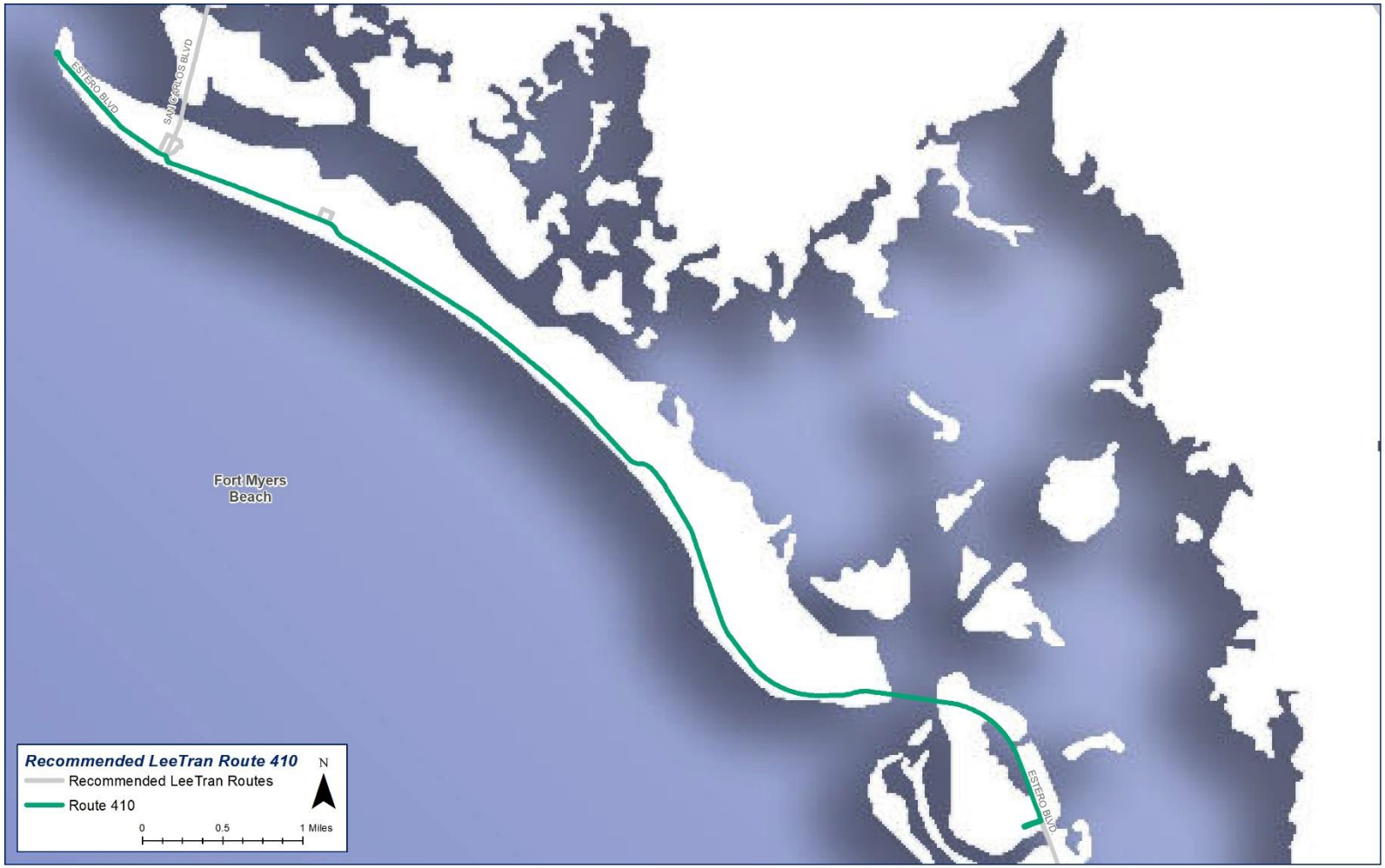
Table 13-34: Recommended Route 410: Off-Season

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	9:00 PM	6:00 AM	9:00 PM	6:00 AM	9:00 PM
Headways (Minutes)	60		60		60	

Table 13-35: Route 410: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
5,570	$400,629	9,334	$671,301	3,764	$270,672

Map 13-21: Recommended Route 410



Route 590

The current Route 590 operates a clockwise loop in North Fort Myers serving residential areas, Publix, and Merchants Crossing. Most riders who use Route 590 are transferring at Merchants Crossing or going to grocery stores. The project team and LeeTran staff recommended implementing a MoD in North Fort Myers that would serve riders who are not directly served by Route 590 or have difficulty accessing Route 590. Most of North Fort Myers is difficult to access by bus primarily due to the road patterns there.

The recommended Route 590 will now operate a radial pattern, which eliminates the need for riders to board the bus and ride it continuously around to their destination, as shown in Map 13-22. The recommended Route 590 will travel outbound from Rosa Parks, north on US-41 to Merchants Crossing, east on Littleton Road, north on Tamiami Trail, east on Laurel Drive, north on Ebson Drive, east on Tucker Lane, south on Hart Drive, and west on Bayshore Road to Eagle Landing.

These recommendations will improve the on-time performance and reliability of Route 590, which serves an area that has a "very high" propensity to use transit; however, this requires one additional vehicle and is more costly. Table 13-36 shows the recommendations for Route 590 and Table 13-37 shows the net changes.

Below is a list of activity centers the new Route 590 will serve:

- Merchants Crossing
- Walmart
- Eagle Landing
- Downtown Fort Myers

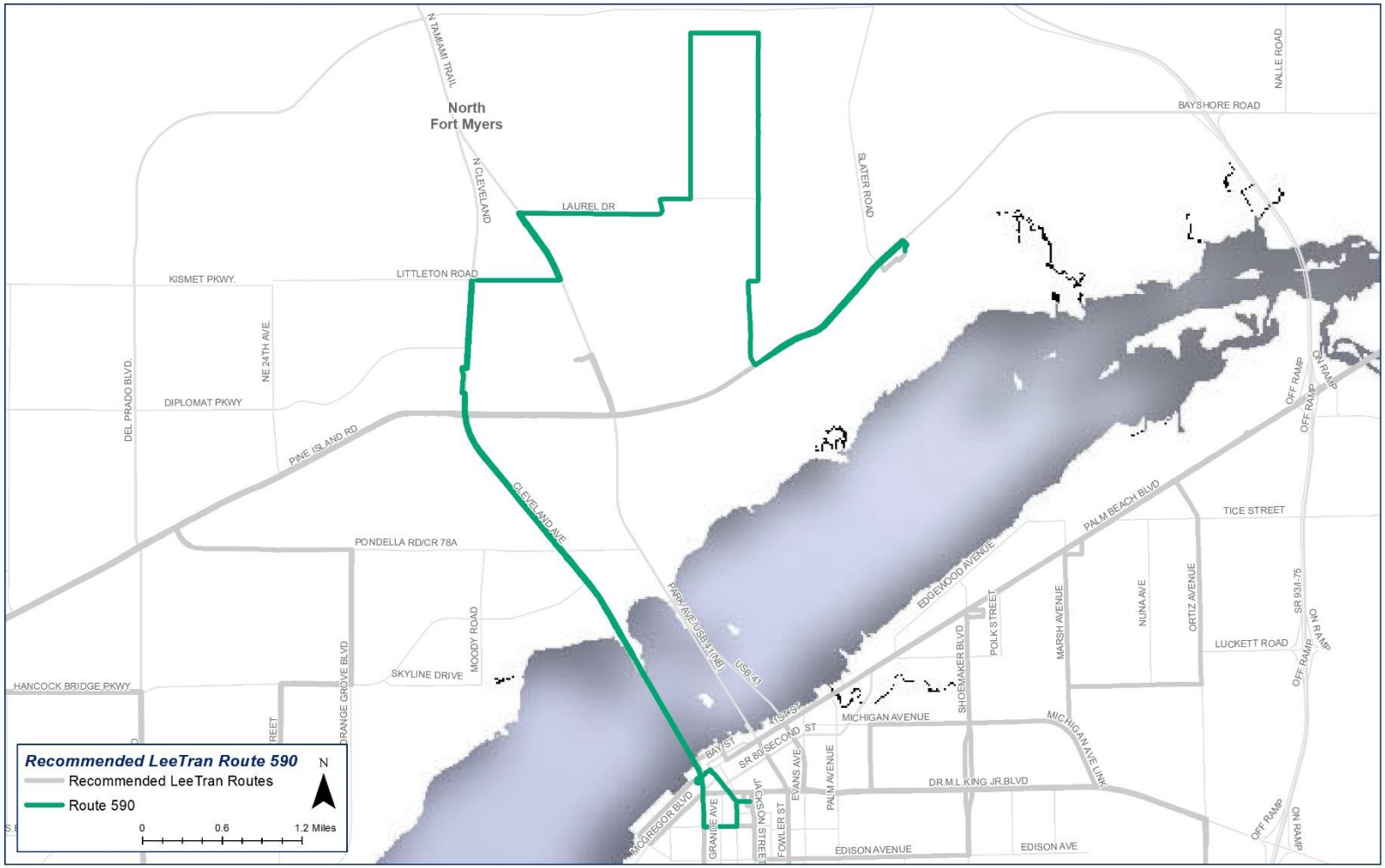
Table 13-36: Recommended Route 590

Day	Weekday		Saturday		Sunday	
Time	5:15 AM	9:00 PM	5:15 AM	9:00 PM	8:50 AM	6:00 PM
Headways (Minutes)	60		60		120	

Table 13-37: Route 590: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
5,050	$363,196	9,502	$683,384	4,452	$320,188

Map 13-22: Recommended Route 590



Route 595

Similarly, Route 595 also operates a loop in North Fort Myers serving Merchants Crossing, the VA Clinic, Walmart, and other various retail/business establishments. The project team redesigned the Route 595 to operate an east-west service along Pine Island Road and Bayshore Road, as shown in Map 13-23. The western portion of the alignment terminates at the Neighborhood Market and the eastern portion terminates at Eagle Landing. The redesigned Route 595 will also serve North Fort Myers Recreation Center and North Fort Myers Public Library.

The simplification to Route 595 will drastically improve ridership and performance and does not require an additional vehicle. Table 13-38 shows the recommendations for Route 595 and Table 13-39 shows the net changes.

Below is a list of activity centers the new Route 595 will serve:

- Merchants Crossing
- Walmart
- North Fort Myers Recreation Center
- North Fort Myers Public Library

Table 13-38: Recommended Route 595

Day	Weekday		Saturday		Sunday	
Time	5:05 AM	8:45 PM	5:05 AM	8:45 PM	8:00 AM	6:45 PM
Headways (Minutes)	80		80		90	

Table 13-39: Route 595: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
5,057	$363,699	5,644	$405,916	587	$42,217

Map 13-23: Recommended Route 595

Route 240/600

Routes 240 and 600 are LeeTran's major regional connectors to Collier County. LeeTran staff recommended combining Routes 240 and 600 into one continuous route with 60-minute headways. This would provide a more improved regional route between Lee and Collier counties. The recommended Route 240/600 will maintain service to Collier County using the same pattern currently provided by LeeTran's Route 600. However, the north portion of the route will now terminate at the new South Area Transfer Center, as shown in Map 13-24. Additionally, to help improve on-time performance, the recommended Route 240/600 will serve all stops streetside on US-41 rather than deviating off the route.

The simplification to Route 240/600 will drastically improve ridership and performance; however, this requires one additional vehicle and is moderately more costly. These recommendations allow the project team to operate the route on a clockface headway every 60 minutes. Table 13-40 shows the recommendations for Route 240/600 and Table 13-41 shows the net changes.

Below is a list of activity centers the new Route 240/600 will serve:

- Future South Area Transfer Center (replacing Bell Tower Shops)
- Coconut Point Mall
- Creekside Transfer Center

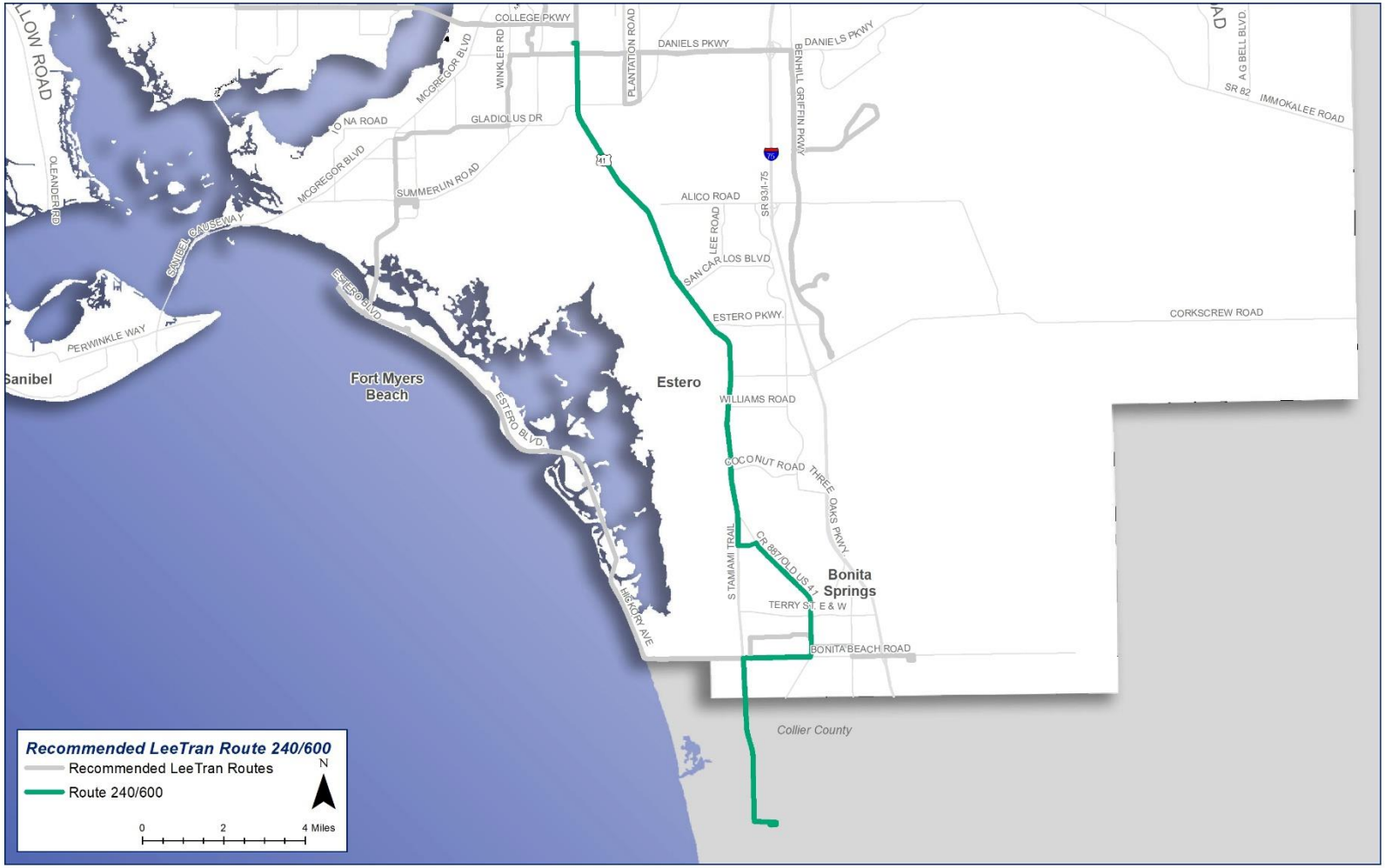
Table 13-40: Recommended Route 240/600

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	10:00 PM	6:00 AM	10:00 PM	7:30 AM	6:00 PM
Headways (Minutes)	60		60		60	

Table 13-41: Route 240/600: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
13,980	$1,005,442	16,802	$1,208,400	2,822	$202,958

Map 13-24: Recommended Route 240/600



Beach Link

The current Route 400 serves as the Fort Myers Beach fixed route. However, due to congestion, it is difficult for the Route 400 to operate on time, which impacts the riders boarding at Fort Myers Beach and at the Beach Park-and-Ride. So, the project team and LeeTran staff recommended separating the route by operating a proposed Route 410, the Beach Link, annually using different headways.

The project team recommended implementing a short fixed-route transit service (Beach Link) that provides service from the Beach Park-and-Ride to Time Square on Fort Myers Beach, as shown in Map 13-25. These modifications will drastically improve the on-time performance and reliability of the proposed Route 410. Additionally, the Beach Link will operate with 15-minute headways in-season and 30-minute headways off-season, as shown in Table 13-42 and Table 13-43. Table 13-44 shows the net changes of the Beach Link.

Below is a list of activity centers the new Beach Link will serve:

- Beach Park-and-Ride
- Walmart
- Fort Myers Beach

Table 13-42: Recommended Beach Link: In-season

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	10:00 PM	6:00 AM	10:00 PM	6:00 AM	10:00 PM
Headways (Minutes)	15		15		15	

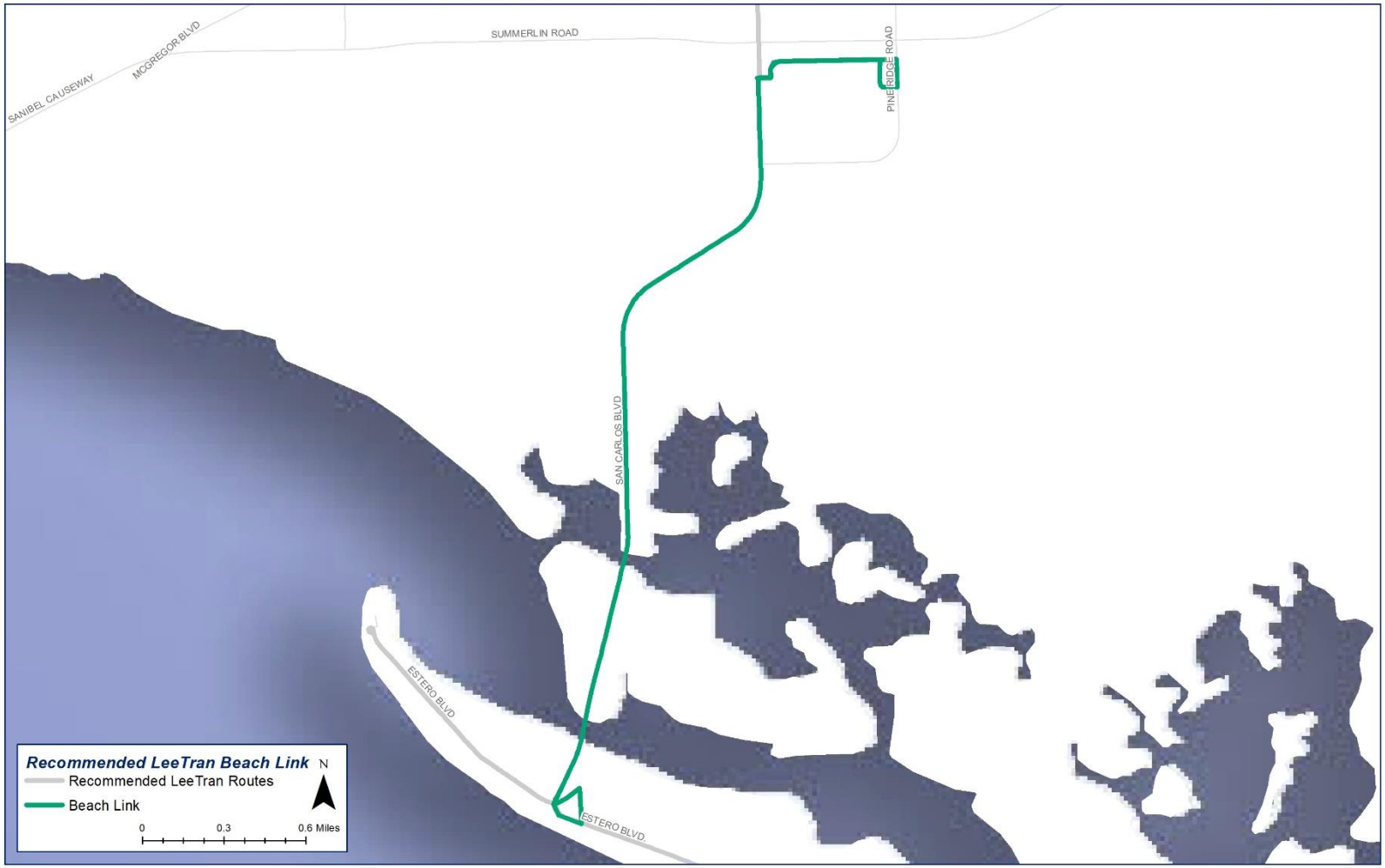
Table 13-43: Recommended Beach Link: Off-Season

Day	Weekday		Saturday		Sunday	
Time	6:00 AM	9:00 PM	6:00 AM	9:00 PM	6:00 AM	9:00 PM
Headways (Minutes)	30		30		30	

Table 13-44: Beach Link: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
6,061	$435,916	9,334	$671,301	3,273	$235,386

Map 13-25: Recommended Beach Link



Blue Trolley

The Blue Trolley currently has the poorest on-time performance in the LeeTran network, which is likely due to a meandering alignment and congestion in downtown Fort Myers. The Blue Trolley provides connections to major downtown retail establishments but has poor ridership along most of its alignment.

The project team modified the routes in the LeeTran network to reduce redundancy in the downtown core, which places greater emphasis on the local trolley network (i.e., Blue Trolley). The redesigned Blue Trolley will operate in a bidirectional loop serving downtown Fort Myers, as shown in Map 13-26. Traveling outbound to the east, the redesigned Blue Trolley will travel north on Park Avenue, west on First Street, north on Hendry Street, west on Edwards Drive, west on First Street, east on Martin Luther King Boulevard, and south on Jackson Street to Rosa Parks. The shortened loop will improve on-time performance and reliability.

The simplification of the Blue Trolley will drastically improve ridership and performance in downtown Fort Myers. Additionally, by operating the route in two directions, the schedule can be offset to operate with 12.5-minute headways; however, this requires one additional vehicle and is moderately more costly. Table 13-45 shows the recommendations for the Blue Trolley and Table 13-46 shows the net changes.

Below is a list of activity centers the new Blue Trolley will serve:

- Downtown Fort Myers
- Rosa Parks Transfer Center

Table 13-45: Recommended Blue Trolley

Day	Weekday		Saturday		Sunday	
Time	11:00 AM	11:00 PM	11:00 AM	11:00 PM	11:00 AM	11:00 PM
Headways (Minutes)	25		25		25	

Table 13-46: Blue Trolley: Net Changes

Existing Route		Proposed Route		Net Change	
Service Hours	Costs	Service Hours	Costs	Service Hours	Costs
2,815	$202,455	3,744	$269,268	929	$66,814

Map 13-26: Recommended Blue Trolley

Mobility on Demand (MoD) Zones

Mobility on Demand, or MoD, is an emerging concept that uses cloud-based Mobility as a Service (MaaS) tools to allow passengers to hail a ride in real-time or schedule in advance and facilitates optimized trip assignment sequencing (pickups and drop-offs) typically using 16-passenger vehicles. The cloud-based MaaS platform continually updates and optimizes trip requests and assignments based on trip request times, origin and destination locations, vehicle location, and vehicle capacity considerations. The process is automated and the vehicle operator receives and responds to trip assignments (events) as they are displayed on the in-vehicle tablet. The platform may also include fare payment, consistent with LeeTran policies. All trip request, operational, and fulfillment data are collected and stored in real-time and used to generate operations and management reports required by LeeTran. Operating MoD in Lee County would offer the ability for LeeTran to provide an on-demand, dynamic, real-time shared ride general public dial-a-ride service equally available and accessible to both persons who are ambulatory and persons with disabilities. The project team designed the MoD zones using major street boundaries and "high" to "very high" TOI and DTA zones, or areas with the highest propensity to use transit service.

As the MoD zones become more defined, the project team used the Lehigh Acres financial characteristics to estimate for short-term and mid-term improvements. This assumes a service span of 15 hours and 45 minutes with 2 vehicles operating in the peak and 1 vehicle operating in the off-peak. This section describes each of the proposed MoD zones in more detail. The MoD service is likely to be implemented toward the end of the short-term plan and throughout the mid-term plan. Map 13-27 shows the MoD zones in relation to other routes in the LeeTran system.

Lehigh Acres MoD Zone

The Lehigh Acres MoD zone will need to be further defined during operations planning; however, the initial service zone is bounded by Moore Avenue/Columbus Boulevard to the east, Jaguar Boulevard and SR 82 to the south, 12th Street to the north, and Sunshine Boulevard to the west. As configured, this represents a 42-square mile service zone, about 6.5 miles in length and width. Currently, riders have limited access to both Route 110 and Route 515, primarily due to the low density of the service area, limited roadway access, and limited range of the fixed route bus. MoD will allow passengers to request rides immediately and in advance from any point to any other point within the Lehigh Acres MoD service zone. This includes a substantial area that is not currently served by LeeTran within a ¼-mile buffer of Route 515. The conversion of Route 515 to MoD will expand cost-effective and convenient transit access throughout Lehigh Acres, serving the general public, persons with limited access to automobiles, access to the Homestead Plaza, the new park-and-ride facility and transit hub once complete, and connections to the Route 110 service to Fort Myers, as well as providing a means to serve growing demand for point-to-point service coincident with the increase in mobility needs associated with persons aging in place. The future transit hub will be located adjacent to Lehigh Acres Community Park (which includes a pool, recreation center, and ball fields) and serve both Route 110 and the MoD microtransit service. The

Lehigh Acres MoD zone will likely be the first zone implemented in the LeeTran service since it will be replacing Route 515.

North Fort Myers MoD Zone

The North Fort Myers MoD Zone provides on demand coverage to areas the existing or recommended transit service cannot serve. In addition, this service provides coverage to an area with a very high propensity to use transit. The recommended Route 590 and Route 595 will serve this area and provide connections to other routes in the LeeTran network. To the east, the North Fort Myers MoD Zone stretches past Slate Road, and is bounded on the north by Mellow Drive, to the west by Nelson Road, and to the south by Pine Island Road and Pondella Road.

Cape Coral MoD Zone

The Cape Coral MoD Zone provides on demand coverage to neighborhoods centrally located north-south in Cape Coral. Some of these areas have poor fixed-route ridership but would likely generate higher propensity to use on-demand service. In addition, this service provides coverage to an area that has a very high propensity to use transit based on youth and older adult populations. The recommended Routes 30, 40, 70, and 120 will serve this area and provide connections to other routes in the LeeTran network. Additionally, the Cape Coral MoD zone will provide connections to the North Fort Myers MoD Zone near the Walmart Neighborhood Market. This zone spans as far north as Pondella Road and as far south as Cape Coral Parkway. To the east, the zone stretches past Del Prado Boulevard, and to the west, the zone stretches past Pelican Boulevard.

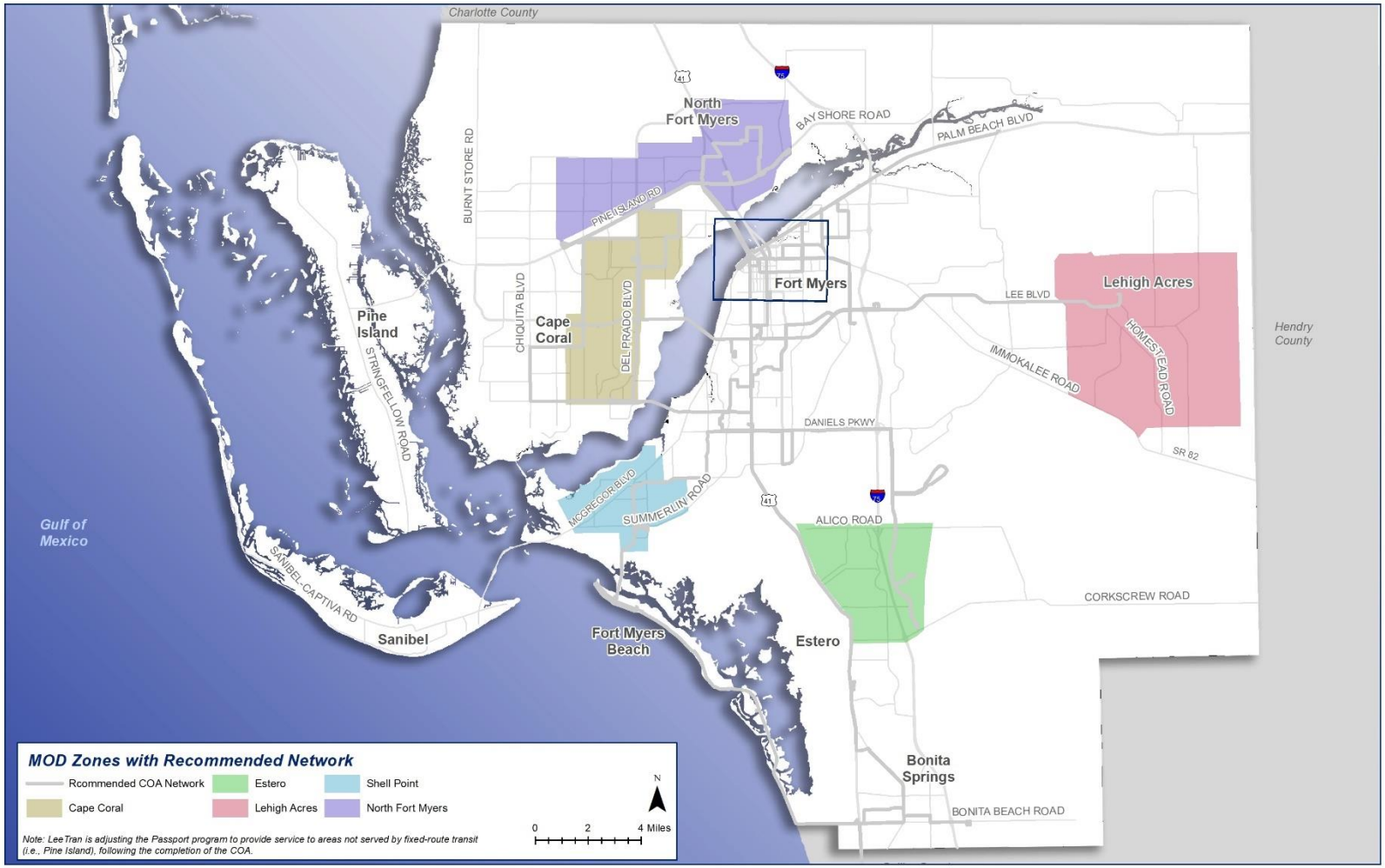
Shell Point MoD Zone

The Shell Point MoD Zone provides on-demand coverage to a number of assisted living facilities and apartment complexes that are difficult to access by regular fixed-route transit. The Shell Point MoD zone will connect riders to other routes in the LeeTran system, as well as the Beach Park-and-Ride. The Shell Point MoD zone will connect riders to Route 170 and the Beach Link, which will connect riders to Fort Myers Beach. Toward the southwest, the zone borders Shell Point Boulevard, to the east the zone borders Bass Road, and the northern portion of the MoD zone borders the Caloosahatchee River.

Estero MoD Zone

The Estero MoD Zone was originally operated by Route 60, but due to poor ridership and street layout, the project team and LeeTran staff recommended operating MoD in this area instead. This zone will serve Estero's neighborhoods, as well as Miromar Outlets and Florida Gulf Coast University. In addition, this zone will be served by Route 50, which provides service to the Southwest Florida International Airport and the new South Area Transfer Center. The zone borders US-41 to the west, Corkscrew Road to the south, and Alico Road to the north. The eastern portion of the MoD encompasses Miromar Outlets and Florida Gulf Coast University.

Map 13-27: Recommended LeeTran MoD Zones



Additional Routing Recommendations

As previously discussed, the recommended routes focus on higher ridership areas facilitating higher frequencies and improving on-time performance to major destinations in the LeeTran service area, which should generate ridership growth and result in more efficient use of resources. Other recommendations include maintaining LeeTran's seasonal Tram service on Fort Myers Beach to capture additional ridership and to alleviate some on-time performance issues that may impact the Route 410.

Eliminated routes include the following:

- Route 60
- Route 130
- Route 160
- Route 515
- Gold Trolley
- Fort Myers Beach Trolley (410)

Mid-Term Routing Recommendations

The mid-term network maintains all of the route recommendations and spans discussed in this section. However, the mid-term network places greater emphasis on additional frequency improvements to core routes over the 3-10-year period. The mid-term network is intended to offer the most frequent, reliable service to existing key destinations and areas with increasing demand. Table 13-47 shows the span and headways by route for the mid-term network. Maps 13-28 and 13-29 show LeeTran mid-term frequencies by route for the in-season and off-season periods.

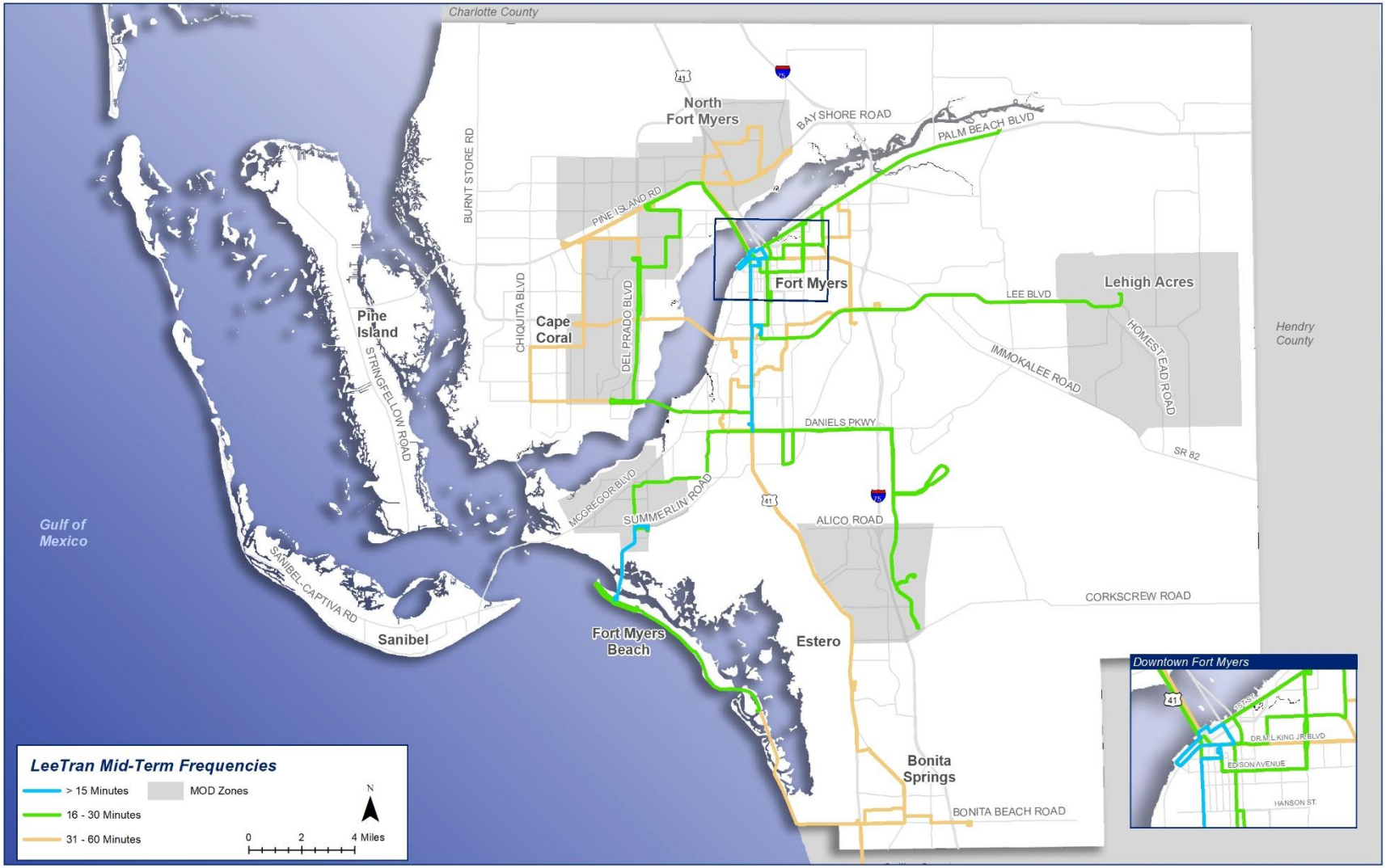
Table 13-47: LeeTran Recommended Service Characteristics – Mid-Term

Route	Weekday		Saturday		Sunday	
	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span	Avg. Headway (Minutes)	Service Span
5	60	6:05 AM - 8:35 PM	60	6:05 AM - 8:35 PM	-	-
10	30	6:45 AM - 10:00 PM	30	6:45 AM - 10:00 PM	-	-
15	60	5:45 AM - 9:30 PM	60	5:45 AM - 9:30 PM	60	7:05 AM - 6:30 PM
20	30	5:30 AM - 9:00 PM	30	5:30 AM - 9:00 PM	-	-
30	30	6:05 AM - 9:24 PM	30	6:05 AM - 9:24 PM	-	-
40	60	5:45 AM - 8:15 PM	60	5:45 AM - 8:15 PM	-	-
50	30	6:30 AM - 9:45 PM	30	6:30 AM - 9:45 PM	30	6:45 AM - 7:18 PM
70	30	5:30 AM - 9:30 PM	30	5:45 AM - 9:30 PM	30	6:40 AM - 8:10 PM
80	45	6:30 AM - 8:00 PM	-	-	-	-
100	30	5:30 AM - 10:00 PM	30	5:30 AM - 9:35 PM	60	7:35 AM - 8:10 PM
110	30	5:00 AM - 10:05 PM	30	5:00 AM - 10:05 PM	30	6:10 AM - 9:03 PM
120	60	6:00 AM - 9:10 PM	60	6:00 AM - 9:10 PM	60	8:30 AM - 6:25 PM
140	15	5:00 AM - 9:55 PM	15	5:00 AM - 9:55 PM	15	6:05 AM - 8:55 PM
150	60	6:50 AM - 6:06 PM	60	6:50 AM - 6:06 PM	60	8:27 AM - 6:00 PM
170	30	6:30 AM - 9:00 PM	30	6:30 AM - 9:00 PM	60	8:30 AM - 7:00 PM
410	30	6:00 AM - 10:00 PM	30	6:00 AM - 10:00 PM	30	6:00 AM - 10:00 PM
410	60	6:00 AM - 9:00 PM	60	6:00 AM - 9:00 PM	60	6:00 AM - 9:00 PM
590	60	5:15 AM - 9:00 PM	60	5:15 AM - 9:00 PM	120	8:50 AM - 6:00 PM
595	60	5:05 AM - 8:45 PM	60	5:05 AM - 8:45 PM	90	8:00 AM - 6:45 PM
240/600	45	6:00 AM - 10:00 PM	45	6:00 AM - 10:00 PM	45	7:30 AM - 6:00 PM
RDT - Blue (500)	15	11:00 AM - 11:00 PM	15	11:00 AM - 11:00 PM	15	11:00 AM - 10:00 PM
Beach Link	15	6:00 AM - 10:00 PM	15	6:00 AM - 10:00 PM	15	6:00 AM - 10:00 PM
Beach Link	30	6:00 AM - 9:00 PM	30	6:00 AM - 9:00 PM	30	6:00 AM - 9:00 PM
Beach Tram	20	8:00 AM - 9:00 PM	20	8:00 AM - 9:00 PM	20	8:00 AM - 9:00 PM

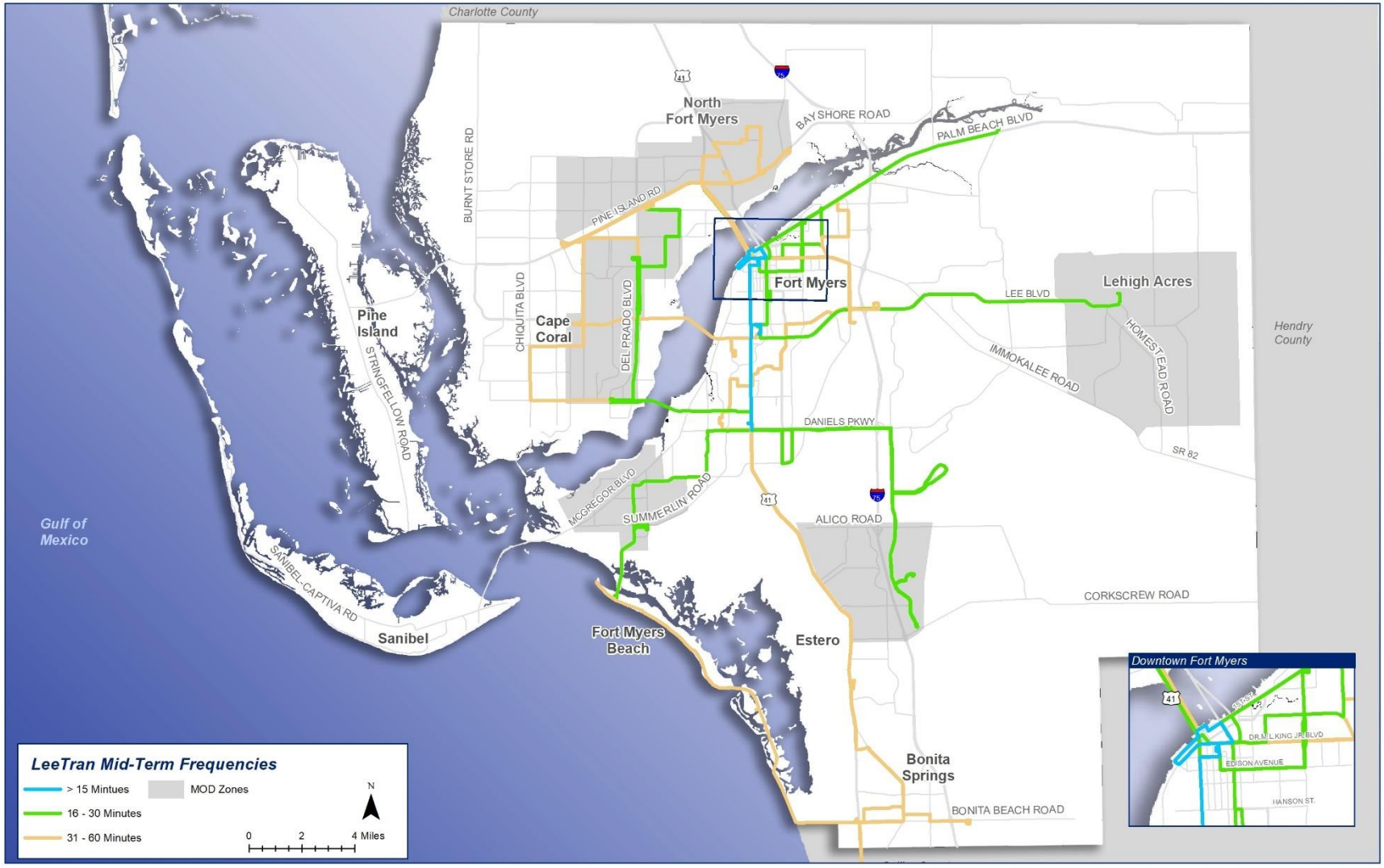
Source: LeeTran; RDT=River District Trolley

Note: Routes highlighted in **green** are seasonal routes and operate from January to May and routes highlighted in **orange** are non-seasonal routes that operate from May to December.

Map 13-28: Recommended Mid-Term Network Frequencies (In-Season)



Map 13-29: Recommended Mid-Term Network Frequencies (Off-Season)



Section 14 FINANCIAL AND OPERATING PLAN

This section presents the operating cost estimates associated with the recommended COA network compared to the existing LeeTran network, as shown in Table 14-1. This table also shows the estimated total number of peak vehicles, or VOMS, needed for all routes compared to the existing LeeTran network. In addition, this section also includes a summary of the recommended span of service by route and frequencies associated with each route, as shown subsequently in Table 14-3 and Table 14-4.

Overall, the recommended short-term network is estimated to save five vehicles on weekdays, four on Saturday, and one on Sunday, respectively. Additionally, the annual service hours are expected to increase slightly by 1,715 (less than 1% of current total) and the total fixed-route operating cost is estimated to increase by approximately $11,208 (less than 0.08% of current total). This increase is likely due to the additional revenue hours and vehicles needed to operate the Fort Myers Beach services.

Specifically addressing the objectives of the aforementioned study goals for the COA effort, the recommended network is anticipated to minimize impacts to existing ridership while increasing operational efficiencies, reducing redundancy to better utilize resources, and preserving coverage to the extent feasible.

Table 14-1: LeeTran Short-Term Financial Plan

Fiscal Year>	Existing (2019)	2021	2022
Planned Peak Fleet			
Weekday	50	45	45
Saturday	49	45	45
Sunday	41	40	40
Estimated Operating Cost* (Adj.)	$14,146,563	$14,157,592	$14,582,320
Fixed-Route Annual Service Hours	196,699	198,414	198,414
Estimated MoD Service Hours	--	5,611	5,611

**Based on LeeTran's marginal cost per service hour: approximately $71.92 (NTD, 2019).*

The mid-term improvements further improve the clockface frequencies on routes that are currently seen as transporting the most riders per revenue hour. Table 14-2 shows the mid-term financial characteristics compared to existing LeeTran and short-term characteristics. LeeTran will phase in the mid-term improvements based, in part, on fiscal capacity.

Table 14-2: LeeTran Mid-Term Financial Plan

Fiscal Year>	Existing (2019)	Short-Term 2022	Mid-Term 2023	Mid-Term 2024	Mid-Term 2025	Mid-Term 2026	Mid-Term 2027	Mid-Term 2028	Mid-Term 2029	Mid-Term 2030
Planned Peak Fleet										
Weekday	50	45	64	64	64	64	64	64	64	64
Saturday	49	45	61	61	61	61	61	61	61	61
Sunday	41	40	54	54	54	54	54	54	54	54
Estimated Operating Cost* (Adj.)	$13,910,766	$14,582,320	$19,705,412	$20,296,574	$20,905,472	$21,532,636	$22,178,615	$22,843,973	$23,529,292	$24,235,171
Fixed Route Annual Service Hours	193,420	198,414	281,801	281,801	281,801	281,801	281,801	281,801	281,801	281,801
Estimated MoD Service Hours	--	5,611	28,055	28,055	28,055	28,055	28,055	28,055	28,055	28,055

**Based on LeeTran's marginal cost per service hour: approximately $71.92 (NTD, 2019).*

Table 14-3: LeeTran Short-Term Financial Plan Overview

LeeTran - COA Network

$93.83 per LeeTran, fully allocated cost — $71.92 per LeeTran, marginal cost

Route	Weekday Start		Weekday End	Saturday Start		Saturday End	Sunday Start		Sunday End	Annual Serv Hours	Est. Oper. Cost	Proposed VOMS Weekday	Proposed VOMS Saturday	Proposed VOMS Sunday	Existing LeeTran Service - 2020: Existing Rev. Hours	Existing Oper. Costs	Existing VOMS Weekday	Existing VOMS Saturday	Existing VOMS Sunday	Net Change Hours	Net Change Costs	Net Change VOMS Weekday	Net Change VOMS Saturday	Net Change VOMS Sunday
5	605		2035	605		2035						1	1											
Headways		60			60					4,263	$306,595				4,451	$320,116	1	1		-188	-$13,521	0	0	0
10-110	500		2200	500		2200	610		2103			3	3	2										
Headways		60			60			60		15,794	$1,135,904				16,358	$1,176,467	3	3	2	-564	-$40,563	0	0	0
15	545		2130	545		2130	705		1830			1	1	1										
Headways		60			60			60		5,515	$396,639				5,520	$396,998	1	1	1	-5	-$360	0	0	0
20	530		2100	530		2100						2	2											
Headways		30			30					6,547	$470,860				8,610	$619,231	2	2		-2,063	-$148,371	0	0	0
30-70	530		2124	530		2124	640		2010			3	3	2										
Headways		60			60			60		14,423	$1,037,302				20,145	$1,448,828	4	4	2	-5,722	-$411,526	-1	-1	0
40	545		2015	545		2015						2	2											
Headways		60			60					8,781	$631,530				6,334	$455,541	2	2		2,447	$175,988	0	0	0
50	630		2145	630		2145	645		1918			2	2	2										
Headways		70			70			70		10,720	$770,982				9,800	$704,816	2	2	2	920	$66,166	0	0	0
80	630		2000											2										
Headways		50								5,301	$381,248				3,290	$236,617	1			2,011	$144,631	-1	0	2
100	530		2200	530		2135	735		2010			3	3	3										
Headways		30			30			60		15,195	$1,092,824				13,990	$1,006,161	3	3	3	1,205	$86,664	0	0	0
120	600		2110	600		2110	830		1825			1	1	1										
Headways		70			70			70		5,584	$401,601				5,172	$371,970	1	1	1	412	$29,631	0	0	0
140	500		2155	500		2155	605		2055			5	5	5										
Headways		15			15			15		29,500	$2,121,640				30,867	$2,219,955	6	6	6	-1,367	-$98,315	-1	-1	-1
150	650		1806	650		1806	827		1800			1	1	1										
Headways		85			85			85		3,939	$283,293				3,700	$266,104	1	1	1	239	$17,189	0	0	0
170	630		2100	630		2100	830		1900			2	2	2										
Headways		60			60			120		8,034	$577,805				0	$0				8,034	$577,805	2	2	2
410	600		2200	600		2200	600		2200			3	3	3										
Headways		30			30			30		5,744	$413,108				5,570	$400,629	3	3	3	174	$12,479	0	0	0
410	600		2100	600		2100	600		2100			1	1	1										
Headways		60			60			60		3,590	$258,193				0	$0				3,590	$258,193	1	1	1
590	515		2100	515		2100	850		1800			2	2	2										
Headways		60			60			120		9,502	$683,384				5,050	$363,196	1	1	1	4,452	$320,188	1	1	1
595	505		2045	505		2045	800		1845			1	1	1										
Headways		80			80			90		5,644	$405,916				5,057	$363,699	1	1	1	587	$42,217	0	0	0
240/600	600		2200	600		2200	730		1800			3	3	3										
Headways		60			60			60		16,802	$1,208,400				13,980	$1,005,442	3	3	3	2,822	$202,958	0	0	0
Blue trolley	1100		2300	1100		2300	1100		2300			2	2	2										
Headways		25			25			25		3,744	$269,268				2,815	$202,455	2	2	2	929	$66,814	0	0	0
Beach Link	600		2200	600		2200	600		2200			3	3	3										
Headways		15			15			15		5,744	$413,108				6,061	$435,916	3	3	3	-317	-$22,807	0	0	0
Beach Link	600		2100	600		2100	600		2100			1	1	1										
Headways		30			30			30		3,590	$258,193				0	$0				3,590	$258,193	1	1	1
Total including MOD										198,414	$14,157,592	45	45	40	196,699	$14,146,563	50	49	41	1,715	$11,028	-5	-4	-1
Add in eliminated route hours, vehicles for Routes: 60, 130,160,515, Gold Trolley, Fort Myers Beach (400) >>															27,096	$1,948,744	8	8	8					
Add in Beach Tram route hours and cost:>>>>>>>>>>>>>>>>>>>>>>>>>										4,847	$ 348,596	3	3	3	2,832	$ 203,677	2	2	2					
Add in Lehigh Acres MOD route hours and cost:>>>>>>>>>>>>>>>>>>>>										5,611	$ 291,200													

Source: LeeTran Existing Operational Characteristics

Note: Routes highlighted in **green** are seasonal routes and operate from January to May and routes highlighted in **orange** are routes that operate annually and the schedule is adjusted from May to December.

Table 14-4: LeeTran Mid-Term Financial Plan Overview

LeeTran - COA Network

$93.83 per LeeTran, fully allocated cost

$71.92 per LeeTran, marginal cost

Route	Weekday Start	Weekday Headway	Weekday End	Saturday Start	Saturday Headway	Saturday End	Sunday Start	Sunday Headway	Sunday End	Annual Serv Hours	Est. Oper. Cost	Proposed VOMS Weekday	Proposed VOMS Saturday	Proposed VOMS Sunday	Existing LeeTran Service - 2020: Existing Rev. Hours	Existing Oper. Costs	Existing VOMS Weekday	Existing VOMS Saturday	Existing VOMS Sunday	Net Change Hours	Net Change Costs	Net Change VOMS Weekday	Net Change VOMS Saturday	Net Change VOMS Sunday
5	605		2035	605		2035						1	1											
Headways		60			60					4,263	$306,595				4,451	$320,116	1	1		-188	-$13,521	0	0	0
10-110	500		2200	500		2200	610		2103			4	4	4										
Headways		30			30			30		30,711	$2,208,735				16,358	$1,176,467	3	3	2	14,353	$1,032,268	1	1	2
15	545		2130	545		2130	705		1830			1	1	1										
Headways		60			60			60		5,515	$396,639				5,520	$396,998	1	1	1	-5	-$360	0	0	0
20	530		2100	530		2100						2	2											
Headways		30			30					6,547	$470,860				8,610	$619,231	2	2		-2,063	-$148,371	0	0	0
30-70	530		2124	530		2124	640		2010			6	6	4										
Headways		30			30			30		28,846	$2,074,604				20,145	$1,448,828	4	4	2	8,701	$625,776	2	2	2
40	545		2015	545		2015						2	2											
Headways		60			60					8,781	$631,530				6,334	$455,541	2	2		2,447	$175,988	0	0	0
50	630		2145	630		2145	645		1918			5	5	5										
Headways		30			30			30		23,681	$1,703,138				9,800	$704,816	2	2	2	13,881	$998,322	3	3	3
80	630		2000									3												
Headways		45								7,905	$568,528				3,290	$236,617	1			4,615	$331,911	2	0	0
100	530		2200	530		2135	735		2010			3	3	3										
Headways		30			30			60		12,731	$915,614				13,990	$1,006,161	3	3	3	-1,259	-$90,547	0	0	0
120	600		2110	600		2110	830		1825			2	2	2										
Headways		60			60			60		6,364	$457,699				5,172	$371,970	1	1	1	1,192	$85,729	1	1	1
140	500		2155	500		2155	605		2055			5	5	5										
Headways		15			15			15		29,500	$2,121,640				30,867	$2,219,955	6	6	6	-1,367	-$98,315	-1	-1	-1
150	650		1806	650		1806	827		1800			2	2	2										
Headways		60			60			60		5,871	$422,242				3,700	$266,104	1	1	1	2,171	$156,138	1	1	1
170	630		2100	630		2100	830		1900			4	4	4										
Headways		30			30			60		15,980	$1,149,282				0	$0				15,980	$1,149,282	4	4	4
410	600		2200	600		2200	600		2200			3	3	3										
Headways		30			30			30		5,744	$413,108				5,570	$400,629	3	3	3	174	$12,479	0	0	0
410	600		2100	600		2100	600		2100			1	1	1										
Headways		60			60			60		3,590	$258,193				0	$0				3,590	$258,193	1	1	1
590	515		2100	515		2100	850		1800			2	2	2										
Headways		60			60			120		8,542	$614,341				5,050	$363,196	1	1	1	3,492	$251,145	1	1	1
595	505		2045	505		2045	800		1845			2	2	2										
Headways		60			60			90		7,524	$541,126				5,057	$363,699	1	1	1	2,467	$177,427	1	1	1
240/600	600		2200	600		2200	730		1800			4	4	4										
Headways		45			45			45		20,183	$1,451,561				13,980	$1,005,442	3	3	3	6,203	$446,120	1	1	1
Blue trolley	1100		2300	1100		2300	1100		2300			4	4	4										
Headways		15			15			15		7,287	$524,081				2,815	$202,455	2	2	2	4,472	$321,626	2	2	2
Beach Link	600		2200	600		2200	600		2200			3	3	3										
Headways		15			15			15		5,744	$413,108				6,061	$435,916	3	3	3	-317	-$22,807	0	0	0
Beach Link	600		2100	600		2100	600		2100			2	2	2										
Headways		30			30			30		3,590	$258,193				0	$0				3,590	$258,193	2	2	2
Total including MOD										281,801	$19,705,412	64	61	54	196,699	$14,146,563	50	49	41	85,102	$5,558,849	14	12	13
Add in eliminated route hours, vehicles for Routes: 60, 130,160,515, Gold Trolley, Fort Myers Beach (410) >>>															27,096	$1,948,744	8	8	8					
Add in Beach Tram route hours and costs:>>>>>>>>>>>>>>>>>>>>>>>>>										4,847	$ 348,596	3	3	3	2,832	$ 203,677	2	2	2					
Add in Lehigh Acres MOD route hours and cost:>>>>>>>>>>>>>>>>>>>>>										28,055	$ 1,456,000													

Source: LeeTran Existing Operational Characteristics

Note: Routes highlighted in **green** are seasonal routes and operate from January to May and routes highlighted in **orange** are routes that operate annually and the schedule is adjusted from May to December.

Note: There are enhancements being taken to improve signal priority and que jumps on Route 140 that will enable the Route 140 to achieve 8-minute headways.

Section 15 PHASED IMPLEMENTATION PLAN

This section presents the proposed implementation plan for the COA to help guide LeeTran in the phased start-up of its various elements.

Short-Term Implementation Plan

The recommended improvements included in the COA resulted from an extensive network evaluation and data review/evaluation process, as presented throughout this document. The improvements identified fall into the categories of Service, Capital/Infrastructure, and Policy. This plan outlines specific service improvements for a 0-2-year period beginning toward the end of calendar year 2021, as shown in Table 15-1. Frequency improvements are based on the recommended network, which also will be refined based on travel patterns, congestion, land use, and other factors that affect the way transit and transportation systems evolve and operate. Table 15-2 through Table 15-4 show the frequency implications by route for weekday, Saturday, and Sunday.

Table 15-1: Phased Short-Term Implementation Plan

Fiscal Year>	2021	2022	2023
Weekday Peak Fleet	45	45	45
New/Modified Routes	Title VI Analysis for COA Network		Local Routes: 5, 10, 15, 20, 30, 40, 50, 70, 80, 100, 110, 120, 140, 150, 170, 410, 590, 595, 240/600, Blue Trolley, Beach Link MoD: Lehigh Acres
	Implement ADA Service Area Changes		
Weekday Frequency Modifications	•15-Minute or Better Frequency: Blue Trolley, Route 140, Beach Link (in-season) •16-30-Minute Frequency: Routes 20, 100, 410 (in-season), Beach Link (off-season), Beach Tram •31-60-Minute Frequency: Routes 5, 10, 15, 30, 40, 70, 80, 110, 170, 590, 240/600 •60-Minute or Greater Frequency: Routes 50, 120, 150, 410 (off-season), 595		
	Implement Saturday and Sunday Frequency Modifications		
Eliminated Routes	Routes: 60, 130, 160, 400, 515, Gold Trolley		
Planning + Capital	Bus Stop Consolidation or Feasibility Study		Implement Bus Stop Changes
Estimated Service Hours with Lehigh Acres MOD	198,414		

Table 15-2: Short-Term Headway Implications – Weekday (minutes)

Fiscal Year>	**Existing (2020)**	2021	2022	2023
Route 5	80	60	60	60
Route 10	80	60	60	60
Route 15	60	60	60	60
Route 20	30	30	30	30
Route 30	60	60	60	60
Route 40	84	60	60	60
Route 50	70	70	70	70
Route 70	65	60	60	60
Route 80	97	50	50	50
Route 100	30	30	30	30
Route 110	60	60	60	60
Route 120	80	70	70	70
Route 140	25	15	15	15
Route 150	95	85	85	85
Route 170	--	60	60	60
Route 410	25	30/60	30/60	30/60
Route 590	60	60	60	60
Route 595	60	80	80	80
Route 240/600	90	60	60	60
Blue Trolley	25	15	15	15
Beach Link	15/45	15/30	15/30	15/30
Beach Tram	20	20	20	20

Table 15-3: Short-Term Headway Implications – Saturday (minutes)

Fiscal Year>	**Existing (2020)**	2021	2022	2023
Route 5	80	60	60	60
Route 10	80	60	60	60
Route 15	60	60	60	60
Route 20	30	30	30	30
Route 30	60	60	60	60
Route 40	130	60	60	60
Route 50	70	70	70	70
Route 70	65	60	60	60
Route 100	30	30	30	30
Route 110	60	60	60	60
Route 120	80	70	70	70
Route 140	25	15	15	15
Route 150	95	85	85	85
Route 170	--	60	60	60
Route 410	25	30/60	30/60	30/60
Route 590	60	60	60	60
Route 595	60	80	80	80
Route 240/600	90	60	60	60
Blue Trolley	25	15	15	15
Beach Link	15/45	15/30	15/30	15/30
Beach Tram	20	20	20	20

Table 15-4: Short-Term Headway Implications – Sunday (minutes)

Fiscal Year>	**Existing (2020)**	2021	2022	2023
Route 15	60	60	60	60
Route 50	135	70	70	70
Route 70	65	60	60	60
Route 100	90	60	60	60
Route 110	60	60	60	60
Route 120	100	70	70	70
Route 140	65	15	15	15
Route 150	95	85	85	85
Route 170	--	120	120	120
Route 410	25	30/60	30/60	30/60
Route 590	120	120	120	120
Route 595	120	90	90	90
Route 240/600	100	60	60	60
Blue Trolley	25	15	15	15
Beach Link	15/45	15/30	15/30	15/30
Beach Tram	20	20	20	20

Mid-Term Implementation Plan

The recommended mid-term implementation plan outlines specific service improvements for a 3-10-year period beginning at the start of calendar year 2024, as shown in Table 15-5. Frequency improvements are based on the recommended network, which also will be refined based on travel patterns, congestion, land use, and other factors that affect the way transit and transportation systems evolve and operate. As previously mentioned, LeeTran will phase in the mid-term improvements based, in part, on fiscal capacity. Table 15-6 through Table 15-8 show the frequency implications by route for weekday, Saturday, and Sunday.

Table 15-5: Phased Mid-Term Implementation Plan

Fiscal Year>	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**
Weekday Peak Fleet	64	64	64	64	64	64	64	64
New/Modified Routes	Title VI Analysis for COA Network	Local Routes: 5, 10, 15, 20, 30, 40, 50, 70, 80, 100, 110, 120, 140, 150, 170, 410, 590, 595, 240/600, Blue Trolley, Beach Link MoD: Cape Coral, Estero, North Fort Myers, Shell Point						
	Implement ADA Service Area Changes							
Weekday Frequency Modifications	•15-minute or Better Frequency: Blue Trolley, Route 140, Beach Link (in-season) •16-30-Minute Frequency: Routes 10, 20, 30, 50, 70, 80, 100, 110, 170, 410 (in-season), 240/600, Beach Link (off-season), Beach Tram •31-60-Minute Frequency: Routes 5, 15, 40, 120, 150, 410 (off-season), 590, 595							
	Implement Saturday and Sunday Frequency Modifications							
Estimated Service Hours with MOD	281,801							

Table 15-6: Mid-Term Headway Implications – Weekday (minutes)

Fiscal Year>	Short-Term 2023	2024	2025	2026	2027	2028	2029	2031	2031
Route 5	60	60	60	60	60	60	60	60	60
Route 10	60	30	30	30	30	30	30	30	30
Route 15	60	60	60	60	60	60	60	60	60
Route 20	30	30	30	30	30	30	30	30	30
Route 30	60	30	30	30	30	30	30	30	30
Route 40	60	60	60	60	60	60	60	60	60
Route 50	70	30	30	30	30	30	30	30	30
Route 70	60	30	30	30	30	30	30	30	30
Route 80	50	45	45	45	45	45	45	45	45
Route 100	30	30	30	30	30	30	30	30	30
Route 110	60	30	30	30	30	30	30	30	30
Route 120	70	60	60	60	60	60	60	60	60
Route 140	15	8	8	8	8	8	8	8	8
Route 150	85	60	60	60	60	60	60	60	60
Route 170	60	30	30	30	30	30	30	30	30
Route 410	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60
Route 590	60	60	60	60	60	60	60	60	60
Route 595	80	60	60	60	60	60	60	60	60
Route 240/600	60	45	45	45	45	45	45	45	45
Blue Trolley	25	15	15	15	15	15	15	15	15
Beach Link	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30
Beach Tram	20	20	20	20	20	20	20	20	20

Table 15-7: Mid-Term Headway Implications – Saturday (minutes)

Fiscal Year>	Short Term 2023	2024	2025	2026	2027	2028	2029	2030	2031
Route 5	60	60	60	60	60	60	60	60	60
Route 10	60	30	30	30	30	30	30	30	30
Route 15	60	60	60	60	60	60	60	60	60
Route 20	30	30	30	30	30	30	30	30	30
Route 30	60	30	30	30	30	30	30	30	30
Route 40	60	60	60	60	60	60	60	60	60
Route 50	70	30	30	30	30	30	30	30	30
Route 70	60	30	30	30	30	30	30	30	30
Route 100	30	30	30	30	30	30	30	30	30
Route 110	60	30	30	30	30	30	30	30	30
Route 120	70	60	60	60	60	60	60	60	60
Route 140	15	8	8	8	8	8	8	8	8
Route 150	85	60	60	60	60	60	60	60	60
Route 170	60	30	30	30	30	30	30	30	30
Route 410	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60
Route 590	60	60	60	60	60	60	60	60	60
Route 595	80	60	60	60	60	60	60	60	60
Route 240/600	60	45	45	45	45	45	45	45	45
Blue Trolley	25	15	15	15	15	15	15	15	15
Beach Link	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30
Beach Tram	20	20	20	20	20	20	20	20	20

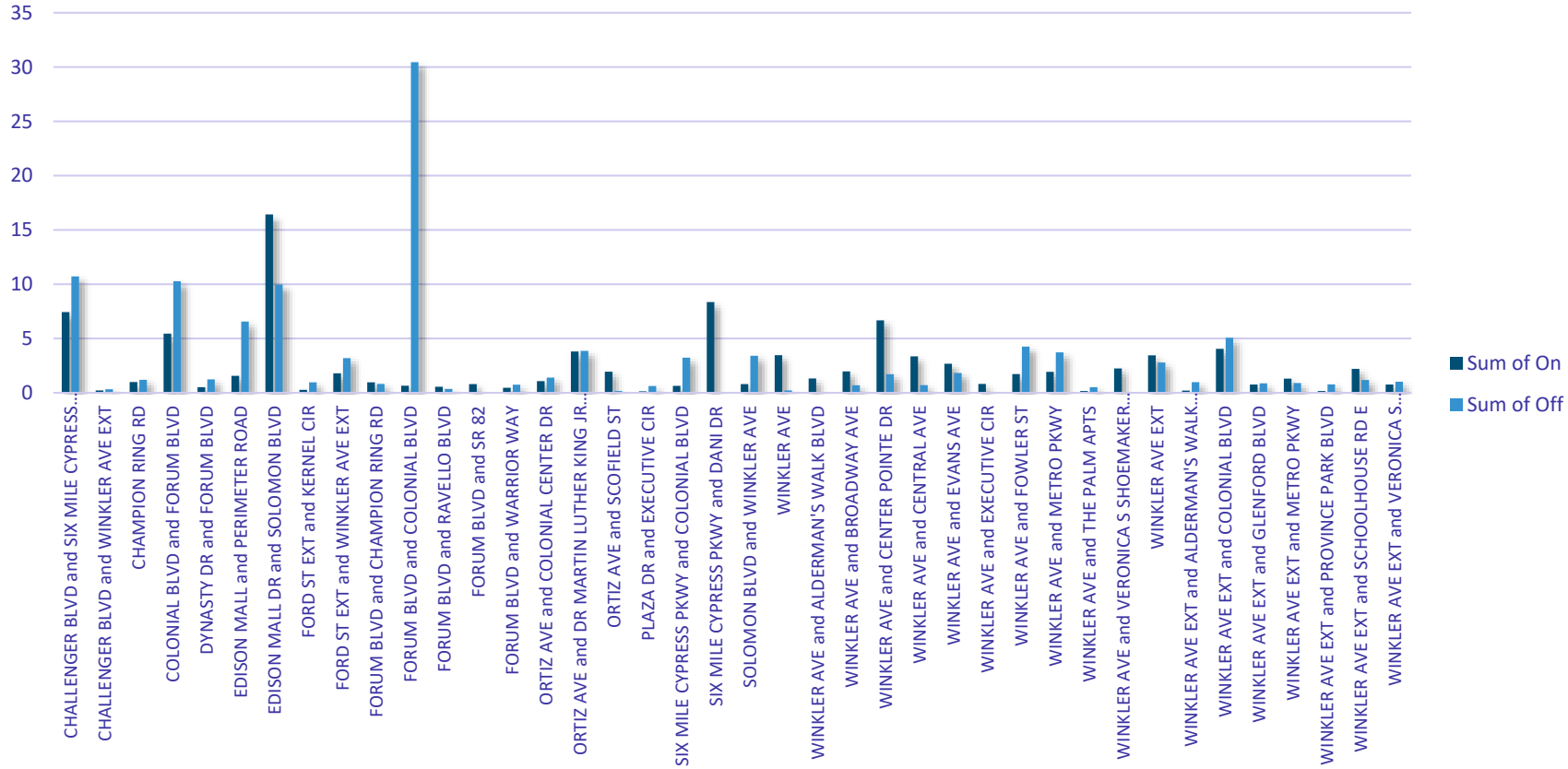
Table 15-8: Mid-Term Headway Implications – Sunday (minutes)

Fiscal Year>	Short Term 2023	2024	2025	2026	2027	2028	2029	2030	2031
Route 15	60	60	60	60	60	60	60	60	60
Route 50	70	30	30	30	30	30	30	30	30
Route 70	60	30	30	30	30	30	30	30	30
Route 100	60	60	60	60	60	60	60	60	60
Route 110	60	30	30	30	30	30	30	30	30
Route 120	70	60	60	60	60	60	60	60	60
Route 140	15	8	8	8	8	8	8	8	8
Route 150	85	60	60	60	60	60	60	60	60
Route 170	120	60	60	60	60	60	60	60	60
Route 410	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60	30/60
Route 590	120	120	120	120	120	120	120	120	120
Route 595	90	90	90	90	90	90	90	90	90
Route 240/600	60	45	45	45	45	45	45	45	45
Blue Trolley	25	5	15	15	15	15	15	15	15
Beach Link	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30	15/30
Beach Tram	20	20	20	20	20	20	20	20	20

Section 16 APPENDIX A

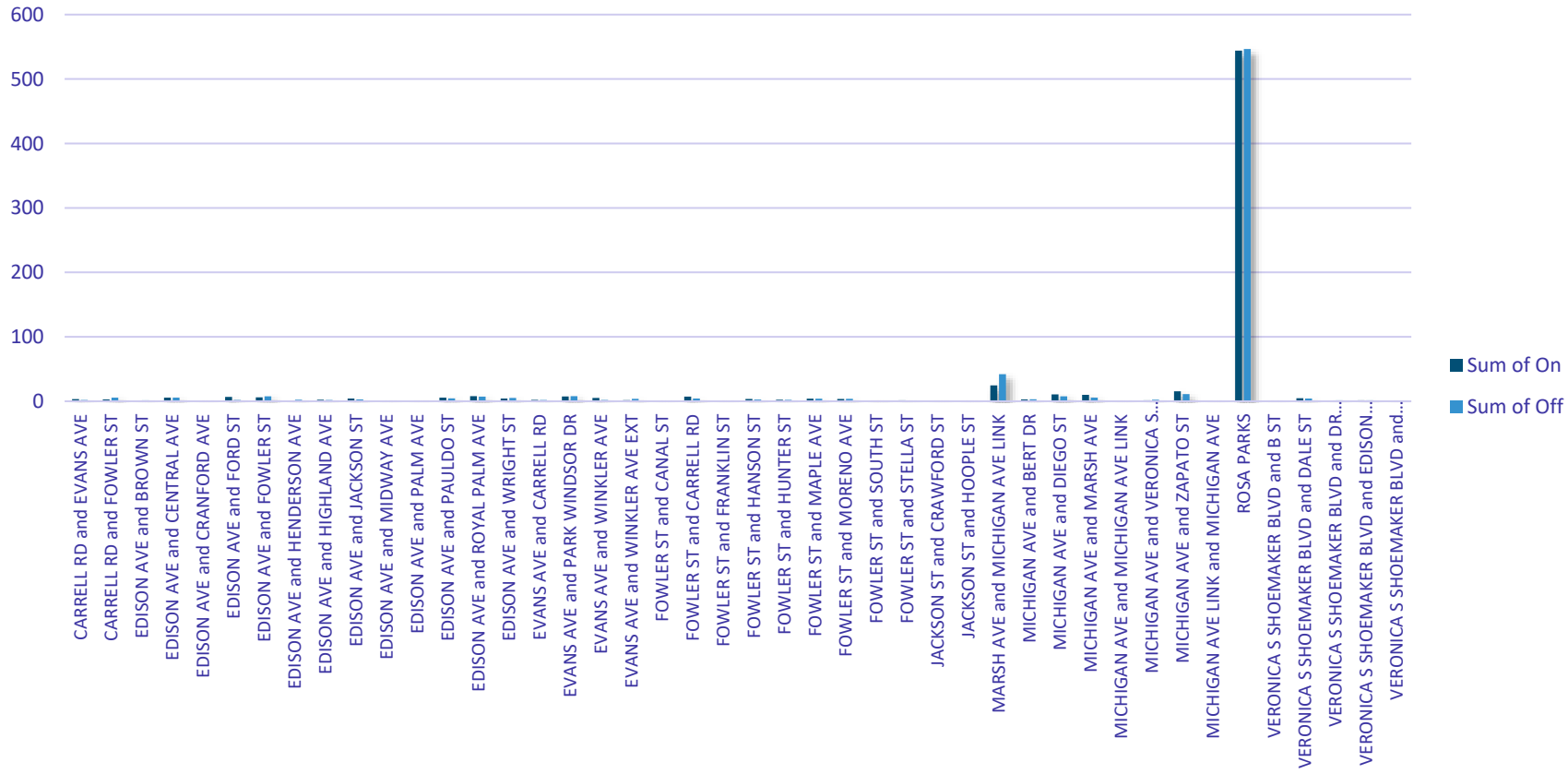
Appendix A shows the average daily boardings and alightings by stop for each route in the LeeTran system, as shown in Figure 16-1 through Figure 16-24.

Figure 16-1: Route 5 – Boarding and Alighting Daily Average



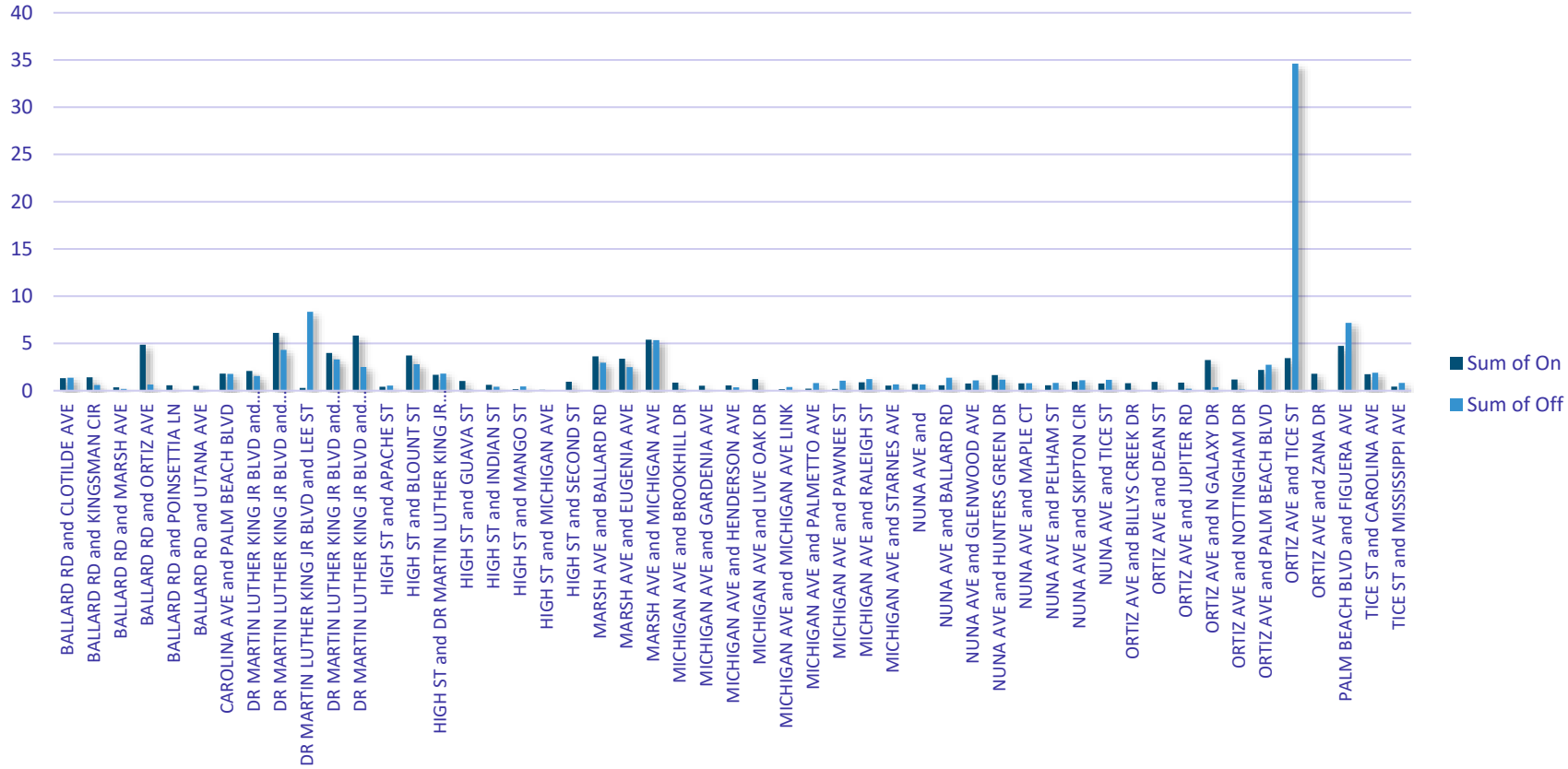
Source: LeeTran, 2020

Figure 16-2: Route 10 – Boarding and Alighting Daily Average



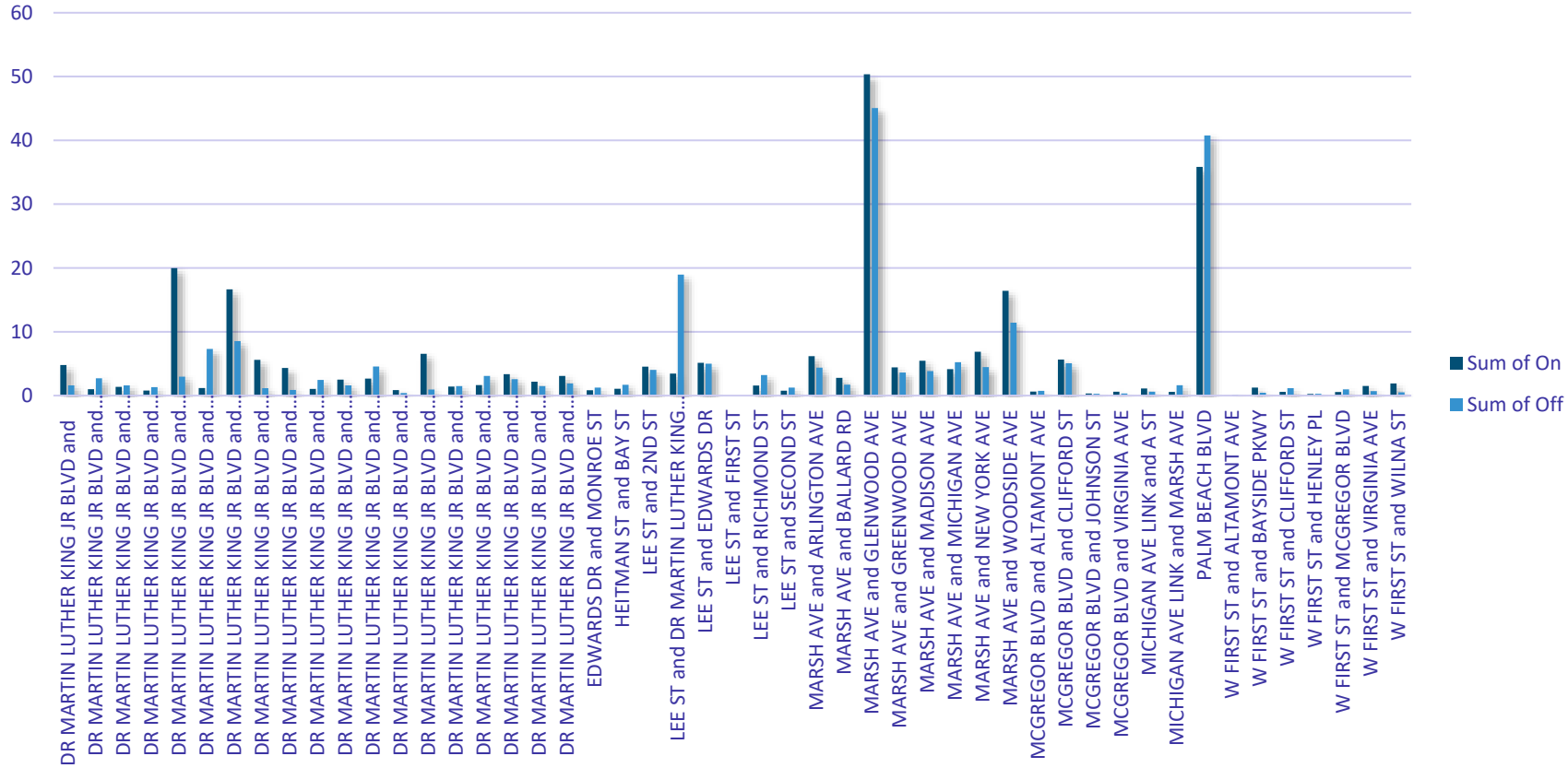
Source: LeeTran, 2020

Figure 16-3: Route 15 – Boarding and Alighting Daily Average



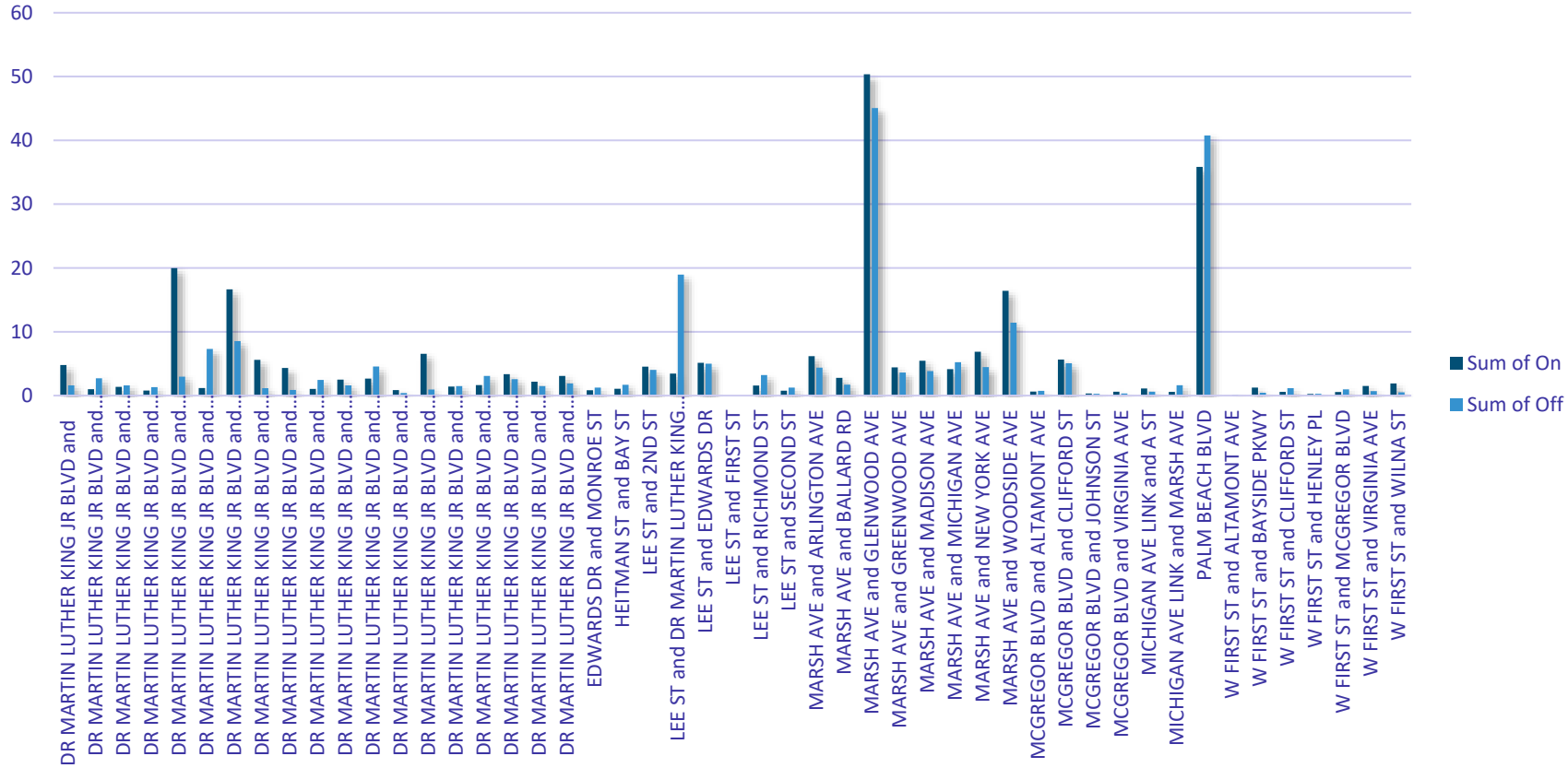
Source: LeeTran, 2020

Figure 16-4: Route 15 – Boarding and Alighting Daily Average



Source: LeeTran, 2020

Figure 16-5: Route 20 – Boarding and Alighting Daily Average

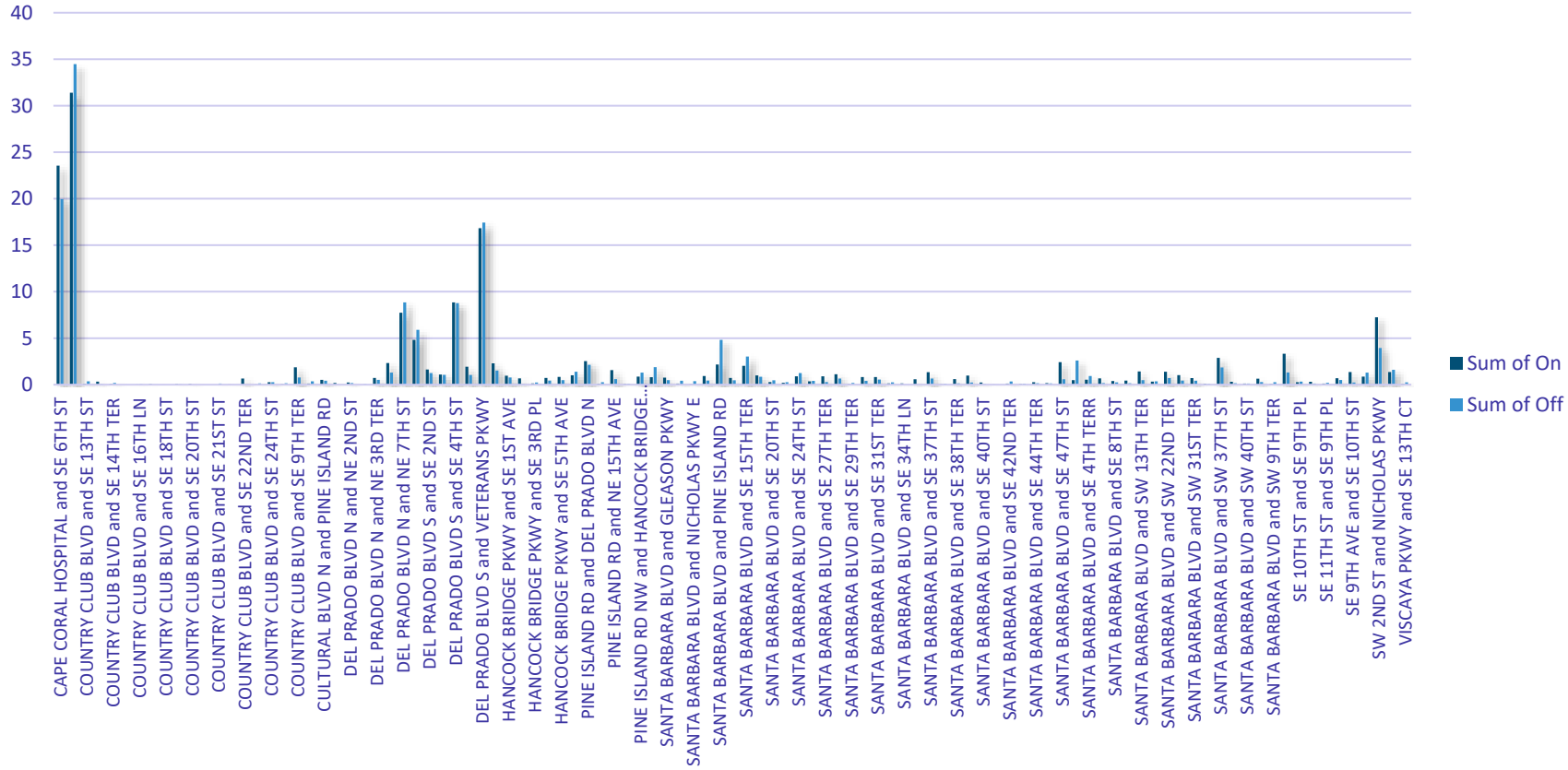


Source: LeeTran, 2020

Figure 16-6: Route 30 – Boarding and Alighting Daily Average

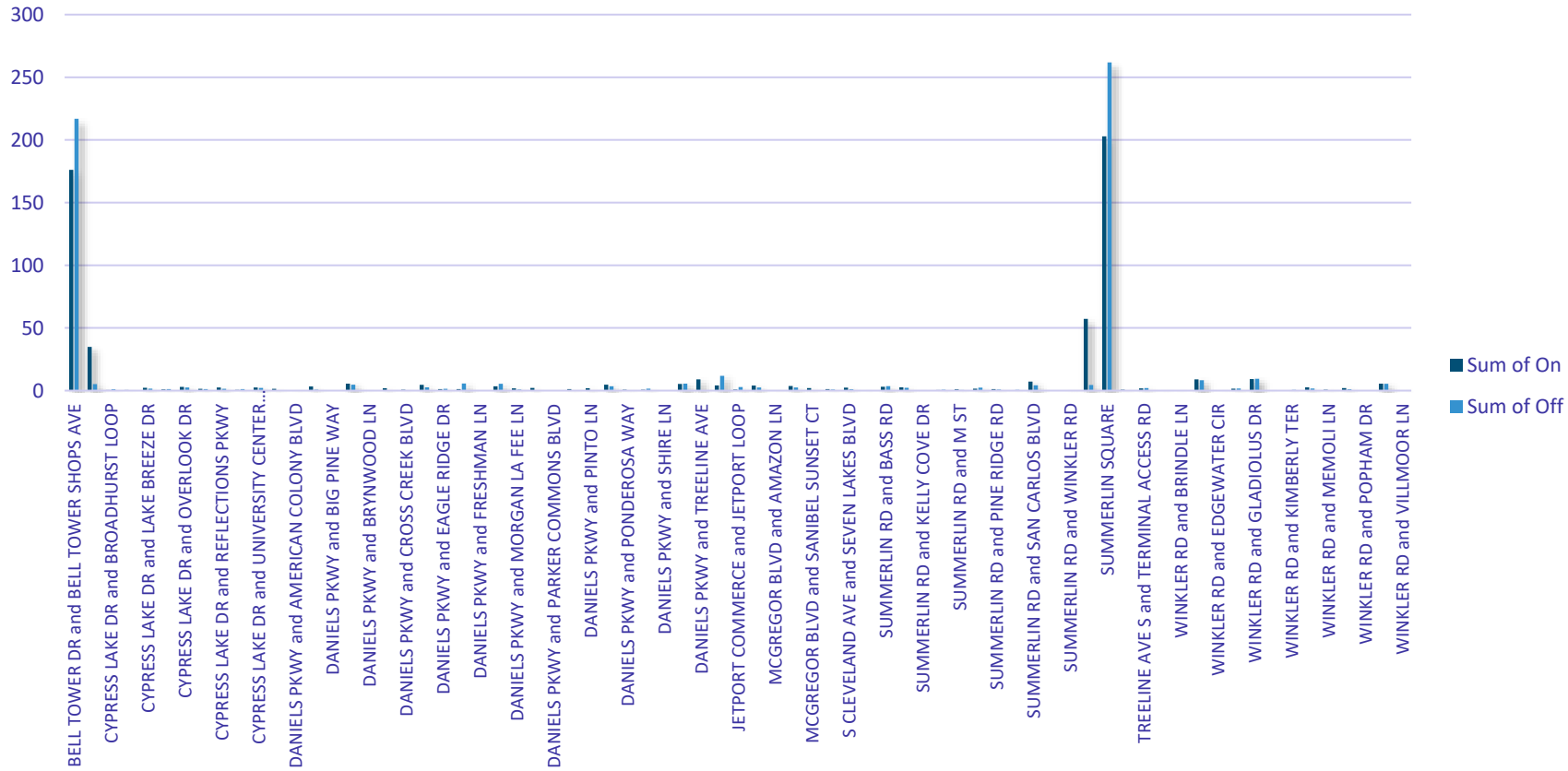
Source: LeeTran, 2020

Figure 16-7: Route 40 – Boarding and Alighting Daily Average



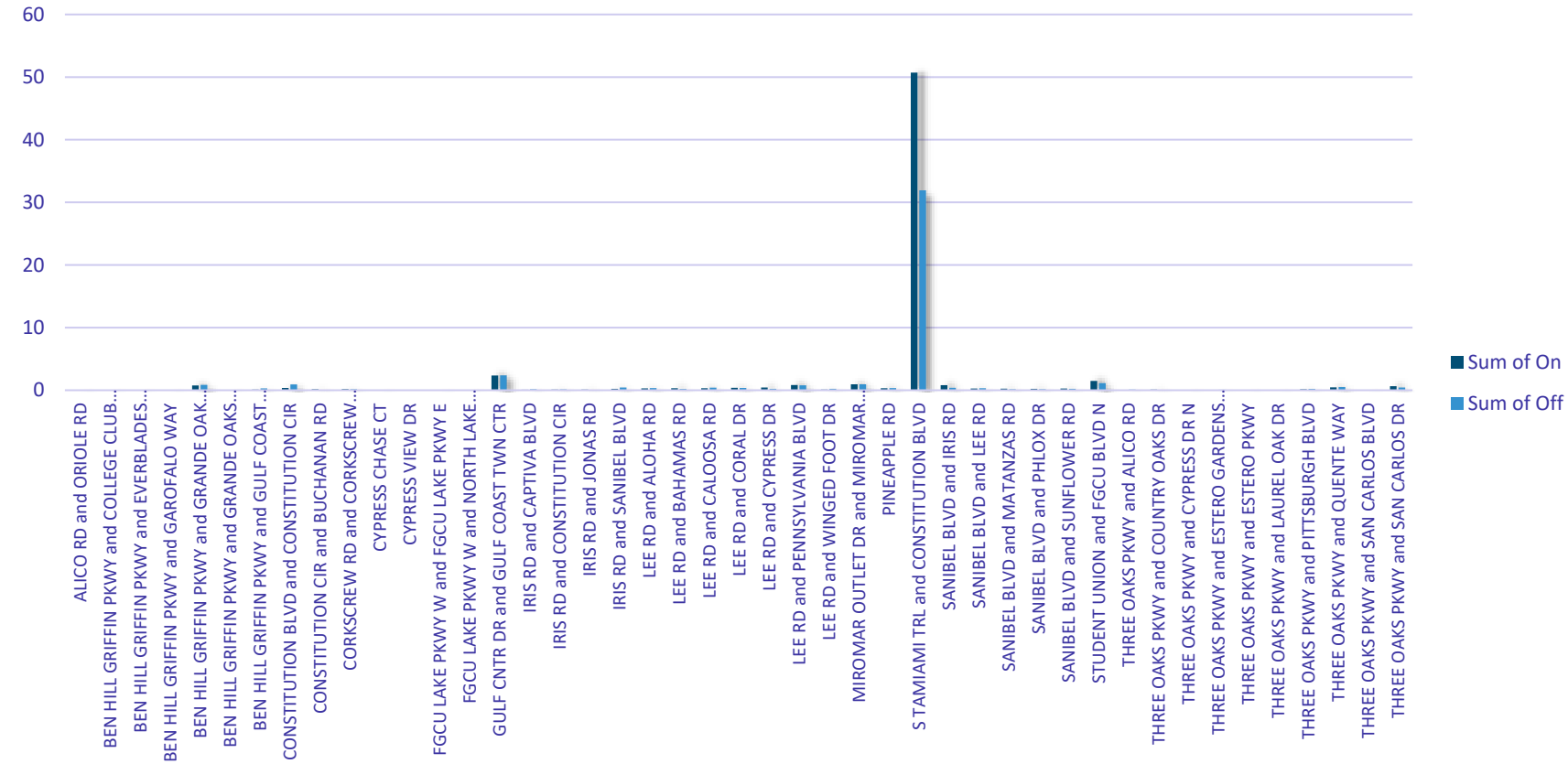
Source: LeeTran, 2020

Figure 16-8: Route 50 – Boarding and Alighting Daily Average



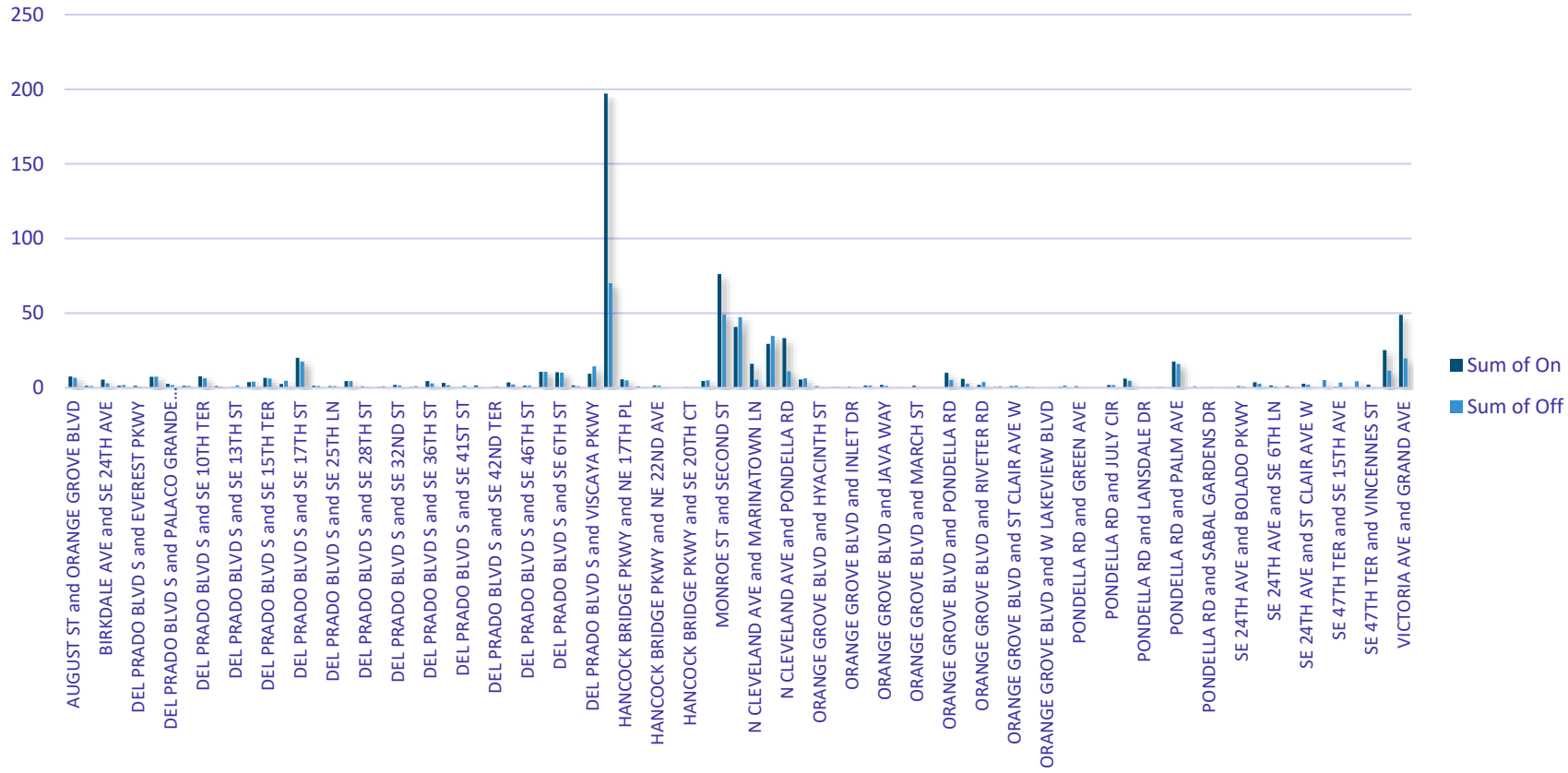
Source: LeeTran, 2020

Figure 16-9: Route 60 – Boarding and Alighting Daily Average



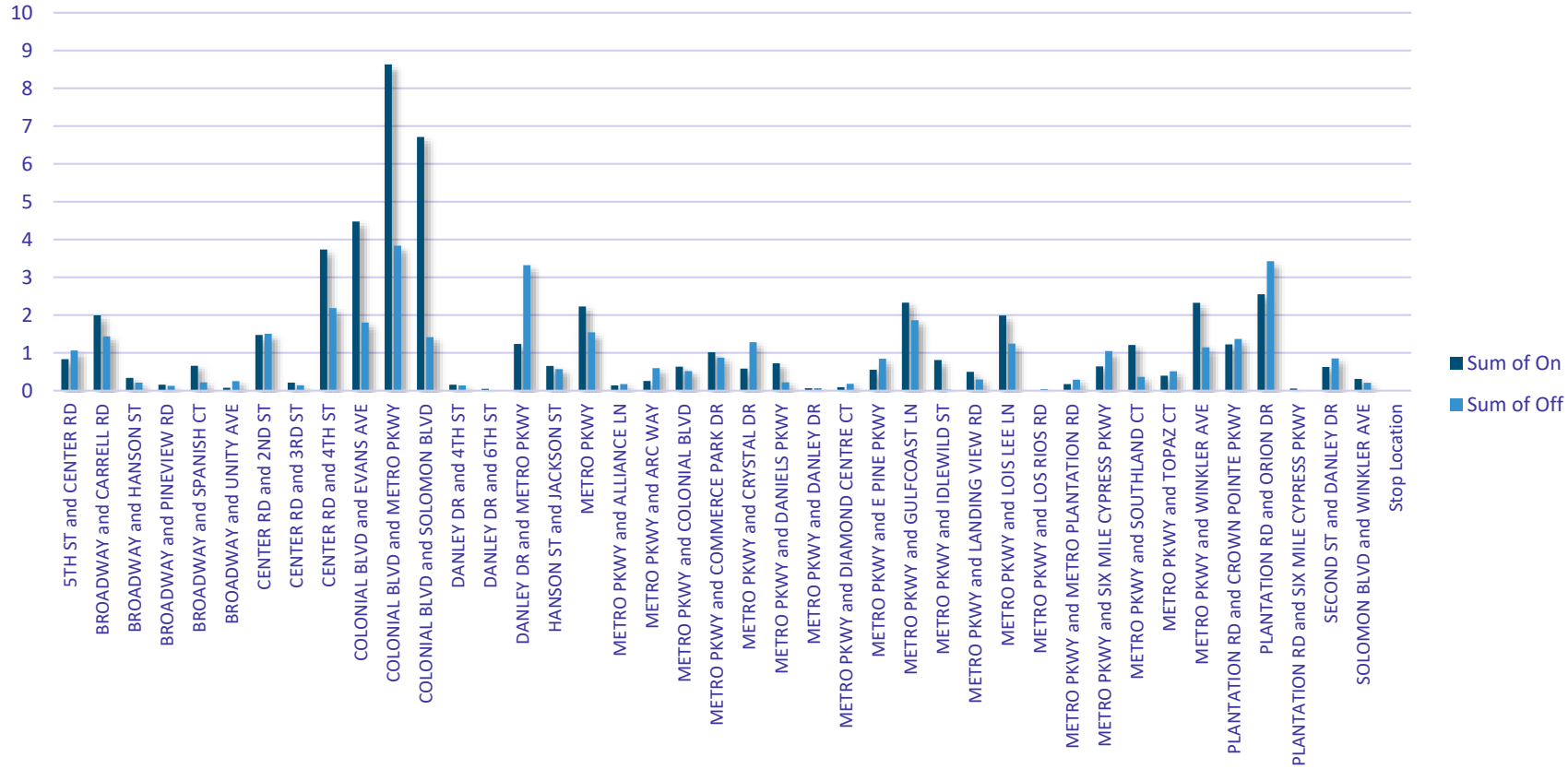
Source: LeeTran, 2020

Figure 16-10: Route 70 – Boarding and Alighting Daily Average



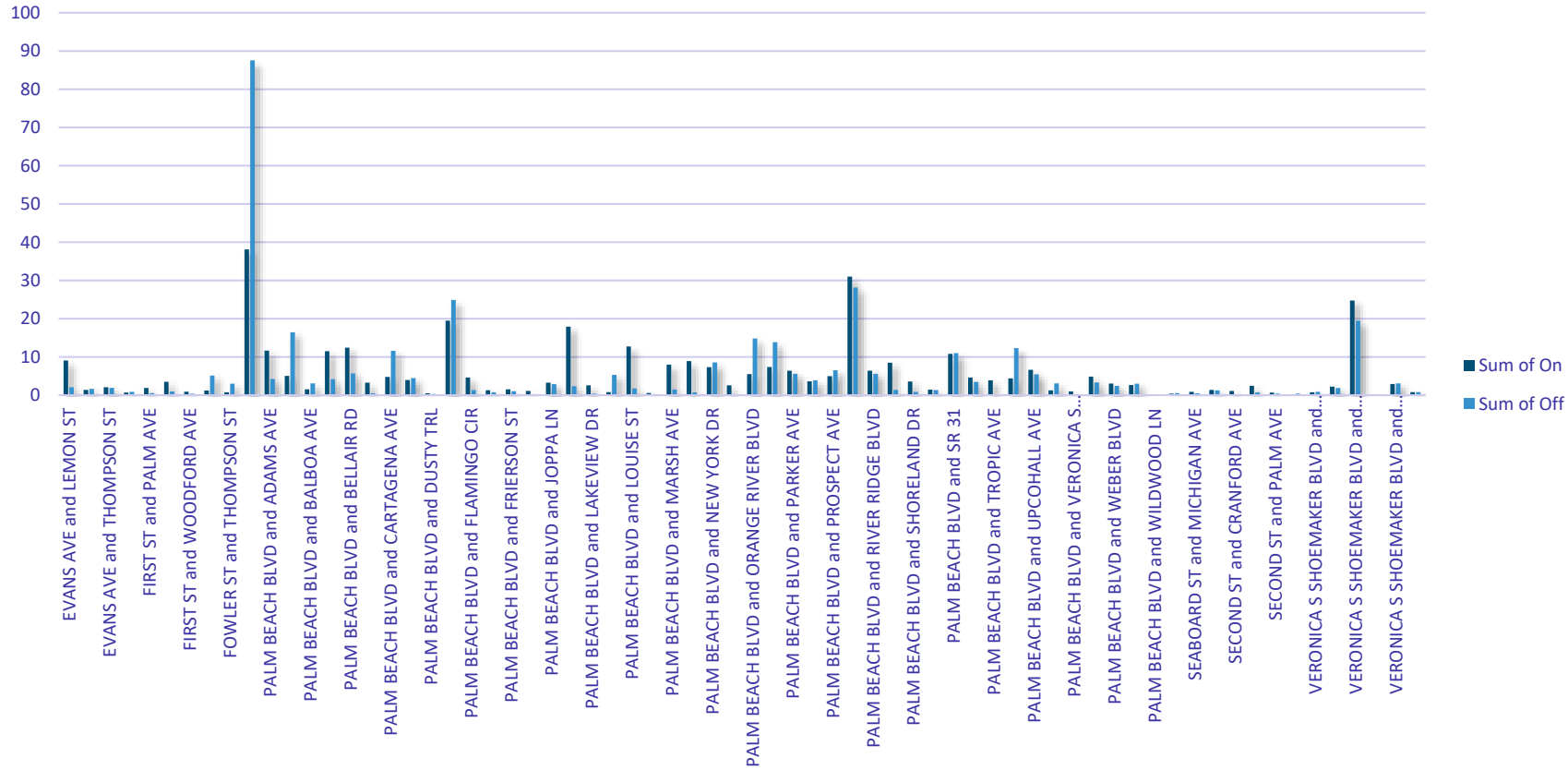
Source: LeeTran, 2020

Figure 16-11: Route 80 – Boarding and Alighting Daily Average



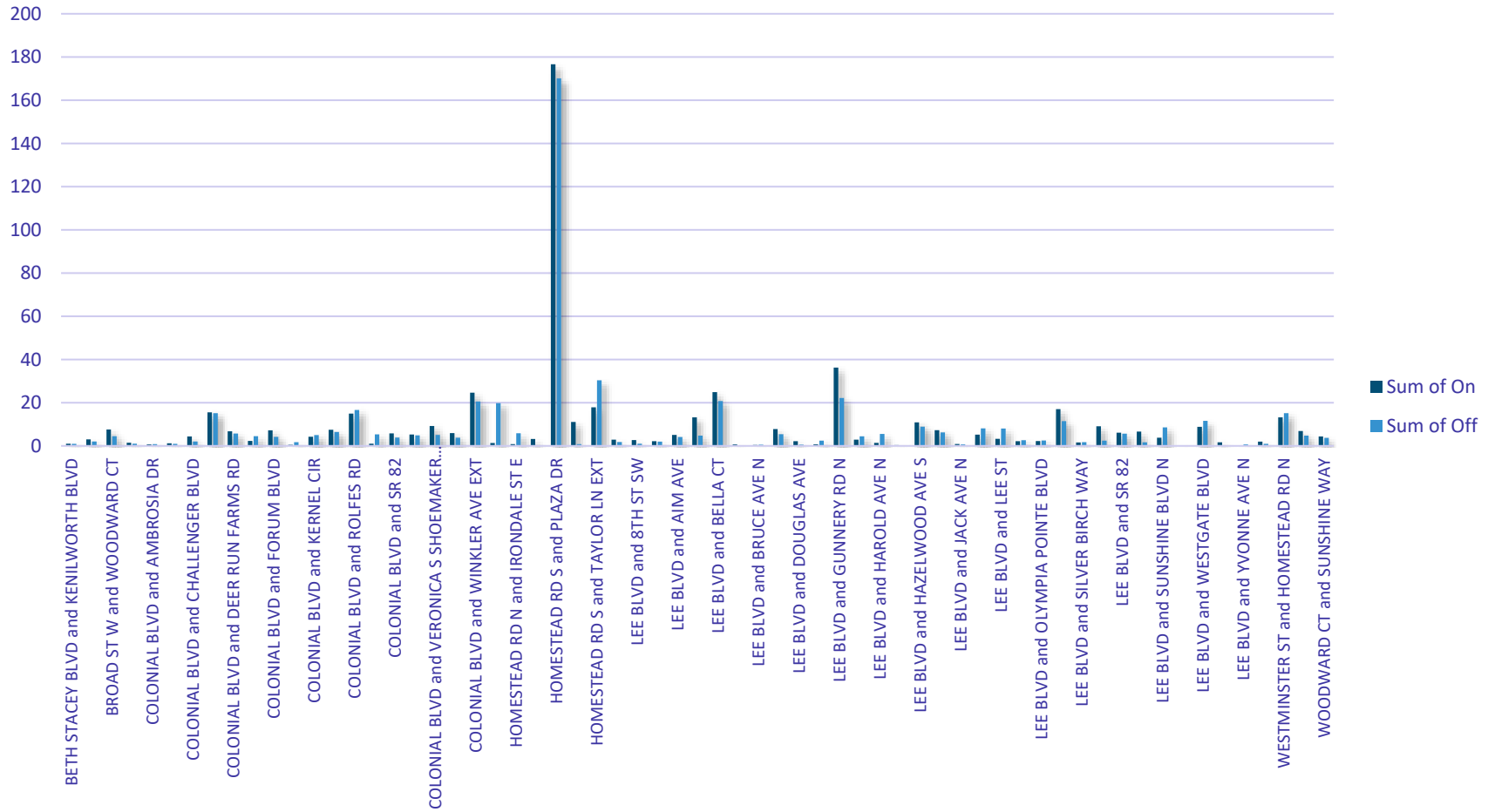
Source: LeeTran, 2020

Figure 16-12: Route 100 – Boarding and Alighting Daily Average



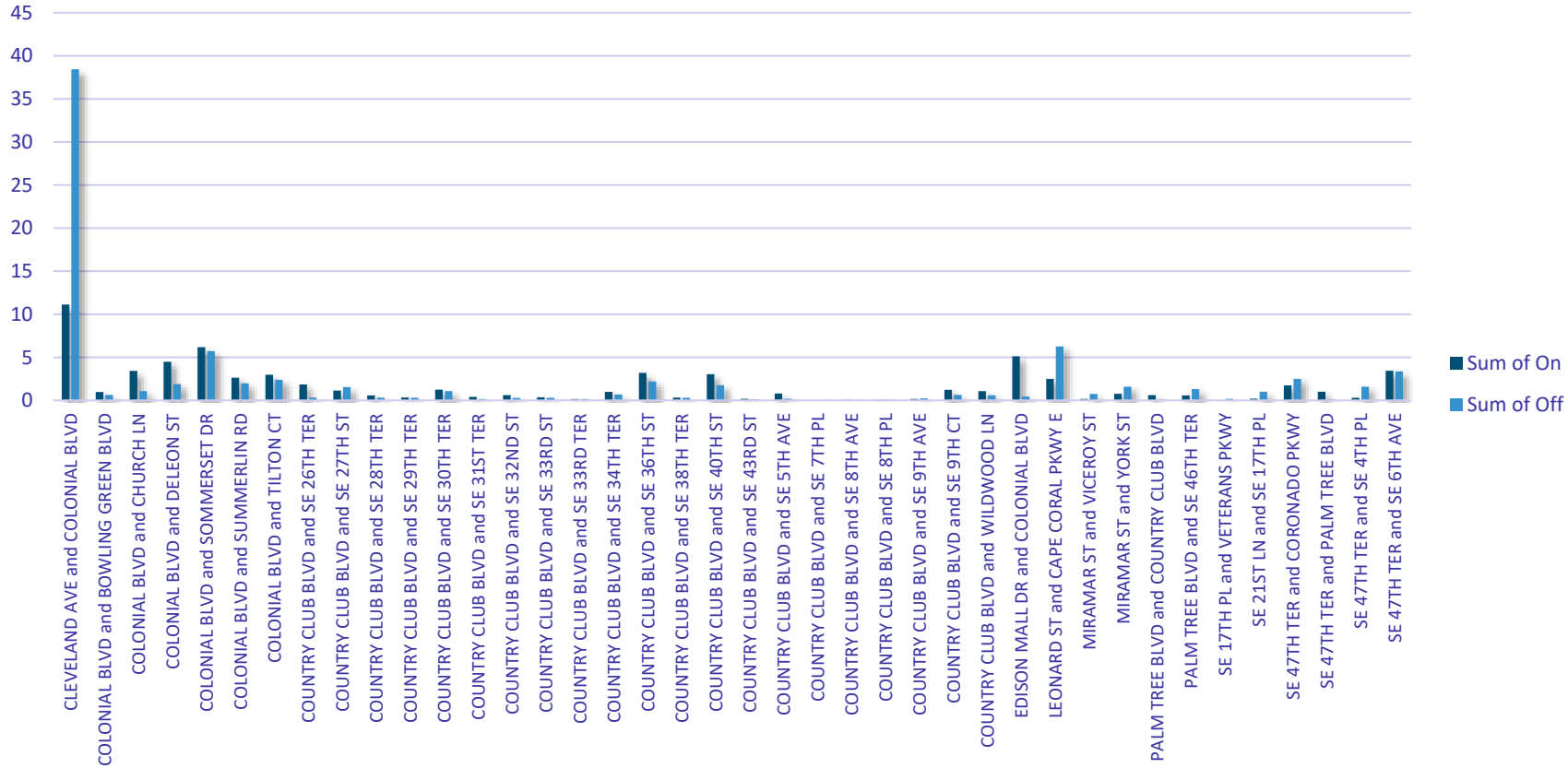
Source: LeeTran, 2020

Figure 16-13: Route 110 – Boarding and Alighting Daily Average



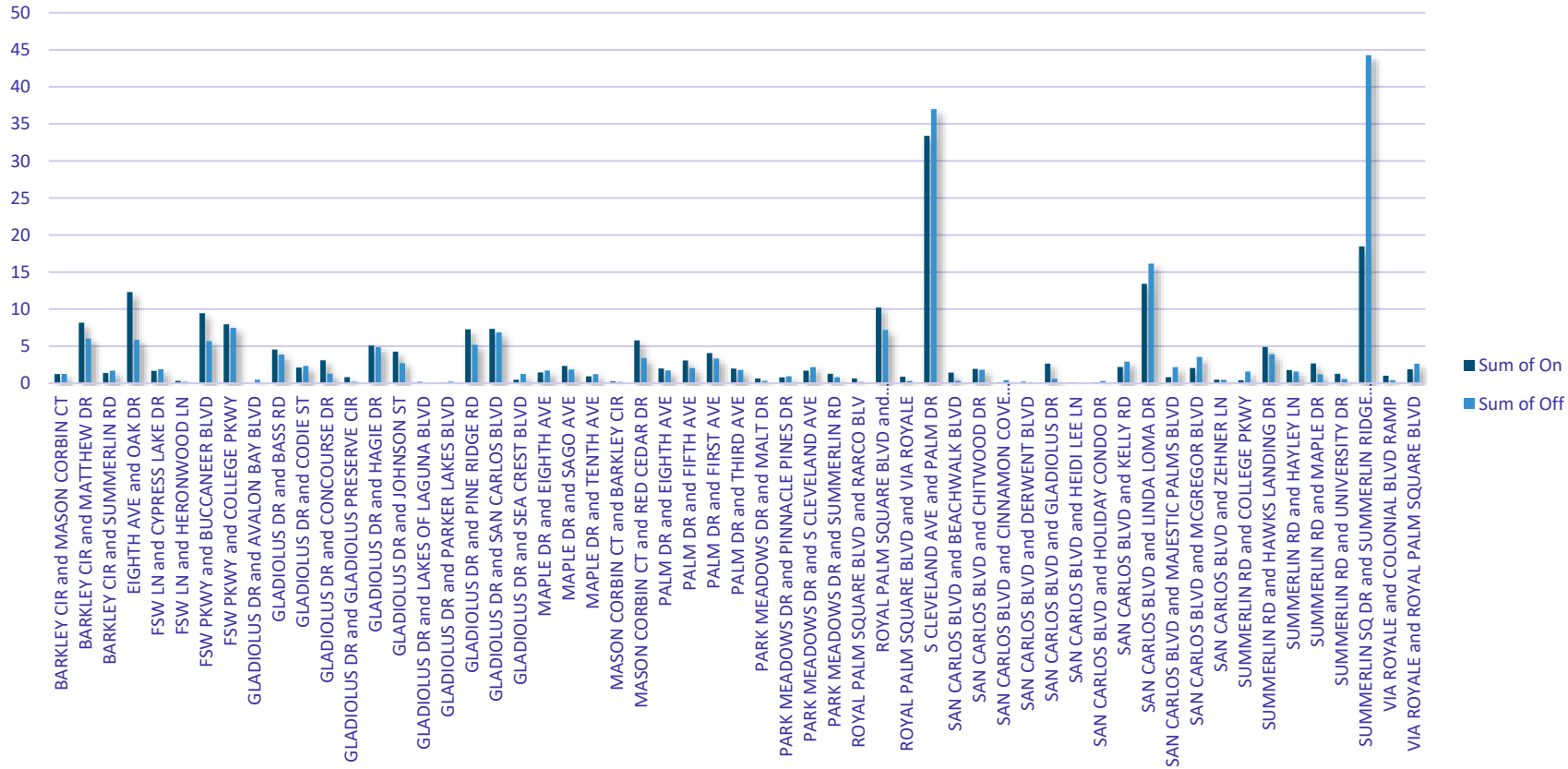
Source: LeeTran, 2020

Figure 16-14: Route 120 – Boarding and Alighting Daily Average



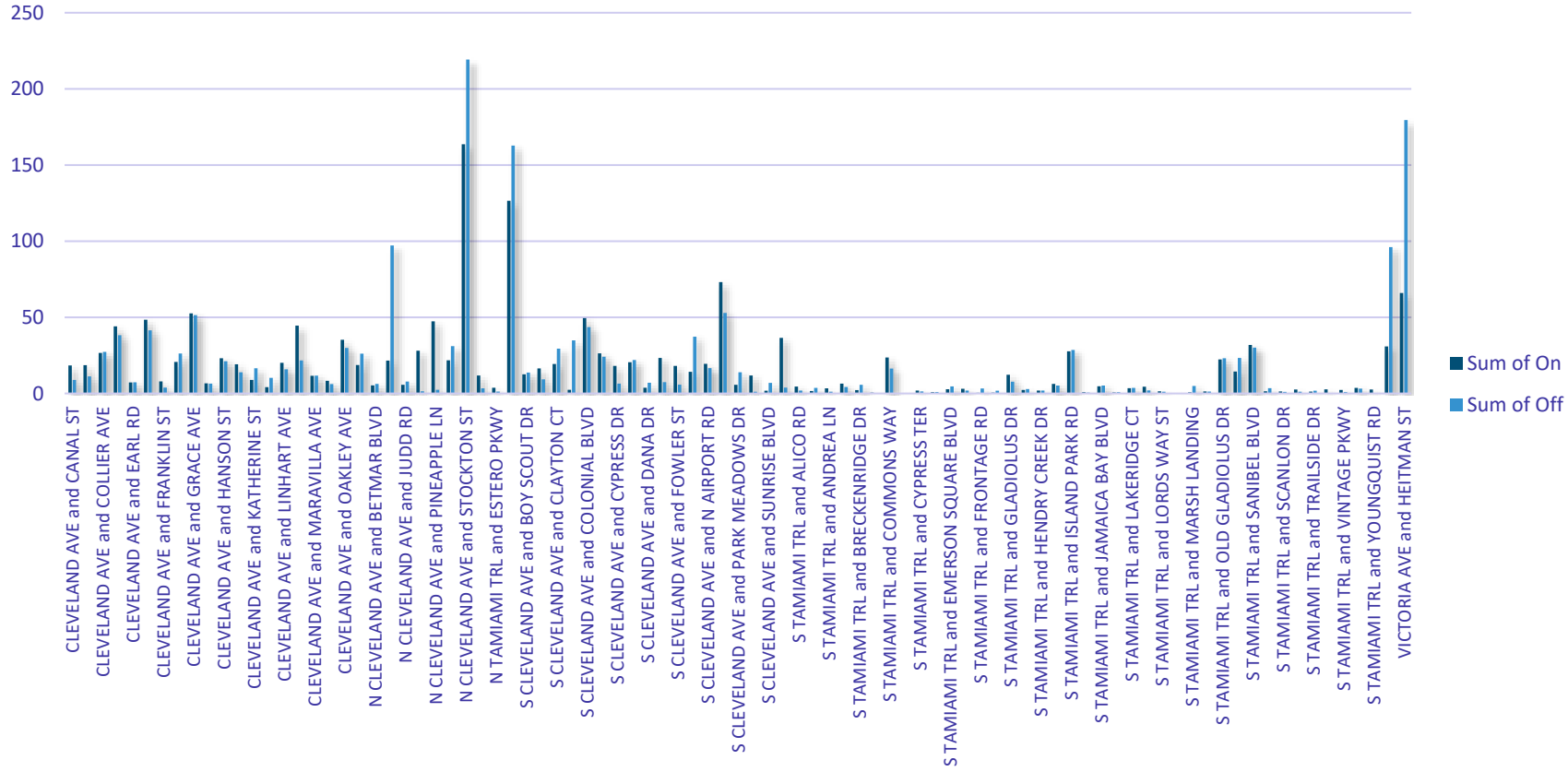
Source: LeeTran, 2020

Figure 16-15: Route 130 – Boarding and Alighting Daily Average



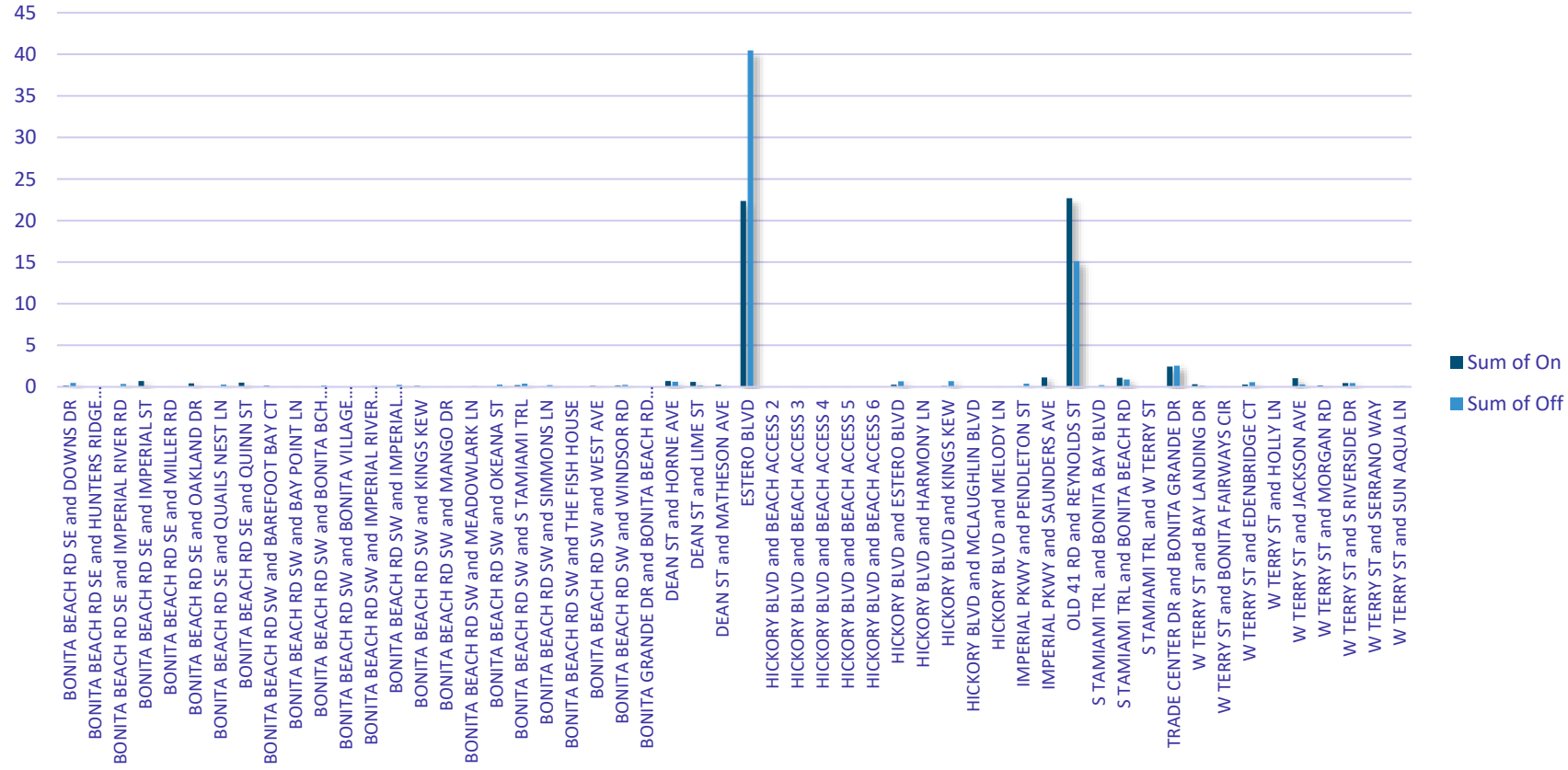
Source: LeeTran, 2020

Figure 16-16: Route 140 – Boarding and Alighting Daily Average



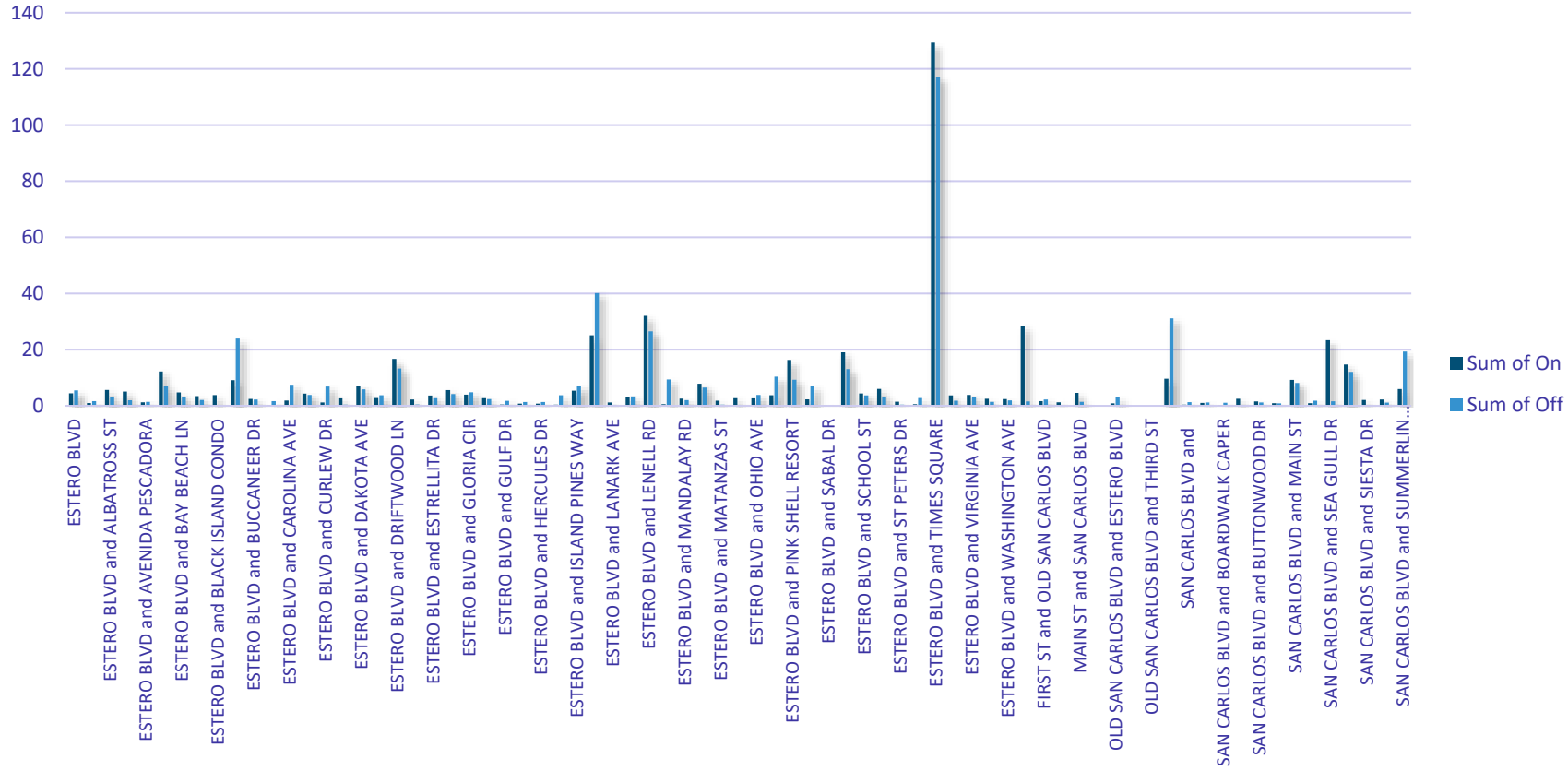
Source: LeeTran, 2020

Figure 16-17: Route 140 – Boarding and Alighting Daily Average



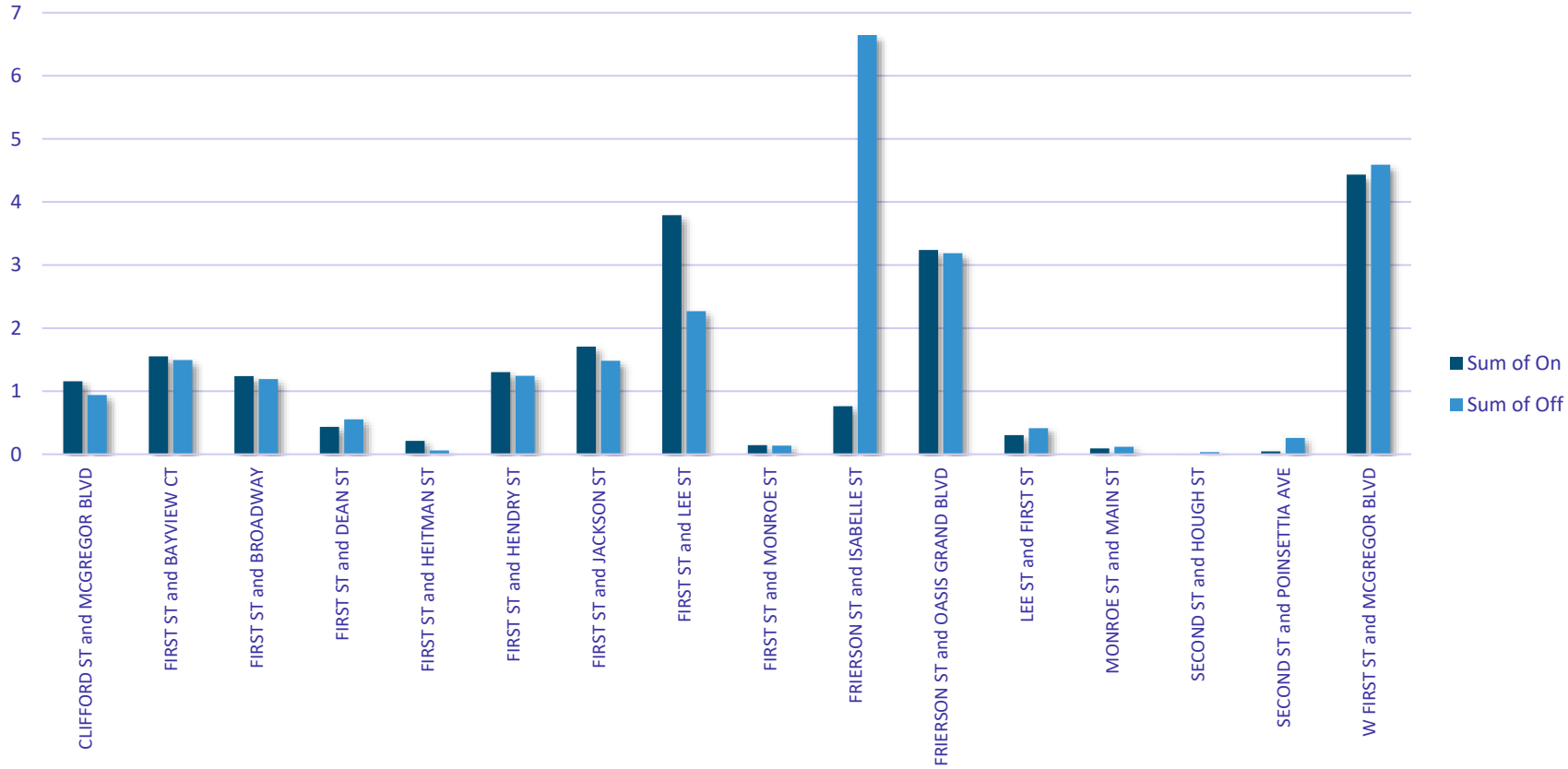
Source: LeeTran, 2020

Figure 16-18: Route 400 – Boarding and Alighting Daily Average



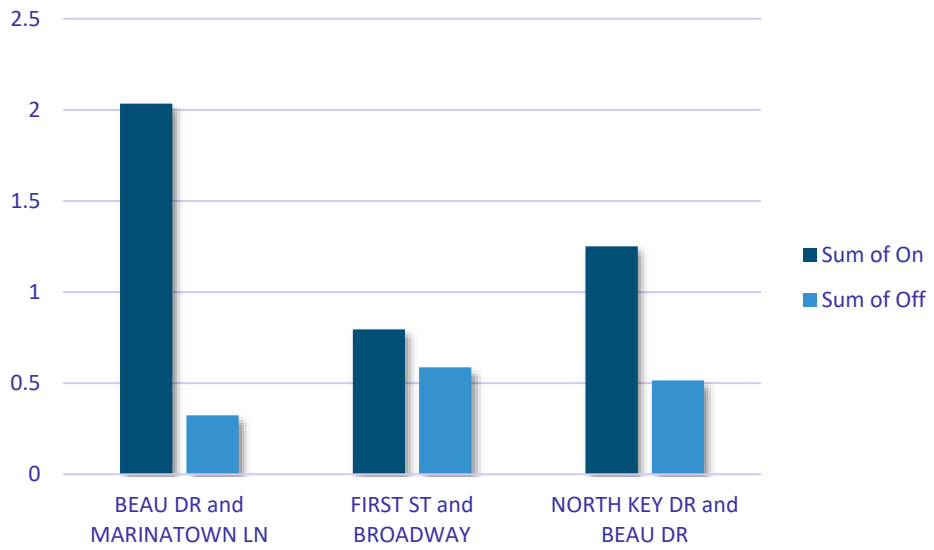
Source: LeeTran, 2020

Figure 16-19: Route 500 – Boarding and Alighting Daily Average



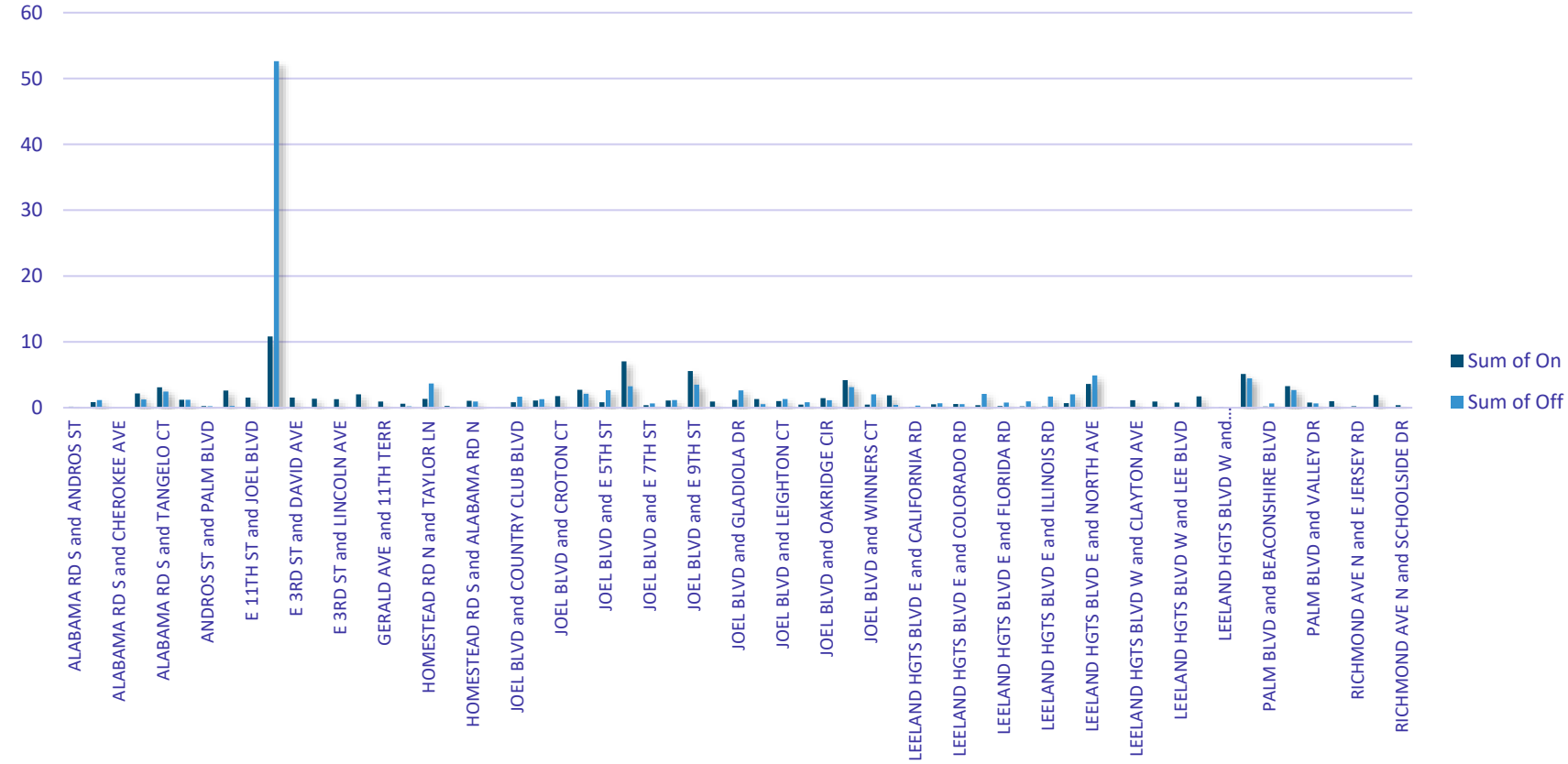
Source: LeeTran, 2020

Figure 16-20: Route 505 – Boarding and Alighting Daily Average



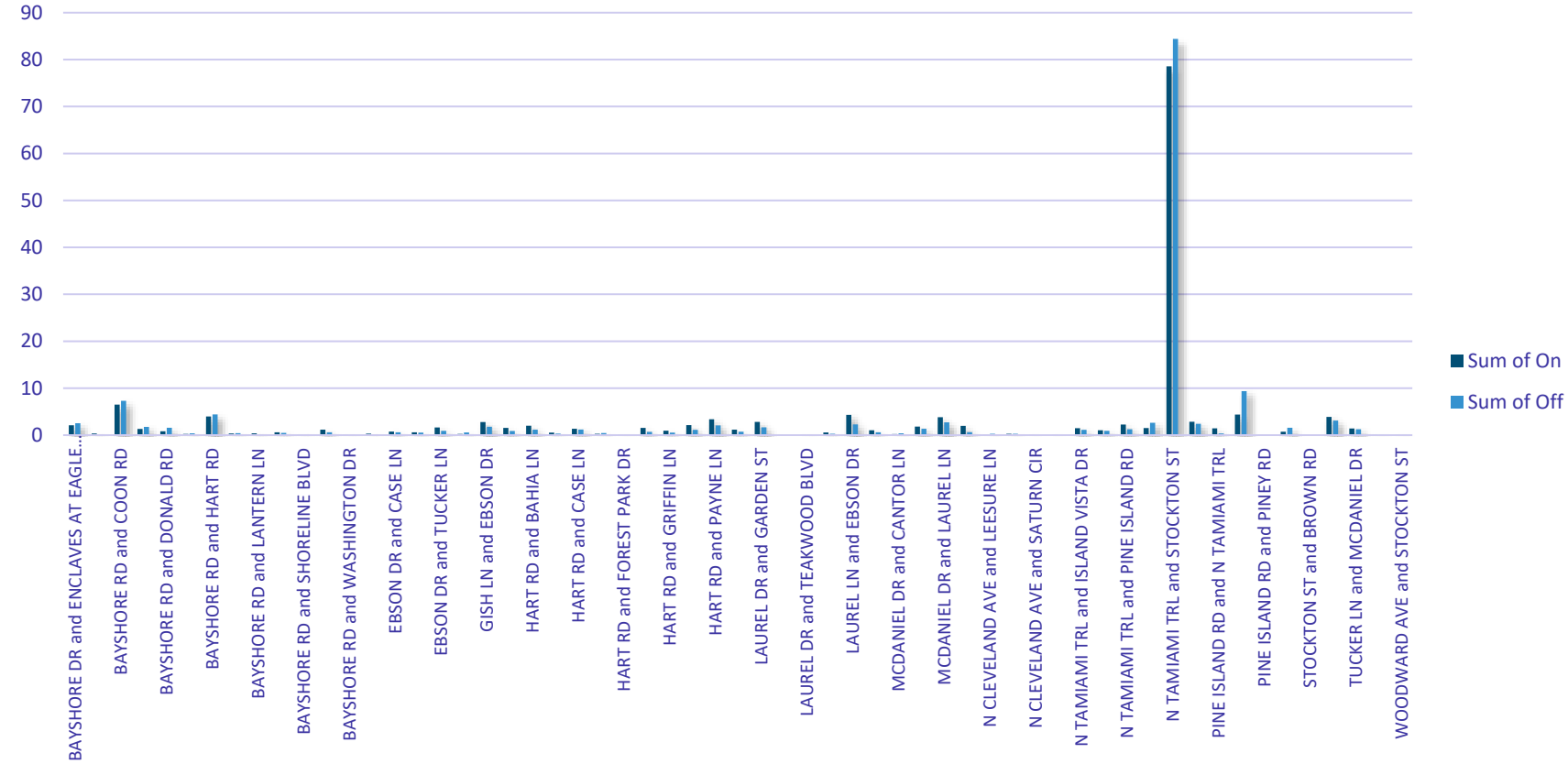
Source: LeeTran, 2020

Figure 16-21: Route 515 – Boarding and Alighting Daily Average



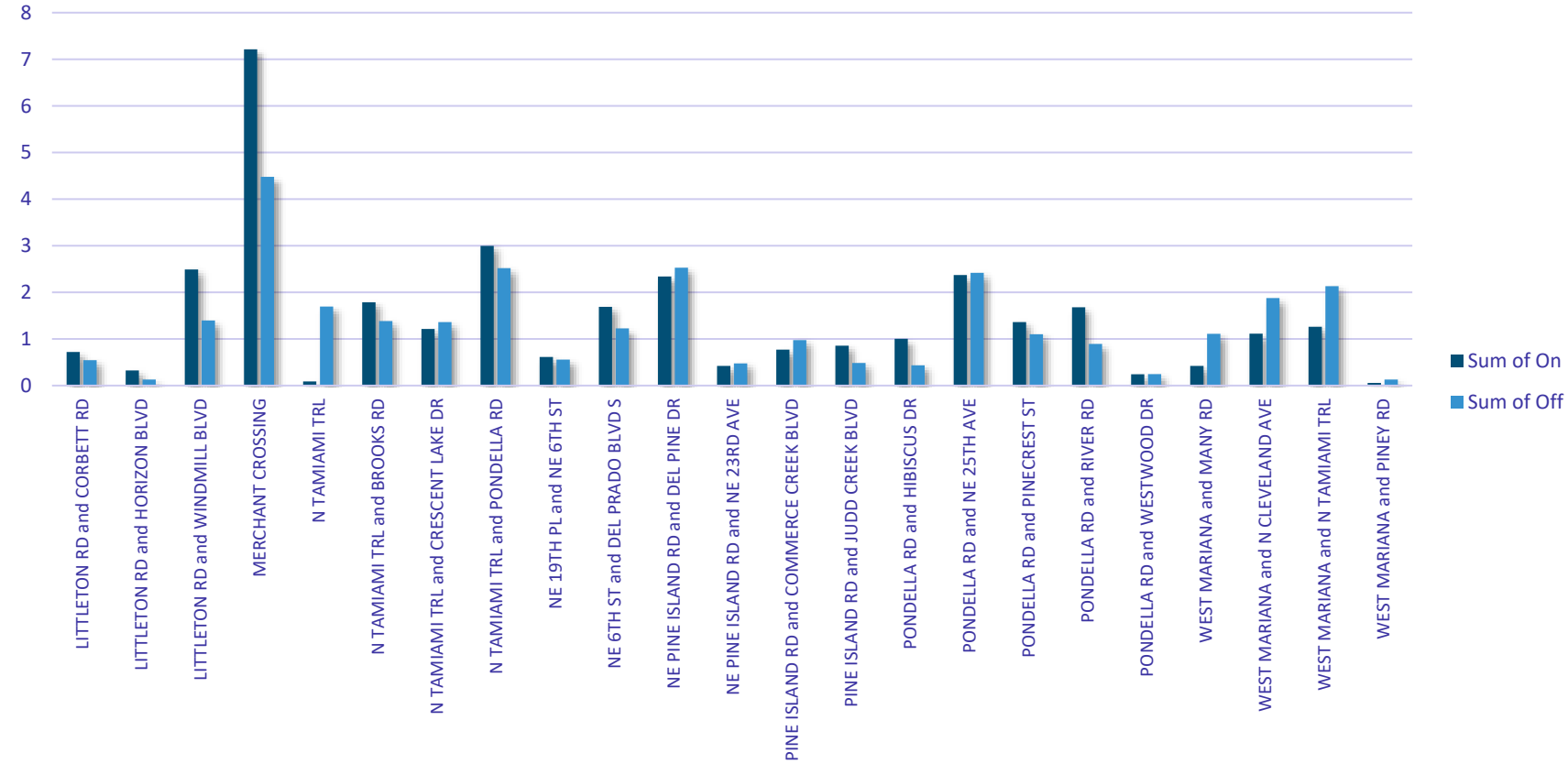
Source: LeeTran, 2020

Figure 16-22: Route 590 – Boarding and Alighting Daily Average



Source: LeeTran, 2020

Figure 16-23: Route 595 – Boarding and Alighting Daily Average



Source: LeeTran, 2020

Figure 16-24: Route 600 – Boarding and Alighting Daily Average