

PREFERRED CONCEPTS & STRATEGIES REPORT

June 2018

US 19 CORRIDOR

Express Bus Service Concepts



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02 Introduction

The US 19 Express Bus Service Concept Plan Study is a planning effort by Forward Pinellas to evaluate travel demand and transit supportive land uses along US 19 in Pinellas County to evaluate the feasibility of express bus service along the corridor. The study team is developing express bus transit service concepts between the residential areas in northern and southern Pinellas County and western Pasco County and the concentrations of employment destinations in the Gateway area and downtown St. Petersburg.

The outcome of the study will be a Concept of Operations assessment with high-level planning recommendations for alignments, stops, park-and-ride-locations, and conceptual level estimates of costs for implementation of the proposed transit service. The study is part of the US19 SPOTlight initiative being undertaken by Forward Pinellas to develop a vision for the US 19 Corridor.

US 19 is Pinellas County's primary north-south corridor that provides access through the entire length of the county from Tarpon Springs to St. Petersburg. The corridor passes through several activity centers and employment areas including the Gateway area in mid-county. For the purposes of this analysis, the Gateway area is bordered by Belleair Road to the north, 66th Street and US 19 to the west, Gandy Boulevard to the south, and Tampa Bay to the east. It has regionally-significant employment destinations and strong access to regional transportation linkages such as St. Pete-Clearwater International Airport, I-275, and the Howard Frankland and Gandy bridges.

This report summarizes the findings of the study, including:

- A review of existing and planned land uses, population and employment projections, and transit (Appendix A - *Planning Context Report*);
- Results of a work trip travel pattern analysis for the Gateway and downtown St. Petersburg employment destination zones (Appendix B - *Work Trip Travel Pattern Report*); and
- Development and evaluation of six conceptual route options for enhanced express transit service in Pinellas County to serve trips from North Pinellas County/West Pasco County to Gateway and from South County to downtown St. Petersburg and Gateway (Appendix C - *Definition and Evaluation of Concepts Report*).

Based on the results of the analysis and evaluation, the Forward Pinellas, PSTA, and consultant study team recommended three preferred concepts that best meet the vision and goals that were identified for the study. This report presents those preferred concepts and includes a series of implementation strategies that identify potential funding opportunities, capital improvements, and operational changes that would be assessed in greater detail as part of future phases of planning and analysis. One preferred concept for express bus service was identified to serve north Pinellas County/west Pasco County to Gateway trips along US 19. Two preferred concepts for limited stop bus service were identified to serve south Pinellas County to Gateway trips. One of these south county routes would serve downtown St. Petersburg as well.

03 Summary of Findings

Vision & Goals

The following vision and goal statements were established by Forward Pinellas to guide the feasibility study (see Appendix C - *Definition and Evaluation of Concepts Report*). The vision and goals provide a foundation for the evaluation of existing trip patterns, land use and development conditions, and conceptual alternatives for improved transit service along the US 19 corridor.

Vision Statement:

Offer enhanced transit service as an attractive commuting alternative to residents in north and south Pinellas County traveling to jobs in Gateway and downtown St. Petersburg.

Project Goals:

- Offer convenient, cost-effective and competitive peak-period connections between key employment destinations and residential areas in Pinellas County.
- Reinforce long-range land use and development plans calling for nodal development along US 19 and intensification of employment centers in Gateway and downtown St. Petersburg.
- Complement existing local bus and leverage the benefit of proposed premium transit, circulator or other first mile/last mile services.
- Identify improvements along the potential routes to increase travel speed, offer enhanced service quality, and maximize rider comfort.

Planning Context

The *Planning Context Report* (Appendix A) provides an overview of the transit supportive uses and existing and planned transit service along the US 19 corridor. Key findings from the report include the following:

- **Employment and population densities:** Due to the densely populated nature of Pinellas County and the limited supply of vacant land suitable for development, the existing land use patterns and densities are expected to remain fairly stable over the next 20 years. According to projections from the Tampa Bay Regional Planning Model, the highest population densities in 2020 will be in downtown St. Petersburg and the 4th Street Corridor in northern St. Petersburg. The highest employment densities in 2020 will be in downtown St. Petersburg and downtown Clearwater. Some areas of Gateway also have higher employment densities, but it is more dispersed than downtown St. Petersburg. Redevelopment that focuses on more compact and efficient patterns of development will drive population and employment growth over the next few decades. By 2040, downtown Clearwater, downtown Dunedin, the Alternate US 19 corridor in Largo and Seminole, and Oldsmar will have moderate population density increases. Employment densities are expected to increase by 2040 in the Gateway area, Largo and Tarpon Springs.

- **Future land use designations:** The *Transit Oriented Land Use Vision Map* was developed as part of the Countywide Plan Strategies to identify areas of the county best able to accommodate higher densities and intensities in coordination with transit service and other multimodal transportation, as well as to maximize the concentrations of jobs and population density. US 19 is designated as a Primary Corridor, or a corridor that is preferred for the highest level of density and intensity in the county. The Vision Map also identifies center locations, which are supported by Countywide Plan Map Land Use categories that reinforce the desire for increased densities/intensities along US 19 at key locations.
- **Traffic conditions:** As a primary roadway throughout the entire length of Pinellas County, US 19 carries a significant volume of traffic, especially in the northern half of the county. Much of the corridor has transformed over the last 20 years from an arterial road with multiple driveways and intersecting streets to a grade separated, partially controlled access road with interchanges, overpasses, and two-lane frontage roads. The same improvements are planned for the section north of SR 580 to north of Klosterman Road in the 2040 Long Range Transportation Plan (LRTP).
- **Existing and planned transit service:** US 19 is currently served by two local bus routes: Route 19 between Tarpon Springs and Largo and Route 34 between Largo and south St. Petersburg. These local routes provide connections to other east-west routes throughout the county as well as to proposed services including the Central Avenue Bus Rapid Transit (BRT) project that connects downtown St. Petersburg with St. Pete Beach. The US 19 corridor is designated as part of PSTA's "Core Network", which includes routes that are priorities for increased frequencies and longer hours of service.

Work Travel Pattern Analysis

Using Longitudinal Employer-Household Dynamics (LEHD) data from the U.S. Census Bureau's Center for Economic Study, the study team completed an analysis of work trip travel patterns in Pinellas County and western Pasco County. Using information on the location and density of primary jobs within the county, 11 employment destination zones within the Gateway area and downtown St. Petersburg were identified. Downtown St. Petersburg had approximately 24,000 jobs in 2015, with an employment density of 24.8 jobs per acre. The Gateway area had approximately 72,000 jobs, but a much lower employment density of 8.8 jobs per acre.

Residential density for Pinellas County workers is relatively low and workers are fairly dispersed. To identify the potential for commuter-oriented transit services, 11 residential origin zones were defined to track commute trips between the home locations of workers within the defined employment destinations zones. The origin-destination pair analysis determined the estimated number of trips between the residential origin zones and the employment destination zones.

Within the Gateway employment zones, the majority of workers reside within a relatively short distance (less than 10 miles) from areas to the south or west. Approximately 3,000 workers reside in residential zones further north along US 19 in New Port Richey, Tarpon Springs, Palm Harbor/Dunedin, and Trinity. Workers in the downtown St. Petersburg employment zones live close to their jobs, primarily in St. Petersburg. Only a small number of workers going to St. Petersburg live in north Pinellas County or Pasco County.

The complete origin-destination analysis is presented in Appendix B - *Work Trip Travel Pattern Report*.

04 Summary of Conceptual Routes & Service

Express Bus Service Overview

As detailed in Appendix C - *Definition and Evaluation of Concepts Report*, express bus service is unique from other bus transit service, including local bus or bus rapid transit (BRT) service. Express bus service operates on freeways or dedicated busways with a limited number of stops, connecting commuters from residential locations to a specific employment destination, major transfer points, or activity centers. Express bus service is generally defined as having the three operational characteristics described below. These were used in defining and evaluating potential service concepts to meet the study vision and goals.

- **Target Audience.** Express bus riders are typically commuters from suburban areas to urban areas working from 8 am to 5 pm, 40 hours a week. Express bus service is typically peak hour, operating between 6 and 9 am and 4 and 7 pm.
- **Frequency and Directness of Route.** Express bus service is not dependent on frequency of service; it is dependent on directness of service. Service originates at a park-and-ride or transfer center and travels directly to a destination with minimal route deviations.
- **Stops.** Express routes have a limited number of stops, which increases the average speed of the route from the typical 12.5 mph (local bus) to 20+ mph (express bus). As a result, express bus service is able to travel further in the same amount of travel time as the local bus service, increasing the attractiveness of the system as a transportation option.

Conceptual Route & Service Options

Based on the results of the travel pattern analysis, six conceptual route options were developed for new or enhanced express transit service in Pinellas County. Six conceptual route options were developed to provide the following services:

- Route options for express bus service connecting Western Pasco County/Northern Pinellas County to the Gateway Area, and
- Route options for a limited express bus service connecting South Pinellas County with downtown St. Petersburg and the Gateway Area.

Three options for a northern service and three for a southern service were developed along with preliminary bus operating scenarios and potential stop or park-and-ride locations were identified. The operating scenarios are based on a maximum 20 mph estimated average speed rounded up to the nearest half hour. An average speed was calculated for each scenario based on the length of service and the one-way service time.

The service time was used to calculate the daily revenue hours. Annual revenue hours were determined by multiplying the daily hours by 260 workdays per year. Estimated operating and maintenance (O&M) costs are based on \$90.30/revenue hour, which is the 2016 Operation Expense per Operating Hour as reported by PSTA to the National Transit Database.

Evaluation Summary

A high-level performance evaluation was conducted to evaluate the feasibility of service on each of the six conceptual route options. The following service characteristics were compared for each option:

- **Length of service.** Approximate one-way length of route in miles.
- **Number of stops.** Conceptual stop locations based on origin/destination analysis.
- **Number of buses.** Number of vehicles required to support service operating scenario.
- **One-way trip service time.** Length of time required to get from two terminus locations.
- **Frequency.** Based on a 20 mph average speed rounded to nearest half hour.
- **Daily revenue hours.** The length of time, or span of daily service, for all vehicles in service in the bus operating scenario.
- **Annual revenue hours.** The span of daily service multiplied by 260 service days.

Using origin-destination information from the *Work Trip Travel Pattern Report*, a preliminary estimate of potential riders was developed by comparing the following data for each route option:

- **Employment destination zones served.** Number of employment destination districts that are served. Subdistricts are defined in the *Work Trip Travel Pattern Report*, including five in Gateway (Carillon, Light Industrial Area, St. Pete-Clearwater International Airport, Tech Data, and Roosevelt/MLK) and three in downtown St. Petersburg (Core, South, and West).
- **Jobs in destination zones served.** Number of jobs that are located within the employment destination zones served by the route.
- **Residential location origin zones served.** Number of residential location origin zones that are served. Residential location zones defined in the *Work Trip Travel Pattern Report* include: New Port Richey, Tarpon Springs, East Lake/Oldsmar, Trinity, Clearwater/Safety Harbor, Largo, Gateway, Northwest St. Petersburg, South St. Petersburg, and East St. Petersburg.

- **Workers from residential location origin zones who are employed within destination zones served.** Number of workers who reside within the residential location origin zones that are served by the route who also work within a destination zone that is served by the route.
- **Potential Riders.** Estimated ridership for the proposed service in the am and pm peak periods was calculated by applying a 1.8 percent mode share to the workers who would be served by service along each route option. This estimate does not account for potential new ridership (i.e., increase in transit mode share) that may be attracted to use the express bus service compared to local bus service. A more detailed ridership that evaluates specific stop locations was not completed as part of the analysis.

The following capital and operating and maintenance (O&M) costs were also evaluated for each option:

- **New vehicle costs:** Based on \$500,000 per bus, the capital cost required to acquire new vehicles to provide service.
- **Annual O&M costs.** Operating and maintenance (O&M) costs are based on \$90.30 per revenue hour.

05 Preferred Route & Service Concepts

The six conceptual route options were presented and reviewed by the Forward Pinellas Technical Coordinating Committee (TCC) as well as Forward Pinellas and PSTA staff. Based on input received, one north county route and two south county route concepts were identified as the preferred concepts.

North County Preferred Concept

One north county route option was identified as the preferred concept to connect northern Pinellas County/western Pasco County to the Gateway Area (see Figure 1). In the northern portion of the route, stop locations were identified to maximize connections to existing local bus transfer locations and sites with park-and-ride potential, including stops at Tarpon Mall and Westfield Countryside Mall. Both these stops provide connections to multiple other PSTA routes. In the Gateway Area, stops would be provided to serve key employment destinations and connect to PSTA's 34th Street Transfer Center.

The proposed service would supplement existing local bus service by offering an additional peak-hour commuting option with a 30 minute frequency. Unlike the current Route 19, the express service would have fewer stops. To limit stop locations in the Gateway area, the proposed service would not make a stop at the Largo Transfer Center.

From the Carillon Business Center, it is approximately 22 miles to Tarpon Springs and 30 miles to New Port Richey. For planning purposes to result in average travel speeds of 20 mph, the estimated travel time from Tarpon Springs to Gateway was assumed to be 60 minutes. This average speed is consistent with the operation of express bus service across the country.

The north county preferred concept provides service from Holiday in Pasco County through Tarpon Springs, Palm Harbor, Dunedin, Clearwater, and Largo in northern Pinellas County along US 19 to the Gateway Area. The service connects from a northern terminus at SR 54 in Holiday to the southern terminus at the 34th Street Transfer Center in Gateway. As shown in Figure 1, the route travels along US 19, Roosevelt Boulevard, Ulmerton Road, Carillon Parkway, Scherer Drive, and 34th Street.

Service characteristics:

- Length of service: 28 miles one-way
- Stops:
 - SR 54/Holiday
 - Tarpon Mall
 - Countryside Westfield Mall
 - Tech Data
 - St. Pete-Clearwater International Airport
 - Carillon Stop 1
 - Carillon Stop 2
 - 34th Street Transfer Center
- 6 bus scenario:
 - Service hours: 5:30 to 10:00 am; 4 to 8:30 pm
 - One-way service time: 90 minutes
 - Round-trip service time: 180 minutes
 - Average speed: 18.7 mph
 - Frequency: 30 minute
 - Daily revenue hours: 36 hours
 - Annual revenue hours: 9,360 hours
 - Estimated operating costs: \$845,208
 - *(See Tables 1 and 2 for operating scenario)*

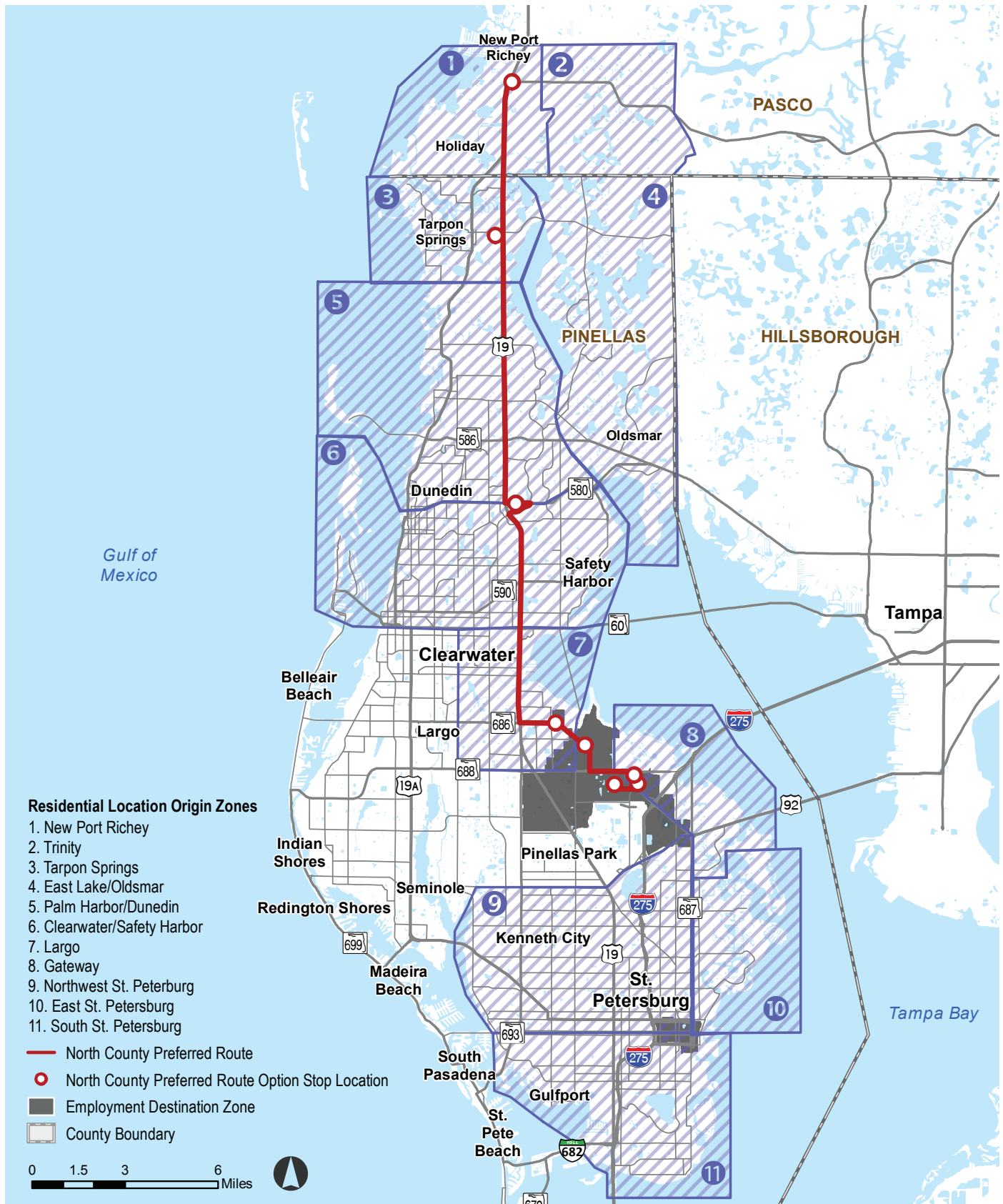
Table 1. North Pinellas County Preferred Concept (Holiday to Gateway) - Southbound Operating Scenario

Bus #	Holiday	Tarpon Mall	Countryside Westfield Mall	Carillon Area	34th Street Transfer Center
1	6:00 am	6:15 am	6:45 am	7:15 am	7:30 am
2	6:30 am	6:45 am	7:15 am	7:45 am	8:00 am
3	7:00 am	7:15 am	7:45 am	8:15 am	8:30 am
4	7:30 am	7:45 am	8:15 am	8:45 am	9:00 am
5	8:00 am	8:15 am	8:45 am	9:15 am	9:30 am
6	8:30 am	8:45 am	9:15 am	9:45 am	10:00 am
5	4:30 pm	4:45 pm	5:15 pm	5:45 pm	6:00 pm
6	5:00 pm	5:15 pm	5:45 pm	6:15 pm	6:30 pm
1	5:30 pm	5:45 pm	6:15 pm	6:45 pm	7:00 pm
2	6:00 pm	6:15 pm	6:45 pm	7:15 pm	7:30 pm
3	6:30 pm	6:45 pm	7:15 pm	7:45 pm	8:00 pm
4	7:00 pm	7:15 pm	7:45 pm	8:15 pm	8:30 pm

Table 2. North Pinellas County Preferred Concept (Holiday to Gateway) - Northbound Operating Scenario

Bus #	34th Street Transfer Center	Carillon Area	Countryside Westfield Mall	Tarpon Mall	Holiday
3	5:30 am	5:45 am	6:15 am	6:45 am	7:00 am
4	6:00 am	6:15 am	6:45 am	7:15 am	7:30 am
5	6:30 am	6:45 am	7:15 am	7:45 am	8:00 am
6	7:00 am	7:15 am	7:45 am	8:15 am	8:30 am
1	7:30 am	7:45 am	8:15 am	8:45 am	9:00 am
2	8:00 am	8:15 am	8:45 am	9:15 am	9:30 am
1	4:00 pm	4:15 pm	4:45 pm	5:15 pm	5:30 pm
2	4:30 pm	4:45 pm	5:15 pm	5:45 pm	6:00 pm
3	5:00 pm	5:15 pm	5:45 pm	6:15 pm	6:30 pm
4	5:30 pm	5:45 pm	6:15 pm	6:45 pm	7:00 pm
5	6:00 pm	6:15 pm	6:45 pm	7:15 pm	7:30 pm
6	6:30 pm	6:45 pm	7:15 pm	7:45 pm	8:00 pm

Figure 1. North County Preferred Concept (SR 54/Holiday to Gateway)



South County Preferred Concepts

Two south county route options were identified as preferred concepts to connect southern Pinellas County, including Eckerd College and the Skyway Marina District, to the Gateway area (see figures 2 and 3). For both options, the southern portion of the route follows the current Route 34 corridor between Eckerd College and Grand Central Station. The northern portion of the routes travel either to downtown St. Petersburg and then Gateway (Option 1), or directly to Gateway via 34th Street North/Gandy Boulevard (Option 2).

Service along both route options would operate more like a limited stop express bus service, with fewer stops than a local bus service, but with more frequent stops than a more traditional express bus service. Stops were estimated at approximately 1/2 mile intervals along the route. The total distance from Eckerd College to the Gateway area is approximately 20 miles, but due to more frequent stops, the estimated average speed would be lower than typical express bus service.

The south county preferred concepts are routed to provide connections to other key routes and services. PSTA's limited stop 300X connects Largo to downtown Tampa via Ulmerton Road and I-275. The proposed expansion of the limited stop 100X service would extend service between downtown Tampa and Gateway Mall to downtown St. Petersburg. Grand Central Station is a major transfer point in southern Pinellas County. It has numerous existing connections to downtown St. Petersburg and would serve as a connection point for the proposed Central Avenue bus rapid transit (BRT) route.

SOUTH COUNTY PREFERRED OPTION 1

The South County Preferred Option 1 provides service from South St. Petersburg to downtown St. Petersburg and the Gateway Area. The route connects from a southern terminus at Eckerd College in St. Petersburg to Grand Central Station and downtown St. Petersburg and then to a northern terminus at the 34th Street Transfer Center. As shown in Figure 2, the route travels along 54th Avenue South, 34th Street South, 1st Avenue South/North, 4th Street North, Roosevelt

Boulevard, Carillon Parkway, Ulmerton Road, and 34th Street.

- Length of service: 18 miles one-way
- Major stops/destinations:
 - Eckerd College
 - Skyway Marina District (34th Street South)
 - Grand Central Station
 - Downtown St. Petersburg
 - 38th Avenue
 - Kroger Boulevard
 - Jabil
 - Carillon Stop 3
 - Carillon/Feather Sound
 - 34th Street Transfer Center
- Minor stops: located approximately every 1/2 mile between the major stops/destinations.
- 6 bus scenario:
 - Service hours: 5:30 to 10:30 am; 4 to 8 pm
 - One-way service time: 90 minutes
 - Round-trip service time: 180 minutes
 - Average speed: 12 mph
 - Frequency: 30 minute
 - Daily revenue hours: 36 hours
 - Annual revenue hours: 9,360 hours
 - Estimated operating costs: \$845,208
 - *(See Tables 3 and 4 for operating scenario)*

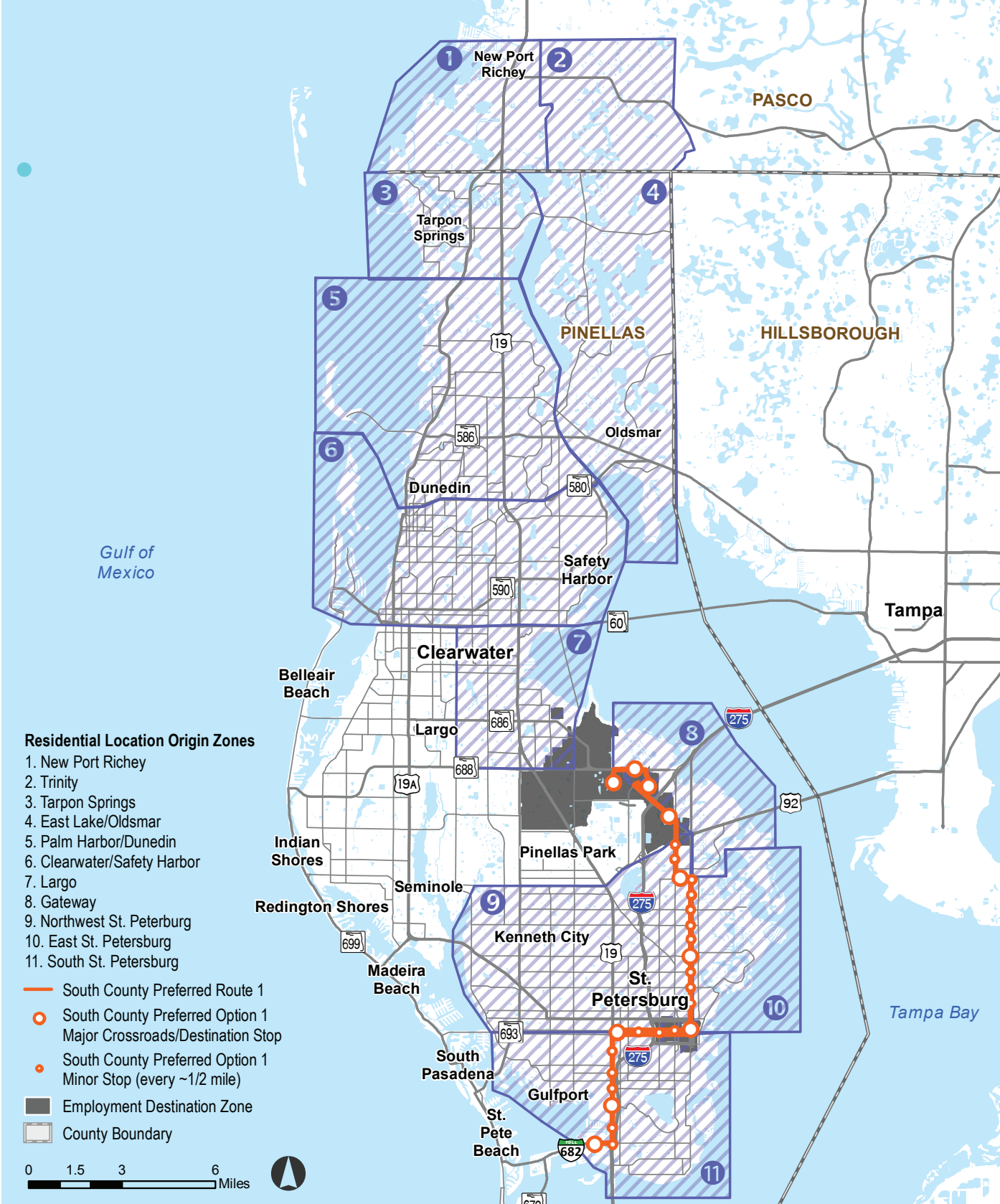
Table 3. South Pinellas County Preferred Concept 1 - Northbound Operating Scenario

Bus #	Eckerd College	Grand Central Station	Carillon Area	34th Street Transfer Center
1	6:00 am	6:30 am	7:00 am	7:30 am
2	6:30 am	7:00 am	7:30 am	8:00 am
3	7:00 am	7:30 am	8:00 am	8:30 am
4	7:30 am	8:00 am	8:30 am	9:00 am
5	8:00 am	8:30 am	9:00 am	9:30 am
6	8:30 am	9:00 am	9:30 am	10:00 am
1	4:00 pm	4:30 pm	5:00 pm	5:30 pm
2	4:30 pm	5:00 pm	5:30 pm	6:00 pm
3	5:00 pm	5:30 pm	6:00 pm	6:30 pm
4	5:30 pm	6:00 pm	6:30 pm	7:00 pm
5	6:00 pm	6:30 pm	7:00 pm	7:30 pm
6	6:30 pm	7:00 pm	7:30 pm	8:00 pm

Table 4. South Pinellas County Preferred Concept 1 - Southbound Operating Scenario

Bus #	34th Street Transfer Center	Carillon Area	Grand Central Station	Eckerd College
4	6:00 am	6:30 am	7:00 am	7:30 am
5	6:30 am	7:00 am	7:30 am	8:00 am
6	7:00 am	7:30 am	8:00 am	8:30 am
1	7:30 am	8:00 am	8:30 am	9:00 am
2	8:00 am	8:30 am	9:00 am	9:30 am
3	8:30 am	9:00 am	9:30 am	10:00 am
4	4:00 pm	4:30 pm	5:00 pm	5:30 pm
5	4:30 pm	5:00 pm	5:30 pm	6:00 pm
6	5:00 pm	5:30 pm	6:00 pm	6:30 pm
1	5:30 pm	6:00 pm	6:30 pm	7:00 pm
2	6:00 pm	6:30 pm	7:00 pm	7:30 pm
3	6:30 pm	7:00 pm	7:30 pm	8:00 pm

Figure 2. South County Preferred Concept 1 (South St. Petersburg to Downtown St. Petersburg and Gateway)



SOUTH COUNTY PREFERRED OPTION 2

The South County Preferred Option 2 provides service from South St. Petersburg to the Gateway Area via 34th Street and Gandy Boulevard. The route connects from a southern terminus at Eckerd College in St. Petersburg to the Grand Central Station and then to the northern terminus at the 34th Street Transfer Center. As shown in Figure 3, the route travels along 54th Avenue South, 34th Street South/North, Gandy Boulevard, 94th Avenue North, Martin Luther King Jr Street North, Roosevelt Boulevard, Carillon Parkway, Ulmerton Road, and 34th Street North.

- Length of service: 17 miles one-way
- Major stops/destinations:
 - Eckerd College
 - 34th Street South (Skyway Marina District)
 - Grand Center Station
 - Pinellas Park Transfer Center
 - Executive Center Drive
 - Jabil
 - Carillon Stop 3

- Carillon/Feather Sound
- 34th Street Transfer Center
- Minor stops: located approximately every 1/2 mile between the major stops/destinations.
- 6 bus scenario:
 - Service hours: 5:30 to 10:30 am; 4 to 8 pm
 - One-way service time: 90 minutes
 - Round-trip service time: 180 minutes
 - Average speed: 11.3 mph
 - Frequency: 30 minute
 - Daily revenue hours: 36 hours
 - Annual revenue hours: 9,360 hours
 - Estimated operating costs: \$845,208
 - (See Tables 5 and 6 for operating scenario)

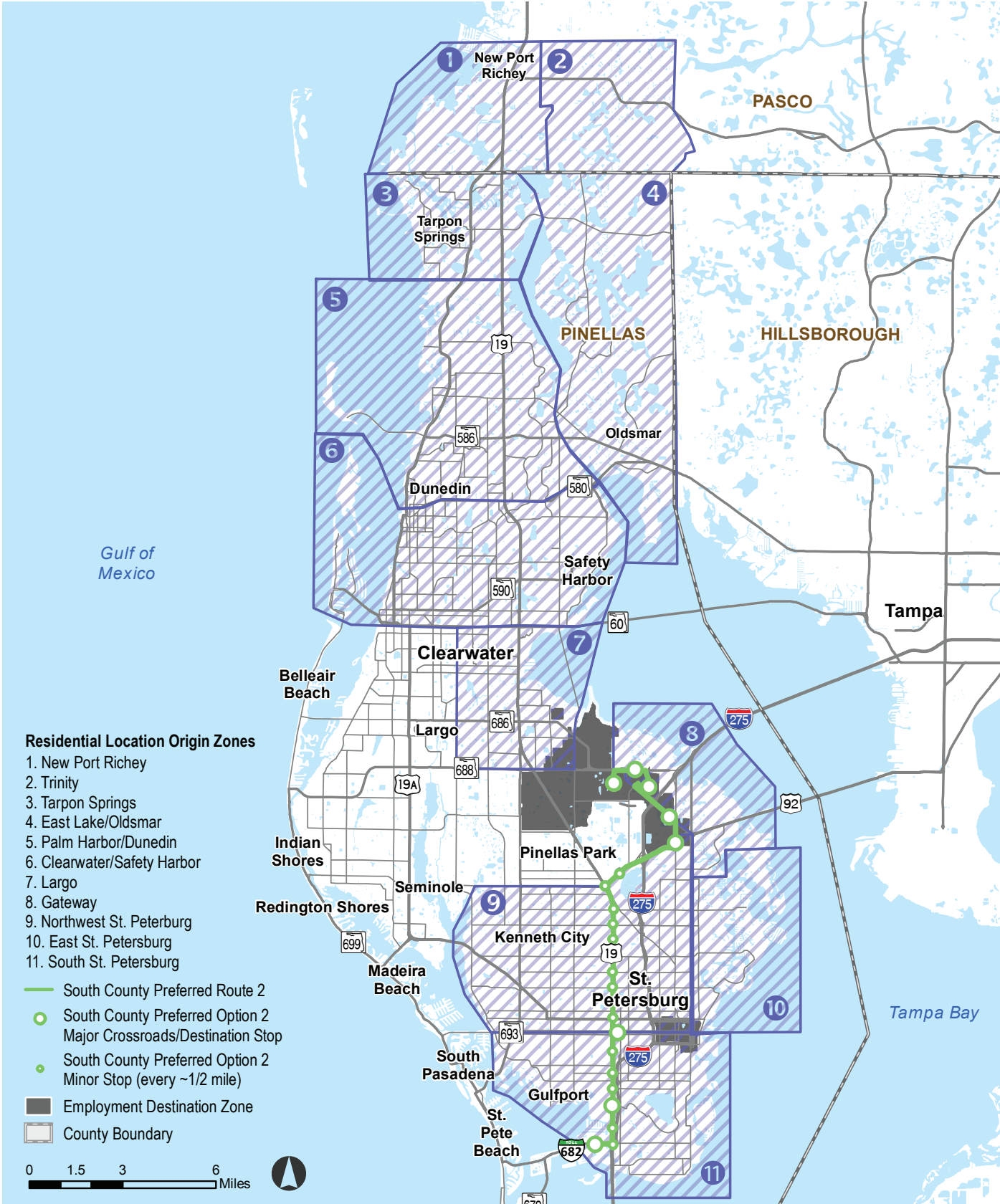
Table 5. South Pinellas County Preferred Concept 1 - Northbound Operating Scenario

Bus #	Eckerd College	Grand Central Station	Carillon Area	34th Street Transfer Center
2	6:00 am	6:30 am	7:00 am	7:30 am
3	6:30 am	7:00 am	7:30 am	8:00 am
4	7:00 am	7:30 am	8:00 am	8:30 am
5	7:30 am	8:00 am	8:30 am	9:00 am
6	8:00 am	8:30 am	9:00 am	9:30 am
1	8:30 am	9:00 am	9:30 am	10:00 am
1	4:00 pm	4:30 pm	5:00 pm	5:30 pm
2	4:30 pm	5:00 pm	5:30 pm	6:00 pm
3	5:00 pm	5:30 pm	6:00 pm	6:30 pm
4	5:30 pm	6:00 pm	6:30 pm	7:00 pm
5	6:00 pm	6:30 pm	7:00 pm	7:30 pm
6	6:30 pm	7:00 pm	7:30 pm	8:00 pm

Table 6. South Pinellas County Preferred Concept 1 - Southbound Operating Scenario

Bus #	34th Street Transfer Center	Carillon Area	Grand Central Station	Eckerd College
5	6:00 am	6:30 am	7:00 am	7:30 am
6	6:30 am	7:00 am	7:30 am	8:00 am
1	7:00 am	7:30 am	8:00 am	8:30 am
2	7:30 am	8:00 am	8:30 am	9:00 am
3	8:00 am	8:30 am	9:00 am	9:30 am
4	8:30 am	9:00 am	9:30 am	10:00 am
4	4:00 pm	4:30 pm	5:00 pm	5:30 pm
5	4:30 pm	5:00 pm	5:30 pm	6:00 pm
6	5:00 pm	5:30 pm	6:00 pm	6:30 pm
1	5:30 pm	6:00 pm	6:30 pm	7:00 pm
2	6:00 pm	6:30 pm	7:00 pm	7:30 pm
3	6:30 pm	7:00 pm	7:30 pm	8:00 pm

Figure 3. South County Preferred Concept 2 (South St. Petersburg to Gateway)



06 Implementation Action Plan

To support the further development and implementation of the preferred concepts, the action plan described in this section identifies the steps that Forward Pinellas, PSTA, and other partner agencies should take. The action plan includes strategies to identify potential funding sources, capital improvements, and operational changes that should be assessed in greater detail during the next phase of planning and analysis.

- 1. Refine Service Plan.** As part of the Community Bus Plan update, PSTA will further refine a plan for service along the preferred routes. This process will provide further detail regarding the following:
 - Hours and frequency of service;
 - Stop locations and improvements, including potential improvements to existing park-and-ride locations;
 - Schedule alignment with transfer and crossing routes; and
 - Schedule adjustments to service along the same corridors, including along US 19, 4th Street, and 34th Street South.
- 2. Funding Sources.** Forward Pinellas and PSTA will evaluate potential funding sources to support service implementation. Two general types of funding will be identified:
 - Funding for the initial introduction of service assuming minimal to no improvements in existing transit and transportation facilities; and
 - Funding to improve level of service along the routes once initial service is introduced, including improvements to address traffic management, passenger comfort, and destination access.
- 3. Corridor Improvements.** Forward Pinellas and PSTA will define traffic management and roadway improvements to lower transit travel times along arterial corridors, including US 19, Roosevelt Boulevard, Ulmerton Road, 4th Street, and 34th Street South. Such improvement will include consideration of the following:
 - Implementation of active Traffic Signal Prioritization (TSP), transit signal progression, and other traffic signal improvements to improve transit operations at major intersections;
 - Exploration of Business Access and Transit (BAT) Lane implementation along corridors where transit service improvement has been identified as a priority. A lane elimination traffic study is currently underway for 34th Street South which may set the stage for BAT Lane implementation along the corridor from 54th Street South to 22nd Street South; and
 - Implementation of queue jump lanes, shared transit/right-turn lanes, or other roadway improvements to key intersections to reduce transit delays by allowing buses to bypass intersection congestion.
- 4. Park-and-Ride Improvements.** Forward Pinellas and PSTA will identify existing privately-owned parking lots that may be available by agreement for use as park-and-ride lots near stop locations along the routes. PSTA should explore the potential for agreements with private land owners to allow for parking, shelters, and transit access. The size, configuration, bus circulation routing, design elements, and specific improvements provided at each park-and-ride location will be determined by evaluating the potential ridership and current

conditions of each location. Potential locations include downtown New Port Richey, Tarpon Mall, Westfield Clearwater Mall, Eckerd College, and the Skyway Marina District.

- 5. Stop Improvements.** PSTA will work with Forward Pinellas and local governments to identify park-and-ride and stop enhancements to improve passenger safety and comfort and make it easier and more convenient for riders to use the service.
 - Introduce shelters, benches, lighting, and other passenger amenities and furnishings at stop locations.
 - Include bike parking improvements, including shelters and possibly bike lockers, at park-and-ride and other stop locations to provide riders an additional option of accessing the service.
 - Evaluate existing pedestrian connections and sidewalk facilities at destination stops, and work with property owners and local governments to add missing connections to improve access to stop locations.
- 6. First-Mile/Last-Mile Connections.** Evaluate fixed-route, fixed-schedule circulators, as well as on-demand Transportation Network Company (TNC) partnerships to provide access to stop locations.
 - Evaluate opportunities to modify the Direct Connect program connection locations to align with express bus stop locations and provide easy connections to final destinations using PSTA's on-demand TNC services.
 - Within Downtown St. Petersburg, align the express bus service stop locations to coordinate with the Downtown Circulator and the proposed 1st Ave North/1st Ave South BRT routes.
 - Explore a new circulator service within the Gateway Area or future connections to a new Gateway Intermodal Center.

07 Sources

- Tampa Bay Regional Transportation Analysis (RTA), Tampa Bay Regional Planning Model (TBRPM), <http://www.tbrta.com/>
- U.S. Census Bureau, Center for Economic Studies, Longitudinal Employer-Household Dynamics (LEHD) data, On The Map Tool, <https://onthemap.ces.census.gov/>
- Transportation Research Board, Transit Cooperative Research Program (TCRP) Report 165: Transit Capacity and Quality of Service Manual (TCQSM) 3rd Edition, <http://www.trb.org/Main/Blurbs/169437.aspx>

Appendices

Appendix A - Planning Context Report

Appendix B - Work Trip Travel Pattern Report

Appendix C - Definition and Evaluation of Concepts Report