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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

The Westshore Circulator Study was conducted by the Hillsborough County Metropolitan Planning Organization (MPO), in partnership with the Westshore Alliance and the Hillsborough Area Regional Transit Authority (HART). The purpose of this study was to explore the feasibility of transit circulator service (local loop bus service) within the Greater Westshore Area.

At the geographic center of the Tampa/St. Petersburg/Clearwater market with more than 12 million square feet of office space and nearly 95,000 workers, the Westshore Area is Florida's largest office community. The Westshore Area is positioned to continue to grow as an economic hub as it hosts more than 30 hotels, 250 restaurants, two upscale shopping centers (International Plaza and Westshore Plaza), Tampa International Airport (TIA), and a growing residential community. As travel demand is anticipated to increase on area roadways, it will be critical to support this growth through non-automotive transportation options, particularly through a premium transit system and a series of circulators connecting area attractions to development.

The primary objective of the Westshore Circulator Study is to provide a set of phased strategies that focus and prioritize investments on those corridors throughout the Westshore Area where circulator service is deemed viable. The strategies:

- Expand on/provide mobility choices for various potential markets (including residents, workers, visitors, and students); and
- Enhance connections/access between major attractions/destinations of the area (i.e., TIA, two regional malls, Raymond James Stadium, Al Lopez Park, hotels, retail, etc.) and growing development.

The strategies serve as the foundation for the Implementation Plan that primarily includes a basic service/operations plan for phased implementation, as well as funding strategies. The following components were included as part of the study and are discussed in the document:

- Existing Conditions Analysis (Chapter 2.0)
- Needs Assessment (Chapter 3.0)
- Implementation Plan (Chapter 4.0)
- Chapters 1.0 and 5.0 compose the Introduction and Summary, respectively, to the document.

The geographic boundaries of the study area (as illustrated in Figure ES-1) extend east to Himes Avenue (between Kennedy Boulevard and Hillsborough Avenue), north along Hillsborough Avenue (between Himes Avenue and the Veterans Expressway), south along Veterans Expressway/Eisenhower Boulevard (from Hillsborough Avenue to Memorial Highway), west on Memorial Highway (from Veterans Expressway/Eisenhower Boulevard to Dana Shores Drive), south and east along Dana Shores Drive to Eisenhower Boulevard, south along Eisenhower Boulevard to the south side of Courtney Campbell Causeway, and west along Courtney Campbell Causeway capturing both the north and south sides of the Rocky Point area and Ben T. Davis Beach.
FIGURE ES-1: WESTSHORE CIRCULATOR STUDY AREA

Source: Adjusted Westshore Alliance Special Assessment Boundary, 2012.
ES.2 EXISTING CONDITIONS

Chapter 2.0 describes the Existing Conditions Analysis within the Westshore Study Area, which examined:

- Relevant local and regional plans,
- Demographics,
- Land use and development trends, as well as
- Existing transit service.

ES.2.1 Consistency with Local Plans

Previous and current planning initiatives relevant to the Westshore Circulator Study are discussed in Chapter 2.0. These efforts are divided into three sections:

- Westshore Area Plans and Policies,
- Other Local Initiatives, and
- Regional and State Initiatives.

ES.2.2 Demographics

Population and employment information was depicted on figures to show the density of population by United States Census Bureau 2010 Census Block data (Figure ES-2), as well as concentration of employment based on 2010 InfoGroup Business data purchased by the Florida Department of Transportation (FDOT) District 7 (Figure ES-3).

ES.2.3 Existing Transit

Existing transit routes (shown on Figure ES-4) and daily ridership by stop (shown on Figure ES-5) are described in detail in Section 2.4 of Chapter 2.0.

ES.3 NEEDS ASSESSMENT

The Needs Assessment (presented in Chapter 3.0) consisted of a two-part analysis:

- Stakeholder input
- Market assessment
FIGURE ES-2: WESTSHORE AREA 2010 CENSUS POPULATION DENSITY BY BLOCK

FIGURE ES-3: WESTSHORE AREA CONCENTRATION OF EMPLOYEES

FIGURE ES-4: EXISTING TRANSIT SERVICE IN WESTSHORE AREA

Source: HART Bus Routes & Transfer Centers, 2012.
FIGURE ES-5: EXISTING TRANSIT RIDERSHIP IN WESTSHORE AREA

**ES.3.1 Stakeholder Input**

The Needs Assessment included a survey conducted both online and by mail. Three groups were targeted with group-specific survey instruments. These groups included:

- Residents,
- Employers/Employees, and
- Visitors/Hotels.

A total of 264 responses were received. The responses for each of the three groups and the overall results of this survey are discussed in Section 3.1 of Chapter 3.0. **Figures ES-6** through **ES-8** depict a high level description of the results.

In addition, interviews were conducted with key stakeholders to determine their interest in and willingness to support circulator service within the Westshore Area. The determination was that the support was conditional at best.

**FIGURE ES-6: WESTSHORE AREA FACTORS LIMITING TRANSIT USE**

![Figure ES-6: WESTSHORE AREA FACTORS LIMITING TRANSIT USE](image)

FIGURE ES-7: WESTSHORE AREA IMPROVEMENTS ENCOURAGING TRANSIT USE


FIGURE ES-8: CIRCULATOR SERVICE TIME OF DAY USE

**ES.3.2 Market Assessment**

The market assessment (as detailed in Section 3.2 of Chapter 3.0) utilized demographic, development, area activity, and transit ridership information from Chapter 2.0 to determine employment, residential, and visitor user market areas. Existing markets for circulator service were defined based on the combination of these variables. These components with the addition of planned area development and future land use were analyzed together to identify planned markets for circulator service. It is important to note that the planned user markets match the existing user markets in terms of population, employment, hotel, and planned development intensity within proximity to activity generators and attractors (including areas with a high demand for transit service). Figures 3-4 through 3-8 of Chapter 3.0 present the market assessment. **Figure ES-9** depicts the three types of markets (employment, residential, and visitor) connected through identified travel desire lines (based on movement expected between land uses and roadways deemed as Transit Emphasis Corridors) to defined activity nodes, thereby defining potential circulator service demand within the area.

**ES.4 IMPLEMENTATION PLAN**

Chapter 4.0, Implementation Plan, has five sections. These include the following:

- Peer System Reviews
- Conceptual Circulator Service
- Cost Estimate
- Potential Funding Sources
- Potential Funding Scenarios

**ES.4.1 Peer System Reviews**

As part of the peer system reviews, the directors of the Jolley Trolley and The Looper in Pinellas County were interviewed. The structure of each of these services is described in detail along with the funding sources that are utilized by each. In addition, the structure and cost per revenue hour of the Anna Maria Island Trolley is discussed. Further, the current costs per revenue hour for HART and Pinellas Suncoast Transit Authority (PSTA) are described.

**ES.4.2 Conceptual Circulator Service**

It was found that the need for the circulator service is directly related to “triggers” that are identified as potential improvements/changes in the Westshore Area. The four-phased approach to conceptual circulator service is dependent on these triggers as summarized below.
FIGURE ES-9: POTENTIAL WESTSHORE CIRCULATOR SERVICE DEMAND

Phase I

By implementing the first phase of the Westshore Business District Master Plan improvements along Westshore Boulevard, an environment suitable for pedestrians and thereby potential transit users would be created. As such, Phase I may support the success of the Master Plan improvements by connecting the public realm activity nodes extending from Westshore Plaza to International Plaza. In addition, proposed service through HART’s MetroRapid East-West Corridor would potentially bring additional choice riders from Temple Terrace and East Tampa to stops in the Westshore Area; these stops may provide transfer opportunities to the proposed circulator service in the Westshore Area.

Phase Ia

In consideration of a potential start-up or pilot service option, Phase Ia was developed (utilizing the same route as Phase I) to reflect a three hour per day, weekday only lunch shuttle.

Phase II

Phase II assumes the implementation of the Westshore Intermodal Center, likely located at the intersection of Trask Street and Cypress Street, and a new multi-sports indoor arena. The need for access to these facilities would contribute to potential circulator service ridership along this route. In addition, with the execution of later phases of the Westshore Business District Master Plan involving improvements to Cypress Street and Lois Avenue along with improvements to Boy Scout Boulevard that could occur in conjunction with the HART MetroRapid East-West Corridor, the circulator could provide service to expanding residential and commercial developments of the area and provide an additional transfer point with the MetroRapid East-West Corridor.

Phase III

Phase III would extend the route to Dale Mabry Highway. The triggers for this service include infrastructure improvements in later phases of the Westshore Business District Master Plan (such as enhancements to Spruce Street), as well as proposed residential and commercial development along Boy Scout Boulevard, Dale Mabry Highway and Cypress Street.

Phase IV

Phase IV is dependent on the following triggers:

- Pinellas County Alternatives Analysis and Howard Frankland Bridge Projects
  The Pinellas County Alternatives Analysis projected that 3,600 riders would travel across the Howard Franklin Bridge and 1,800 would depart in the Westshore Area. To address the needs of these choice riders, the Howard Franklin Bridge Project is considering a way to serve the Westshore Area with premium transit service that would connect to other future local and regional premium services and provide access to the Westshore Intermodal Center, contributing directly to the need for circulator service.

- HART premium transit improvements
  Options continue to be explored to move toward the goal of providing premium transit service within Hillsborough County. This system is anticipated to attract new riders to the Westshore Area; a circulator would connect to the premium transit system and provide feeder service.
- I-275 Reconstruction
  I-275 improvements, including overpasses at Occident and Trask Streets, would allow for new connections to the north and south sides of I-275 and greatly improve the efficiency of a circulator service. In addition, an envelope for a platform on I-275 has been designated at approximately Trask Street to allow for direct interaction between premium transit services and the Westshore Intermodal Center, thus attracting new choice circulator riders to the Westshore Area.

- FDOT District 7 Managed Lanes Master Plan Study
  An opportunity exists for premium bus or high speed transit service to operate within the proposed managed lanes on interstates within District 7 (which encompasses the Westshore Area). Again, a circulator could connect to this premium transit system and provide feeder service.

It is assumed that the Phase I, Phase II, and Phase III routes would continue as part of the Phase IV system; new service would be extended along Trask Street, Gray Street, Occident Street, and Cypress Street (west of Westshore Boulevard) to provide more direct connections to the Westshore Intermodal Center and Westshore Plaza. Further, service would be extended south to Kennedy Boulevard and west to Reo Street to facilitate mobility within the western portion of the Westshore Area.

Section 4.2 of Chapter 4.0 describes the triggers and phased service in detail. Phases I through IV build on each other and the cost estimates are cumulative for these concepts.

In addition to the four phases, three additional extensions were identified as part of the circulator route concepts that are stand-alone services within the cost estimates.

The three additional extensions include:

- Special Events Shuttle
  This service may be provided at any point within the area operating along Westshore Boulevard from Westshore Plaza to Boy Scout Boulevard, Boy Scout Boulevard from Westshore Boulevard to Dale Mabry Highway, and north along Dale Mabry Highway from Boy Scout Boulevard to Raymond James Stadium and Steinbrenner Field. It will likely operate as a charter service on an as needed basis.

- Rocky Point Extension
  While the most dense census blocks and a large employment population are located on Rocky Point within the Westshore Area, there is currently limited HART service to this location. Since HART proposes an extension to Rocky Point as part of the enhancements to Route 10, the extension is included as part of the potential future circulator service.

- Kennedy Boulevard Extension
  The proposed route extension is intended to serve Kennedy Boulevard’s range of commercial development. The extension will travel further south on Dale Mabry Highway to Kennedy Boulevard and west along Kennedy Boulevard to Westshore Boulevard where it will connect to the other proposed services on Westshore Boulevard.

Figure ES-10 depicts the concepts presented in Section 4.2 of Chapter 4.0.
FIGURE ES-10: WESTSHORE CIRCULATOR ULTIMATE SCENARIO

ES.4.3 Cost Estimates

Costs associated with the circulator service phases are cumulative as the phases build on each other.

Operating Costs

Table ES-1 details the factors and assumptions considered to develop order-of-magnitude operating cost estimates. Speed multiplied by the respective cycle lengths yields cycle time (in minutes) per phase. The number of vehicles per hour required to operate the service per phase is based on the respective cycle times and headways. The determined number of vehicles per hour multiplied by the service span determines the vehicle revenue hours per day. It is additionally assumed that the service will operate 260 days per year (week days only). As such, the vehicle revenue hours per day multiplied by the days per year the service will operate determines the annual vehicle revenue hours. Further, the operating cost is assumed to be an average of peer services resulting in a cost per revenue hour or revenue hour of operation of $79. Finally, the total annual operating cost is determined by multiplying the annual vehicle revenue hours by the established cost per revenue hour.

<table>
<thead>
<tr>
<th></th>
<th>Cycle Length (miles)</th>
<th>Cycle Time (minutes)</th>
<th>Headway (minutes)</th>
<th>Service Span (hours per day)</th>
<th>No. of Vehicles</th>
<th>Cost per Revenue Hour****</th>
<th>Vehicle Revenue Hours per Day</th>
<th>Days Per Year</th>
<th>Annual Vehicle Revenue Hours</th>
<th>Total Annual Operating Cost</th>
<th>Potential Farebox Recovery*****</th>
<th>Total Net Annual Cost</th>
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<tr>
<td>Phase Ia</td>
<td>2.23</td>
<td>17</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>$79</td>
<td>6</td>
<td>253</td>
<td>1,518</td>
<td>$119,922</td>
<td>$7,590</td>
<td>$112,332</td>
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<td>2</td>
<td>$79</td>
<td>30</td>
<td>260</td>
<td>7,800</td>
<td>$616,200</td>
<td>$39,000</td>
<td>$577,200</td>
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<td>Phase II</td>
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<td>3</td>
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<td>$865,800</td>
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<td>Phase III</td>
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<td>7</td>
<td>$79</td>
<td>105</td>
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<td>27,300</td>
<td>$2,156,700</td>
<td>$136,500</td>
<td>$2,020,200</td>
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<tr>
<td>Phase IV</td>
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<td>96</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>$79</td>
<td>150</td>
<td>260</td>
<td>39,000</td>
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<td>$195,000</td>
<td>$2,886,000</td>
</tr>
<tr>
<td>Rocky Point Extension*</td>
<td>6.28</td>
<td>47</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>$79</td>
<td>75</td>
<td>260</td>
<td>19,500</td>
<td>$1,540,500</td>
<td>$97,500</td>
<td>$1,443,000</td>
</tr>
<tr>
<td>Special Events Shuttle*</td>
<td>5.79</td>
<td>43</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>$79</td>
<td>75</td>
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<td>19,500</td>
<td>$1,540,500</td>
<td>$97,500</td>
<td>$1,443,000</td>
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<td>Kennedy Extension*</td>
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<td>10</td>
<td>15</td>
<td>3</td>
<td>$79</td>
<td>45</td>
<td>260</td>
<td>11,700</td>
<td>$924,300</td>
<td>$58,500</td>
<td>$865,800</td>
</tr>
</tbody>
</table>

*These extensions are individually estimated.

**Assumes 8 mph.

***Assumes service from 6:00 a.m. to 9:00 p.m.

**** Assumes deadhead and administrative costs.

***** Assumes 10 passengers per hour and Fare of $0.50.

Capital Costs

It was concluded during the study that if circulator service were to be feasible within the Westshore Area, unique branded vehicles would be used. Since capital costs are directly related to the number of vehicles required to operate the service at the proposed frequency, utilizing information from HART, it was determined that a cost of $400,000 per vehicle should be used to estimate capital costs. Expenses for additional vehicles were also included in the estimates to satisfy the anticipated spare ratio. Table ES-2 estimates the 20 percent spare ratio, as this is the industry standard, and adds that to the required number of vehicles per phase as presented in Table ES-1. Since it is assumed that all bus stop amenities and other infrastructure costs would be provided by others, the presented capital cost estimates only include the cost of purchasing vehicles. It should be noted that it may be possible to minimize capital costs by purchasing older vehicles and refurbishing them or even leasing them from a transit agency.

<table>
<thead>
<tr>
<th>CAPITAL COST ESTIMATES</th>
<th>No. of Vehicles</th>
<th>20% Spare Ratio</th>
<th>Total Required Vehicles</th>
<th>Cost Per Vehicle**</th>
<th>Cost</th>
</tr>
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<td>Phase Ia</td>
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<td>3</td>
<td>$400,000</td>
<td>$1,200,000</td>
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<tr>
<td>Phase I</td>
<td>2</td>
<td>0.4</td>
<td>3</td>
<td>$400,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>Phase II</td>
<td>3</td>
<td>0.6</td>
<td>4</td>
<td>$400,000</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>Phase III</td>
<td>7</td>
<td>1.4</td>
<td>8</td>
<td>$400,000</td>
<td>$3,200,000</td>
</tr>
<tr>
<td>Phase IV</td>
<td>10</td>
<td>2</td>
<td>12</td>
<td>$400,000</td>
<td>$4,800,000</td>
</tr>
<tr>
<td>Rocky Point Extension*</td>
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<td>5</td>
<td>1</td>
<td>6</td>
<td>$400,000</td>
<td>$2,400,000</td>
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<tr>
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<td>3</td>
<td>0.6</td>
<td>4</td>
<td>$400,000</td>
<td>$1,600,000</td>
</tr>
</tbody>
</table>

*These extensions are individually costed.
**Cost derived through consultation with HART staff.

ES.4.4 Potential Funding Sources

Potential funding sources for circulator service were explored as part of this study and are described in detail within Section 4.4 of Chapter 4.0. The various funding sources include:

- FDOT Public Transit Service Development Grant Program
- Westshore Special Assessment
- Other Potential Contributors (in-kind and cash revenue)
  - HART
  - City of Tampa

ES.4.5 Potential Funding Scenarios

Two potential Phase I funding scenarios were developed, one based on leasing vehicles and the other based on purchasing vehicles. These scenarios are detailed in Tables ES-3 and ES-4.
### TABLE ES-3

**POTENTIAL PHASE I FUNDING SCENARIO #1**

<table>
<thead>
<tr>
<th>POTENTIAL FUNDING PARTNERS</th>
<th>CAPITAL COSTS</th>
<th>OPERATING COSTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westshore Alliance Special Assessment</td>
<td>$0</td>
<td>$144,300</td>
<td>$144,300</td>
</tr>
<tr>
<td>City of Tampa</td>
<td>$0</td>
<td>$144,300</td>
<td>$144,300</td>
</tr>
<tr>
<td>HART in-kind lease of vehicles</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>FDOT</td>
<td>$0</td>
<td>$288,600</td>
<td>$288,600</td>
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<tr>
<td>Farebox</td>
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<td>$39,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$0</strong></td>
<td><strong>$616,200</strong></td>
<td><strong>$616,200</strong></td>
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</tbody>
</table>


### TABLE ES-4

**POTENTIAL PHASE I FUNDING SCENARIO #2**

<table>
<thead>
<tr>
<th>POTENTIAL FUNDING PARTNERS</th>
<th>CAPITAL COSTS</th>
<th>OPERATING COSTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westshore Alliance Special Assessment</td>
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<td>$144,300</td>
<td>$144,300</td>
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<tr>
<td>City of Tampa</td>
<td>$0</td>
<td>$144,300</td>
<td>$144,300</td>
</tr>
<tr>
<td>HART</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>FDOT</td>
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<td>MPO Flexible Funding</td>
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<td>Farebox</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$1,200,000</strong></td>
<td><strong>$616,200</strong></td>
<td><strong>$1,816,200</strong></td>
</tr>
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</table>


### ES.5 SUMMARY

Findings of this study indicate conditional support for circulator service within the Westshore Area at this time. It is important to note, however, that key triggers anticipated to occur within the area (i.e., land use changes, proposed premium transit services, economic development initiatives, etc.) would foster an environment conducive to circulator service and contribute to the viability of the service in the future.

The circulator system may additionally serve as an economic development tool by providing an opportunity for branding that helps to promote the established character and image of the Westshore Area. It is important to note that the timing of implementation must be directly related to the ridership potential. A service like this can be a great asset or detriment to the community. If capital funds are raised and an operating plan is put into place too soon, taxpayers may be hard pressed to support the continuance of the service. Therefore, it is vital that the service is implemented at a level and a time consistent with the need presented by the corresponding triggers.