

EXECUTIVE SUMMARY: Downtown Transit Assets and Opportunities

Downtown Tampa and its surrounding neighborhoods form the core of a dynamic and growing metropolitan region. The urban core has attracted more and more people as a place where they can live, work and play. Institutions and developers have increasingly responded by investing in residential complexes and entertainment venues that capitalize on Downtown’s recreational, sports, arts and cultural attractions. With its *InVision Tampa* plan, the City of Tampa has laid the groundwork for a walkable, vibrant, and 24-hour downtown.

Yet multimodal connections between downtown Tampa and the region remain a challenge. Dominated by an auto-centric transportation system, the City needs a more balanced, less disruptive way to move people to and through downtown Tampa. Despite significant investments to expand the Interstate system, Tampa still suffers from chronic peak period congestion. Travel times from Downtown to Westshore and to the USF area are unreliable and frequently delayed. The unfortunate reality is that even after the Interstate is expanded, population and job growth are projected to generate even more traffic, which will eat up available highway capacity and cause congestion to persist into the foreseeable future.

Recognizing that highway expansion has limits, City and County leaders seek more effective forms of mobility. Downtown Tampa is crisscrossed by bus lines, yet most do not run frequently enough or late enough to attract choice riders. Tampa is served by a network of rail lines, but they stand vacant for much of the day, with only infrequent freight trains. Major transit expansion plans have been proposed over the decades, but have not come to fruition. In 2010, voters rejected a ballot proposal which would have funded a greatly expanded bus system and a 56-mile regional rail system.

Following the 2010 referendum, the MPO analyzed the reasons why people voted as they did. The results were eye-opening: voters want a balanced system, focused on cost-effective improvements to traffic flow coupled with lower-cost, incremental transit expansion.

This study responds to those preferences. It builds on existing assets to stimulate redevelopment. It evaluates the feasibility of lower cost approaches, proposing new forms of fixed-guideway transit. It looks at the potential use of existing freight rail lines, as well as Interstate right-of-way specifically reserved for transit. It recommends re-purposing the streetcar line to make it



faster and more effective for day-to-day travel. It highlights the need to integrate current rubber-wheeled trolley and bus lines with the streetcar system. Taken all together, these assets are the start of regional system that would grow outward from Downtown Tampa. The resulting system would link the three largest job centers in Hillsborough County together and ultimately connect Tampa’s urban core with the rest of the Tampa Bay region.

How are this study’s recommendations different from previous systems proposed?

- This system is a more modest system that leverages the use of existing transit assets and in order to reduce costs. Assets include:
 - TECO Line Streetcar system
 - CSX Clearwater Subdivision
 - I-275 Multi-modal transit envelope
 - FDOT owned site for the Downtown Intermodal Center
 - Marion Street Transitway
- This system can be developed in several incremental segments based on funding and demand.
- It recommends Modern Tram and Diesel Multiple Unit (DMU) rail technologies that are typically less costly than Light Rail Transit (LRT). Preliminary, planning-level capital cost estimates per mile, in present day dollars, for the technology recommended for the corridors discussed in this study, are shown here for comparison with previous LRT estimates.



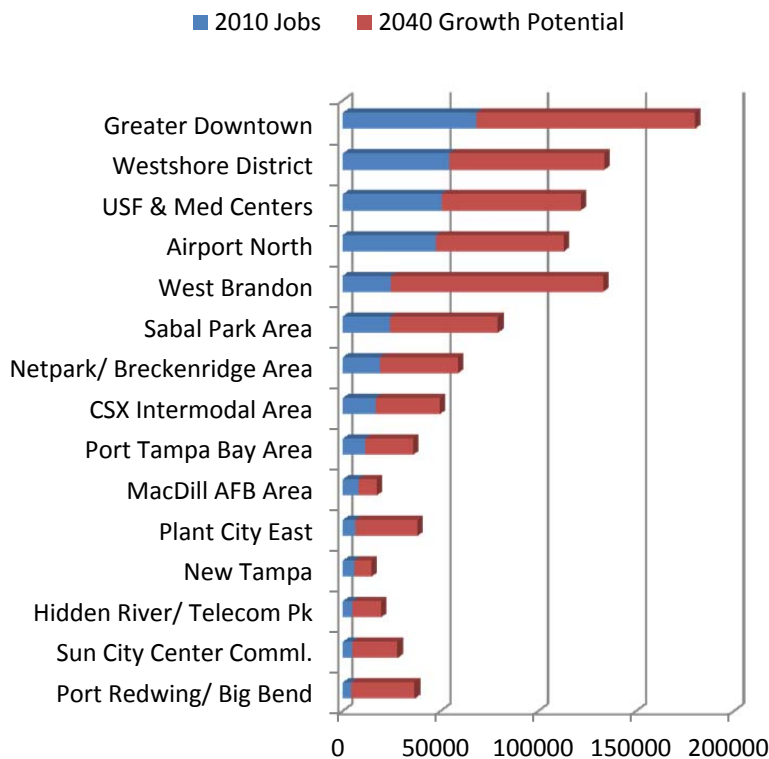
Technology Options	Capital Cost/Mile (\$million)	
	Low	High
Capital Cost Comparison - West Corridor		
Modern Tram	\$ 42.0	\$ 54.7
Light Rail	\$ 53.1	\$ 69.0
Light Rail (2009 estimate)	\$ 58.2	\$ 94.7
North Corridor		
DMU (on existing freight rail*)	\$ 16.5	\$ 21.4
Modern Tram (on street)	\$ 42.5	\$ 55.3
Light Rail (2009 estimate)	\$ 34.6	\$ 90.3

(*) Not including cost of right-of-way shared use agreement with CSX Corporation, which cost \$2.44 million/mile in the case of Orlando’s SunRail project.

Why is rail still being studied?

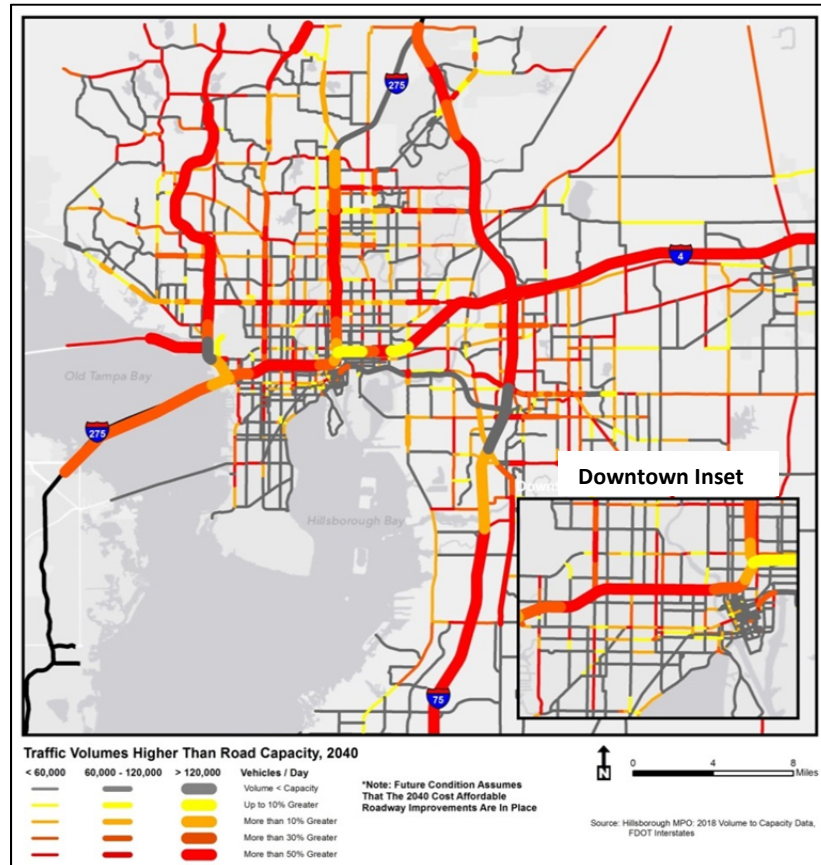
- Capacity improvements to the region’s most congested corridors are constrained by existing land uses and lack of available right-of-way.
- Buses operating in the same congested lanes as other vehicles, while more efficient than single-occupant vehicles, add little new capacity to the system.
- Opportunities for new rights-of-way in the core area are limited and expensive.
- Growth of the region, and especially within job growth centers, over the next 25 years will worsen congestion – even after major road widening projects such as those currently under construction on I-275 are completed.

Projected Job Growth 2010 – 2040

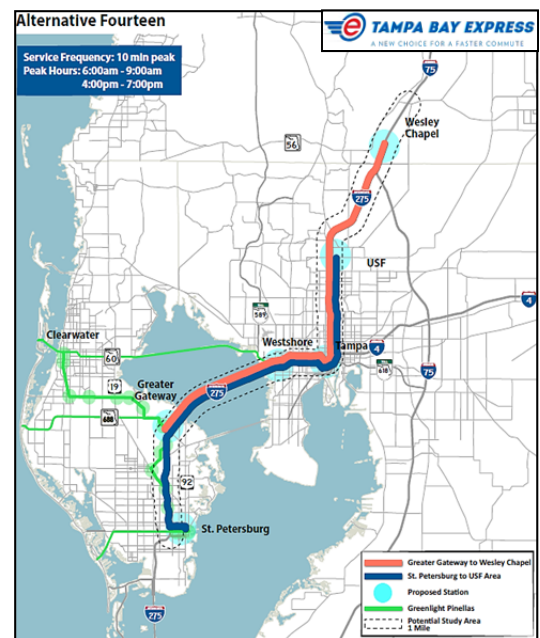


Source: 2040 Long Range Transportation Plan Socioeconomic Data Forecasting Scenarios

Congested Corridors, 2040



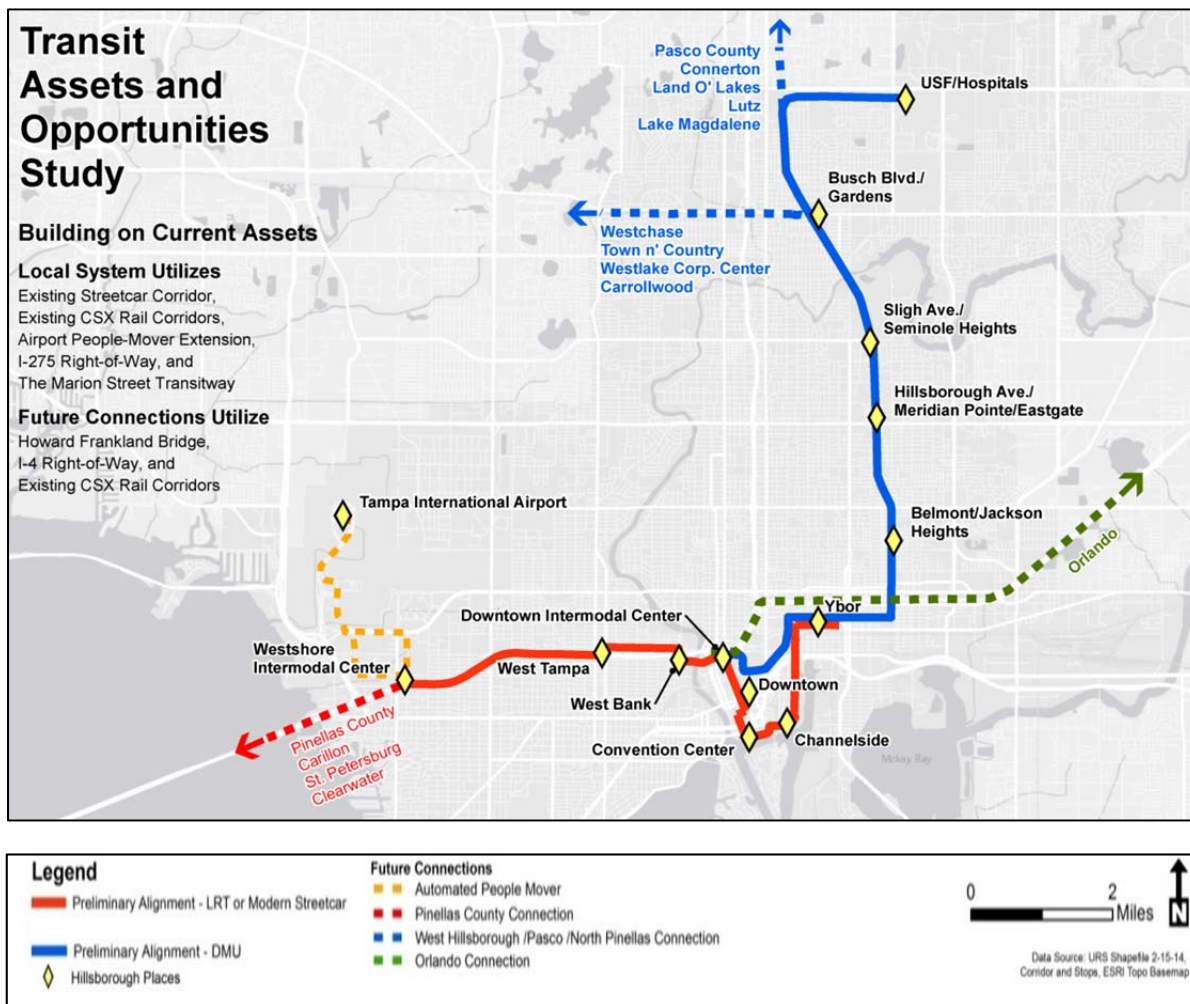
- While other modes of transit are being considered (by others), many are subject to the same levels of congestion as single occupant vehicles
- One of the very few opportunities is FDOT's Tampa Bay Express initiative to add express toll lanes in the medians of I-275 and I-4. Express bus service could operate rapidly in these lanes, and is being evaluated by the MPO and FDOT as part of a separate study of regional mobility. Because the new express toll lanes will have limited access points, bus service will focus on long-distance non-stop trips between Downtown Tampa and Downtown St Petersburg or Wesley Chapel.
- One other opportunity is a rail corridor north of Ybor City owned by CSX Corporation. The Clearwater Subdivision carries only 3-6 trains per day – much less than the 30 trains per day that ran on CSX's "A" line in



Orlando before it became the SunRail corridor. The Clearwater Subdivision dead-ends in Pinellas County, and a secondary line north of it, the Brooksville Subdivision, dead-ends in Brooksville. **Figure ES-1** shows opportunities for potential regional connections.

- Transit operating in its own right-of-way allows for reliable and timely connections between the region’s three largest employment and population centers (USF, Downtown and Westshore/Airport)
- In contrast, driving time from Downtown to USF is forecast to increase to 31 minutes by 2035, and one trip in five could take as long as an hour, as congestion takes its toll on drive time reliability. (Source: 2040 Long Range Transportation Plan Congestion Management Technical Memorandum)

Figure ES-1
Regional Connections



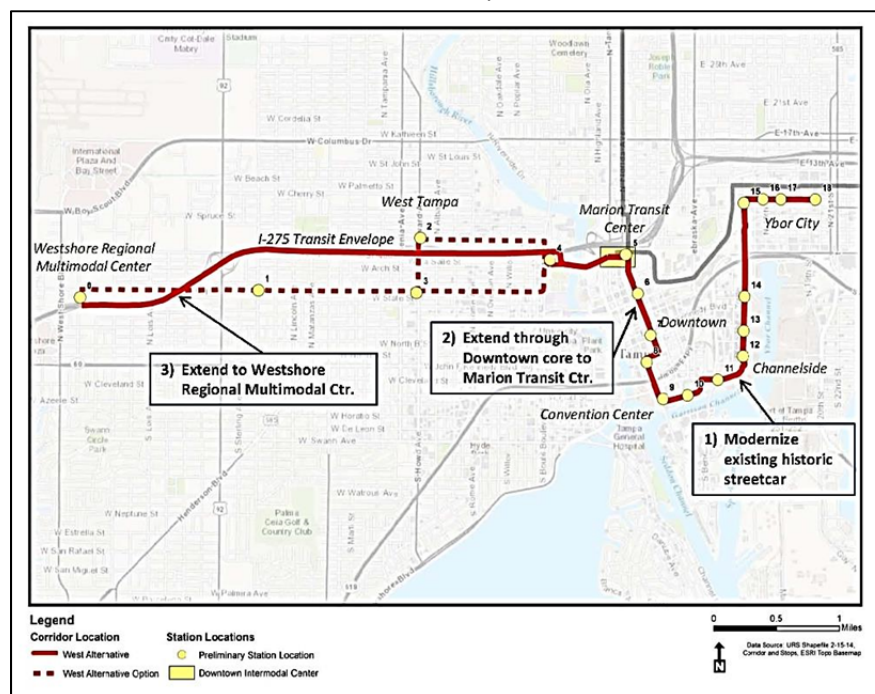
Can the current Streetcar system be more than it is today?

- Yes. The track gauge is the same as that used for light rail and more contemporary types of transit vehicles. The system currently ends south of the Downtown core, and does not operate during morning commute hours. A commuter market could be served with a modest expansion of the service area and hours of operation. Minor repairs of the existing system, at a cost of about \$2.5 million, are needed with the next five years. (Source: City of Tampa TECO Streetcar Infrastructure Assessment, April 2014.)



- Updating the vehicle fleet to Modern Trams would allow the system to operate faster and carry more riders. Lower floors would allow for easier and quicker boarding's with less delay at stops. The historic-look vehicles could still be used for special events. Modernizing the stations and power system could cost \$10-\$13 million as an add-on to extending the line through Downtown.
- Modern Trams would be an excellent technology to connect Downtown and Westshore. With a 50 to 60-ft minimum turning radius and lighter weight, the vehicle can navigate sharp turns and relatively steep slopes (up to 9%) into and out of the I-275 transit envelope – while still achieving a top speed of up to 45 mph. The cost to extend the streetcar lines through Downtown to Westshore, as shown in the **Figure ES-2**, is \$304-\$445 million, including a new rail bridge over the Hillsborough River.

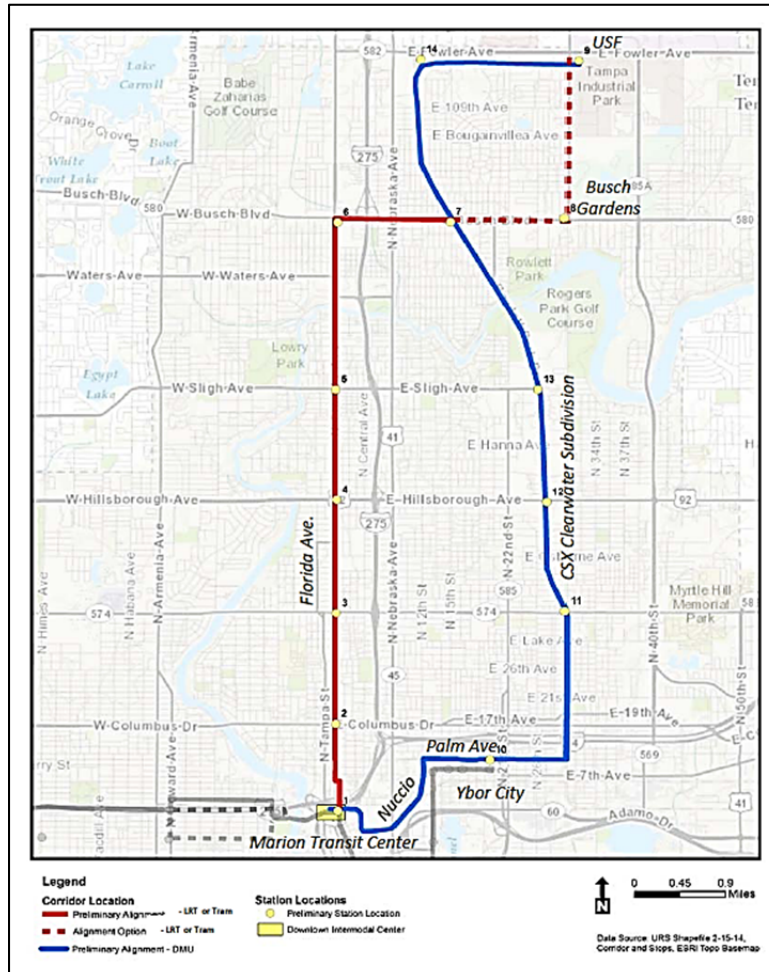
FIGURE ES-2
West Corridor Options



What about using the CSX corridor(s) for passenger rail?

- This has the potential to dramatically reduce construction costs, as shown above. The cost to implement passenger rail using Diesel Multiple Unit technology in the CSX corridor is \$175-\$228 million (excluding right-of-way).
- Use of the CSX corridor(s) requires agreements with CSX and potential purchase of use rights. Two relevant examples include:
 - Tri-Rail: South Florida Operating and Management Agreement, executed December 6, 2007, which includes:
 - State of Florida purchase of track from CSX
 - CSX payment to the State of Florida for lease and use of track
 - Establish of operational priority timing of passenger and freight use of track
 - Establishment of liability/risk responsibilities of both parties
 - SunRail: Central Florida Operating and Management Agreement, executed November 30, 2007, which includes:
 - State of Florida purchase of track from CSX
 - CSX payment to the State of Florida for lease and use of track
 - Establish of operational priority timing of passenger and freight use of track
 - Establishment of liability/risk responsibilities of both parties
- If an agreement with CSX cannot be reached, an alternative strategy would be to build new track on an existing street, such as Florida Ave, between Downtown and USF. Modern tram would be an appropriate technology to navigate the sharp turns of these urban roads and to provide the opportunity for a one-seat ride from USF to Westshore through Downtown.
- Use of CSX corridor(s), shown in **Figure ES-3**, requires specific technologies (Federal Railroad Administration (FRA) compliant DMUs) if the system is to operate on the existing freight tracks and operate along the same tracks as freight trains.
 - FRA-compliant DMUs have been used in metro areas such as Austin, Texas and San Diego, California to create a rapid commuter transit system at relatively modest cost.
 - Light rail is not recommended in the CSX corridor because a separate, parallel track system would need to be developed including a minimum of 25-ft separation from the freight track, and a 12-ft crash barrier built between the passenger and freight tracks, for the entire length of the corridor. The crash barrier itself could be a significant expenditure, and the track separation could require purchasing new right-of-way along the entire corridor.

FIGURE ES-3
North Corridor Options



What about the accident liability issues between the TECO Streetcar and CSX Corporation?

- The current crossing of the CSX “A” line by the Streetcar requires the Streetcar to hold a liability insurance policy with a large annual premium.
- Additional crossings, such as at Polk Street and Marion Street, would need to be negotiated with CSX, or alternatives such as grade separation would need to be considered. A separated-grade crossing of the CSX Port Tampa Spur on Polk Street would require a modern tram to stay elevated for several blocks, at a typical cost of \$50-\$75 million per mile for a double-tracked structure.

Who benefits from a system like this and why?

- The system would serve:
 - People who live and work in downtown Tampa, its surrounding neighborhoods, Westshore and USF;
 - People who commute to downtown Tampa and would like to leave their car at home or in a garage during the day;
 - Visitors and tourists accessing the airport, convention center, cruise terminal, Busch Gardens or USF.
- The proposed system can be extended in the future as part of a larger, holistic regional plan designed to provide travelers in the greater Tampa area with options for making the daily trips that are made on a daily basis. These include, work, business/shopping, entertainment, recreation, and school trips
- This system supports the *InVision Tampa* plan, which focuses on more options for mobility and re-invigorating downtown and its surrounding neighborhoods.
 - ✓ The *InVision* plan strives to create livable, vibrant space through mixed-use land use development.
 - ✓ This pattern of land use development allows for the use of multimodal transportation options and minimizes overall dependency on single-occupancy vehicles.
- Focusing redevelopment around transit stations creates a more walkable and vibrant community.



What are the next steps?

- Focus on an incremental expansion, and establish eligibility for a first segment under the FTA Small Starts program. A logical first segment would be the modern tram conversion and extension of the Streetcar line through Downtown to Marion Transit Center.
- Continue to lay the groundwork for future regional connections to systems like:
 - ✓ GreenLight Pinellas
 - ✓ All Aboard Florida
 - ✓ SunRail
 - ✓ Tampa Bay Express (TBX) – Interstate express lanes
 - ✓ Express Bus Toll Lanes
- Expand familiarity with and use of downtown transit by improving In-Town Trolley service.
- Expand and enhance the In-Town Trolley north-south route service hours and frequency

- Develop an East-West rubber-wheeled transit circulator (see **Figure ES-4**). The cost of additional trolley vehicles is \$4 million and the annual cost to operate them is \$2.85 million.
- Improve integration between the In-Town Trolley, East-West Circulator, and TECO Line Streetcar
- Improved integration of the HART and TECO Line Streetcar systems by co-locating stops to provide most effective transfers
- Improve pedestrian/bicycle amenities connecting HART and TECO Line Streetcar
- Develop small scale intermodal hubs at concentrated locations of HART, TECO Line Streetcar, and In-Town Trolley stops allow riders to effectively transfer between systems.

Figure ES-4
Rubber-Wheeled Circulator Options

