PINELLAS COUNTY MPO

# Clearwater Beach to Downtown Clearwater Evaluation of Transit Alternatives Project









Tindale-Oliver & Associates, Inc.
Planning and Engineering

June 2010

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# CLEARWATER BEACH TO DOWNTOWN CLEARWATER TRANSIT ALTERNATIVES EVALUATION

## FINAL REPORT

Prepared for

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**June 2010**

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*Attracted by the beautiful beaches, tourists flock to Clearwater Beach, but what can be done to reduce the number of vehicles trying to park in Clearwater Beach?*

## SECTION 1 INTRODUCTION

Separated by only a narrow strip of water, the City of Clearwater is in the unique position of having its downtown in close proximity to its world famous beach. The proximity of the two allows office workers to enjoy the beach during lunch or after work, while beach-goers have the opportunity to escape the sun (or rain) and go downtown for a great meal or entertainment. The only requirement to make this happen is fast, reliable, and convenient transportation.

Currently, Clearwater does not have such an option. The only connection between downtown and the beach is Memorial Causeway, which becomes congested during peak periods. The congestion is compounded by the lack of parking on the beach; people who would like to get out of their cars continue to drive around looking for parking places. The purpose of this study is to find a solution to provide connectivity between downtown and the beach.

The recommendation resulting from this effort is to develop bus rapid transit (BRT) service operating largely on an exclusive busway between Clearwater Beach and downtown Clearwater. The service would operate every 10 minutes during peak hours and every 15 minutes during off-peak hours. Six stops are proposed. One would be located at the marina in Clearwater Beach, and the remaining five would be located in the downtown area. The proposed BRT service is expected to qualify as a Very Small Starts project and is estimated to

have total capital cost of less than $15 million, including vehicles. The recommended project was found to meet mobility needs and can be expected to be designed and constructed within a two- to three-year period, assuming funding is available.

## STATEMENT OF OBJECTIVES FOR PROPOSED ACTION

The objectives of this study are as follows:

- Provide recommendations for transit access between Clearwater and Clearwater Beach.
- Provide a recommended mode of transit that is fast, reliable, and convenient.
- Recommend modes that are compatible to minimize the complications resulting from the transition between the two modes.
- Strike a balance between providing convenient station locations and providing quick service.
- Establish station locations and alignments that will contribute to the success of the system.
- Strike a balance between passenger convenience, the city's resort image, and the desired level of investment.

## STATEMENT OF PROPOSED ACTION

To accomplish the above objectives, the following course of action was developed:

- Research previous studies on this issue and other relevant studies and reports.
- Define the study area.
- Gather data on the study area.
- Provide opportunity for extensive public involvement.
- Develop preliminary station locations and alignment alternatives.
- Establish a first-tier set of criteria with which to screen the preliminary alignment alternatives.

- Establish a second-tier set of criteria with which to screen the preliminary alignment alternatives to identify the recommended routing.

- Produce conceptual station designs.

- Recommend vehicle types and characteristics.

- Identify preferential treatment options.

- Identify wayfinding solutions and traffic impacts.

- Identify the locally preferred alternative.

- Recommend project phasing.

These action items provide a blueprint for establishing a locally preferred alternative solution for transit between Clearwater Beach and downtown Clearwater, as documented in this technical memorandum.

**STUDY STRUCTURE**

The study is organized into a series of topics. Sections 1 through 8 focus on route alignment and BRT treatment options. Sections 9, 10, 11, and 12 focus on station locations and design. Later sections discuss ridership projections and capital and operating cost information. Once the final report is complete, a concise executive summary will be generated to provide an overview of the study.

This technical memorandum is divided into eight sections:

- **Section 1**, this section, provides an overview of the project.

- **Section 2** provides a review of previous studies undertaken on this topic and other studies that may influence the study process.

- **Section 3** covers the existing and future conditions in the study area.

- **Section 4** details the public involvement activities that were undertaken during the production of this technical memorandum.

- **Section 5** reviews the characteristics of BRT.

- **Section 6** presents the process by which the locally preferred alternative was derived.

- **Section 7** provides ridership projections**.**
- **Section 8** provides an evaluation of the proposed stations and provides a recommendation based on the identified criteria.
- **Section 9** provides an overview of the wayfinding plan and traffic impacts.
- **Section 10** reviews the station concept designs.
- **Section 11** provides cost projections.
- **Section 12** provides a summary of the next steps in the overall study process.

*Congestion on Memorial Causeway is not a new problem.*
*Have there been other efforts to deal with the issue?*

## SECTION 2 BACKGROUND REVIEW

Due to the enticing beauty of Clearwater's beaches, traffic and parking have been an issue on Clearwater Beach for some time. Several previous studies have examined the need and possibility for a transit option focusing on movement between Clearwater Beach and downtown Clearwater. As early as 1976, City staff produced a document entitled *Proposal for a Downtown People Mover.* This section provides an overview of the opportunities and constraints identified in those earlier studies. It also examines other studies and planning documents that could influence this project.

### PREVIOUS STUDIES

*Pinellas Mobility Major Investment Study (MIS)*

The *Pinellas Mobility MIS* was a three-stage analysis aimed at making capital-intensive improvements to the transit system in Pinellas County. As part of the MIS, a *Transit Policy Plan Network* was adopted by the Pinellas County Metropolitan Planning Organization (MPO). This plan was not financially constrained and dictated corridors for fixed guideway service. The network included north/south and east/west routes including crossing Interstate 275 into Hillsborough County. It also included the implementation of transit along S.R. 60 through downtown Clearwater and crossing Memorial Causeway to Clearwater Beach.

Released in July 2000, the Tier Two analysis ranked light rail segments for implementation. The segment connecting Clearwater Beach to downtown Clearwater did not rank high enough to consider implementation due to low ridership estimates. It was estimated that in 2020, ridership would be 1,100 passengers per day.

In October 2000, the MPO adopted the *Locally Preferred Alternative (LPA) Report*. This report identified priority segments of the *Transit Policy Plan Network* for implementation. The segment connecting Clearwater Beach to downtown Clearwater was identified as an at-grade, rubber-tire transit concept.

*Clearwater Bluff-to-Beach Guideway Reconnaissance Study*

Produced in September 2001, the objective of this study was to determine the feasibility of developing a fixed guideway system, in particular an Automated People Mover (APM), along Memorial Causeway. The main objective of the guideway was to integrate downtown Clearwater with the Beach area. The study produced a conceptual system alignment, patronage projection, and corresponding system capacity. The final recommendations of the report noted the following ideas and concepts:

- To be successful, economic activity must already exist or investment must be made around station locations. There must be reasons for beach-goers and residents to visit downtown. There must be sufficient parking to attract beach-goers to park in downtown and use transit to get to the beach.

- The study recommended a station location in the area between the library and the Harborview Center on Osceola Avenue. It was recommended that a parking garage with transit interface be developed at this location. It was noted that the proposed station should have commercial and/or residential development on the eastern side. These added amenities were considered assets to the station as well as the city and the Harborview Center.

- The Clearwater Marina was recommended as the station location on the Beach side of the study area. Development on the site could turn the parking lot into a parking garage, retail, and hotel complex.

- The study recommends removing parking on the Beach side to create more recreational space.

- The termini of the guideway system were determined to be the two stations: the parking lot between the library and the Harborview Center and the Clearwater Marina. Expansion north or south on the beach side was recommended for future study, with the Jolley Trolley serving as the connector to destinations further from Clearwater Marina.

- The study indicated that the guideway could be elevated on the Causeway or at grade. It also noted that an elevated guideway would provide spectacular views.

- Some of the land identified for potential development, including sections on Memorial Causeway, is City-owned. As such, the City Charter requires that it not be developed or maintained other than as open space and for public utilities without a referendum.

- Ridership projections for off-season and in-season periods were 3,640 and 8,662 passengers per day, respectively. Annual ridership projections were 2.8 million passengers. Assuming moderate future development, the annual ridership projection was 3.6 million passengers.

- Travel time between the two stations was estimated at 4.3 to 5.3 minutes depending on whether there was a station at Island Way. Station wait times were equal to travel time or faster, depending upon the number of trains employed.

- The recommended scenario capital costs were estimated to be between $38.2 and $39.2 million. Operational and maintenance costs were estimated to be $1.8 million annually.

- Annual fare revenues from the system were projected at $7.2 million.

- In addition to the automated guideway system, the study looked at elevated gondolas. These require straight alignments and offer no ability to expand the system beyond the causeway.

For the most part, the technology options considered in this study were low-capacity and low-speed options. Because of these factors, the technology types considered are not suitable for countywide implementation.

*Pinellas Mobility Initiative – Final Report*

The follow-on study from the adoption of the LPA through the Pinellas Mobility MIS was the *Pinellas Mobility Initiative (PMI)*. In August 2003, the *PMI Final Report* was completed for the Pinellas County MPO. The final report defined a locally preferred alternative, which included an integrated system of monorail, enhanced express bus service, local bus service, and trolley circulators. The report projected total daily boardings to be greater than 117,000 and annual operating costs to be between $25 and $40 million.

Service to Clearwater Beach was provided by monorail under this plan. The plan calls for terminal stations on Clearwater Beach and downtown Clearwater. The Beach station would be

located just north of the Clearwater Municipal Marina and to the east of Pier 60. The monorail would run down the south side of Memorial Causeway. The downtown station would be located on Court Street at Oak Street.

*Clearwater Bluff to Beach Guideway Action Plan – Previous Studies Review and Cost Update*

Completed as an update to the PMI in January 2004, the purpose of the technical memorandum is to provide a review of previous studies, update cost and ridership data, and provide a summary of key project elements required for consistency with first-stage implementation of a larger PMI.

*Clearwater Bluff to Beach Guideway Action Plan – Implementation Options Tech Memo*

Produced in February 2006, the purpose of this study was to provide analyses of alterative implementation scenarios and identify potential privatization options for the development of a guideway system between Clearwater Beach and downtown Clearwater. The study assumed the conceptual guideway extended between the Clearwater Marina on Clearwater Beach to the courthouse in downtown Clearwater. Capital costs were projected at almost $50 million and the operating and maintenance costs were projected to be $1.87 million annually, in 2003 dollars. Although not directly calculated in this study, ridership projections were estimated between 1,300 and 20,000 passengers daily.

*People Mover Study – Memorial Causeway Bridge Structural Feasibility Study*

In August 2008, the *Memorial Causeway Bridge Structural Feasibility Study*, a report evaluating the structural limitations of the Memorial Causeway Bridge, was completed. The purpose of the study was to determine if the bridge could support a people mover system in the existing 20-foot wide median. Light rail was not considered in this study as it had already been determined that the bridge could not support light rail. The study found that three of the four studied people mover systems could be supported in the existing right-of-way. The study assumed that only one track would be used, as two tracks could not fit in the median.

## OTHER RELEVANT STUDIES AND REPORTS

*Beach by Design*

Originally adopted in 2001, *Beach by Design* built on *Clearwater Beach: Strategies for Revitalization,* which was completed in 1998. The focus of the report was to revitalize the beach in light of current tourist demands and residential needs. The report relies on the following principals for redevelopment and management:

- During periods of peak demand, the City should provide alternative means of access in the form of preferentially-priced parking in downtown Clearwater and convenient transportation to the beach.

- The City should impose congestion pricing for off-street parking on Clearwater Beach during periods of peak demand.

- Individuals who live on the beach and guests at resorts on Clearwater Beach should be given priority access to Clearwater Beach by private automobile during periods of peak demand.

    - To achieve this prioritization during the 40 peak traffic days of the year, the report suggests that one lane of traffic on Memorial Causeway should be limited to beach residents, hotel guests, business owners and employees, and transit vehicles. The other lane would be open to all traffic.

    - During the other 100 heavy traffic days of the year, the report recommends that access be limited through the use of congestion pricing or high occupancy vehicle lanes.

- When parking facilities on Clearwater Beach are fully occupied, the City should limit access to the beach to individuals who live on the beach or are guests at resort units.

- The City should implement transit to carry visitors to and from Clearwater Beach.

- Pinellas Suncoast Transit Authority (PSTA) should extend trolley service to serve Clearwater Beach.

*Downtown Clearwater Market Study*

In August 2005, the *Downtown Clearwater Market Study* was released. The purpose of the study was to identify downtown Clearwater's economic base, identify the market for future redevelopment, identify investments that could catalyze further development, and make recommendations to encourage downtown growth. The study included three principal conclusions or findings:

- Existing market demand and growth for the foreseeable future are adequate to support a significantly-improved retail and restaurant district in downtown Clearwater, the absorption of a significant amount of office space, and the development of additional for-sale residential units.

- The City of Clearwater has made and continues to make investments in the utility backbone, streetscape, and corridor/transportation infrastructure that serve as the foundation for downtown's revitalization. These include the Cleveland Avenue streetscape improvements and underground utility and flood mitigation investments.

- Despite significant investment to date, there continues to be a number of impediments to investment in downtown, some based on perceptions of downtown, some financial in nature, and others principally requiring a refocus of existing resources.

Recommendations that impact the focus of this study include the following:

- Continue resource focus on the Cleveland Street Corridor. It is noted that the majority of existing downtown retail space is on Cleveland Street and that the more desirable office buildings are located within close proximity to the Cleveland Street Corridor.

*Review of 2002 Downtown Parking Study*

Completed in August 2009, this study evaluated the future needs for parking in downtown Clearwater and whether the current supply of parking would be able to meet future demand. The study examined the anticipated growth in restaurant, retail, and office parking demand as well as demand created by special events at Coachman Park and the Capitol Theatre.

It is important to note that the study does not take into account the possibility of the addition of a transit system that would encourage beach-goers to park their cars in downtown Clearwater and use the transit system to travel to Clearwater Beach. The study focuses primarily on weekday daytime parking demand, as it assumes that evening and weekend demand can be easily accommodated by current underutilized parking supply. Further study of parking demand generated by the transit system would be required to determine the need to increase parking supply in the downtown area to support the transit system for people traveling to Clearwater Beach.

The following findings and conclusions were drawn from this report:

- Almost the entire downtown Clearwater area is within a four- or five-minute walk of one of four public parking facilities: Garden Avenue Garage, Municipal Services Garage, Station Square Garage, and the County Parking Garage. Almost the entire Cleveland Street Corridor is within a two- or three-minute walk of a large public parking facility.

- Current parking supply can accommodate anticipated growth in restaurant and retail demand.

- Current parking supply cannot accommodate anticipated growth in office demand.

- Demand from the Capitol Theatre should be accommodated by the current supply for weekend and evening events. For the limited number of daytime events, the use of shuttles and buses is recommended to mitigate the strain on parking resources.

- Due to the limited number of events held at Coachman Park (fewer than 36 per year), it is not recommended that additional parking facilities be constructed to accommodate this demand.

- The report also recommends the unification and increased use of "P" signage to assist motorists in locating parking facilities.

*Tampa Bay Area Regional Transportation Authority (TBARTA) Master Plan*

The most significant effort towards the creation of a more intermodal region in the Tampa Bay area began in July 2007 with the creation of TBARTA by the Florida Legislature. The goal of TBARTA is to plan and implement a multi-modal transportation system that will connect the counties within the greater Tampa Bay region, including Citrus, Hernando, Pasco, Hillsborough, Pinellas, Manatee, and Sarasota. TBARTA has developed a Regional Transportation Master Plan for the seven-county area, which was adopted in May 2009.

The outcome of the TBARTA Master Plan is the development of a Long-Term Regional Transportation Network for 2050 and a Mid-Term Network for 2035 that includes a mix of transportation modes, supported by hundreds of miles of local or sub-regional transit service. The TBARTA Master Plan has identified frequent, short-distance rail (every 10-15 minutes) connecting downtown Clearwater to northern and southern Pinellas County, with supporting bus networks connecting Clearwater Beach to downtown Clearwater and the southern Pinellas County beaches in its preliminary mid-term (2035) improvements.

*Pinellas County MPO Long Range Transportation Plan (LRTP)*

The Pinellas County MPO recently finished an update to its LRTP, which identifies transportation system improvements that should be implemented to provide for the future mobility needs of Pinellas County's residents, workers, and visitors over the next 25 years. The 2035 LRTP was developed largely based on public input and emphasizes a multi-modal transportation network with complementary land use strategies to support the continued mobility, economic vitality, and quality of life in Pinellas County. Driven largely by public desire for more transportation choices and consistent with the TBARTA Master Plan, the 2035 LRTP places more emphasis on alternative forms of transportation (e.g., rail, bus, bicycle, and pedestrian) than was typically considered in the development of previous LRTPs.

The 2035 LRTP recognizes the need for a transportation alternative connecting Clearwater Beach and downtown Clearwater. Development of such an alternative has been identified as a priority in the 2035 LRTP Cost Feasible Plan, which includes the implementation of BRT service connecting Clearwater Beach to downtown Clearwater via the Memorial Causeway prior to 2015. A more detailed discussion of BRT is included in Section 5.

*PSTA Transit Development Plan (TDP)*

PSTA's 2009 Progress Report, the annual update to the TDP, provides a development plan for PSTA for the years FY 2010 to FY 2019. As indicated in the TDP, PSTA staff regularly attend and participate in Steering Committee meetings for this project. As such, PSTA is a partner in the development of this system.

## PREVIOUSLY IDENTIFIED OPPORTUNITIES AND CONSTRAINTS

The previous studies identified opportunities and constraints in operating transit between Clearwater Beach and downtown Clearwater.

### Opportunities

- The land to the south of Memorial Causeway is sufficient to support certain forms of transit.
- Interest in a transit solution between Clearwater Beach and downtown Clearwater has existed since the 1970s.
- Development occurring in the downtown area may attract more beach-goers and others to the downtown area.
- Current plans such as Pinellas County's LRTP and PSTA's TDP identify transit, including BRT, for implementation in this corridor.

### Constraints

- The City of Clearwater's charter may make developing certain City-owned property difficult.
- Ridership levels on a transit option between Clearwater Beach and downtown Clearwater may be too low to reduce congestion levels.
- Previous studies focusing on rail or similar more expensive transit modes have not been implemented.

The previously identified opportunities and constraints were used as a backdrop to the current analysis. By understanding prior findings, current analyses can build upon them.

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*As an ever-evolving canvas, how can a transit system be designed that will meet today's needs and those in the future?*

## SECTION 3 EXISTING AND FUTURE CONDITIONS

This section contains a description of existing and future conditions in the study area. First, the study area is defined, and then descriptions of the following study area characteristics are provided: demographics, land use, activity centers, development activity, transportation services, and parking.

### STUDY AREA

The study area for this project was defined and refined by the Steering Committee. It stretches from Clearwater Beach to downtown Clearwater and is outlined on Map 3-1. For an in-depth discussion of the decision making process regarding the study area boundaries, refer to Section 6.

### DEMOGRAPHICS

A review of the existing (2006) and future (2035) population and employment densities was undertaken for both downtown Clearwater and Clearwater Beach to ascertain growth and development projections in the respective areas. The population and employment data used for this analysis are the Tampa Bay Regional Planning Model (TBRPM) socioeconomic data developed as part of the Pinellas County MPO's 2035 LRTP update cycle. A review of seasonal population also is provided.


Map 3-1: Study Area

### Permanent Population

As previously mentioned, an analysis of the 2006 and 2035 socioeconomic data for Pinellas County was undertaken to determine the existing and projected population density for the study area, as well as to determine the projected change in population density during this period. This analysis was completed for three subareas: downtown Clearwater, Island Estates, and Clearwater Beach. For purposes of this analysis, Island Estates is looked at separately due to it being a distinct Traffic Analysis Zone (TAZ) separate from the beach or downtown.

As presented in Table 3-1, Clearwater Beach is projected to have the highest population growth, at 78 percent between 2006 and 2035, due to the redevelopment plans for high-rise condominiums along the water. Island Estates, which is largely built out, is projected to have a more moderate increase of 11 percent, while downtown Clearwater is projected to have a 59 percent increase in population as a result of redevelopment in the form of high-rise condominiums. The study area as a whole is projected to have a 51 percent growth between 2006 and 2035.

**Table 3-1**
**Permanent Population Projections (2006-2035)**

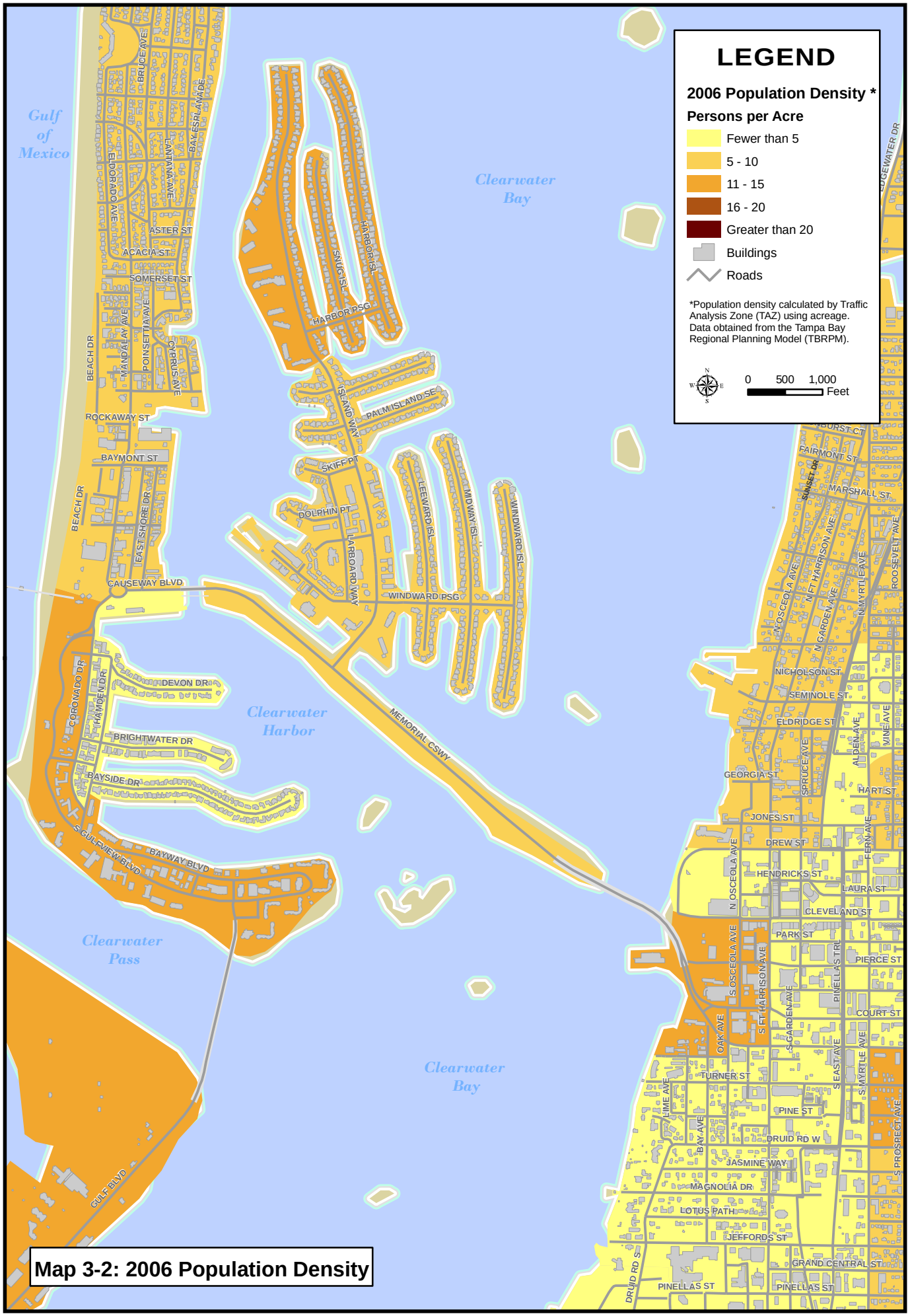
| Geographic Area | 2006 Population | 2035 Population | Percent Change |
|---|---|---|---|
| Clearwater Beach | 2,406 | 4,293 | 78% |
| Island Estates | 1,829 | 2,022 | 11% |
| Downtown Clearwater | 810 | 1,288 | 59% |
| Total | 5,045 | 7,603 | 51% |

Source: Tampa Bay Regional Planning Model socioeconomic data.

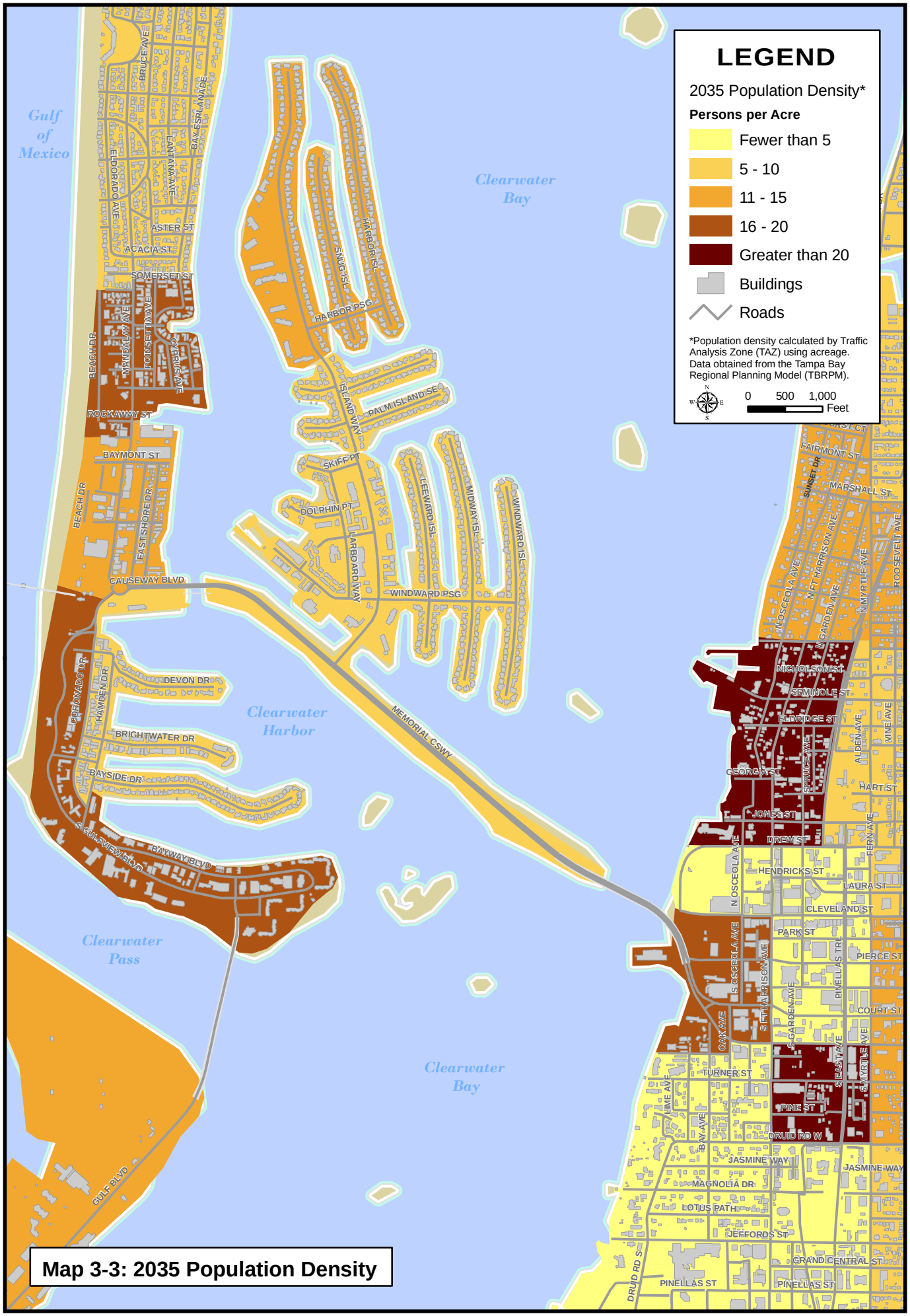
Map 3-2 illustrates the 2006 population densities, and Map 3-3 presents the 2035 population densities for the study area. Comparing these two maps illustrates the intensification of persons per acre that is projected to occur during this period for each TAZ in the study area.

### Seasonal Population and Tourists

Florida, particularly its coastal counties and communities, must plan for fluctuations in population throughout the year as part-time residents and tourists journey south for the winter. Clearwater is no exception to the seasonal population fluctuation that impacts the socioeconomic conditions and public infrastructure of the community. Aside from the permanent residents of downtown Clearwater and Clearwater Beach discussed previously, both seasonal residents and tourists also should be considered when planning for a transit alternative connecting the downtown and beach. These population groups are defined as:




Map 3-2: 2006 Population Density




Map 3-3: 2035 Population Density

- Seasonal residents, defined as persons owning or renting second homes in Pinellas County for a period of less than six months per year and who increase the demand for available infrastructure and services during primarily the winter and spring months of the year.

- Tourists, defined as those who stay fewer than two months and can be classified as those using hotel/motel/timeshare units or who stay in the homes of friends or relatives.

Pinellas County has developed a methodology for projecting seasonal population and tourists by TAZ that is completed as part of the LRTP update process. This effort recently was completed for the 2035 LRTP, with the result being seasonal population and tourist projections by TAZ for the 2006-2035 timeframe. The methodology used to develop these projections is documented in the report titled *Permanent, Seasonal, and Tourist Population Forecast Report*, (Pinellas County MPO, October 2009).

It should be noted that, since the number of tourists fluctuates depending on the time of year and length of stay, the tourist population developed from this forecast methodology measures the impact of tourist population in terms of equivalent permanent residents.

Based on a review of the seasonal population and tourist projections for the TAZs included in the study area, the number of seasonal residents and tourists projected by 2035 for downtown Clearwater, Island Estates, and Clearwater Beach has been summarized. As presented in Table 3-2, the seasonal population is expected to increase by 20 percent in Clearwater Beach, 5 percent in Island Estates, and 12 percent in downtown Clearwater between 2006 and 2035. As presented in Table 3-3, the equivalent tourist impact is expected to increase by 2 percent in Clearwater Beach, 7 percent in Island Estates, and 230 percent in downtown Clearwater between 2006 and 2035.

**Employment**

Similar to the population data, an analysis of the 2006 and 2035 socioeconomic data for Pinellas County was undertaken to analyze the existing and projected employment density for the study area, as well as to determine the projected change in employment density during this period. As with the population data, this analysis was completed for downtown Clearwater, Island Estates, and Clearwater Beach.

Employment growth in the three areas is projected to be much more moderate than population growth by the end of the 2035 planning horizon. As presented in Table 3-4, employment on Clearwater Beach is projected to have the highest growth, at 9 percent, again largely tied to redevelopment plans for high-rise condominiums, as many of these projects also have a commercial component.

**Table 3-2**
**Seasonal Population Projections (2006-2035)**

| Geographic Area | 2006 Seasonal Population | 2010 Seasonal Population | 2015 Seasonal Population | 2020 Seasonal Population | 2025 Seasonal Population | 2030 Seasonal Population | 2035 Seasonal Population | Percent Change 2006-2035 |
|---|---|---|---|---|---|---|---|---|
| Clearwater Beach | 680 | 643 | 683 | 726 | 762 | 792 | 817 | 20% |
| Island Estates | 65 | 65 | 66 | 67 | 67 | 68 | 68 | 5% |
| Downtown Clearwater | 373 | 113 | 183 | 259 | 322 | 375 | 419 | 12% |
| Total | 1,118 | 821 | 932 | 1,052 | 1,151 | 1,235 | 1,304 | 17% |

Source: Pinellas County Planning Department demographics.

**Table 3-3**
**Equivalent Tourist Projections (2006-2035)**

| Geographic Area | 2006 Tourists | 2010 Tourists | 2015 Tourists | 2020 Tourists | 2025 Tourists | 2030 Tourists | 2035 Tourists | Percent Change 2006-2035 |
|---|---|---|---|---|---|---|---|---|
| Clearwater Beach | 4,490 | 4,514 | 4,540 | 4,563 | 4,581 | 4,596 | 4,609 | 2% |
| Island Estates | 112 | 114 | 116 | 118 | 119 | 120 | 122 | 7% |
| Downtown Clearwater | 19 | 30 | 43 | 53 | 62 | 69 | 75 | 230% |
| Total | 4,621 | 4,658 | 4,699 | 4,734 | 4,762 | 4,785 | 4,806 | 4% |

Source: Pinellas County Planning Department demographics.

**Table 3-4**
**Employment Projections (2006-2035)**

| Geographic Area | 2006 Employment | 2035 Employment | Percent Change |
|---|---|---|---|
| Clearwater Beach | 4,278 | 4,681 | 9% |
| Island Estates | 527 | 532 | 1% |
| Downtown Clearwater | 6,994 | 7,440 | 6% |
| Total | 11,799 | 12,653 | 7% |

Source: Tampa Bay Regional Planning Model socioeconomic data.

Island Estates, which is primarily residential, is expected to have a minimal 1 percent employment growth, while downtown Clearwater is projected to have 6 percent employment growth by 2035.

Map 3-4 illustrates the 2006 employment densities, and Map 3-5 illustrates the 2035 employment densities for the study area. Comparing these two maps illustrates the intensification of employees per acre that is projected to occur during this period for each TAZ in the study area.

## LAND USE

The land use classifications for downtown Clearwater and Clearwater Beach play an important role in shaping the character of each area. As the primary driving force shaping future development, the Future Land Use Map (FLUM) is the "vision" for future development in the community. Based on a review of the City of Clearwater's FLUM, the differentiation in land uses between downtown Clearwater and Clearwater Beach reflects the distinct characters of the two areas.

Downtown Clearwater is classified primarily as Central Business District (CBD) versus the availability of Recreation/Open Space along the beachfront land on Clearwater Beach and on the Memorial Causeway connecting the beach with the mainland. North of the CBD, downtown Clearwater is primarily residential, with a smaller portion of land designated as Commercial General traversing the land designated Residential. On Clearwater Beach, the land east of the beachfront Recreational/Open Space is primarily designated Commercial General with some areas extending into Clearwater Harbor designated Residential. Island Estates is classified as Residential.

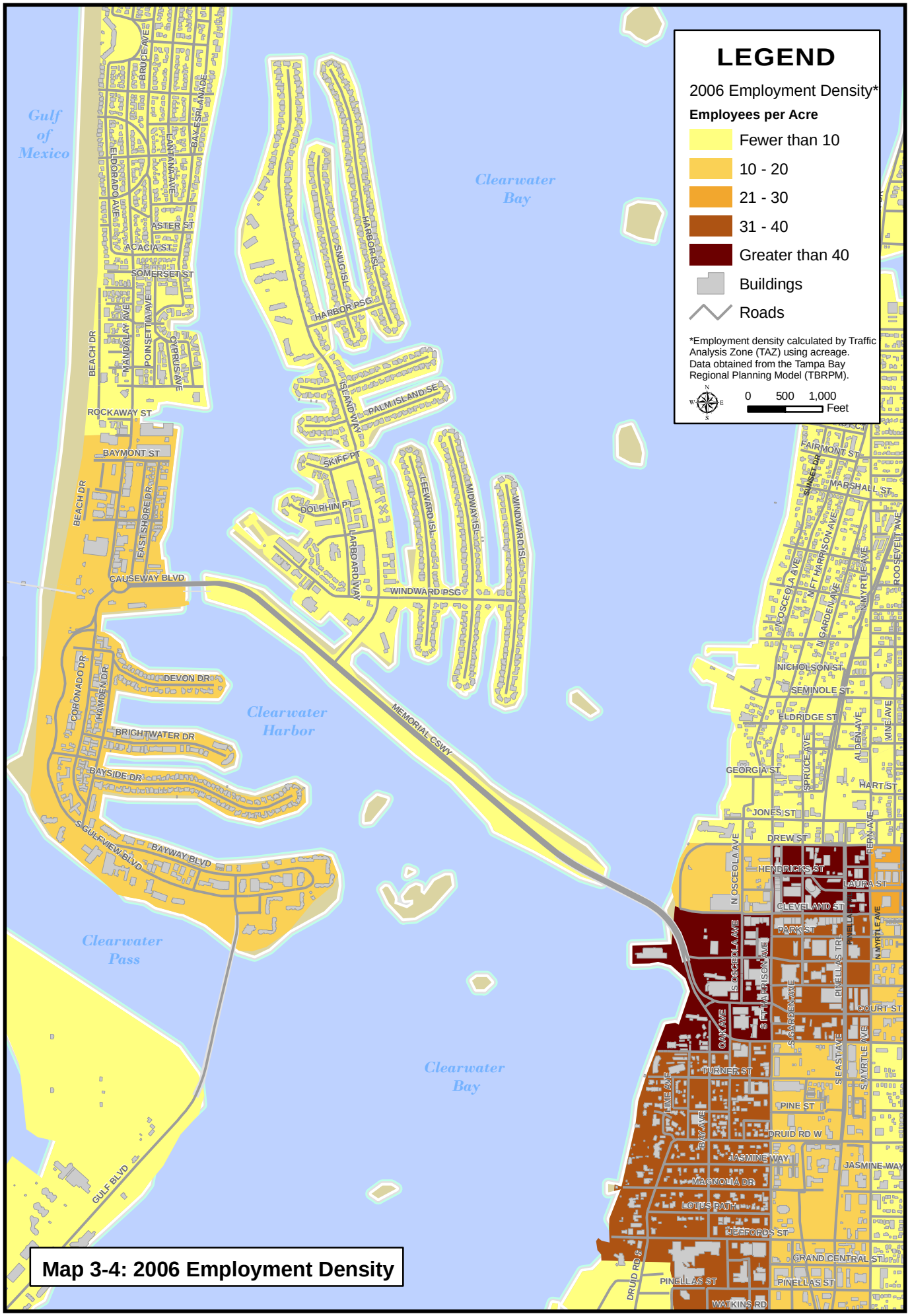
Map 3-6 illustrates the Future Land Use designations for both downtown Clearwater and Clearwater Beach.

## ACTIVITY CENTERS

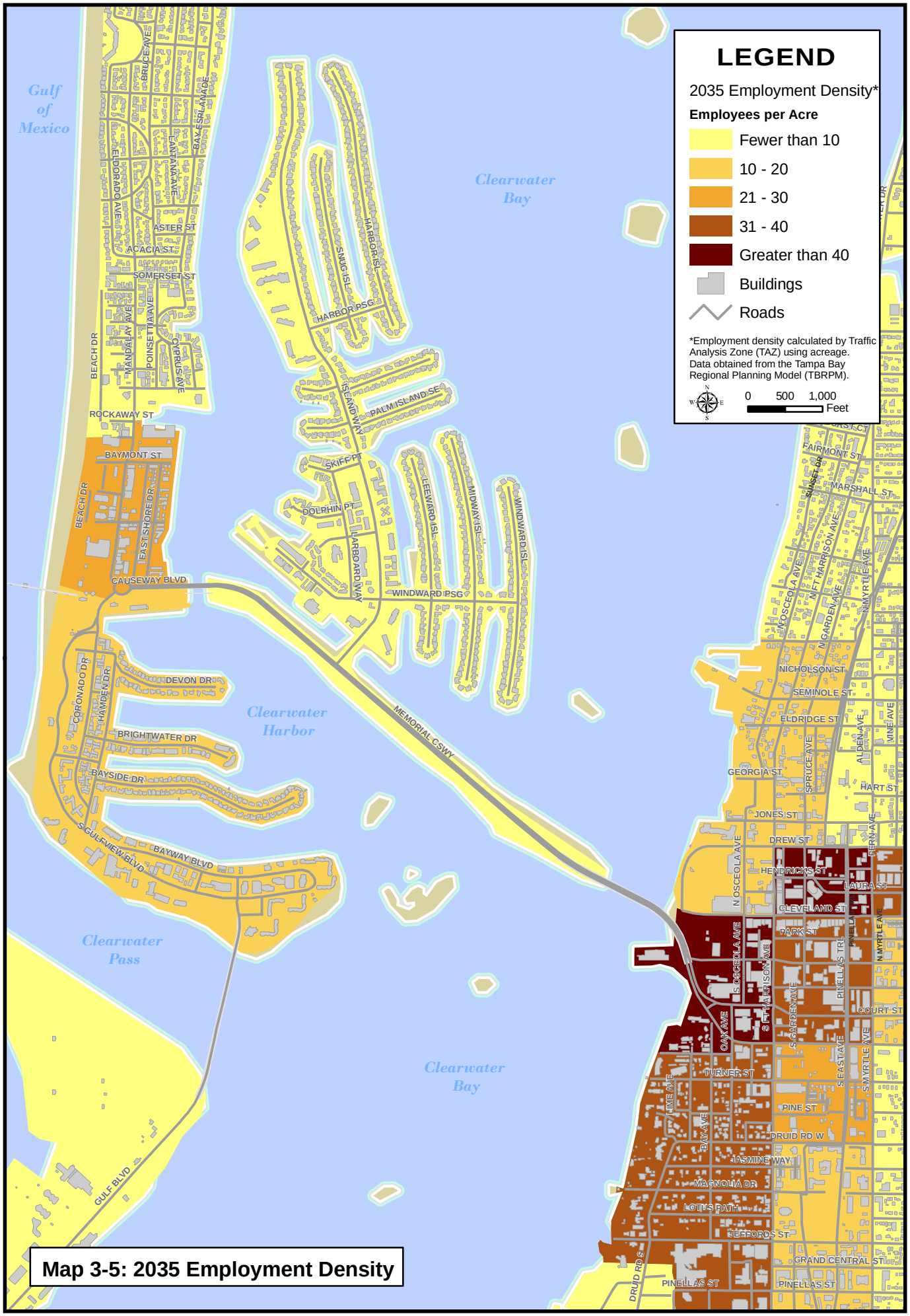
As part of the development of the TBARTA Master Plan, the TBARTA Land Use Working Group identified Regional Anchors for the seven-county region. Upon identification, each Regional Anchor was classified into one of three tiers, based on various density and intensity criteria, as described below:

- Tier 1 Regional Anchors reach a net density of employment of at least 50 jobs per acre in 2030[1] and received general consensus among Land Use Working Group meeting attendees about designation as a Tier 1 anchor.

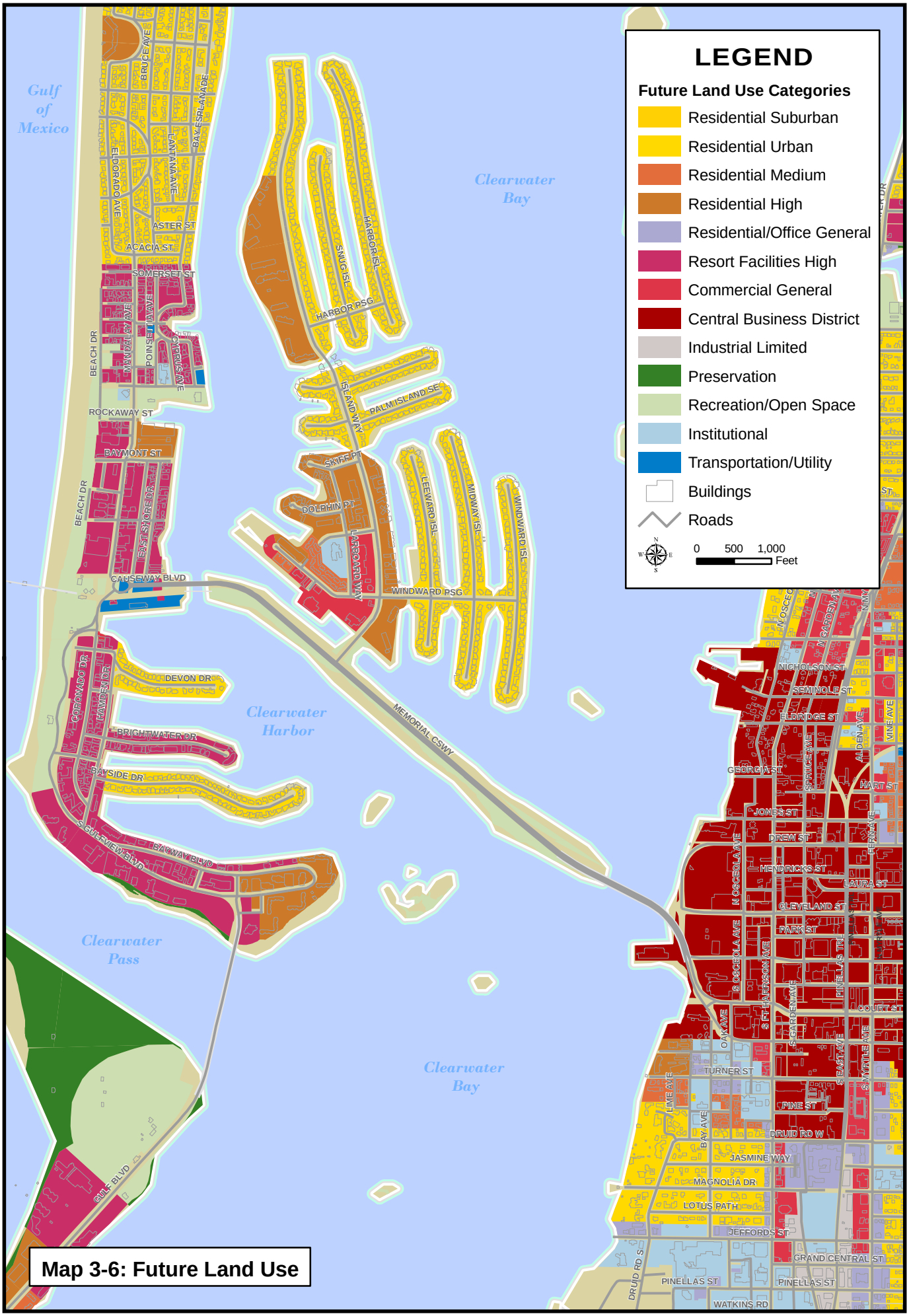
[1] Transit Cooperative Research Program, *Report 16, Transit and Urban Form* (1996), p. 15.




**Map 3-4: 2006 Employment Density**




**Map 3-5: 2035 Employment Density**




Map 3-6: Future Land Use

- Tier 2 Regional Anchors reach a net density of employment of 20-50 jobs per acre in 2030[2] or they contain lower density employment combined with other elements and received support from Land Use Working Group attendees for designation as a Tier 2 anchor. Other elements considered include the following:
    - Residential density of 6-10 people per acre.
    - 1-5 hotel rooms per acre.
    - Special generators (airports, hospitals, shopping centers, arenas, convention centers, stadiums, colleges, and universities).
    - Recent development proposals, such as Developments of Regional Impact (DRI) and sub-threshold Planned Unit Developments (PUD) adopted since 2003.
    - Local policy initiatives for incentivizing development, such as Comprehensive Plan Activity Centers, Community Redevelopment Areas, Transportation Concurrency Exception Areas, Multi-Modal Transportation Districts, and Enterprise Zones.
- Tier 3 Regional Anchors reach a net density of employment of 4-20 jobs per acre in 2030[3] or they contain lower density employment combined with other elements and received support from Land Use Working Group Attendees for designation as a Tier 3 anchor. Other elements considered included:
    - Residential density of 6-10 people per acre.
    - 1-5 hotels rooms per acre.
    - Special generators.
    - Recent development proposals.
    - Local policy initiatives for incentivizing development.

As part of this process, downtown Clearwater was identified by TBARTA as a Tier 1 Regional Anchor, while Clearwater Beach was identified as a Tier 2 Regional Anchor. Connecting these two regional anchors is important from TBARTA's regional connectivity perspective. While it is important to connect these two regional anchors from the perspective of TBARTA, it also is important to connect the smaller activity centers within these regional anchors. In this section,

[2] Florida Department of Transportation, *Transit Quality of Service Applications Guide* (September 2007), page 37.
[3] *Ibid*.

an overview of the activity centers found in the study area is provided. Map 3-7 identifies the designated activity centers for both downtown Clearwater and Clearwater Beach.

**Downtown Clearwater**

*Cleveland Street*


Recently redeveloped by the City of Clearwater, Cleveland Street between Osceola Avenue and Myrtle Avenue is the focus of the City's efforts to redefine itself. Anchored by the Capitol Theatre on the west end, Cleveland Street is home to the Suntrust Building, the Bank of America Building, and the downtown U.S. Post Office. The street was redesigned to create a more pedestrian-friendly atmosphere, which includes traffic calming devices and narrow streets. The City has plans to extend the landscaping between Missouri Avenue and Myrtle Avenue in the near future.

Cleveland Street is home to several downtown events such as a farmer's market and Fourth Fridays. The Downtown Partnership hosts the Fourth Friday celebration on Cleveland Street, which is held on the fourth Friday of each month. The celebrations feature bands, children's activities, and food booths and attract people who spend money in downtown businesses. These events introduce people to the improvements the City has undertaken on Cleveland Street and in the downtown area.

*Capitol Theatre*

The City of Clearwater partnered with Ruth Eckerd Hall to restore the Capitol Theatre, located at 405 Cleveland Street. Originally constructed in 1921 and known as the Royalty Theater, it is expected to undergo major renovations in the near future, which will cause it to be closed for 12 months. Renovations will include the Lokey Building (located next door), which will operate as the main lobby, concession, and restroom areas for the planned 655-seat theater. Once fully operational, Ruth Eckerd Hall plans to host both live and film performances.

*Harborview Center*


The Harborview Center closed in the spring of 2010. An auction in May 2010 allowed the City of Clearwater to sell equipment and supplies used in the convention center. Of the two retail tenants, Stein Mart closed, and the City is negotiating to settle its lease with Pickles Deli. Until recently a conference venue, the facility has six meeting rooms and over 30,000 square feet of exhibit space. It is anticipated the structure will be demolished. The facility is located on the bluffs, and the City of Clearwater has a requirement that this viewshed be protected. As such, once demolished, a referendum will be required to redevelop the site.

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Map 3-7: Activity Centers

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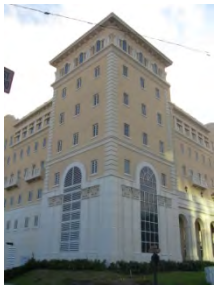
*Church of Scientology*



Having its central offices and worship space in downtown Clearwater, the Church owns a significant proportion of land in downtown Clearwater. The Church recently completed redeveloping the Fort Harrison Hotel, which offers lodging to the Church's visiting members. Scientologists from all over the world make pilgrimages to Clearwater to visit the Church's headquarters. During their stay, visitors enjoy the beaches and other attractions the area has to offer.

*Coachman Park*

Offering the Charles Wharton Pavilion and a 20-acre park, Coachman Park hosts several large annual events such as Clearwater Jazz Holiday, Clearwater Celebrates America, and Christmas under the Oaks. The four-day Jazz Holiday attracts approximately 60,000 people to the park annually.

*Public Parking Garages*

According to the *Review of 2002 Downtown Parking Study,* completed in August 2009, there are four public parking garages available in downtown Clearwater:

- Garden Avenue Garage, located at 28 Garden Avenue
- Municipal Services Garage, located at 640 Pierce Street
- Station Square Parking Garage, located at 628 Cleveland Street
- County Parking Garage, located at Osceola Avenue and Court Street

A more detailed discussion of the public parking available in downtown Clearwater is provided later in this section.

*Residential Condominiums*

Two recently-completed developments, Water's Edge Opus (approximately 150 units) and Station Square (approximately 115 units), are not fully occupied, but it is anticipated that over time they will reach capacity. Both are located on Cleveland Street, with Opus overlooking the water and Station Square immediately adjacent to the Bank of America Building.

*Office Buildings*

There are three Class A office buildings in greater downtown Clearwater: Clearwater Town, The Atrium, and the Bank of America Building. The *Review of 2002 Downtown Parking Study,* completed in 2009, indicates that there are just over 368,000 square feet of Class A office space, with a 62 percent occupancy rate, and 778 parking spaces in the downtown area. As the county seat, downtown Clearwater is home to both county and municipal offices.

*Pinellas Trail*
The Pinellas Trail traverses downtown on East Avenue. At present, the trail exists only in name on East Avenue; there are no specially-constructed trail features on this portion of the trial.

**Clearwater Beach**

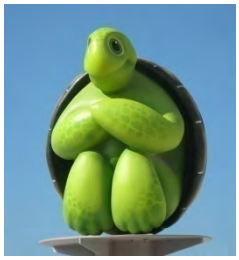
On the other end of the causeway is Clearwater Beach with its hotels, shopping, and restaurants.

*Ream Wilson Clearwater Trail (Clearwater East West Trail)*
The Clearwater East West Trail is planned to connect the Gulf of Mexico at Clearwater Beach to Tampa Bay at Safety Harbor.

*Clearwater Municipal Marina*


Located just to the southeast of the roundabout on Clearwater Beach, the Municipal Marina houses 210 boat slips and 23 visitor boat slips. The facility has retail outlets such as an ice cream shop, barber shop, and nautical shop. According to City officials, the site is to be renovated in the coming years, although an exact timeline has not been established.

*Beach Walk*
The $30 million project created a unifying theme along the beach to the south of the roundabout. The walkway offers residents, hotel guests, and day-trippers the opportunity to stroll a pleasantly-landscaped and ornamented path between hotels, stores, and the beach.



*Mandalay Channel Pedestrian Bridge*
Built as part of the Clearwater East West Trail, the Mandalay Channel Pedestrian Bridge was designed to connect Clearwater Beach with Memorial Causeway. The pedestrian bridge was designed to carry emergency vehicles in the event that the primary bridge over Mandalay Bridge is inaccessible.

*Clearwater Marine Aquarium*
According to its Web site, Clearwater Marine Aquarium (CMA) is an internationally respected center for animal care, public education, and marine research. In spite of tremendous growth and a global presence, CMA remains a “neighborhood” aquarium, providing education and rehabilitation for marine animals. CMA also provides facilities for private events.

*Pier 60*

Pier 60 is the center of the beach in terms of the north-south orientation. It offers a location for great views, fishing, street performers, craft sales, and sunset performances. In addition to being an activity hub for the beach, it is also a defining architectural object and landmark on the beach.

*Belleair Bridge*

The bridge to Belleair Beach was recently completed and offers an alternative route to reach Clearwater Beach from the south.

*Clearwater Beach Recreation Complex*

The Clearwater Beach Recreation Complex includes a fitness room, pool, rental rooms, and the Clearwater Beach Public Library. The library alone generated 28,803 visitors in FY 2009. In addition to library visitors, the largest generator of visitors to the recreation complex is rentals (e.g., weddings and parties), which occupy weekends throughout the majority of the year.

*Resorts and Restaurants*

As illustrated in Map 3-7, a number of restaurants, resorts, and hotels are located on the beach that enhance Clearwater Beach's tourism-based economy.

## DEVELOPMENT ACTIVITY

### Downtown Clearwater

Downtown Clearwater is currently undergoing a transformation. City of Clearwater and Downtown Partnership officials are working toward transforming downtown into a more pedestrian environment that offers a wider variety of restaurant, retail, and entertainment options. By changing the mix of offerings in the downtown area, City officials hope to attract more people to downtown Clearwater.

To further the development of a more vibrant downtown area, the City of Clearwater retained a retail consultant to determine the optimum mix of retail and restaurant uses. The results of the study indicate that the downtown area can support 53,000 to 175,000 square feet of retail and restaurant space.

*Downtown Marina*

Recently opened, the $11-million marina has 126 boat slips. The facility is located to the north of the Memorial Causeway Bridge in downtown Clearwater. It has approximately 700 dock-feet

for day-only visitors and 1,700 dock-feet for overnight guests. The marina has the ability to lease space to a private entity to operate a water taxi, as well.

*Fine Dining Restaurants*
According to Clearwater Mayor Frank Hibbard, there are four fine dining restaurants that have recently relocated or will be relocating to downtown Clearwater in the next several months.

*Pinellas Trail*
The Pinellas Trail currently runs through downtown Clearwater on East Avenue. Trail users on this part of the trail have to use the sidewalk and roadway as opposed to a dedicated path for pedestrians and bicyclists. East Avenue will be reconfigured to provide an exclusive path for pedestrians and bicyclists using the Pinellas Trail. The southbound lane will be converted to exclusive trail use while the northbound lane will remain open for vehicular traffic.

*Convention Center*
The Chamber of Commerce is conducting a feasibility study on a convention center near downtown. The current location is a few blocks east of the downtown core. City officials have expressed interest that, if considered feasible, the facility be sited in downtown.

*Residential Condominiums*
While new developments have not reached maximum occupancy, City officials are hopeful that new developments will come online as the economy rebounds. The 15-story Strand at Clearwater Center (approximately 80 residential units) is currently under development. The building includes 16,000 square feet of commercial space and 6,300 square feet of office space.

**Clearwater Beach**

As described in the *Beach by Design* plan presented in Section 2, City officials are working toward transforming Clearwater Beach into a destination resort. The plan is to attract high-end resort hotels that offer guests an experience in addition to lodging.

Conversations with Clearwater Assistant City Manager Rod Irwin revealed that many development plans are on hold due to the current state of the economy. He believes that once the economy rebounds, the development on the beach will resume. Most of the planned development focused on the area south of the intersection of Hamden Drive and Gulfview Boulevard on the southern part of the beach.

*Beach Walk*
A beach walk is planned for the northern portion of the beach near Poinsettia Avenue. The area will include a boardwalk, a marina, and mixed-use developments. It will not be as dense as the southern portion of the beach.

*Aqualea*

Currently under development, Aqualea resort and residences is operated under the Hyatt flag. The 250-suite development is a resort condominium; suites are owned by individual owners, not the hotel operator. Owners may use the suite for up to 60 days per year. Eighteen of the units are condominium residences, which allow owners to live at the facility year-round. The facility includes two pools, several restaurants, a coffee shop, concession facilities, a screening room for movies or sporting events, and a business center.

*Parking Garages*

Current plans are for a 300-space parking garage to be built on S. Gulfview Boulevard overlooking Beach Walk, which is immediately south of the Hyatt Aqualea Resort now under construction. The parking garage will be built on the site of the current Britt's Laguna Grill. The structure will be retail on the first floor with four floors of parking above. While the City has identified the site, a traffic study is needed to understand the impacts of the parking garage on traffic patterns. A more detailed discussion of the public parking available on Clearwater Beach is provided later in this section.

*Beach Resort Hotels*

City officials expect to see two to four new resort hotels opening on Clearwater Beach as the economy improves.

## TRANSPORTATION SERVICES

### Traffic and Travel Patterns

Florida Department of Transportation (FDOT) 2009 traffic count data, augmented by 2007 City of Clearwater traffic count data (where available), were compiled to illustrate the average annual daily traffic (AADT) counts for the study area, as presented in Map 3-8. As illustrated on this map, the most highly traveled roads include Court Street and Chestnut Street through downtown Clearwater and Memorial Causeway connecting downtown to the beach.

### Transit Service

The existing transit network is fairly comprehensive and includes two transit providers: PSTA and the Jolley Trolley. PSTA operates a transfer terminal on Park Street between Fort Harrison Avenue and Garden Avenue. The Park Street Terminal hosts Routes 18, 52, 60, 61, 66, 67, 73, 76, 78, 93, 98 and the Suncoast Beach Trolley$^{SM}$. Routes 18 and 52 each carry over one million passengers per year and provide service from downtown Clearwater to St. Petersburg. On the beach, PSTA provides service through the Suncoast Beach Trolley$^{SM}$.


**Map 3-8: Average Annual Daily Traffic**

The Jolley Trolley begins and ends its service at the Publix Supermarket in Island Estates. The service operates seven days per week from 10:00 A.M. to 10:00 P.M., and Friday and Saturday until 11 P.M. Service runs between Island Estates, south Clearwater Beach to Sand Key, and north Clearwater Beach to the Regatta Beach Club. The Jolley Trolley stops at bus stops and also if a passenger flags it down. In FY 2009, the Trolley had 66,405 passengers. In addition to fixed-route service, the Jolley Trolley offers charter services for special events.

PSTA and Jolley Trolley previously had overlapping service on Clearwater Beach. Residents and visitors found the two systems confusing and frustrating. PSTA and the Jolley Trolley have entered into a cooperative agreement that allows passengers to transfer seamlessly between the two systems. The Jolley Trolley lowered fares to match the amount charged by PSTA. Whereas the Jolley Trolley previously duplicated PSTA's routes, the schedules are now integrated and provide the equivalent of 15-minute frequencies for riders.

Although the City of Clearwater indicated that it would cease to provide funding for the Jolley Trolley, it has continued to provide annual funding of $150,000. The funding is now derived from the city's Parking Fund. Additionally, PSTA provides Jolley Trolley with approximately $122,000 per year in operating expenses. The cooperative agreement between Jolley Trolley and PSTA is scheduled to continue in FY 2011. Discussions of providing service to other cities, such as Dunedin, Palm Harbor, and Tarpon Springs, have occurred and may come to fruition at a future date.

**Pedestrian and Bicycle Facilities**

Updated in 2006, the City of Clearwater has a comprehensive Bicycle and Pedestrian Master Plan to further improve its bicycling and walking environment. The Plan included community participation, analysis of existing conditions, and recommendations for improvement. As part of the master planning effort, three separate priority lists were developed: sidewalk construction, trail construction, and bicycle facilities within the roadway, which identify pedestrian and bicycle improvements for downtown Clearwater and Clearwater Beach. Map 3-9 displays the pedestrian and bicycle facilities in the city.

Downtown Clearwater largely comprises a grid system, providing easy connectivity via pedestrian facilities, as illustrated in previous maps. In addition, the East West Trail connects downtown Clearwater to Clearwater Beach, while the Pinellas Trail traverses downtown Clearwater from north to south along East Avenue. However, due to the more concentrated nature of the development in downtown, expanding roads to provide for needed bicycle facilities is not always an option.

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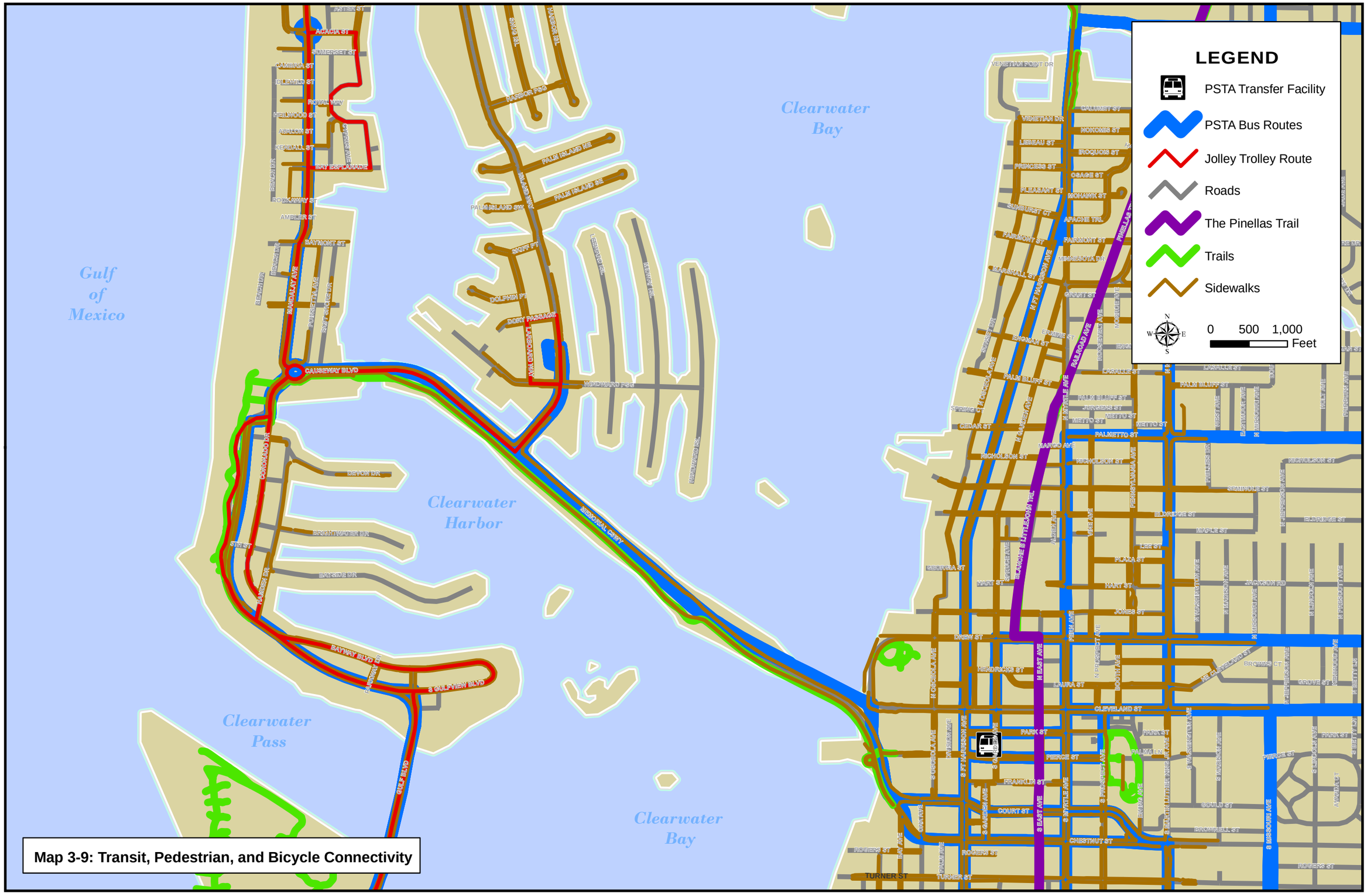


Map 3-9: Transit, Pedestrian, and Bicycle Connectivity

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On the beach side of the causeway, pedestrian access has been greatly enhanced on the southern portion of the beach with the newly opened Beach Walk. There is a beach walk planned for the northern portion of the beach as well. Those areas not connected by Beach Walk generally have good pedestrian access. Crosswalks are well-marked and include countdown signals.

## PARKING

The following section provides an overview of the parking situation in downtown Clearwater and Clearwater Beach.

### Downtown Clearwater

According to the *Review of 2002 Downtown Parking Study* completed in August 2009, downtown Clearwater has 2,930 public parking spaces, compared to the 2,246 public parking spaces it had in 2002, an increase of 30 percent. Of these spaces, 1,223 (42%) are in parking lots, 1,339 (46%) are in parking garages, and 368 (13%) are on-street parking spaces. In addition to these spaces, the downtown area has 3,755 private parking spaces, an almost 19 percent increase over 2002 levels. Of the private parking spaces, 1,775 (47%) are in parking garages and 1,980 (53%) are in parking lots.

Figure 3-1 illustrates the available parking facilities in downtown Clearwater. The figure includes the larger parking facilities but does not include all pocket parking areas, which are often reserved for the sole use of a particular business or set of businesses.

According to the 2009 study, downtown Clearwater will need an additional 180 parking spaces during the weekdays to support growth in office space in five years. In ten years, downtown Clearwater will need an additional 254 parking spaces to accommodate increased demand from office space. The study of weekend demand indicates that close to 1,000 spaces will be vacant based on projected demand in 5 years, and almost 800 parking spaces will be vacant based on projected demand in 10 years.

As the study did not include an analysis of the parking demand created by a transit system being implemented between the downtown area and Clearwater Beach, these spaces could be used to accommodate beach visitors who park in downtown and use transit to travel to Clearwater Beach.

Recently, the City of Clearwater and the Downtown Development Board began offering a parking validation program for downtown customers parking in the Garden Avenue Parking Garage. Validation from participating businesses is good for up to two hours of complimentary parking.

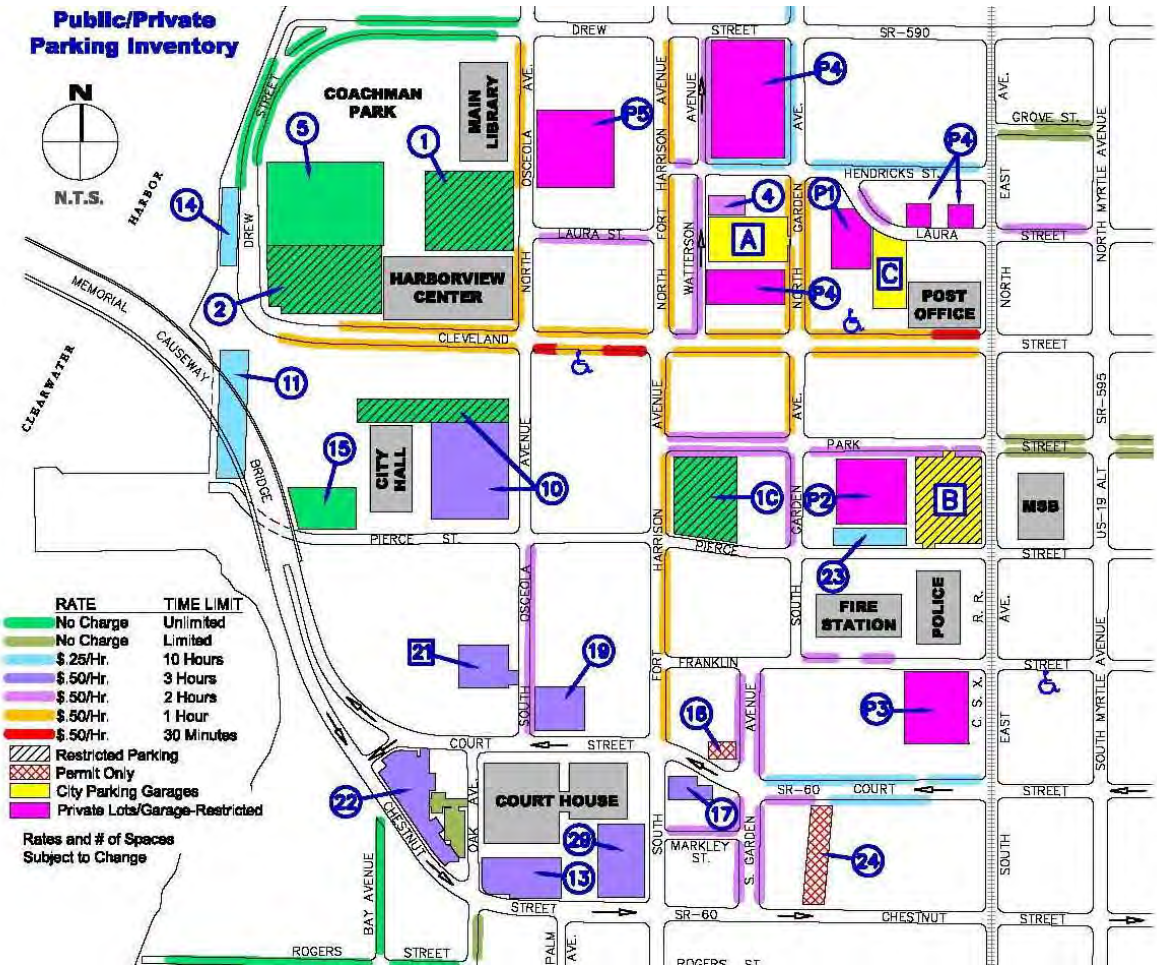



**Figure 3-1**
**Downtown Clearwater Parking Inventory**

## Clearwater Beach

Primary parking on Clearwater Beach is in the form of metered lots or metered street parking. A seasonal rate for parking is applicable during the months of March to September, as well as weekends. According to the City's parking inventory, there are 1,298 public parking spaces in 13 parking lots on Clearwater Beach, as well as an additional 234 spaces on various beach streets. In addition, permit and overnight parking are available at the marina. Figure 3-2 illustrates the public parking currently available on Clearwater Beach.

For a number of years, the City has investigated the potential of a parking garage to address parking needs on Clearwater Beach, particularly during the peak season. Over the years, the City has been in talks with various developers regarding agreements to secure space for a public parking garage and has investigated purchasing land to develop such a garage. As of June 2009, the Clearwater City Council has identified a location and a developer for the future

parking garage. The current plans are for 300-space parking garage to be built on S. Gulfview Boulevard overlooking Beach Walk, which is immediately south of the Hyatt Aqualea Resort now under construction. The parking garage will be built on the site of the current Britt's Laguna Grill. Surf Style Retail Management, which owns the Britt's property, will pay to build the garage and will operate it. While the City has identified the site, a traffic study will need to be conducted to understand the impacts of the parking garage on the traffic patterns and identify any adjustments that may be needed as a result.

## SUMMARY OF EXISTING AND FUTURE CONDITIONS RELATIVE TO PROPOSED ACTION

A need for a transit alternative connecting downtown Clearwater and Clearwater Beach will provide additional opportunity for residents, employees, and visitors to travel between these two areas. A review of the existing and future conditions suggests the following:

- Existing travel activity between downtown Clearwater and Clearwater Beach has established a need for a transportation alternative connecting downtown and the beach; currently, the only way to travel between these two areas is via the Memorial Causeway, which becomes severely congested during peak season.

- An analysis of the demographic trends and projected development activity suggests that the need for transit connecting downtown Clearwater and Clearwater Beach will only become greater, due to the projected increased population and employment resulting from new development and intensification in development both in downtown and on the beach.

- Transit service connecting downtown and the beach will afford passengers the opportunity to transfer either to the Jolley Trolley or to a connecting PSTA route to travel elsewhere in Pinellas County.

- The surplus of parking supply available in downtown Clearwater on the weekend is an obvious resource that can be exploited to assist with solving the parking shortage in Clearwater Beach.


| CITY PARKING LOTS | | | | | |
|---|---|---|---|---|---|
| Lot No. | Location | Hourly Rates | | Hours of Enforcement | After Hours |
| | | Mon-Fri | **Sat-Sun & Seasonal | | |
| 30 | Marina 25 Causeway Blvd. | $0.75 | $1.00 | MARINA ACTIVITIES ONLY 8am-6pm | No Charge |
| 31* | Pier 60 160 S. Gulfview Blvd. | $1.50 | $2.00 | 7am-1am | Closed |
| 32* | 332 S. Gulfview Blvd. | $1.50 | $2.00 | 7am-1am | Closed |
| 33 | 212 Hamden Dr. | $1.00 | $1.25 | 6am-11pm | Closed |
| 34 | 423 Mandalay Ave. | $0.75/ $1.00 | $1.00/ $1.25 | 8am-6pm | No Charge |
| 35 | 457 Mandalay Ave. | $1.00 | $1.25 | 8am-6pm | No Charge |
| 36 | 4 Rockaway St. | $1.00 | $1.25 | 6am-1am | Closed |
| 37 | Avalon - Kendall 6 Avalon St. | $1.00 | $1.25 | 8am-10pm | No Charge |
| 38 | Family Aquatic Center & Recreation Center 51 Bay Esplanade | $1.00 | $1.25 | 8am-6pm (Mon-Sat) 12:30pm-6pm (Sun) | No Charge |
| 39 | McKay Field 605 Mandalay Ave. | $1.00 | $1.25 | 8am-10pm | No Charge |
| 43 | Gateway 390/1 East Shore Dr. | $1.00 | $1.25 | 8am-6pm | No Charge |
| 62* | 100 Coronado Dr. | $1.50 | $2.00 | 7am-11pm | Closed |
| 63* | 400 E. Shore Dr. | $1.00 | $1.25 | 8am-6pm | No Charge |
| | On Street Parking (234 spaces) | $1.00 | $1.25 | Varies | Varies |

* Daily max rate - $10.00/$12.50
Accept - Visa/Master Card/American Express
** Seasonal Rate - March through April everyday
*** Permit Parking Only
Note: Does not include Handicap Spaces
Rates & # of Spaces Subject to Change

**Figure 3-2**
**Clearwater Beach Parking**


*Transportation experts believe that there is a better transportation solution to move people between Clearwater Beach and downtown Clearwater, but what do residents, visitors, and City officials believe?*

## SECTION 4 PUBLIC INVOLVEMENT

A number of stakeholders in downtown Clearwater and on Clearwater Beach will be affected by the transit alternative ultimately selected to link the two areas. Therefore, to find an agreeable solution to providing connectivity between downtown Clearwater and Clearwater Beach, a consensus-building approach to public involvement was employed during this study. This particular approach to public involvement is based on the principles of local participation and ownership of decisions. Ideally, the consensus reached will meet all of the relevant interests of stakeholders, who thereby come to a unanimous agreement.

As part of the consensus-building approach, multiple forms of public involvement activities were used to gain input from all interested stakeholders in this study. Hundreds of individuals participated in the following public involvement activities:

- **Steering Committee** – 13 members representing 9 organizations or City departments participated in four meetings.

- **Downtown Employee Survey** – 595 downtown employees participated in an electronic survey.

- **Hotel Guest Survey** – 103 hotel guests participated in a written survey.

- **Parking Lot Survey** – 127 people participated in a surveyor-administered survey.
- **Public Open Houses** – 47 people participated in four public open houses.
- **Stakeholder Interviews** – 10 face-to-face stakeholder interviews were conducted.
- **Pinellas Mobility Initiative Steering Committee** – 5 presentations to 13-member committee.

Input gathered from these public involvement activities is presented in the remainder of this section.

**STEERING COMMITTEE**

To guide the project's progression, a Steering Committee was formed. Members of the Steering Committee include representatives of the following agencies and organizations:

- Pinellas County MPO
- Traffic Operations, City of Clearwater
- City Manager's Office, City of Clearwater
- Planning Department, City of Clearwater
- PMI Steering Committee
- Technical Coordinating Committee
- Economic Development and Housing Department, City of Clearwater
- PSTA
- FDOT

The Steering Committee has met four times since initiation of the project: February 2, March 5, May 28, and October 13, 2009. The committee provided input on additional public involvement activities. They assisted with determining the preliminary routing and station location information as well as the preferred alignment.

## CLEARWATER AREA EMPLOYEE SURVEY

In June 2009, electronic surveys were distributed to employees of three downtown Clearwater employers: Pinellas County, City of Clearwater, and Johnson Pope Bokor Ruppel & Burns, LLP (Johnson Pope). The survey focused on gathering data from downtown employees concerning commute modes, travel times, travel patterns between downtown Clearwater and Clearwater Beach, travel purposes, factors influencing travel decisions, and travel preferences. A copy of the survey instrument can be found in Appendix A.

Table 4-1 provides information on the number of surveys distributed and the number of completed surveys received. A total of 595 completed surveys were analyzed.

**Table 4-1**
**Employer Survey Distribution Figures**

| Employer | Surveys Distributed | Surveys Completed | Percent Completed |
|---|---|---|---|
| City of Clearwater[1] | 1,126 | 194 | 17% |
| Johnson Pope | 88 | 14 | 16% |
| Pinellas County | 3,172 | 387 | 12% |
| Total | 4,386 | 595 | 14% |

[1]Surveys were distributed via various City of Clearwater email distribution lists. The number of employees receiving the email represents a sum of the total number of individuals on the distribution lists. Due to the nature of the distribution lists, some employees may have received the survey twice and are double-counted in this figure.

A branching survey structure was used such that answers provided dictate the next question. Due to this structure, not all 595 respondents were asked or responded to every survey question.

The first question, which was answered by all 595 respondents, requested information on the respondent's current commute mode. As illustrated in Figure 4-1, over 92 percent of respondents indicated that they drive alone to work. Over 7 percent indicated that they carpool, 1.3 percent indicated they use PSTA bus, and 4.5 percent indicated that they bike or walk to work. Almost 3 percent indicated another form of transportation, which included motorcycles, smart cars, carpools consisting of only family members, and being dropped off. (Note: As respondents were allowed to choose more than one response, the percentages are of the total number of respondents, not the total number of responses, so percentages total more than 100 percent.)

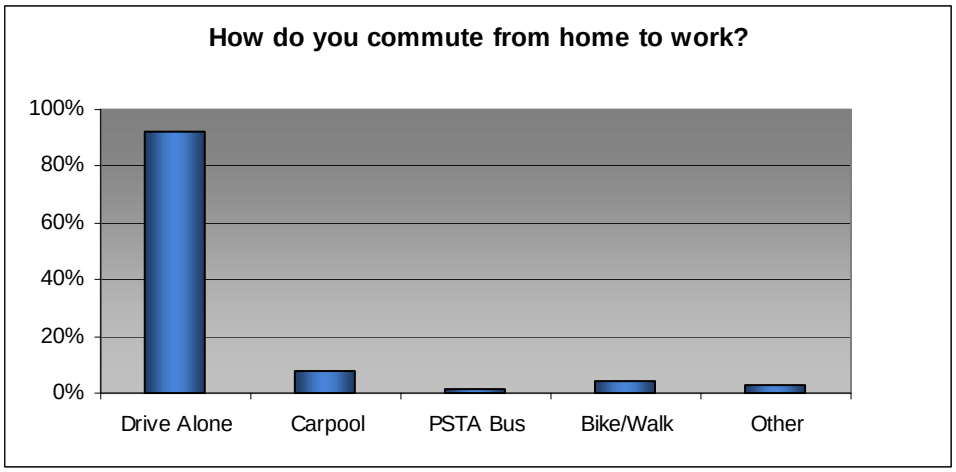



**Figure 4-1**
**Employee Survey: Commute Mode**

The second question asked respondents to provide their residential ZIP code (see Map 4-1). The analysis reveals that the majority of employees who completed the survey live in the greater Clearwater area in Pinellas County. As expected, employee residential concentrations seem to decline with distance from the city.

To determine the appropriate span of service, employee arrival and departure times were surveyed. As shown in Figure 4-2, over 40 percent of downtown employee respondents arrive to work between 7:30 A.M. and 8:29 A.M. Over 70 percent arrive between 7:00 A.M. and 8:59 A.M.

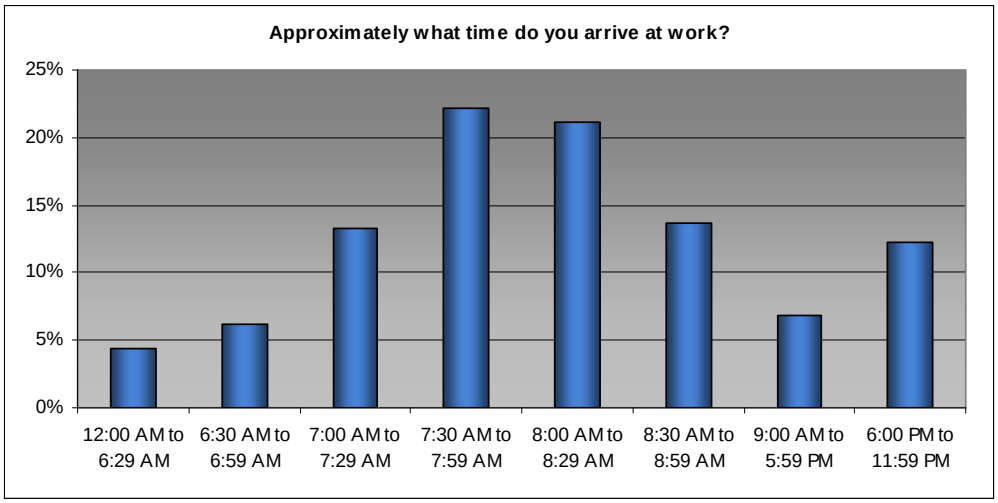
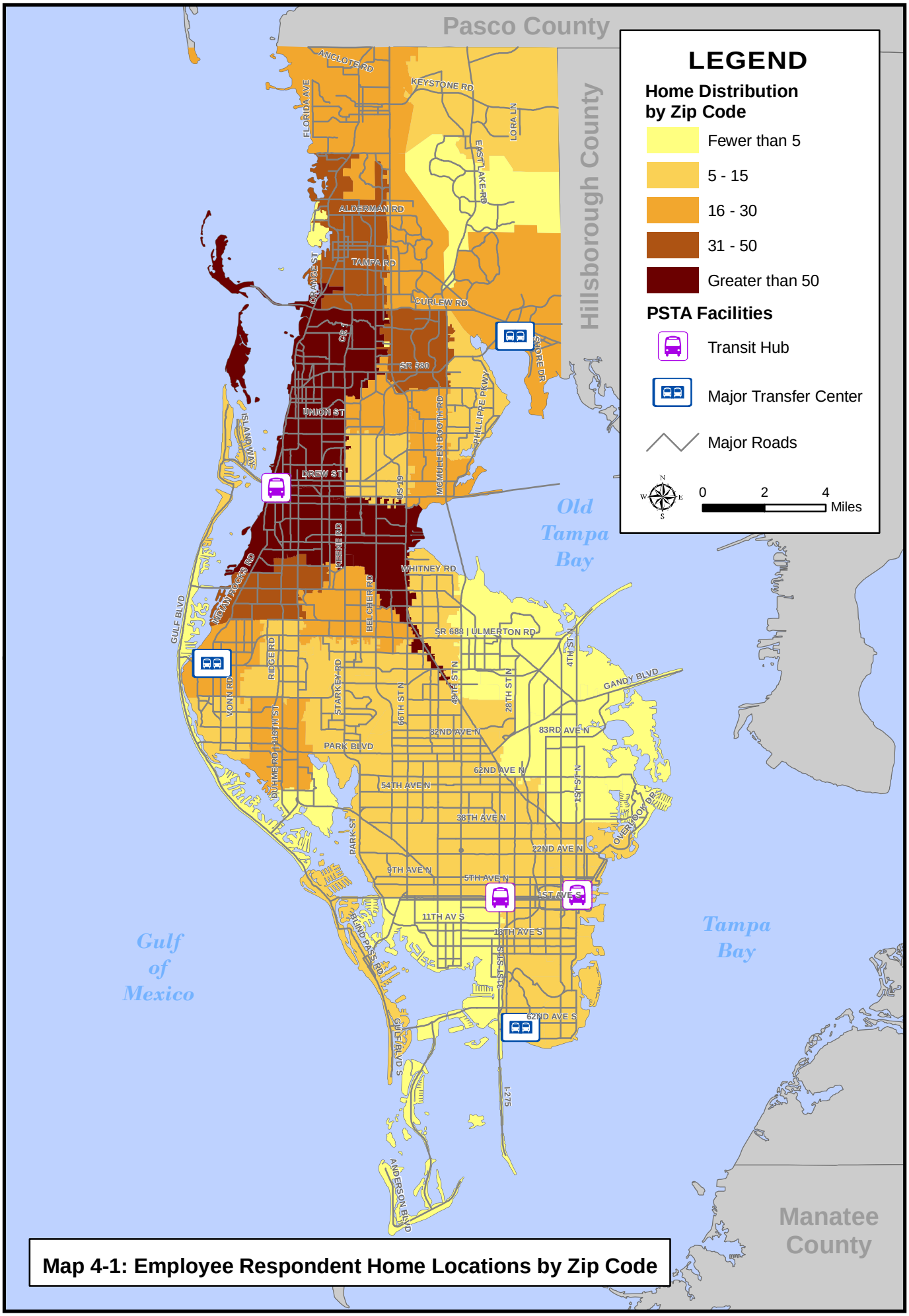



**Figure 4-2**
**Employee Survey: Arrival Times**

As illustrated in Figure 4-3, regarding the end of the day, the largest percentage of employees, 39.2 percent, depart work between 5:00 P.M. and 5:30 P.M. Another 22.5 percent leave work between 4:30 P.M. and 4:59 P.M.




**Map 4-1: Employee Respondent Home Locations by Zip Code**

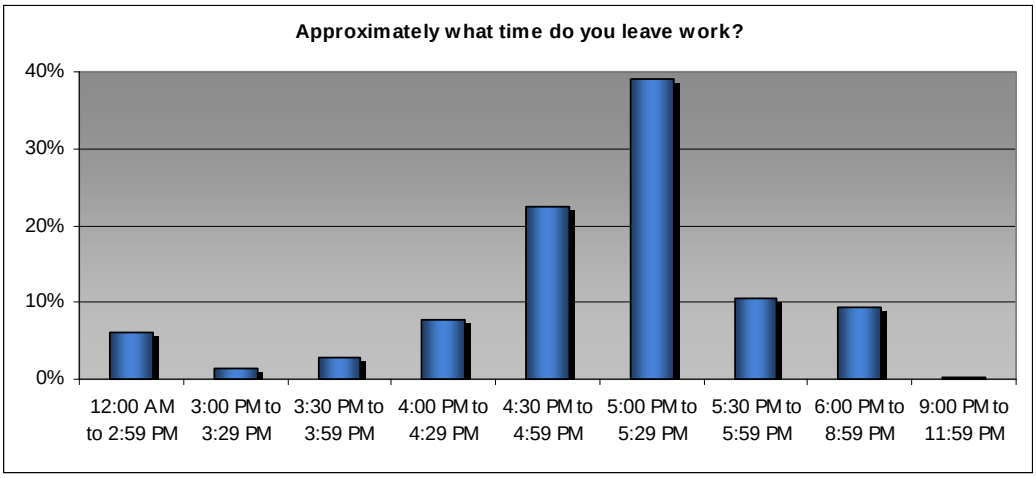



**Figure 4-3**
**Employee Survey: Departure Times**

When asked if they traveled occasionally between downtown Clearwater and Clearwater Beach, approximately 34 percent of respondents indicated they do travel between the two destinations. As illustrated in Figure 4-4, of the 202 respondents who indicated that they do travel between the two destinations, 67 percent indicated that they drive alone between the two, while 28 percent indicated that they carpool and 2 percent use PSTA bus. Of the remaining respondents, 11 percent walk or ride bicycles.

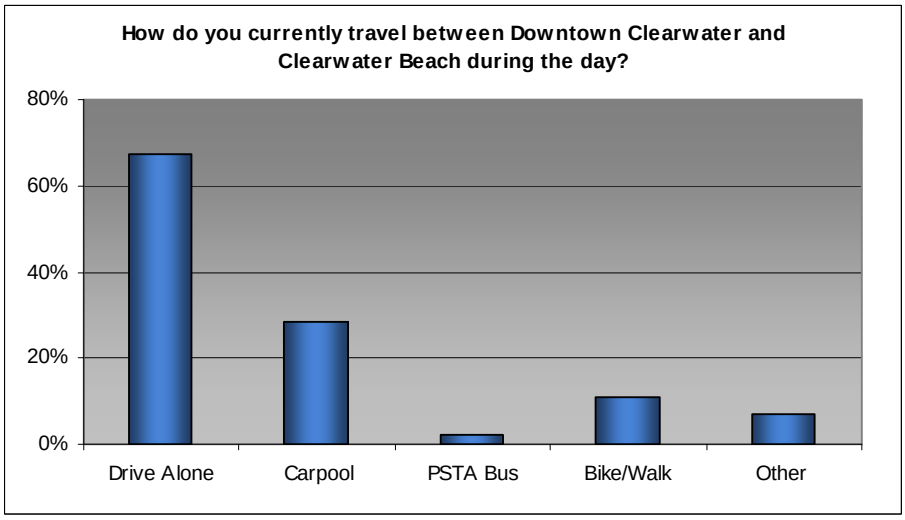



**Figure 4-4**
**Employee Survey: Travel Mode**

As shown in Figure 4-5, for those individuals traveling to Clearwater Beach, lunch was the number one reason for the trip. Almost 44 percent indicated that the trip was for work purposes. Those who answered "Other" gave the following reasons: to visit grandparents or children, to walk the dog, or to attend medical appointments.

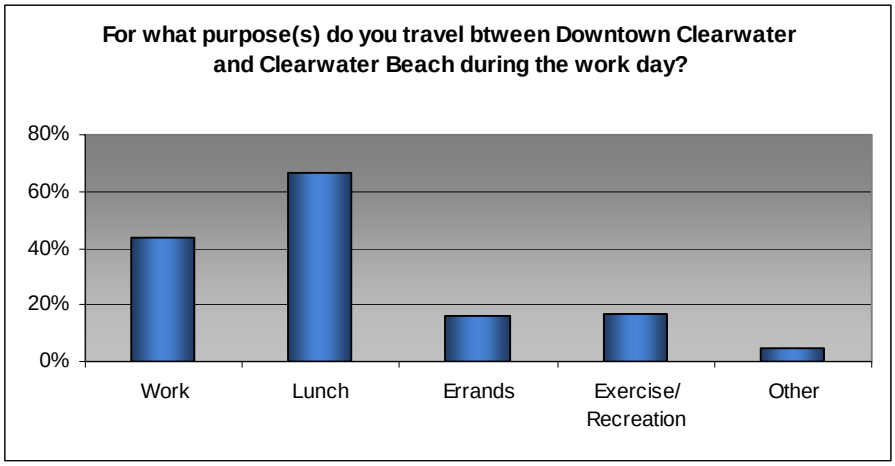



**Figure 4-5**
**Employee Survey: Purpose of Travel**

Of those surveyed, 26.2 percent indicated they have used transit service in the last two years whether it was in Clearwater or elsewhere. A majority, 59.1 percent, indicated that they would consider using transit between downtown Clearwater and Clearwater Beach. For those indicating they would consider transit, frequency and convenience were the most important characteristics that would influence the decision to use transit. Hours of service and speed were the next most important. The mode type and the use of exclusive lanes were the least important. These results are shown in Figure 4-6.

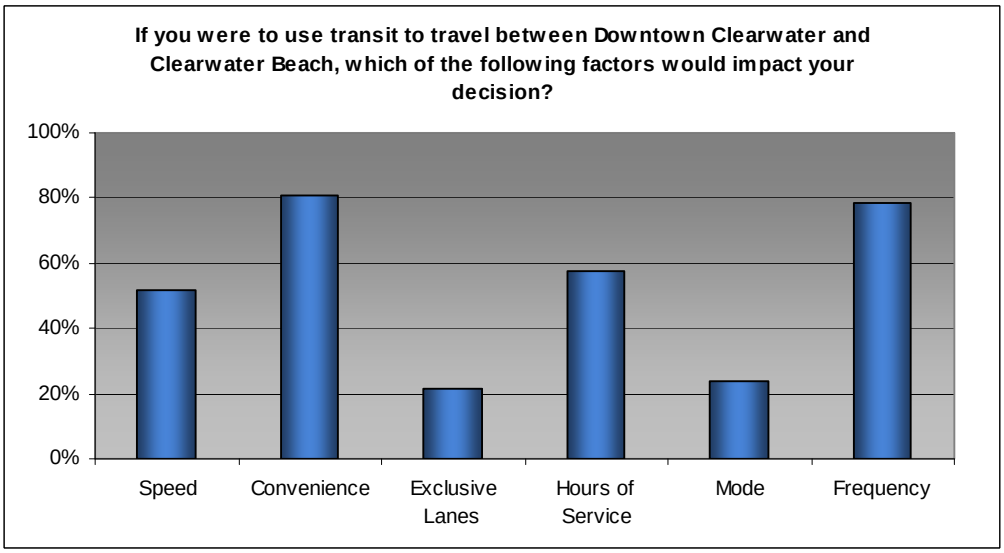



**Figure 4-6**
**Employee Survey: Transit Characteristic Preferences**

When respondents were asked if they would consider using transit to travel to any other destination in the region, 74.3 percent indicated they would consider using transit for this purpose.

## CLEARWATER AREA HOTEL GUEST SURVEY

In addition to the employee survey used for downtown employers, a survey of hotel guests also was conducted. Survey packets, which contained a welcome letter from Clearwater Mayor Frank Hibbard, the survey instrument, and a Clearwater brochure, were given to guests upon check-in. A copy of the survey instrument can be found in Appendix B. Completed surveys could be returned to the front desk at any time. The surveys were distributed over two time periods: during spring break (SB) and non-spring break (NSB). The intent of the survey was to gather data on the two types of guests.

Table 4-2 provides a list of the hotels that participated in the survey and to what extent they participated. All of the hotels are located on Clearwater Beach with the exception of the Residence Inn, which is located to the east of the downtown Clearwater core. In total, 103 surveys were completed, which is approximately 17 percent of those distributed.

**Table 4-2**
**Hotel Survey Distribution List**

| Hotel | Number of Rooms | Surveys Distributed | Surveys Completed | Percent of Surveys Completed |
|---|---|---|---|---|
| Palm Pavilion Inn | 29 | 39 | 25 | 64% |
| Red Roof Inn Clearwater Beach | 74 | 45 | 0 | 0% |
| Residence Inn by Marriott | 115 | 14 | 3 | 21% |
| Sand Pearl Resort | 250 | 300 | 42 | 14% |
| Shephard's Beach Resort | 94 | 109 | 23 | 21% |
| Travelodge Clearwater Beach | 54 | 90 | 10 | 11% |
| Total | 616 | 597 | 103 | 17% |

As illustrated in Figure 4-7, the greatest proportion of people in both groups, spring break and non-spring break, stay four or five nights. The proportion of travelers that stay for only one night is greater for the non-spring break group, however. These guests are more likely to be business travelers. Spring break travelers are more likely to spend six or seven nights than the non-spring break travelers.

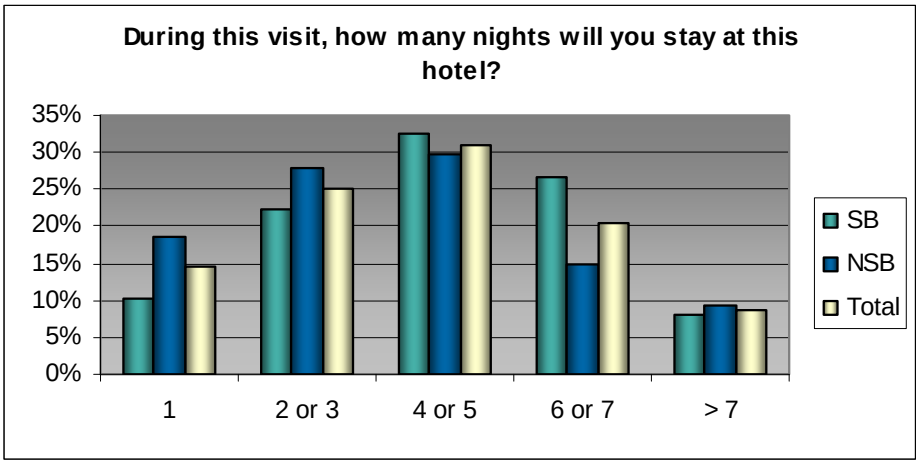



**Figure 4-7**
**Hotel Guest Survey: Length of Stay**

Figure 4-8 shows survey results regarding purpose of visit. Over 70 percent of surveyed individuals were visiting for vacation purposes. Almost 88 percent of spring break guests were visiting for vacation. For non-spring break guests, work and visiting friends/relatives were evenly split, each with 16 percent of respondents.

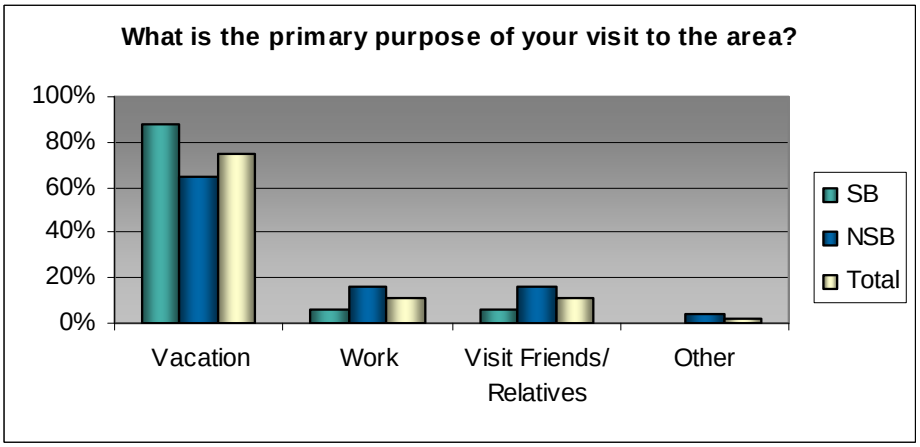



**Figure 4-8**
**Hotel Guest Survey: Purpose of Visit**

As shown in Figure 4-9, approximately 44 percent of all respondents have a personal car available, and 18 percent do not. A total of 38 percent of respondents rent cars. In total, 82 percent of travelers bring a car to Clearwater Beach.

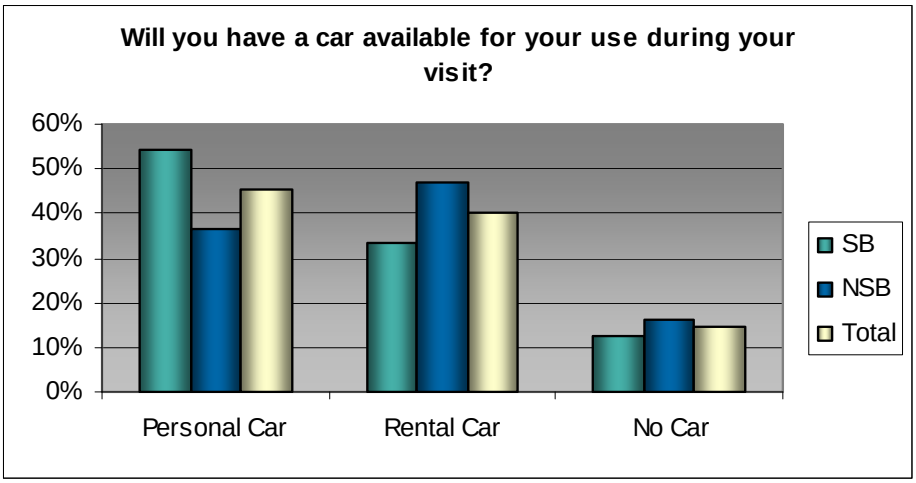



**Figure 4-9**
**Hotel Guest Survey: Car Availability**

Figure 4-10 shows that over 40 percent of total respondents indicated they would visit downtown Clearwater during their visit to Clearwater Beach. (Note: Residence Inn guests were not asked this question as they were staying in downtown Clearwater. Residence Inn guests were asked if they would visit Clearwater Beach during their visit. Of the three surveys received from the Residence Inn guests, all indicated they would travel to Clearwater Beach by private automobile or taxi for meal, recreation, or shopping purposes.)

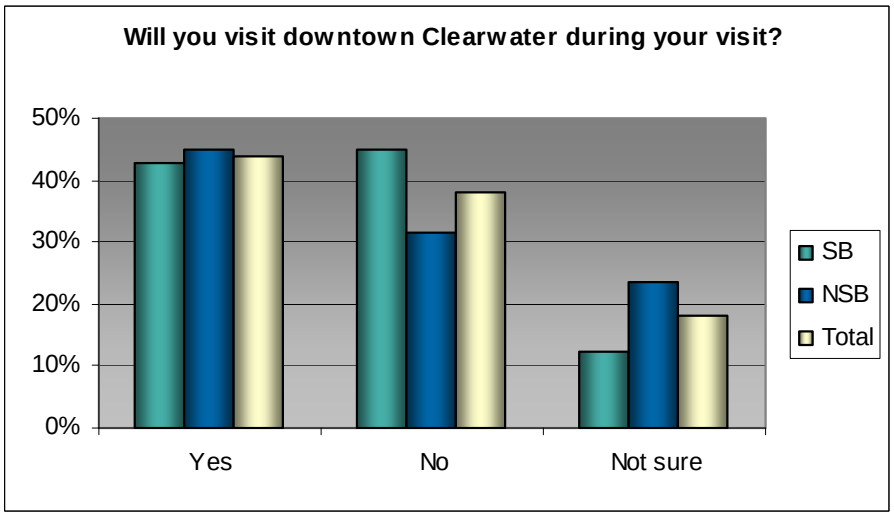



**Figure 4-10**
**Hotel Guest Survey: Visit Downtown Clearwater**

As illustrated in Figure 4-11, the majority of visitors indicated that they would drive between Clearwater Beach and downtown Clearwater. The next largest group indicated they were unsure how they would travel between the two locations. Despite transit being available through PSTA, no respondent indicated they would use it. With such a significant proportion

indicating they would use a car, the introduction of a well-marketed transit solution could offer opportunities to switch these travelers from private automobiles to transit.

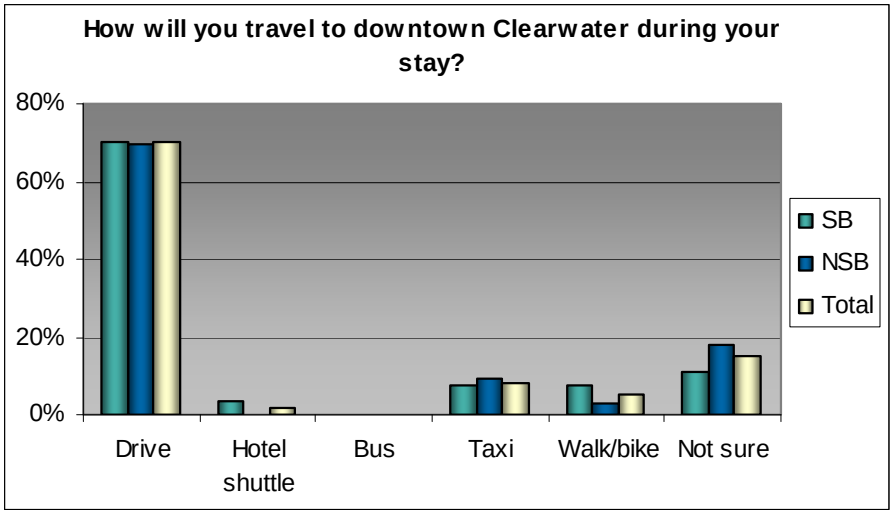



**Figure 4-11**
**Hotel Guest Survey: Travel Mode to Downtown Clearwater**

The largest percentage of people visiting downtown Clearwater indicated they would do so to enjoy a meal or beverage. After eating, sightseeing and shopping followed. The results of this series of questions suggest that Clearwater Beach visitors are interested in visiting downtown Clearwater. A transit mode connecting the two might increase the desire and opportunity for travel between the two destinations. These results are shown in Figure 4-12.

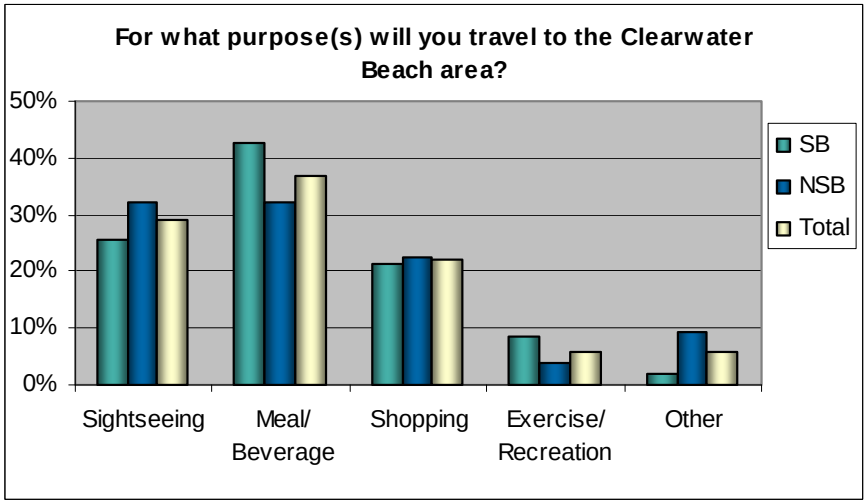



**Figure 4-12**
**Hotel Guest Survey: Purpose of Travel**

Because one benefit of having transit operate on an exclusive lane is to avoid traffic congestion, visitors were asked if congestion concerns them. Spring break guests were more likely to be

concerned about traffic congestion when venturing out of their hotels, which is to be expected given the greater prevalence of traffic congestion during the spring break period. As shown in Figure 4-13, over 40 percent of total respondents were concerned about congestion when leaving their hotel.

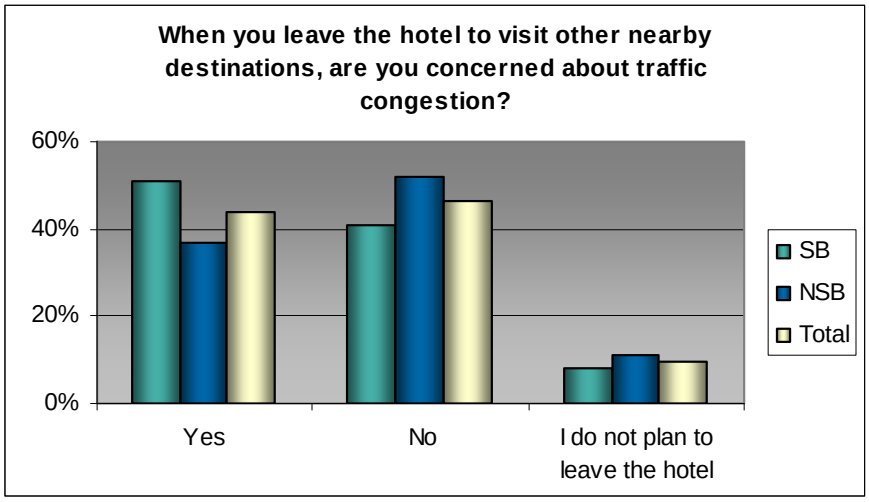



**Figure 4-13**
**Hotel Guest Survey: Traffic Congestion Concerns**

Figure 4-14 illustrates that over 30 percent of total respondents have used transit in another city. This experience may make them more willing to use it in Clearwater.

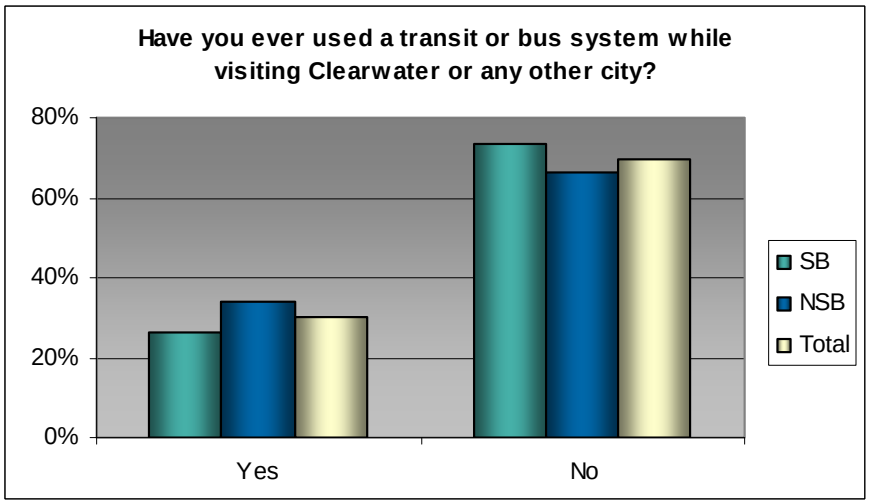



**Figure 4-14**
**Hotel Guest Survey: Previous Transit Use**

As shown in Figure 4-15, almost 80 percent of respondents indicated that they would consider using transit between the beach and downtown Clearwater if it operated in an exclusive lane.

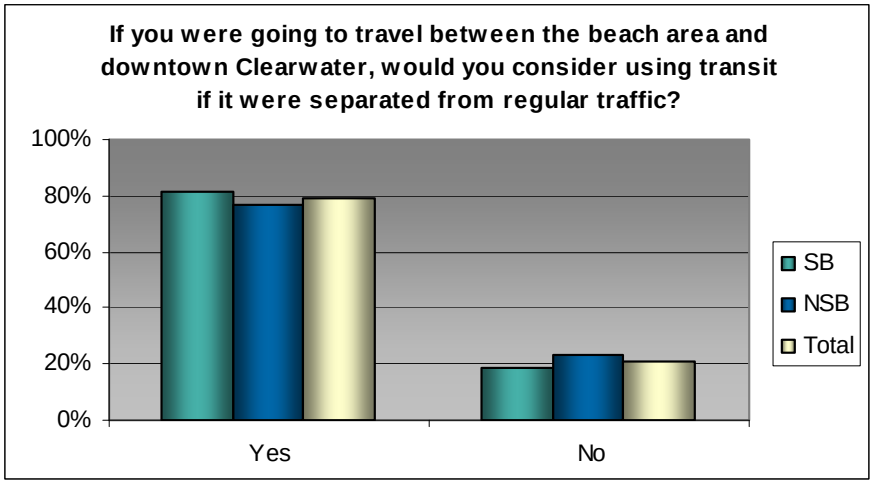



**Figure 4-15**
**Hotel Guest Survey: Transit Use for Local Travel**

As shown in Figure 4-16, almost 54 percent indicated they would consider using transit for regional travel in addition to local travel.

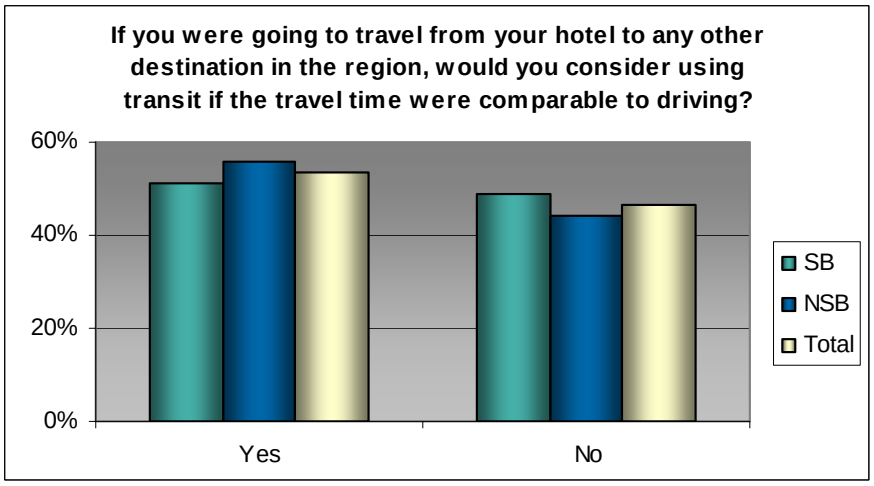



**Figure 4-16**
**Hotel Guest Survey: Transit Use for Regional Travel**

## CLEARWATER AREA VISITOR PARKING LOT SURVEY

Because not every visitor to Clearwater Beach stays in a hotel, a separate survey was conducted of public parking lot users. Daytrippers often use parking lots when visiting the beach. People conducting business on the beach or patronizing local businesses and restaurants also use the parking lots. The goal was to gain information from short-term visitors (i.e., visitors who do not stay overnight) on their travel patterns and preferences.

The survey was administered on two separate days: Saturday, January 23, 2010, and Tuesday, March 30, 2010. The January survey captured regular Clearwater Beach visitors, and the March survey captured visitors during the typical spring break period. The survey was conducted between the hours of 8:00 A.M. and 4:00 P.M. Survey data were collected in four separate parking areas in Clearwater Beach: near Pier 60 (#62 on Figure 3-2), immediately south of Pier 60 (#31 on Figure 3-2), south beach (#32 on Figure 3-2), and north beach (#36 on Figure 3-2).

The surveyor traveled on foot through public parking lots and approached groups as they were exiting their vehicles. Prior to asking the group survey questions, the surveyor noted the total number of people in the group, the approximate number of individuals over the age of 16 (Florida driving age), and the parking lot where the respondents parked their vehicles. The surveyor asked the questions verbally and recorded the responses. Respondents did not complete survey forms.

A total of 61 surveys were completed in January and 66 were completed in March, for a total of 127 surveys collected. Not all surveys were completed in their entirety, as respondents sometimes chose to end the survey before completion. Over half (63%) of the survey responses were collected at the Pier 60 parking lot, located just south of the traffic circle on South Gulfview Boulevard. Over one quarter (28%) of the responses were obtained at the parking lots south of the Pier 60 lot while nine percent were collected at parking areas north of the roundabout.

The average group size was just over three people during the non-spring break period and slightly larger during spring break, with just over four people per group. Seventy-five percent of group members were 16 or older during the non-spring break period, and 66 percent were 16 or older during spring break.

To gauge the visitation levels of those being surveyed, respondents were asked how many days they had visited Clearwater Beach in the past year (current visit included). As shown in Figure 4-17, of the 61 spring break groups that responded, over 60 percent had visited for only one day in the past year. Of the non-spring break groups, only 42 percent had visited just once in the past year. Over 50 percent of total respondents had visited for only one day in the past year.

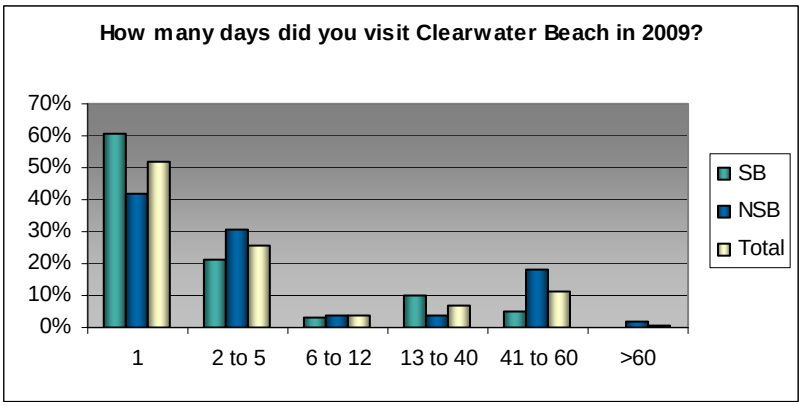



**Figure 4-17**
**Parking Lot Survey: 2009 Clearwater Beach Visits**

A total of 21 percent of spring break visitors visited Clearwater Beach for two to five days in the past year, and 31 percent of non-spring break visitors indicated similar visitation levels.

Figure 4-18 examines the likelihood of non-spring break visitors to visit during peak periods such as spring break or weekends. This question was only asked of non-spring break visitors. Forty-five percent indicated they would not visit Clearwater Beach during these times.

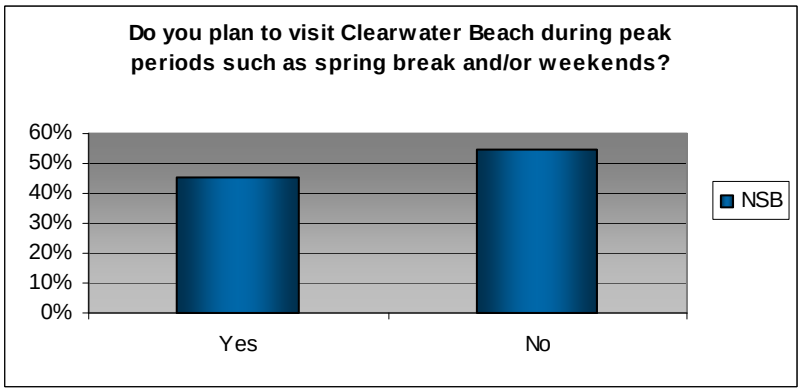



**Figure 4-18**
**Parking Lot Survey: Peak Period Visits**

As illustrated in Figure 4-19, about 25 percent of respondents said their decision to visit Clearwater Beach was impacted by traffic congestion and/or parking availability. There was no noticeable difference between spring break and non-spring break periods.

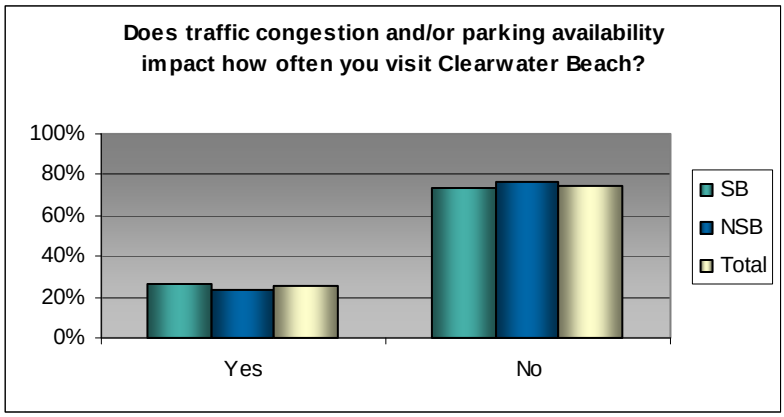



**Figure 4-19**
**Parking Lot Survey: Congestion Impacts**

The number of respondents paying over $10 to park during spring break (35%) is much higher than those paying that price during non-spring break periods (9%). Figure 4-20 indicates visitors during non-spring break periods spend between $2.01 and $5.00 for parking.

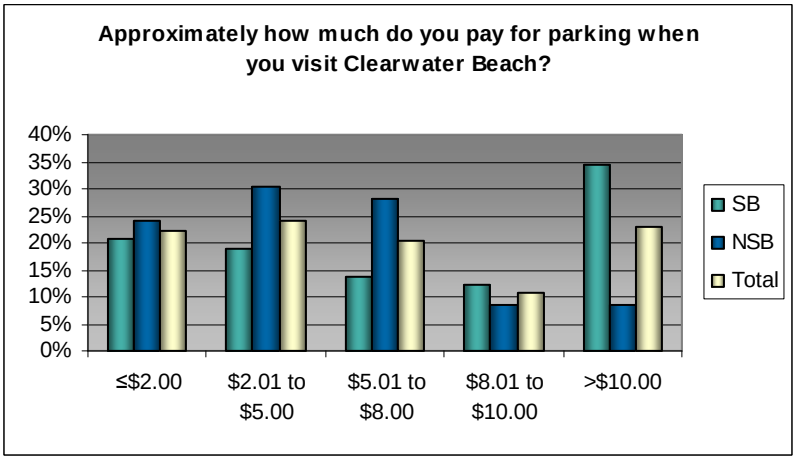



**Figure 4-20**
**Parking Lot Survey: Parking Price**

Participants were asked if they would consider parking downtown and using some type of alternative transportation that would operate between Downtown Clearwater and Clearwater Marina, with the surveyor indicating that the alternative transportation would bypass traffic that would be present on Memorial Causeway. As shown in Figure 4-21, of the 53 groups that responded, 66 percent indicated that they would not consider this option, and 34 percent stated that they would.

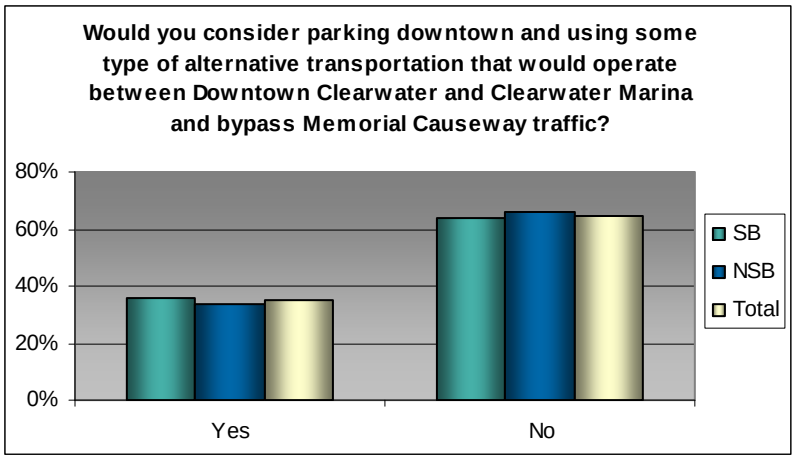



**Figure 4-21**
**Parking Lot Survey: Stated Preference**

If the respondents indicated that they would be willing to park downtown and use alternative transportation to Clearwater Marina, they were asked about their willingness to pay for the transit service operating between downtown Clearwater and Clearwater Beach, with the surveyor indicating that parking in Downtown Clearwater would allow for unlimited use of the transportation service for everyone in the group. Of the 34 percent who stated they would consider using the service, over 33 percent indicated that they would be willing to pay less than what they currently pay at Clearwater Beach, nearly 40 percent indicated that they would be willing to pay the same amount, and nearly 28 percent stated they would be willing to pay more. The results are shown in Figure 4-22.

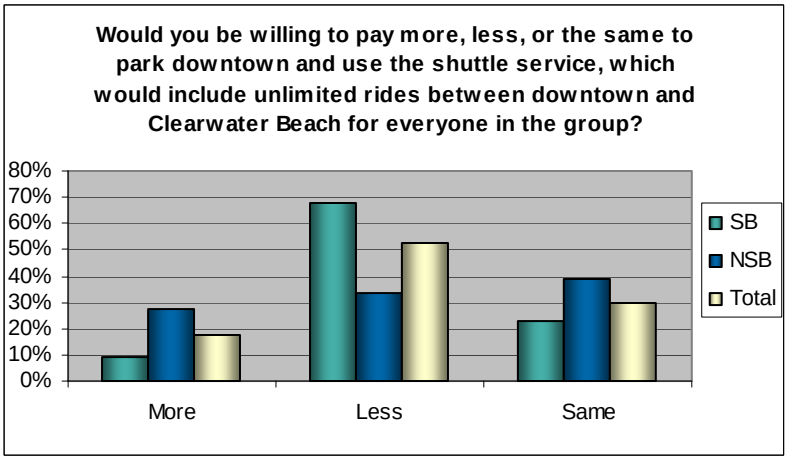



**Figure 4-22**
**Parking Lot Survey: Stated Cost Preference**

If the respondents indicated that they would not be willing to park downtown and use alternative transportation to Clearwater Marina, they were asked if their decision would be different if the daily cost of parking in Downtown Clearwater and unlimited shuttle service to and from

Clearwater Marina for everyone in their group cost less than parking at the beach. As Figure 4-23 indicates, just over 91 percent indicated that the reduced price would not change their response. Only about 9 percent stated that they would use the shuttle service if the service and parking downtown cost less than parking at the beach.

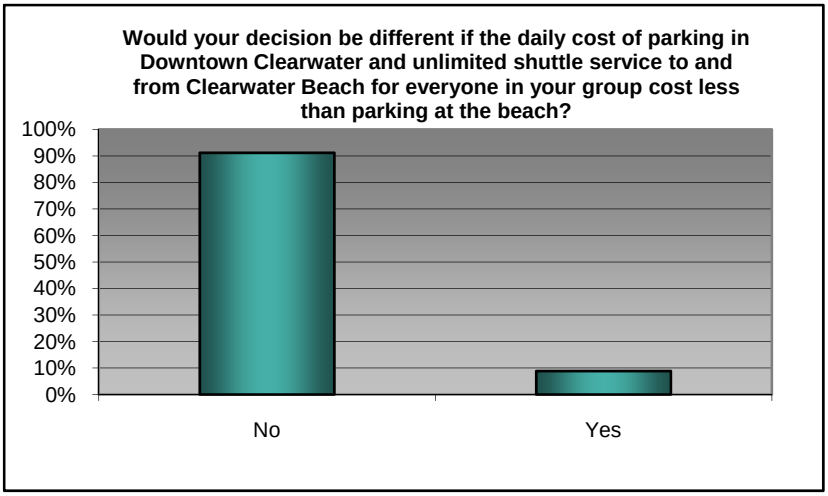



**Figure 4-23**
**Parking Lot Survey: Influence of Cost**

Nearly 95 percent of respondents indicated that they use Memorial Bridge, otherwise known as Memorial Causeway or State Route 60, when driving to Clearwater Beach, as shown in Figure 4-24.

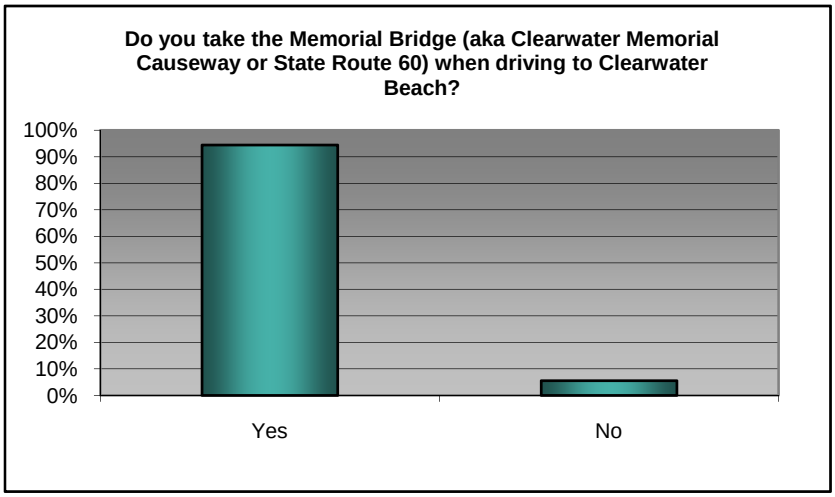



**Figure 4-24**
**Parking Lot Survey: Driving Path**

A total of 36 percent of respondents were from outside Florida, and 24 percent were from Pinellas County. During the spring break period, the percentage of respondents from out of state was higher than during the non-spring break period.

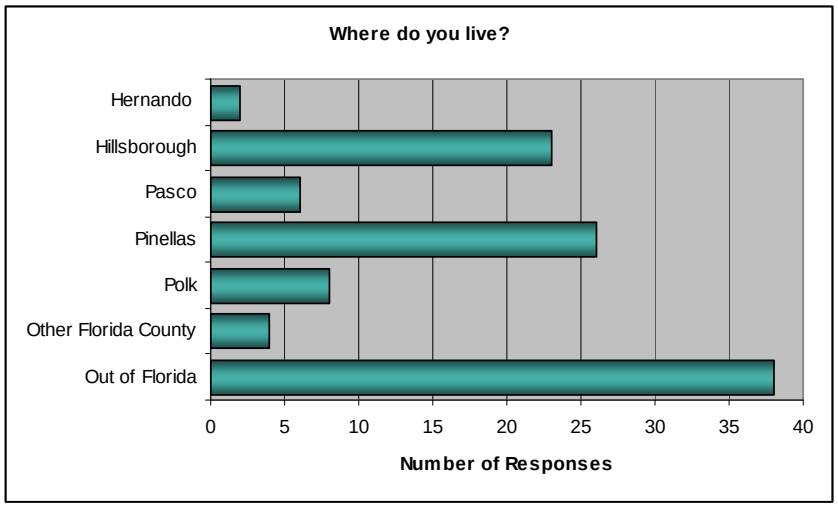



**Figure 4-25**
**Parking Lot Survey: Place of Residence**

## OPEN HOUSES

Two sets of open houses were held in conjunction with this project, one in June and one in November. Each set included one open house on Clearwater Beach and one in downtown Clearwater.

On June 25, 2009, a group of approximately 20 people gathered at the Clearwater Beach Recreation Center (69 Bay Esplanade) on Clearwater Beach between 4:30 P.M. and 6:30 P.M. The group consisted of residents of Clearwater Beach, Sand Key, and Island Estates, as well as representatives of PSTA, the Clearwater City Council, the Jolley Trolley, the Clearwater Beach Chamber of Commerce, and the Sheraton Hotel. A short presentation was made, with a question, answer, and comment session afterward. The following provides a summary of the comments received during this event.

- The beach circulator needs to include Sand Key, as there are many residents and tourists who would like to travel north to Clearwater Beach for recreational, entertainment, and shopping purposes.

- While a few people supported the idea of a bus operating in an exclusive lane along Memorial Causeway, many felt that the money would be better spent improving Jolley Trolley and PSTA service currently on the beach. Most felt that congestion on Memorial Causeway only occurs on weekends during the peak season and therefore does not require a permanent fix.

- Those traveling downtown were going to the library and the Capitol Theatre. The group indicated that shows at the Capitol Theatre may get out after PSTA service has stopped for the evening, but that the Jolley Trolley often extends service during special events.

- Beach residents want to travel to Island Estates for access to the grocery store, restaurants, and the bank. Tourists want to go there for those amenities and for the marina and the aquarium.

- Opinions differed as to whether it was better for the beach circulator to serve Island Estates or if the trunk line should have a station at Island Estates. Either way, consensus was that the service needed to go into Island Estates at least to Publix and not just stop at the intersection of Island Way and Memorial Causeway. Residents expressed concern that the bus stops on the causeway are not well used now, which would suggest that the service needs to be taken into Island Estates.

- Most participants felt it was important for the trunk line to take people all the way to the beach, not just stop at Clearwater Marina, but there was great concern that it would be impossible to engineer around the congestion at the roundabout or Bridge 43, which crosses Mandalay Channel.

- One comment was received that instead of a trunk link, there should be one route that goes from downtown into Island Estates, then to the north beach area, then the south beach area, then back to the causeway, Island Estates, and downtown. As many buses as needed should be used to keep headways to 15 minutes.

- Residents expressed concern that beach-goers would not want to walk and carry their belongings any great distance and therefore would still drive. Others disagreed, stating that as long as there were financial incentives to use the system such as free parking in downtown, then people would use the system. Evidence of this fact was provided by observations that the free parking lot east of Bridge 43 at Mandalay Channel is always full.

- The system must be coordinated and provide seamless transfers between the Jolley Trolley and PSTA.

- The two systems operating on the beach, PSTA and the Jolley Trolley, are confusing to residents and tourists. The systems need to be more coordinated, and transferring between the two needs to be seamless. Both systems should accept the same fare media.

- Many beach hotels have a kitchen so beach-goers need access to the grocery store on Island Estates.

- Real-time passenger information at the stations is a must.

- It was recommended that this study should include an examination of a very fast ferry service between downtown Clearwater and the beach.

- Service should be operated such that it is flexible enough to offer later service for special events such as evening shows at the Capitol Theatre.

- Residents currently enjoy special charter trips on the Jolley Trolley and would like to be able to continue to have this option.

- Vehicles must have accommodations for beach gear and groceries.

- As service is needed immediately, it might be beneficial to begin operating service in regular traffic lanes and then build a separate lane later.

- Fares should be cheaper for residents than tourists.

- There are many international visitors who do not drive who would benefit from this service.

- Traffic flow on the beach should be improved by making streets one-way pairs and separating pedestrian traffic from vehicular traffic. Pedestrian traffic could be separated with the use of elevated crosswalks or removing crosswalks at unsignalized locations.

A second open house was scheduled for June 26, 2009, from 5:30 P.M. to 7:30 P.M. A tent was set up at the Downtown Partnership's Fourth Friday celebration. Unfortunately, the event had to be cut short due to inclement weather, so limited public interaction took place. Only one significant comment came out of the event.

- Alternative fuel vehicles should be used for the proposed service between downtown Clearwater and Clearwater Beach.

At each of the two public meetings in June 2009, surveys were handed out. Fourteen surveys were completed at the Clearwater Beach meeting, and only one survey was completed at the downtown event. A summary of survey responses is provided below. Copies of each completed survey as well as the survey instrument can be found in Appendix C.

- *Residential Locations* – Most of the surveys were completed by individuals living on Clearwater Beach north of the roundabout. Three were completed by Island Estates residents, one was completed by a resident of south Clearwater Beach, and one was completed by a resident who lives north of the downtown area.

- *Trip Purpose* – The most common trip purpose provided was shopping/errands, followed by dining/entertainment. Work was the third most common response.

- *Amenities* – The most commonly requested amenity was free or very low fare, followed closely by frequent buses, the use of a trolley-type vehicle, and nighttime service.

- *Downtown Transit Stations* – The two most requested transit stops in downtown were Cleveland Street and the library. The third most popular response was the PSTA bus terminal.

- *Beach Transit Stations* – Respondents weighted the need for all of the beach stops equally.

- *Regional Connectivity* – Eleven of 14 respondents indicated that they would use a bus between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit system.

A second round of open houses was held on November 18, 2009. The first open house was held at the Downtown Clearwater Farmer's Market (500 Block of Cleveland Street) from 11:00 A.M. to 1:00 P.M. The second open house was held at the Clearwater Beach Recreation Center between 4:00 P.M. and 5:30 P.M.

At both locations, display boards were set up to illustrate the two route alignment options (i.e., the Shared Path Alignment and Hybrid Alignment) and the three downtown circulator options (i.e., Alternatives "A," "B," and "G") and to show pictures of example stations for both the downtown and beach locations. (Route alignments and station locations are discussed in Section 6, and station design is discussed in Section 8.) At each open house, patrons were asked to provide input on the route alignment and circulator options and to indicate which characteristics of the example stations they felt were or were not aesthetically complementary to the downtown and beach locations and what amenities they would like to see at the stations. Comments were received verbally, as well as in the form of a survey. Samples of the survey instrument and other open house materials are provided in Appendix C.

Approximately 20 people provided input at the downtown open house, with a number of others stopped by the Farmer's Market booth briefly to view the display boards. Participants included a mixture of local residents and employees, as well as visitors to downtown Clearwater.

The six participants at the Clearwater Beach open house included several Clearwater Beach residents, representatives of the Clearwater Beach Association, and a representative of the Jolley Trolley.

The following provides a summary of the comments and input received during these events.

*Route Alignments*

- When asked which of the two route alignments they preferred, the majority of participants preferred the Hybrid Alignment, citing the benefits of the bus traveling in an exclusive lane via the exclusive transit path on the south side of the causeway and the median, rather than in mixed traffic prior to the downtown segment.

- Two participants preferred the Shared Path Alignment, citing that there is not enough traffic congestion year-round to warrant a separate travel lane and a dislike for removing the grass and trees from the median. The remaining respondents did not note a preference or indicated no preference for either alignment.

- Several participants noted a concern about the bus traveling in peak congestion on Bridge 43 in and out of the beach area and indicated a preference for the bus staying out of mixed-traffic along Bridge 43 by having a separate travel lane through the Marina property.

- The majority of the downtown open house participants saw the benefit of parking downtown and having a transportation alternative to go to the beach, although several people noted that better signage identifying the public parking locations in the downtown is needed. There were concerns about traveling with beach gear, which the bus would need to have space to accommodate.

- Several participants at the Clearwater Beach open house indicated that additional signals on the causeway to allow the bus back into the mixed travel lane or median were not preferred.

*Downtown Circulation Alternatives*

- When asked which of the three downtown circulation alternatives they preferred, the majority of participants preferred Alternative “B,” while Alternatives “A” and “G” were each preferred by one participant (refer to Section 6).

- A participant at the beach open house noted that Alternative “B” should go as far north as Laura Street before connecting back to Memorial Causeway to serve the downtown public library since the beach library hours are not always convenient and more computers are available at the downtown library.

- The remaining participants noted no preference for any of the three downtown alternatives. Many participants noted that travel as far north to Drew Street in Alternative “G” would take too much time, although a few participants did note that travel to Drew Street may be functional for some lower-income individuals in this area.

- Several participants commented that it would make the most sense for the downtown circulator to travel on Cleveland Street as the commercial hub and that the bulb-outs along this road should be removed to facilitate bus travel.

*Station Locations and Characteristics*

- When asked if the downtown station locations identified on each of the route alignment displays met their needs, the majority of participants provided no response; two respondents indicated the station locations did meet their needs, and two indicated they were unsure if the station locations met their needs. None of the participants indicated that the downtown station locations did not meet their needs.

- When asked if the pictures of example downtown stations had characteristics that were aesthetically complementary to downtown, more than half of the participants provided no response; the remaining respondents chose one or more of the examples as their preference, with Example #7 being the most preferred.

- The majority of respondents who chose to comment on the example stations indicated they preferred a more traditional style station designed to fit in with the characteristics of the downtown (i.e., made of stone and wood, as opposed to a more modern style made of metal and glass).

- One participant noted that advertising on the shelters, particularly on the shelters located downtown, could provide a revenue stream to help offset the operating costs. Another participant noted that the lighting and security of the station was more important than what the station looks like.

- The majority of participants did not prefer Beach Station Alternative "A," located to the west of the roundabout, citing visual impacts. Several participants indicated that locating the beach station at the Marina would be most suitable.

- When asked if the pictures of example beach stations had characteristics that were aesthetically complementary to the beach area, half of the participants provided no response; the remaining respondents chose one or more of the examples as their preference, with Example #2 being the most preferred. One respondent was not in favor of any of the examples. The majority of respondents who chose to comment on the example stations indicated they preferred an open-air station for the beach. A few participants commented that a clear shelter would also be preferable, citing a preference not to obstruct the beach views while also providing shelter from the elements.

*Station Amenities*

- When asked to rank the importance of various amenities at each station, the majority of respondents listed sign route and maps, shelter, benches, and a safety/security system as the most important amenities.

- The majority of participants felt that other amenities, including nearby restrooms, electronic signs signaling the next bus, lockers (at beach station), and bicycle racks, were only moderately important.

- Other amenities suggested by individual participants include:
  - Wireless Internet access to use a computer while waiting for the bus at the shelter.
  - Pay phone.
  - Solar-powered panels on the shelter roofs to provide an environmentally-friendly form of energy for security lighting. Also, a solar powered backlight for the schedule would provide the necessary illumination to see the schedule in the dark.

*Regional Transit Center Retail Tenants*

- Participants were asked to identify which retail tenants they would like to see located at a multimodal regional transit center downtown. The majority of participants indicated they would be interested in a coffee/snack shop. Other types of retail tenants that garnered interest include a bicycle rental shop to enjoy the nearby Pinellas Trail.

- Other suggested types of retail tenants to be located at the regional transit center included a hot dog vendor, retail space for various cell phone providers, and a utility payment kiosk to provide a convenient location to pay bills.

*Other General Comments*

- Need an electric sign to describe delays to the beach.

- A van or smaller bus, as opposed to a full-size bus, should be used for the downtown circulator.

- Need to make sure the Clearwater/St. Petersburg International Airport is connected to the downtown/beach system.

- A monorail system could be constructed over the bicycle/pedestrian bridge to make traveling between the beach and downtown more of a tourist attraction.

- The old train station a good location for a regional transfer center.

- If there were light rail from Tampa to downtown Clearwater and a connection to the beach, then the downtown businesses would be far better off.

- Need public transportation during the weekends between Pinellas County and Tampa.

- Do not see much congestion at the beach since roundabout was installed, so not sure if transit service connecting downtown and the beach is necessary.

- A water taxi would be a good alternative to providing transportation between downtown and the beach.

**STAKEHOLDER INTERVIEWS**

In addition to the three sets of surveys and public open houses, 10 stakeholder interviews were completed. The Steering Committee identified the stakeholders it felt represented groups with interests in this project. A copy of the stakeholder interview questions can be found in Appendix D. Interviews with stakeholders included:

- Sheila Cole, Executive Director, Clearwater Beach Chamber of Commerce, June 2, 2009

- John Doran, Councilman, City of Clearwater, June 16, 2009

- Frank Hibbard, Mayor, City of Clearwater, June 11, 2009

- Claudia Huber, Director of Sales and Marketing, Holiday Inn, June 15, 2009

- Lisa Mansell, Community Affairs Director, Church of Scientology, June 25, 2009

- Carlen Petersen, Councilwoman, City of Clearwater, June 16, 2009

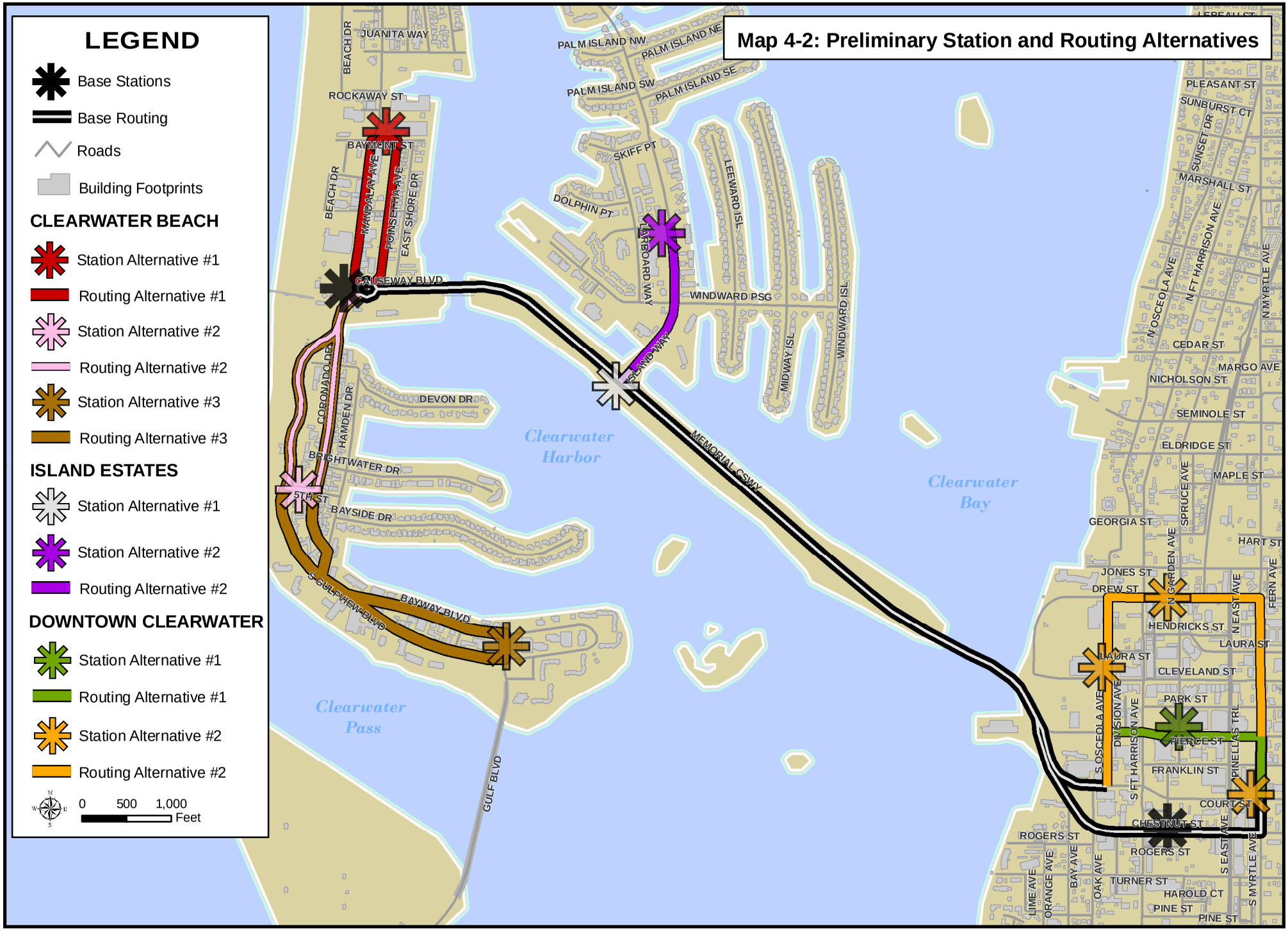
- Gerri Raymond, Vice President of Tourism, Clearwater Regional Chamber of Commerce, June 3, 2009

- William Sturtevant, Chair, Executive Board, Downtown Partnership, June 10, 2009

- Deborah Welsh, Manager, Palm Pavilion Inn, June 2, 2009

- David Yates, Chief Executive Officer, Clearwater Marine Aquarium, June 2, 2009

The results of these interviews are summarized in the following paragraphs. To aid in the discussion with stakeholders, a preliminary routing and station location map was created to present different alternatives (see Map 4-2).


Map 4-2: Preliminary Station and Routing Alternatives
LEGEND
Base Stations
Base Routing
Roads
Building Footprints
CLEARWATER BEACH
Station Alternative #1
Routing Alternative #1
Station Alternative #2
Routing Alternative #2
Station Alternative #3
Routing Alternative #3
ISLAND ESTATES
Station Alternative #1
Station Alternative #2
Routing Alternative #2
DOWNTOWN CLEARWATER
Station Alternative #1
Routing Alternative #1
Station Alternative #2
Routing Alternative #2
0 500 1,000
Feet
Clearwater Harbor
Clearwater Bay
Clearwater Pass
JUANITA WAY
BEACH DR
ROCKAWAY ST
BAYMONT ST
MANDALAY AVE
POINSETTIA AVE
EAST SHORE DR
CAUSEWAY BLVD
PALM ISLAND NW
PALM ISLAND NE
PALM ISLAND SW
PALM ISLAND SE
SKIFF PT
DOLPHIN PT
LEEWARD ISL
STARBOARD WAY
WINDWARD PSG
MIDWAY ISL
WINDWARD ISL
ISLAND WAY
MEMORIAL CSWY
CORONADO DR
HAMDEN DR
DEVON DR
BRIGHTWATER DR
5TH ST
BAYSIDE DR
S GULFVIEW BLVD
BAYWAY BLVD
GULF BLVD
PLEASANT ST
SUNBURST CT
SUNSET DR
MARSHALL ST
N FT HARRISON AVE
N OSCEOLA AVE
N MYRTLE AVE
CEDAR ST
MARGO AVE
NICHOLSON ST
SEMINOLE ST
ELDRIDGE ST
MAPLE ST
SPRUCE AVE
GEORGIA ST
HART ST
N GARDEN AVE
N EAST AVE
FERN AVE
JONES ST
DREW ST
HENDRICKS ST
LAURA ST
CLEVELAND ST
PARK ST
PIERCE ST
FRANKLIN ST
COURT ST
CHESTNUT ST
ROGERS ST
S OSCEOLA AVE
DIVISION AVE
S FT HARRISON AVE
PINELLAS TRL
S EAST AVE
S MYRTLE AVE
LIME AVE
ORANGE AVE
BAY AVE
OAK AVE
TURNER ST
HAROLD CT
PINE ST

*Stakeholder 1*

If the proposed alignment target market is for tourists, then Stakeholder 1 believes the proposed routing is fine, but if the intended market is residents, then the routing needs to be extended to Acacia Street on the northern part of the beach and farther into Island Estates. She believes that employees also may use the service as it is currently aligned. She believes that cutting back Jolley Trolley service has been a negative for beach residents.

Stakeholder 1 does not believe that mode matters as much as being separated from regular traffic. She believes that the service should run from 6:00 A.M. to midnight to accommodate staff who work until 11:00 P.M. The service does not need to operate with as frequent service at night as it does during the day. She suggested a ferry might be a viable option.

*Stakeholder 2*

Recommendations by Stakeholder 2 include extending the service on the Clearwater Beach side north to Acacia Street and also into Island Estates to reach the elderly residents who desperately need transit. She recommended moving service on Fort Harrison to Osceola Avenue as there are few destinations on Fort Harrison; the library and other destinations are located on Osceola Avenue. She believes service on Myrtle Avenue is important as there are City services there, which may even require another station.

Stakeholder 2 does not believe that the particular mode chosen will impact ridership levels, but she believes that having exclusive lanes will be important. As for hours of service, she believes service should run between 6:00 A.M. and midnight, perhaps later on evenings when there are events at Capitol Theatre to encourage people to stay out late in downtown. Accommodating beach gear is very important, so the stations have to be close to parking in the downtown area and close to beach access on the beach side.

Stakeholder 2 believes that fares need to be below $2.00 to be attractive, with passes available for employees who might use it more frequently. She indicated that funding will be an issue for this service, but suggested that perhaps the parking requirement per hotel room be reduced in exchange for funding this service. She said that a privately-funded ferry service was attempted several years ago and failed, she believes, because people did not want to carry all their gear.

The service needs to connect to the larger transit network, including Dunedin and Tarpon Springs in particular.

*Stakeholder 3*

The success of the Jolley Trolley stop near the aquarium prompted Stakeholder 3 to encourage the location of a transit station near the facility. He indicated a need for more stations on the

beach side than indicated by the station locations on the map. Mode will not impact ridership as long as it uses exclusive lanes.

Stakeholder 3 believes that the two most important characteristics are frequency and convenience. Frequency needs to be every 10 to 15 minutes, with frequent stations to keep distances to ultimate destinations short. He feels the service probably probably will serve only tourists. Service needs to be only from 8 A.M. to an hour after sunset, as that meets tourists' needs. Fares should not exceed $2.00 per trip.

*Stakeholder 4*

Indicating that it was more important than serving Publix in Island Estates, Stakeholder 4 suggested that the alignment needs to include a station at the Clearwater Marine Aquarium. As for downtown Clearwater, the system needs to serve the Capitol Theatre and the many parking garages.

Stakeholder 4 suggested that it is not the mode that matters but the experience. She suggested making it like a tour with friendly drivers who talk about key attractions. The service needs to be segregated from regular traffic to make it faster. It also needs to be convenient. She feels the primary market will be tourists; with this market base, hours of service need to be only from dawn to dusk. She suggested a fare of no more than $3.00. She believes that the local hotels and restaurants need to understand how this fits into the regional transportation network. If these entities understand that the service might allow guests to travel to the airport without a car, then they may be more likely to support it.

*Stakeholder 5*

To decrease travel times, Stakeholder 5 recommended having fewer stations on the transit system. He noted that the congestion and parking problems on the beach are not constant problems, but rather are problems during the spring break period and special weekends (e.g., Fourth of July, Labor Day, and Memorial Day weekends).

Stakeholder 5 recommends running the downtown circulator down Osceola as it offers service to the library, an important trip generator. He sees downtown as expanding eastward over time. He also believes that a longer route for the downtown circulator makes more sense, as it serves a greater population base. He believes that local residents are not aware of the attractors in the downtown area and therefore are not likely to visit downtown. The Downtown Partnership is trying to change that by hosting various events to draw residents into downtown.

*Stakeholder 6*

Expressing strong support for a rubber-tired solution, Stakeholder 6 did not believe that a rail solution would be feasible, given the extreme cost of rail. While rail across Memorial Causeway may not be feasible, he believes there is a need to begin planning for the eventuality that rail will come to Clearwater. He expressed a need for a station on TBARTA's proposed rail line down East Avenue, which should include PSTA as well.

Stakeholder 6 believes the main line should be a separate system from the circulators on each end to garner ridership. He does not believe that there needs to be a station at Island Way. To encourage ridership, he recommends reducing the amount of parking on the beach and increasing parking rates. He suggested the beach-side terminus could be just before Bridge 43 (Mandalay Channel crossing), due to the fact that maintaining exclusive transit lanes over Mandalay Channel would require an additional structure to be built. He did not think the system needed to connect to Morton Plant Hospital.

Citing four new high-end restaurants moving in, the renovation of Capitol Theatre, and the Cleveland Redevelopment project, Stakeholder 6 believes that the downtown area is in a position to see some growth when the economy turns around. He thinks that tourists and residents alike will find a reason to visit downtown Clearwater.

*Stakeholder 7*

Stating that the route should go all the way south on the beach and into the residential areas to the north, Stakeholder 7 believes that there should be more stations than currently represented as stations on the map. She believes rail would draw more passengers, but either mode will work as long as it is separated from regular traffic.

Stakeholder 7 believes that tourists will be the most likely users of the system. The system should run from 9 A.M. until just after sunset. The fare should be $2.00 or $3.00 and not require passengers to have coins available. It would also be good to accept credit cards. As for amenities, she would like to see passenger information signs on the next bus arrival, television screens with the latest weather report, activities, etc., and security cameras.

*Stakeholder 8*

Although hotel employees may use the service as well, Stakeholder 8 believes that initial ridership will consist primarily of tourists. She feels that good marketing and an increase in activities in downtown will draw locals eventually.

As for routing, Stakeholder 8 believes the main line needs exclusive lanes with short headways. She believes having a circulator on each end to keep the main line on schedule is key. She

thinks the circulator should go south on the beach because tourists are more likely to frequent that area. She was less sure that it needed to go to the northern portion of the beach. She identified two attractors, Publix and the Marina, on Island Estates, but felt a station on the main line was not needed as long as one of the circulators served that area.

Stakeholder 8 likes the idea of passenger amenities such as real-time information provided in stations and off-board fare payment. She believes that funding from the system needs to come from a combination of sources, especially gas taxes.

*Stakeholder 9*

While supporting the project, Stakeholder 9 expressed that he was unsure of the transit system's ability to generate ridership. He feels it is most likely to be used by tourists to get them from the beach to downtown, as opposed to being used by local residents.

Stakeholder 9 believes a proper mix of incentives will be necessary to attract ridership. To get day visitors to the beach to use a park-and-ride facility in the downtown area, he believes a transit option would have to be significantly quicker or significantly cheaper. If parking were market rate on the beach and there was no street parking, he felt a park-and-ride would be supported. He noted that because parking is free, there are people who will park in the residential neighborhoods and walk to the public beaches.

Stakeholder 9 felt that the vehicle used will make a difference in ridership. He expressed a strong belief that a trolley is more likely to attract tourists and visitors alike. He believes that a typical public bus would not attract passengers. To attract passengers, he recommended that the service be free.

Stakeholder 9 felt the service should circulate both north and south on the beach, with a terminus in the area of Shephard's Beach Resort. He believes the main line does not need to serve the Island Way community as long as one of the circulators does.

*Stakeholder 10*

Located at 210 South Fort Harrison Avenue, Stakeholder 10 indicated that the Church of Scientology operates the Fort Harrison Hotel for its American and international visitors. She believes that a transit system operating between downtown Clearwater and Clearwater Beach would be very beneficial to the hotel guests. She indicated that because many of them come from outside the United States, they have transit experience and may not be comfortable driving here. The hotel currently offers shuttle service to the beach for its visitors, but it requires the guest to arrange the service. She thought that an independently-operated transit system would allow the guests more freedom.

As for hotel employees, Stakeholder 10 noted that there would be no demand for the service. The Church of Scientology operates 10 70-passenger buses that operate between 6:30 A.M. and 9:30 P.M. to shuttle employees between living quarters and their places of employment.

For the routing of the service, Stakeholder 10 believes that the main connector service operating between the downtown and beach areas should be operationally distinct from any potential transit circulation that would occur at either end. She recognized that the potential delays that could occur in circulating through downtown and/or the beach would impact the connector service negatively in terms of its ability to be on-time and frequent.

When discussing the specific routing of the circulator services, Stakeholder 10 recommended that the downtown circulator service be routed down Cleveland Street instead of Drew Street. She believes that since commercial development is focused there, transit service should be focused there as well. She indicated that dependability of service will be very important to local passengers, while the experience will be more important to tourists. She indicated that people want frequent service they can depend on, which is why the main trunk line must be segregated from traffic.

For the convenience of tourists, Stakeholder 10 believes that the stations should have as many amenities as possible: real-time passenger information displays, restrooms (including family restrooms), lockers for beach gear, benches, customer service representatives, water fountains, security phones, vending machines, information kiosks, advertisements, and audio recordings marketing entertainment options at the other end of the system. To further encourage ridership, she suggested that the City try to attract a bicycle rental vendor to be co-located with the beach station.

Stakeholder 10 recommended that the service be developed as a tourist amenity. While she did not believe that mode would impact ridership, she did say that the look and feel of the service would be important to ridership, as would the service's frequency and convenience. For the connector service, she thinks it would be ideal to operate 10-minute service or better; on the two circulators, she believes that the frequency can be less, but that it should not exceed 30 minutes. In addition, for the benefit of tourists, she recommended that the service either have drivers who are knowledgeable about the area or have recorded audio or visual messaging depicting activities in the area. She believes that the service should operate from 8:30 A.M. until dark, with later service during the peak season.

Stakeholder 10 suggested that free service would be best, but she understood that this may not be financially feasible. She recommended that a fare should be a round number such as $1.00 or $2.00, so that change would not be required. She also recommended that fares should be a

flat-rate and not zone-based, that it may be prudent to give residents fare discounts, and that the ultimate service provider should work with the hotels to provide the passes to their guests.

*Summary*

The stakeholder interviews revealed some common themes noted below:

- Having a higher-end mode, such as rail, is not as important as having the trunk line across Memorial Causeway segregated from regular traffic.
- A service similar to the Jolley Trolley would be the most acceptable on the Beach side.
- Marketing is the key to getting individuals out of their car and onto the transit system.
- Island Estates must be served in some manner.
- The service must be convenient such that the distance people have to carry their beach gear is short and the vehicles and stations are designed to accommodate beach gear.
- The downtown area would like to capitalize on the interests of tourists and residents on the beach and get them into downtown for entertainment and dining activities.

**PMI STEERING COMMITTEE**

Presentations were made on five dates to the13-member PMI Steering Committee to gather input from the committee throughout the process: June 8, August 31, and December 7, 2009, and January 11 and April 10, 2010

**SUMMARY OF PUBLIC COMMENTS AND ATTITUDES TOWARDS PROPOSED ACTION**

Most of the public input received was positive about the possibility of implementing a transit system in an exclusive lane between downtown Clearwater and Clearwater Beach. The group that displayed the least enthusiasm for the plan was Clearwater Beach residents. This lack of enthusiasm may be attributed to two reasons. First, many of the residents are retired and live a “beach lifestyle” in the sense that they prefer the slower pace such that congestion does not bother them. Second may be their reluctance to share the beach with others. Providing easier and faster access to Clearwater Beach means that they have to share the beach with more and more people.

Business owners and politicians tended to see a benefit in connecting the two destinations to increase the synergy that would draw people to the area. Beach business owners see the

benefit of entertainment options being available in downtown Clearwater as well as the possibility of increased visitation by downtown employees. Downtown business owners see the benefit of tourists already visiting Clearwater Beach spending their money in the businesses downtown, especially on rainy days.

While the focus of the public involvement was not to choose mode, mode was a topic of conversation during the Steering Committee meetings, public open houses, stakeholder interviews, and PMI Steering Committee presentations. Most people indicated that the type of mode did not matter as much as the quality of the service. In other words, a major investment in infrastructure, such as that with rail, was not required as long as the service provided quick, convenient service. Several participants suggested that a quick and convenient bus would be an appropriate mode for this corridor.

*How can we design a transit system that avoids sitting in traffic? Bus rapid transit vehicles using dedicated right-of-way can provide a solution.*

## SECTION 5 BUS RAPID TRANSIT

As indicated in Section 4, the public input received indicated that the various stakeholders are interested in a fast, convenient, and inexpensive mode of transportation between Clearwater Beach and downtown Clearwater. Input indicated that mode of travel was not as important as the quality of the service. The public and politicians alike indicated that cost was a concern for this project. For these reasons, this study concludes that the most appropriate mode for this corridor is a BRT system.

BRT is a term applied to bus service that takes advantage of certain time-saving measures in order to increase average running speeds as compared to ordinary fixed-route bus transit. BRT service provides passengers with faster trips and a greater array of amenities and its goal is to move toward the speed and service quality of rail while maintaining the lower costs associated with bus service.

BRT can be achieved by making improvements to existing infrastructure, vehicles, and schedules and is generally characterized by several elements that support its normal operation, including:

- Running ways
- Station locations

- Fare collection system
- Service/operation plan
- Vehicle design
- Identity and image ("branding")
- Bus preferential treatments

By combining these characteristics and applying them to a bus mode, BRT can provide the Clearwater Beach to downtown Clearwater corridor with service that is faster and more convenient than traditional bus service while costing significantly less than rail service. These advantages make it the recommended choice for this area.

The following section provides an overview of the characteristics that define BRT service.

**RUNNING WAYS**

BRT running ways range from mixed-traffic operation to fully grade-separated busways. They may be classified according to the degree of access control (traffic separation) or by type of facility. In many instances, running ways play a major role in determining the character and scale of the BRT service. Table 5-1 shows the possible facility types based on the extent of access control.

**Table 5-1**
**BRT Running Ways Classified by Extent of Access Control**

| Classification | Access Control | Facility Type |
|---|---|---|
| I | Uninterrupted flow - full control of access | Bus tunnel<br>Grade-separated busway<br>Reserved freeway lanes |
| II | Partial control of access | At-grade busway |
| III | Physically-separated lanes within street rights-of-way | Arterial median busway<br>Bus streets |
| IV | Exclusive/semi-exclusive lanes | Concurrent and contra-flow bus lanes |
| V | Mixed traffic operations | N/A |

Source: TCRP Report 90, *Bus Rapid Transit-Implementation Guidelines*, 2003.

**STATIONS**

BRT stations largely represent the physical and symbolic focal point of a BRT system. Stations operate as the nexus where a variety of BRT components, such as fare collection, level boarding, safety, and branding, come together and work to create a positive, or negative, experience for the system user. Because of the significance of BRT stations and the relationship they have with other BRT elements, existing BRT systems have placed significant

emphasis on designing stations that meet BRT operational needs and fit into the character of the surrounding community.

BRT station location and spacing strongly affect system patronage and system operating speeds. Certain fundamental planning principles can be applied to ensure system operating efficiencies. BRT stations should be placed as far apart as possible to achieve high operating speeds and minimize trip times. Table 5-2 provides suggested guidelines for BRT station spacing, depending on the primary passenger arrival mode. In general, access to BRT stations by pedestrians occurs most often in urban cores, and access to stations via automobiles is most often observed in the suburbs. This study is unique in that it is anticipated that automobile access will be a primary function of urban station locations.

**Table 5-2**
**Typical BRT Station Spacing**

| Main Arrival Mode | Spacing (miles) |
|---|---|
| Pedestrian | 0.25-0.33 |
| Bus | 0.5-1.0 |
| Automobile | 2 |

Source: TCRP Report 90, *Bus Rapid Transit-Implementation Guidelines*, 2003.

## FARE COLLECTION SYSTEM

There are generally two major BRT fare collection methods, on-board fare collection and off-board fare collection, of which on-board fare collection is the most commonly used method among North American BRT systems. Off-board fare collection minimizes any delay related to on-board fare payment and allows for the implementation of multi-door boarding strategies. In addition, off-board fare collection systems have been shown to reduce station dwell times and bus travel times. On-board fare collection systems are preferred for new BRT systems because they allow transit agencies to continue using existing fare collection hardware, they operate well at low-volume stations and/or during off-peak hours, and they eliminate the need for special fare collection provisions on sidewalks and at stations.

## SERVICE/OPERATION PLAN

BRT service should be clear, direct, frequent, and rapid. Consequently, BRT routes, frequencies, and hours of service should complement running way types, locations of major activities, and available resources. Tables 5-3 and 5-4 note typical service frequencies and service spans for various BRT service types and running ways, respectively.

**Table 5-3**
**Typical Service Frequencies**

| Service Type | Frequency (minutes) (per route) | | | |
|---|---|---|---|---|
| | Rush Hours | Midday | Evening | Sat-Sun |
| All-Stop (Base Service) | 5-8 | 8-12 | 12-15 | 12-15 |
| Express | 8-12 | 10-15 | - | - |
| Feeder | 5-15 | 10-20 | 10-30 | 10-30 |
| Commuter Express | 10-20 | - | - | - |
| Connecting Bus Routes | 5-15 | 5-20 | 10-30 | 10-30 |

Source: TCRP Report 90, *Bus Rapid Transit-Implementation Guidelines,* 2003.

**Table 5-4**
**BRT Service Types and Span**

| Principal Running Way | Service Pattern | Service | | |
|---|---|---|---|---|
| | | Weekdays | Saturday | Sunday |
| **Arterial Streets** | | | | |
| Mixed Traffic Bus Lanes | All Stop | All Day[1] | All Day[1] | All Day[1] |
| Median Busways (No Passing) | Connecting Bus Routes | All Day[1] | All Day[1] | All Day[1] |
| **Freeways** | | | | |
| Mixed Traffic | Non-Stop With Local District | All Day[1] | All Day[1] | - |
| Bus/HOV Lanes | Commuter Express | Peak Hours[2] | - | - |
| **Busways** | | | | |
| Dedicated Busways | All Stop | All Day[1] | All Day[1] | All Day[1] |
| | Express | Day Time[2] OR Peak Hours[3] | - | - |
| | Feeder Service | Day Time[2], All Day[1], OR Peak Hours[3] | Day Time[4] | Day Time[4] |
| | Connecting Bus Routes | All Day[1] | All Day[1] | All Day[1] |

Notes:
[1]All Day - typically 18 to 24 hours
[2]Day Time - typically 7:00 a.m. to 7:00 p.m.
[3]Peak Hours - typically 6:30 to 9:00 a.m. and 4:00 to 6:00 p.m.
[4]Feeder Service in off-peak and express service in peak
Source: TCRP Report 90, *Bus Rapid Transit-Implementation Guidelines,* 2003.

## VEHICLE DESIGN

BRT vehicles should be carefully planned and selected for various reasons. Vehicles strongly impact nearly every aspect of transit system performance, from attraction of riders to operating and maintenance costs. For instance, vehicle design has been shown to affect the speed and reliability of BRT service, which indirectly influence ridership and related benefits such as congestion reduction and air quality improvements. A vehicle's mechanical attributes also have an impact on operating and maintenance costs. Proper door and interior design (e.g., low floor, wide aisle, multiple-stream doors) can have an impact on vehicle function, which may, in turn, reduce the number of drivers and maintenance staff needed.

Table 5-5 presents typical U.S. and Canadian BRT vehicle dimensions and capacities. In addition, a variety of different propulsion systems are being used by various BRT systems. Types of propulsion systems include internal combustion engines (ICE), catenary-delivered electric trolley systems, dual-mode ICE/trolley systems, coupled thermal-electric drives, hybrid engines, and fuel cells.

**Table 5-5**
**Typical U.S. and Canadian BRT Vehicle Dimensions and Capacities**

| Length | Width | Floor Height | Number of Door Channels | Number of Seats[1] | Maximum Capacity[2] |
|---|---|---|---|---|---|
| 40 feet | 96-102 in. | 13-36 in. | 2-5 | 35-44 | 50-60 |
| 45 feet | 96-102 in. | 13-36 in. | 2-5 | 35-52 | 60-70 |
| 60 feet | 96-102 in. | 13-36 in. | 4-7 | 31-65 | 80-90 |
| 80 feet | 96-102 in. | 13-36 in. | 7-9 | 40-70 | 110-130 |

[1]Including seats in wheelchair tie-down areas.
[2]Seats plus standing.
Source: TCRP Report 90, *Bus Rapid Transit-Implementation Guidelines*, 2003.

## IDENTITY/IMAGE ("BRANDING")

Creation of a unified system image and identity is very important in order to emphasize and market the unique features of BRT service and, thus, attract more ridership. The general image associated with BRT should underline its unique attributes of speed, reliability, and identity. Examples of systems that have developed a distinct BRT identity include Metro Rapid in Los Angeles and the Silver Line in Boston. Distinctive logos, color combinations, and other graphic standards should be established for use on vehicles, at stations, and on printed materials to identify BRT service as separate from other fixed-route bus service. Branding should be carried through to stations and wayfinding signage.

## BUS PREFERENTIAL TREATMENT

Bus preferential treatments give buses priority over other vehicles when they arrive at an intersection. Treatments include transit signal priority (TSP), queue jump operations, and queue bypass lanes. The intent of bus preferential treatments at intersections is to reduce bus travel time and improve schedule adherence by reducing bus delay at congested intersections. Generally, bus delays at traffic signals account for 10 to 20 percent of overall bus travel times and 50 percent or more of all delays. Therefore, implementing intersection improvements that expedite BRT service can improve bus speeds and reliability.

TSP is the process by which the traffic signal operation is altered slightly to provide advantage to transit operations. TSP involves extending the green or truncating the red signal phase for the general traffic lanes to allow a bus to go through an intersection, with a reduction in overall signal delay. Figure 5-1 illustrates the operating principles of TSP.

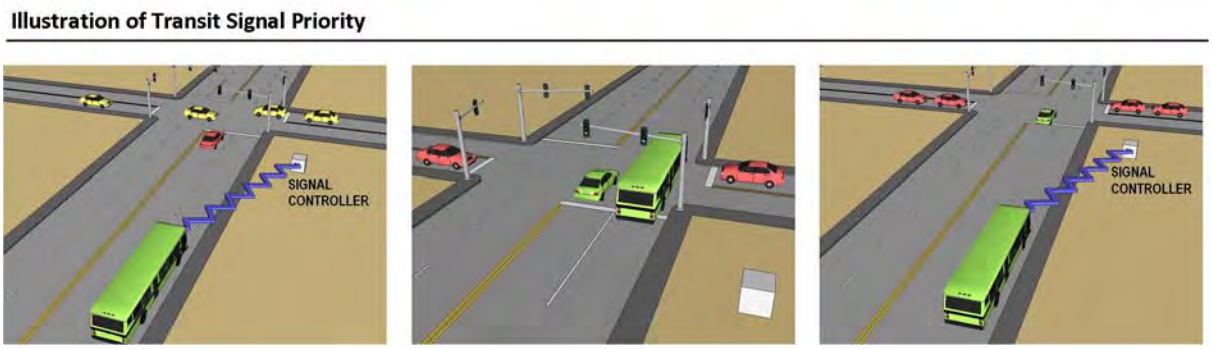



**Figure 5-1**
**Transit Signal Priority**

A queue jump is where a bus would enter a right-turn lane or an exclusive lane at an intersection to bypass the general traffic queue. The bus would then have an advance green signal indication to pull ahead of through-traffic back into the general traffic lanes. A queue bypass lane involves a bus entering a right-turn lane or exclusive lane, then going straight through the intersection on the normal through-traffic green phase into a far-side pullout, with no signal priority provided. Illustrations of queue jump and queue bypass lanes are shown in Figure 5-2.

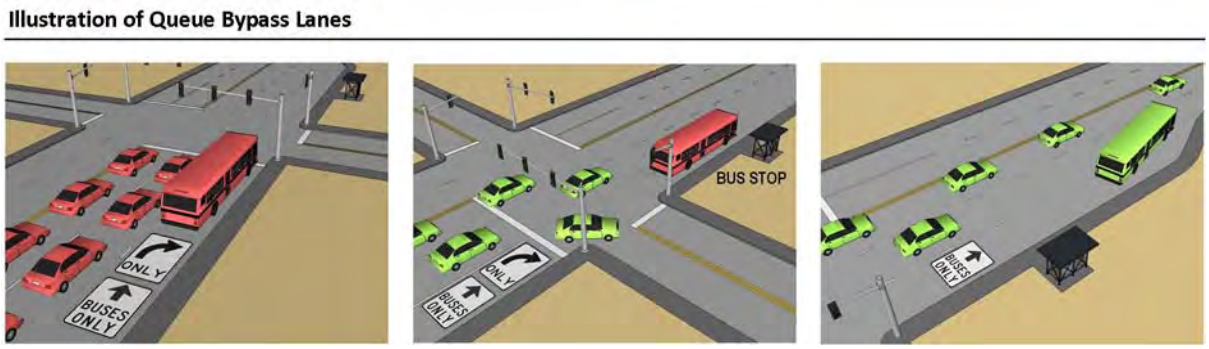



**Figure 5-2**
**Queue Jump and Queue Bypass Lanes**

## BRT AMENITIES

In addition to the aforementioned elements of BRT systems, it is typical for BRT systems to have amenities that exceed those of traditional fixed-route buses. These amenities can include wireless Internet access, next-bus technology at stations, next-bus technology accessible on personal computing devices, and more comfortable seating accommodations. These amenities would be considered for possible implementation on the Clearwater system.

## SUMMARY OF BUS RAPID TRANSIT RELATIVE TO PROPOSED ACTION

The benefits of BRT over traditional fixed-route bus service are well documented. It is recommended to achieve the most benefits out of the system that it follow the recommendations in this report. It is recommended that the BRT system have dedicated running ways, stylized and branded vehicles, frequent trips, context-appropriate stations, and bus preferential treatment that allows the vehicle to achieve faster travel times.

If implemented in this manner, the Clearwater Beach to downtown Clearwater transit system would achieve the following goals:

- Reduced passenger travel times,
- Fast, convenient service between downtown and the beach,
- An easy-to-understand, environmentally friendly alternative to the private automobile,
- A system that promotes transit-oriented development, and
- A less costly capital investment than rail.

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*How can transit encourage beach-goers to visit the beach yet discourage the use of personal vehicles to get there?*

## SECTION 6 ALIGNMENT

This section provides an overview of the process used to develop the locally preferred alternative for transit between Clearwater Beach and downtown Clearwater. After identifying the objectives for the alignment, the study area was defined by the Steering Committee. Evaluation criteria were established to conduct two screening analyses that reduced a set of preliminary alternatives from 192 to 4. Public input was then used to determine the locally preferred alternative.

### ALIGNMENT OBJECTIVES

Objectives for the alignment include the following:

- Provide a convenient transit link between downtown Clearwater and Clearwater Beach.
- Allow access to downtown parking options to encourage day-trip beach visitors to park downtown.
- Strike a balance between maximizing the number of parking spaces served and minimizing running time.
- Ensure that traffic congestion does not impede transit operation.

- Provide convenient service to major activity centers (trip attractors).

- Serve the needs of residents, employees, day-trippers, and overnight visitors.

- Develop an alignment that does not specifically preclude future changes to mode.

**DEFINITION OF STUDY AREA**

One of the first tasks for the Steering Committee was to define the study area. Map 1-1, found in Section 1, provides a depiction of the study area ultimately selected. The group immediately agreed that the study area had to include the core downtown area between Chestnut Street and Cleveland Street, Memorial Causeway, and the area immediately surrounding the roundabout on Clearwater Beach. Discussions led to the following areas ultimately being included or excluded in the study area:

- **North Beach** – The Steering Committee discussed the inclusion of the area north of the roundabout on Clearwater Beach. It was agreed that the predominantly commercial area between the roundabout and Acacia Street should be included in the study area as it includes several activity centers. The area north of Acacia Street was determined to not be necessary due to the residential nature of the development, lack of interest on the part of residents, and difficulties of operating transit in this area.

- **South Beach** – Due to the large number of activity centers to the south of the roundabout on Clearwater Beach, the Steering Committee agreed that this area needed to be included in the study area. The primary debate was how far south the study area should extend. Although the development is not as dense in the area between 5th Street and the bridge to Sand Key, the Steering Committee agreed it should be included as it is expected for development to increase in this area. The Steering Committee agreed not to include Sand Key in the study area because providing service to Sand Key would substantially extend running times and be duplicative with Jolley Trolley and PSTA service.

- **Island Estates** – While Island Estates was identified as having several activity centers including the Clearwater Marine Aquarium, it was also noted by the Steering Committee as having development characteristics not conducive to transit, namely the dispersed nature of the residential developments. For these reasons, the Steering Committee agreed that demand was not great enough in the Island Estates residential areas to consider providing rapid transit service beyond the commercial areas; therefore, only the commercial areas of Island Estates were included in the study area.

- **Downtown Clearwater** – The Clearwater Downtown Partnership defines the downtown core as stretching between Court Street up to Drew Street and the Clearwater Harbor to

Myrtle Street. The Steering Committee agreed that the downtown core should be included in the study area. The group also debated the inclusion of the area to the south of Court Street where Morton Plant Hospital is located. While there are numerous employers in this area, the committee wanted to keep the transit service area small to minimize travel time. The group also agreed that there are few reasons for beachgoers to travel south of Chestnut at this time; therefore, the area south of Chestnut Street was not included in the study area.

## STATION LOCATIONS

Based on the study area and data gathered at the beginning of this project, a set of general station locations was developed for the beach, Island Estates, and downtown Clearwater. This preliminary identification of station locations was used to guide discussions concerning route alignment and develop preliminary ridership projections (see Section 7).

On Clearwater Beach, the following five station locations were identified for consideration:

- **Acacia Street at Mandalay Avenue** – Provides northernmost access along the beach before the land use character transitions from predominantly commercial to predominantly single-family detached residences.

- **Baymont Street at Mandalay Avenue** – Provides access to resort, commercial, and multi-family residential uses north of the beach roundabout.

- **Roundabout at Memorial Causeway** – Provides direct access to the beach, Clearwater Marina, resort uses, and commercial uses from the causeway. Potential anchor station location for the system.

- **5th Street at Coronado Drive** – Provides access to resort, commercial, and residential uses south of the beach roundabout.

- **Gulf Boulevard at Bayway Boulevard** – Provides access to the southern end of the beach and adjacent resort, commercial, and residential uses in the vicinity.

For Island Estates, the following two station locations were identified for consideration:

- **Memorial Causeway at Island Way** – Provides access to commercial and residential development from the causeway (without venturing into Island Estates). Would require a connection to a circulator service serving Island Estates and/or pedestrian/bicycle access.

- **Island Way at Dory Passage** – Provides access to the Publix shopping center as well as other commercial and residential uses and the Clearwater Aquarium. Access into Island Estates would require transit trips between the beach and downtown to deviate from the causeway and add travel time.

In downtown Clearwater, six general station locations were identified for the purpose of evaluating the relative attractiveness of service in downtown Clearwater. Depending on station location, some would be developed if the alignment identified included a longer loop in downtown. Other station locations would be developed if the selected alignment was short or long.

- **Chestnut Street at Garden Avenue** – Provides access to commercial, governmental, medical, and residential uses at the southern end of the downtown study area. May serve either a long or short transit loop through downtown.

- **Myrtle Avenue at Court Street** – Provides access to development on the eastern end of the downtown study area. Provides access to planned redevelopment and area being considered for regional multimodal (bus/rail) transit center. Serves either a short or a long transit loop through downtown.

- **Pierce Street at Garden Avenue** – Provides access to the existing PSTA bus station, is centrally located in downtown, and serves a short transit loop through downtown.

- **Drew Street at Garden Avenue** – Provides access to the northern limit of the downtown study area. Would serve limited uses in the near term; would serve future uses as downtown expands north. Serves a long transit loop through downtown.

- **Cleveland Street at Osceola Avenue** – Provides access to downtown commercial, governmental, residential, and recreational uses. Provides potential for redevelopment of Harborview Convention Center site and access to the Clearwater Library. Serves a long transit loop through downtown.

- **Ft. Harrison Avenue at Pierce Street** – Provides access to downtown commercial, governmental, residential, retail, and religious uses. Close to existing PSTA bus transfer facility. May serve either a long or short transit loop through downtown.

The preliminary set of potential station locations is presented in Map 6-1.


Map 6-1: Station Locations

## EVALUATION CRITERIA

The evaluation criteria used in the feasibility study to identify and screen potential stations and transit alignments were developed based on the following objectives:

- **Ability to Compete for Federal Funding** – The Federal Transit Administration (FTA) has three funding processes that are applicable for this type of transit system: New Starts funding, Small Starts funding, and Very Small Starts funding. By focusing on developing a project that will be more competitive when compared with other projects applying for federal funding, it is anticipated that the project is more likely to be implemented. As the federal New Starts program requires an average of 6 to 12 years for implementation, the development of alternatives for this effort focused on meeting the requirements for applying for either Small Starts or Very Small Starts funding. Therefore, alternatives that meet the requirements for these two funding programs were given priority ranking.

- **Capacity for Optimizing Ridership** – For a project to be considered a success and a worthwhile investment, it needs to attract significant ridership. To evaluate ridership potential, the stations and alternatives were evaluated on potential ridership demand using the FTA-approved Aggregate Rail Ridership Forecasting (ARRF) model. The ARRF model is approved by FTA for sketch planning of commuter and light rail applications and recently has been used to model BRT applications since they are similar to light rail. Demand estimates from the ARRF model are used as a means of establishing the relative strength of each alignment alternative in the screening process.

  Alignment alternatives that generate the highest ridership relative to capital and operating and maintenance costs were given priority ranking.For projects that are proposed as Very Small Starts, ridership estimation is not required; rather, the project must be shown to benefit more than 3,000 existing daily transit passengers in the project corridor.

- **Optimization of Local and Regional Connectivity** – As the transit system between Clearwater Beach and downtown Clearwater will not operate in isolation, an evaluation of each alternative's ability to connect with existing and future transit options was conducted. By connecting to other transit options, an alternative can negate the need for beach-goers to use a personal vehicle for any portion of their journey to the beach. Alternatives that provided for greater access to existing and future transit options were given priority ranking.

- **Minimization of Capital, Operational, and Maintenance Costs** – A comparison of the ability of each alignment to provide cost-effective mobility in terms of capital investment and ongoing operating and maintenance costs is a determining factor in ranking

alternatives. Alternatives that require lower relative capital investment per passenger and lower ongoing operating and maintenance costs per passenger were given priority ranking.

- **Ability to Ease Transition from Near-Term to Long-Term Option** – The ability for each alternative to support a potential long-term vision for a fixed guideway system is a determining factor in ranking alternatives. Those near-term alternatives that provide features and functions that support a constructive transition to a potential long-term fixed guideway service were given priority ranking. An example of this is the development of stations in the near-term that also will serve a potential long-term fixed-guideway service. (Note: The initial direction of the study was to examine the potential for a rail alternative in the long-term. As the study progressed, the steering committee determined that there were a number of factors that rendered the study of a rail system unnecessary at this time. Among these factors were considerations of feasibility, cost, and practicality.)

## TIER ONE AND TIER TWO SCREENING ANALYSES

To evaluate proposed alignments, Tier One and Tier Two Screening analyses were undertaken. A summary of the two screening analyses follows in this section. A detailed explanation of the Tier One and Tier Two Screening analyses is provided in Appendix E.

During the Tier One analysis, 192 alternatives were considered, which included 24 alternative alignments and 8 alternative right-of-way configurations. The right-of-way configurations included the following options:

- Enhanced bus operating on existing lanes
- BRT on shoulder lanes
- BRT on existing lanes converted to bus-only lanes
- BRT on existing lanes converted to high occupancy toll (HOT) lanes
- BRT on new BRT lanes in median
- BRT on new BRT lanes on outside of roadway
- Fixed guideway at-grade
- Fixed guideway elevated

The 192 alternatives were narrowed to 54 potential alternatives using considerations described in the evaluation criteria section. Following the Tier One Screening analysis and prior to the Tier Two Screening analysis, the results of the Tier One Screening analysis and the criteria for the Tier Two Screening analysis were presented to the PMI Steering Committee for review. The committee provided comment at that time and indicated agreement with the direction of the study.

The 54 alternatives emerging from the Tier One Screening analysis then underwent a Tier Two Screening analysis. The Tier Two Screening analysis focused on four criteria:

1. Capacity for optimizing ridership.

2. Optimization of local and regional connectivity.

3. Minimization of capital, operational, and maintenance costs.

4. Ability to ease transition from near-term to a potential long-term option.

Of the 54 potential alternatives that entered the Tier Two Screening analysis, 4 alternatives emerged. While the Tier One and Tier Two Screening analyses provided a means to narrow the alternatives through the evaluation of certain criteria, they did not include considerations of public input, detailed characteristics of the study area, or future changes to the study area. As such, further analysis was required before determining a locally preferred alternative.

To facilitate this further analysis and decision making, the alignment was divided into three segments: beach circulation, beach-to-downtown alignment, and downtown circulation. Considerations for each of these three segments are provided in the following sections.

**BEACH CIRCULATION**

Beach circulation already is provided by two entities: Jolley Trolley and PSTA. Instead of providing yet another circulator on the beach, it was determined that the City of Clearwater should work with PSTA and Jolly Trolley to improve the frequency of service and provide a connection to the proposed beach-to-downtown service.

**BEACH-TO-DOWNTOWN ALIGNMENT**

Four beach-to-downtown alignments were developed to be evaluated in more detail. Descriptions of four beach-to-downtown alignments presented to the Steering Committee include:

- **Mixed Traffic Alternative** – This alternative originates from one of two alternative station locations at the roundabout on Clearwater Beach and travels in mixed traffic toward downtown. This alternative remains in mixed traffic all the way into downtown. Map 6-2 displays the Mixed Traffic Alternative.

- **Median Alternative** – This alternative originates from one of two alternative station locations at the roundabout on Clearwater Beach and travels in mixed traffic toward downtown over Bridge 43, crossing Mandalay Channel. Continuing in mixed traffic to the traffic signal at Island Way, the alignment moves into the median between the east-bound and west-bound Memorial Causeway traffic lanes at Island Way and continues in the bi-directional median over the Memorial Causeway Bridge to downtown. Map 6-3 displays the Median Alternative.

- **Shared Path Alternative** – This alternative originates from one of two alternative station locations at the roundabout on Clearwater Beach and travels in mixed traffic toward downtown over Bridge 43, crossing Mandalay Channel. Once on the eastern side of Bridge 43, the alignment deviates from the causeway travel lanes with the use of a traffic signal to an exclusive bus-only lane south of the current traffic lanes on the causeway. This exclusive bus-only lane is located just north of the pedestrian and bicycle path currently located in this area. As the alignment approaches the Memorial Causeway Bridge, it will again join mixed traffic with the assistance of a traffic signal and travel eastbound over the bridge and into downtown. Map 6-4 displays the Shared Path Alternative.

- **Hybrid Alternative** – A combination of the Shared Path and Median Alternatives, this alternative originates from one of two alternative station locations at the roundabout on Clearwater Beach and travels in mixed traffic toward downtown over Bridge 43, crossing Mandalay Channel. Once on the eastern side of this bridge, the alignment deviates from the causeway travel lanes with the use of a traffic signal to an exclusive bus-only lane south of the current traffic lanes on the causeway. This exclusive bus-only lane is located just north of the pedestrian and bicycle path currently located in this area. As the alignment approaches the Memorial Causeway Bridge, it crosses into the median between the east-bound and west-bound Memorial Causeway traffic lanes with the assistance of traffic signals. From here, it travels eastbound across the Memorial Causeway Bridge and into downtown via the bi-directional median. Map 6-5 displays the Hybrid Alternative.

The Steering Committee provided feedback on the alternatives as presented. The committee was not interested in pursuing the Mixed Traffic or Median Alternatives, but it was interested in the Shared Path and Hybrid Alternatives. Noting the impacts travel in mixed traffic will have on the speed of service, the group indicated a need to indentify a way to cross Mandalay Channel without being in mixed traffic.

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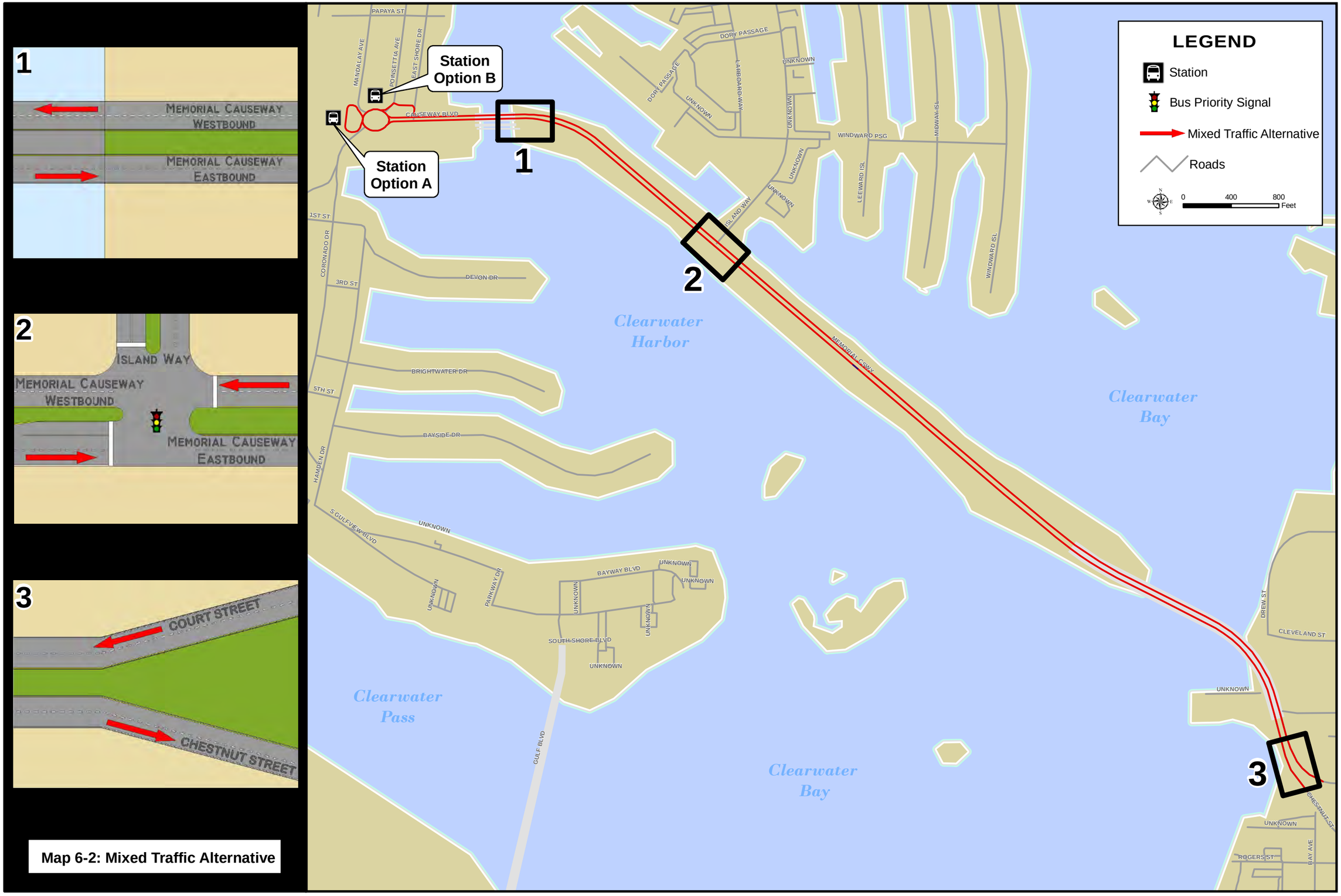


Map 6-2: Mixed Traffic Alternative

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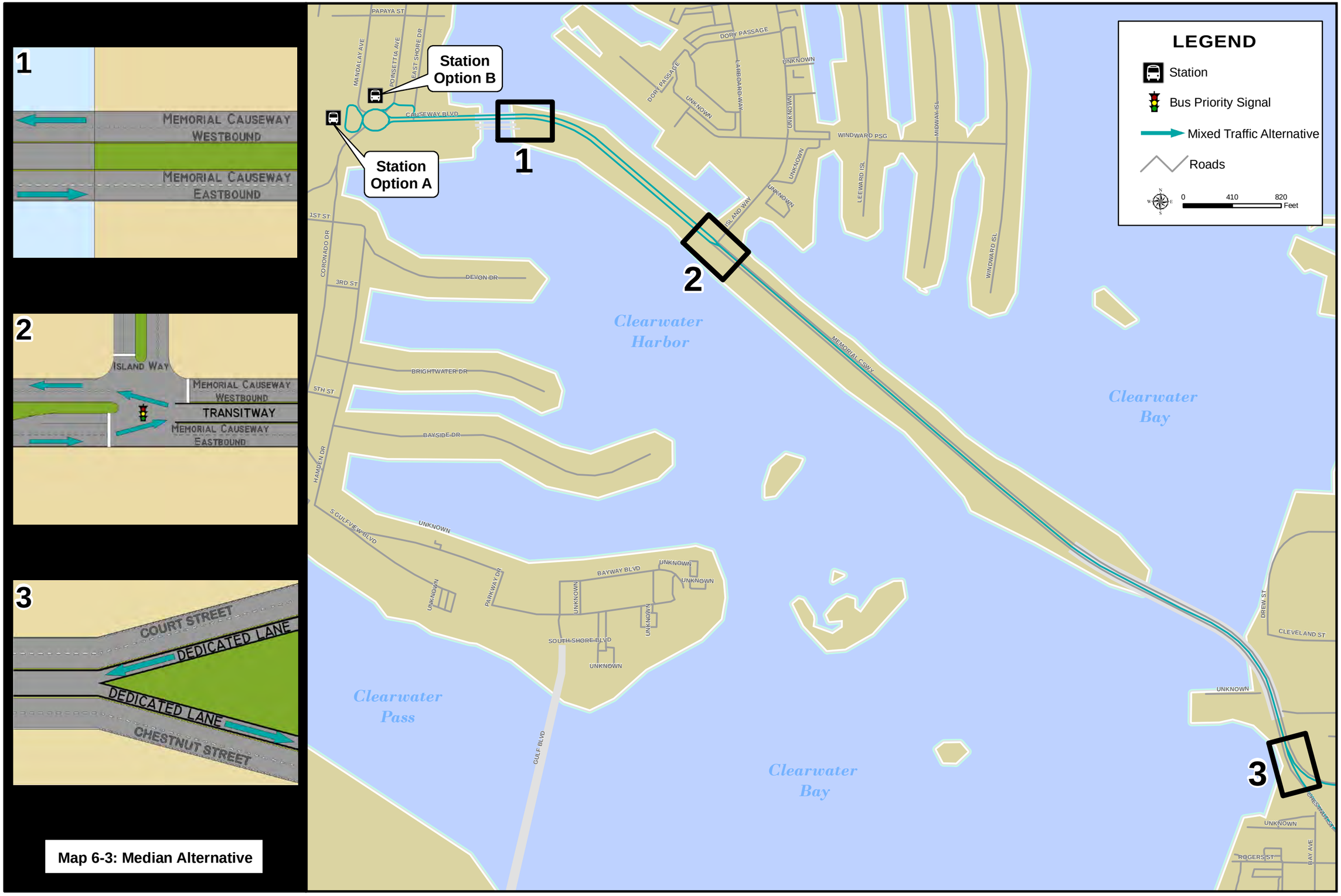


Map 6-3: Median Alternative

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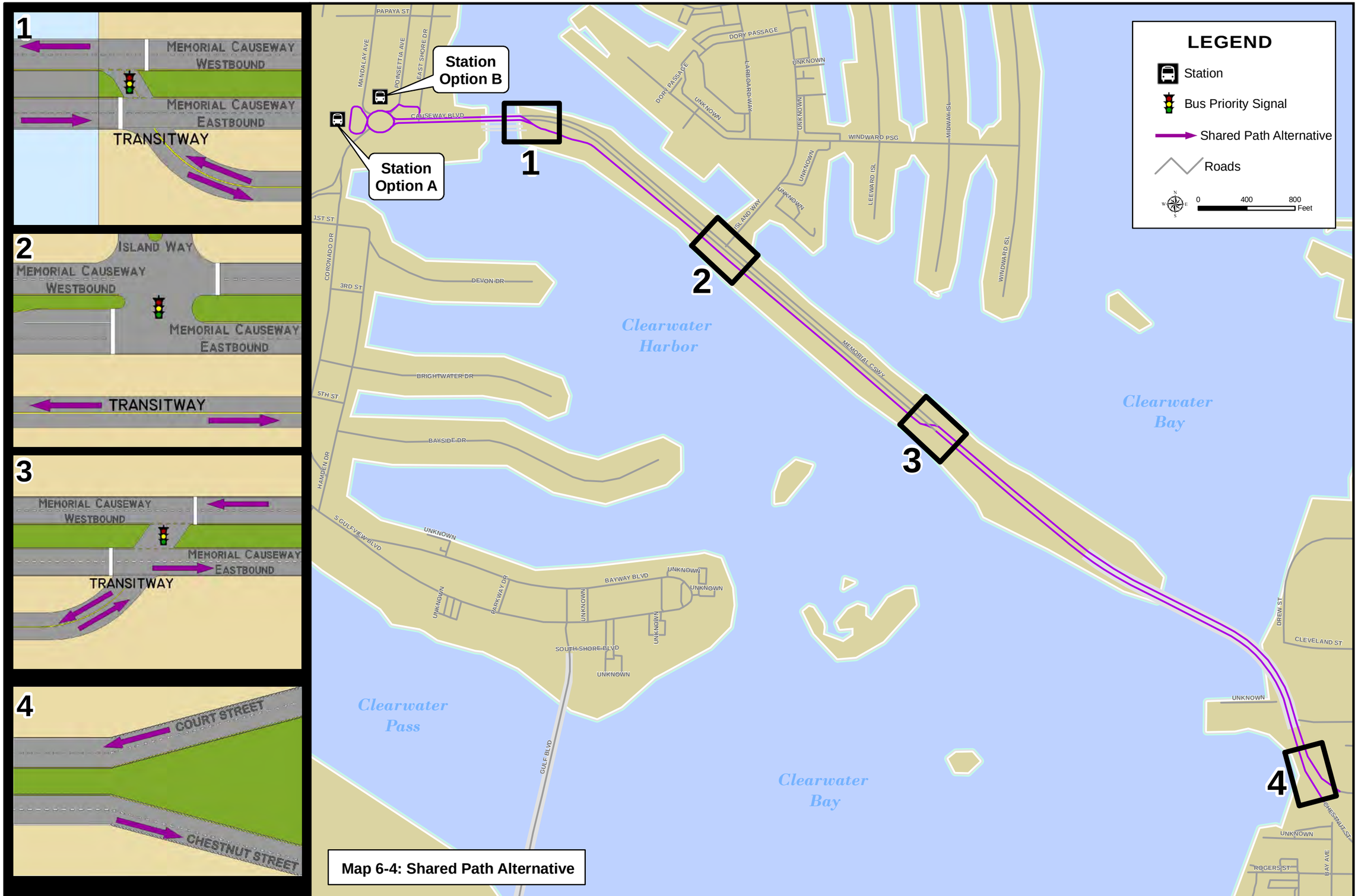


Map 6-4: Shared Path Alternative

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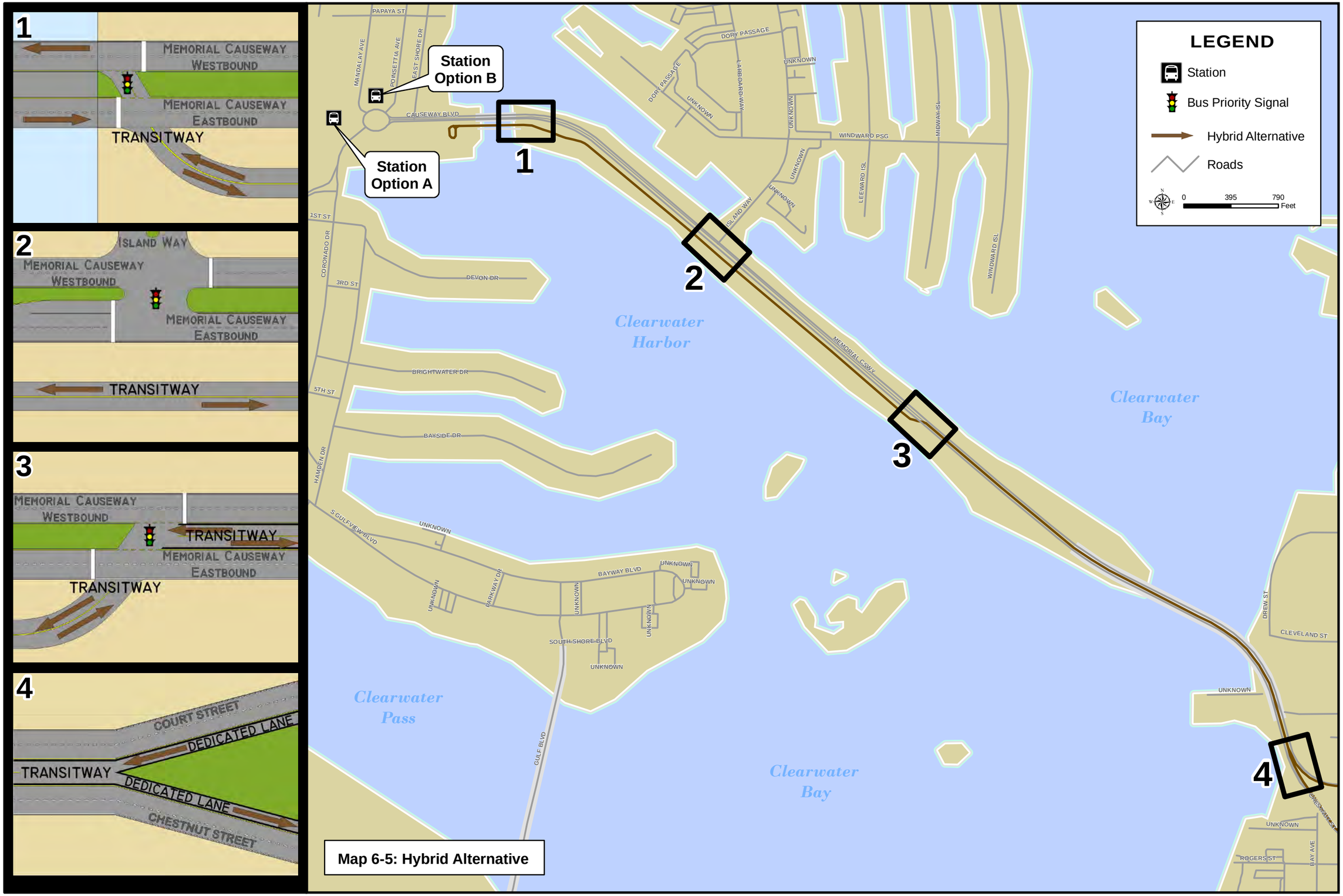


Map 6-5: Hybrid Alternative

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The Shared Path and Hybrid alternatives were presented to the public at the two November 2009 open houses and at the December 2009 PMI Steering Committee meeting.

**DOWNTOWN CIRCULATION**

The Steering Committee indicated that its main objective when providing service in downtown was to maximize the number of parking spaces served while keeping running time to a minimum. The group acknowledged that one purpose of the transit system is to assist with alleviating congestion and parking issues on the beach; therefore, it is necessary to maximize the number of downtown parking spaces served while minimizing running time.

The Steering Committee also indicated a need to take into account the following considerations that had not been taken into account during the Tier One and Tier Two Screening processes:

- **Cleveland Street** – While being the most pedestrian-oriented street in downtown Clearwater and, therefore, the most attractive for transit service, the current configuration of Cleveland Street is not conducive to bus travel. The traffic calming devices, which include bulb-outs, are not easily maneuvered by buses. Most likely, continuous bus travel along this corridor would result in destruction of some of these amenities; therefore, this study does not consider alignments operating on Cleveland Street.

- **East Avenue** – Beginning in 2010, East Avenue will be redesigned with dedicated space for the Pinellas Trail. Currently, users of the Pinellas Trail through this area must use the sidewalks for pedestrian travel and the street for bicycle travel. The redevelopment creates a one-way street for automobile traffic where currently a two-way street exists. The southbound travel lane will be transformed into a two-way pedestrian and bicycle path while the northbound travel lane will remain open to vehicular travel in the northern direction.

- **Regional Transit Center** – City officials are considering the development of a regional transit center along the East Avenue corridor in downtown. The East Avenue location would provide access to both the current rail line in downtown and the Pinellas Trail. It is desired that the regional transit center would include approximately 250-300 parking spaces, 16 bus bays, accommodations for a future rail terminal, a ticket booth, and retail space sufficient for a dozen or so small retail tenants. While the specific location of the regional transit center has not been identified, the downtown circulation alternatives were developed with a focus on providing a connection to East Avenue.

The following seven downtown circulation alternatives were developed in light of the aforementioned considerations and are illustrated in Maps 6-6 through 6-12:

- **Alternative A** travels along Chestnut Street, continues north on East Avenue, west on Pierce Street, south on Fort Harrison Avenue, and west on Court Street. This alternative is the shortest in length of the seven alternatives considered.

- **Alternative B** travels along Chestnut Street, continues north on East Avenue, west on Park Street, south on Fort Harrison Avenue, and west on Court Street. Alternative B differs from Alternative A only in that it travels west on Park Street instead of Pierce Street.

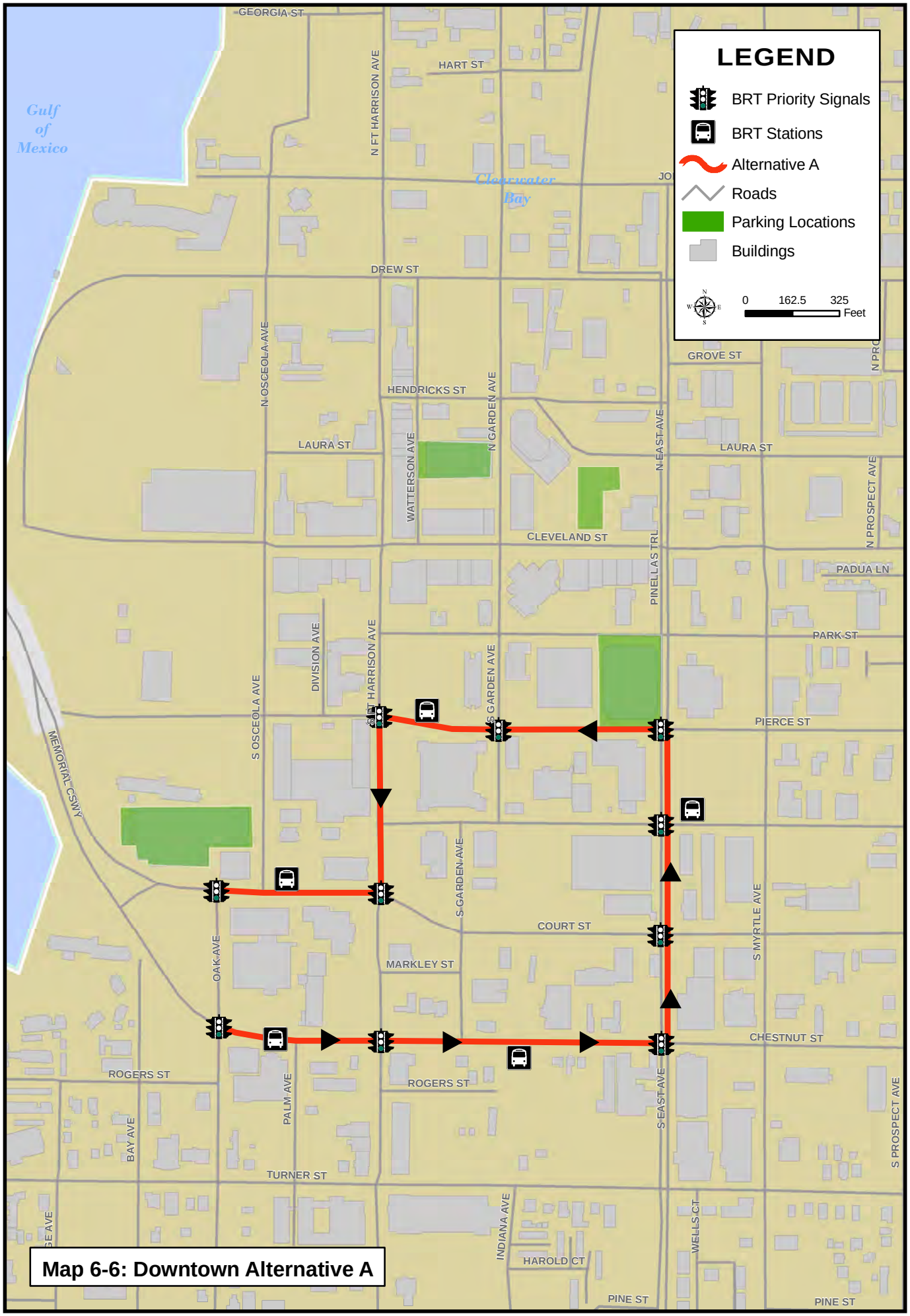
- **Alternative C** travels along Chestnut Street, continues north on East Avenue, west on Pierce Street, north on Garden Avenue, west on Hendricks Street, south on Fort Harrison Avenue, east on Drew Street, south on Garden Avenue, west on Pierce Street, south on Fort Harrison Avenue, and west on Court Street. Alternative C was eliminated upon further consideration because it does not provide convenient downtown mobility. Riders boarding north of Pierce Street would have to go to the beach and back to get to points along Chestnut or East. This alternative stretches Alternative A to the north.

- **Alternative D** travels along Chestnut Street, continues north on Myrtle Avenue, west on Franklin Street, north on Garden Avenue, west on Hendricks Street, south on Fort Harrison Avenue, east on Drew Street, south on Garden Avenue, west on Franklin Street, south on Myrtle Avenue, and west on Court Street.

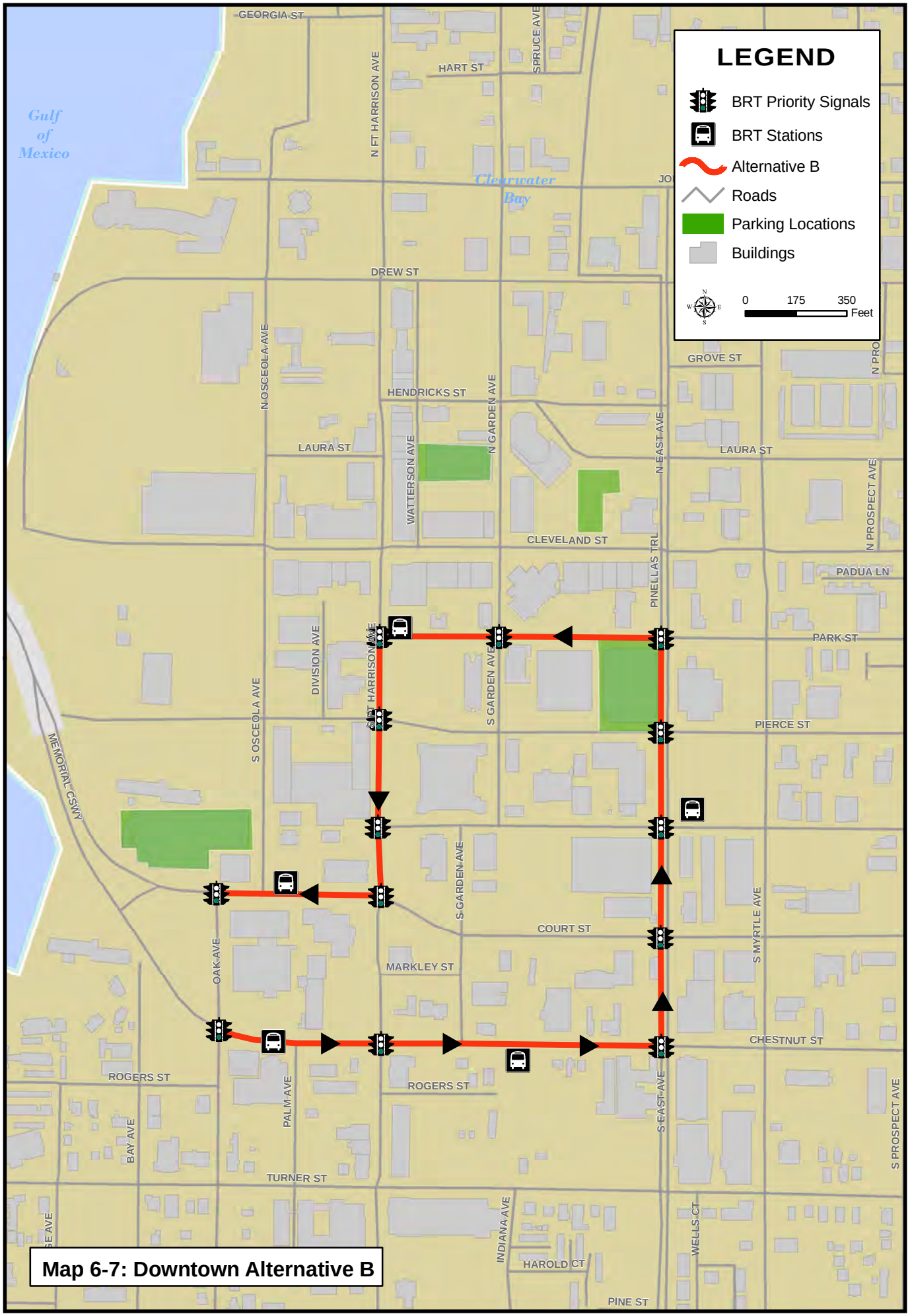
- **Alternative E** travels along Chestnut Street, continues north on Myrtle Avenue, west on Franklin Street, north on Garden Avenue, west on Hendricks Street, south on Osceola Avenue, east on Drew Street, south on Garden Avenue, west on Franklin Street, south on Myrtle Avenue, and west on Court Street.

- **Alternative F** travels along Chestnut Street, continues north on Myrtle Avenue, west on Franklin Street, north on Garden Avenue, west on Hendricks Street, south on Osceola Avenue, east on Laura Street, north on Fort Harrison, east on Hendricks, south on Garden Avenue, west on Franklin Street, south on Myrtle Avenue, and west on Court Street.

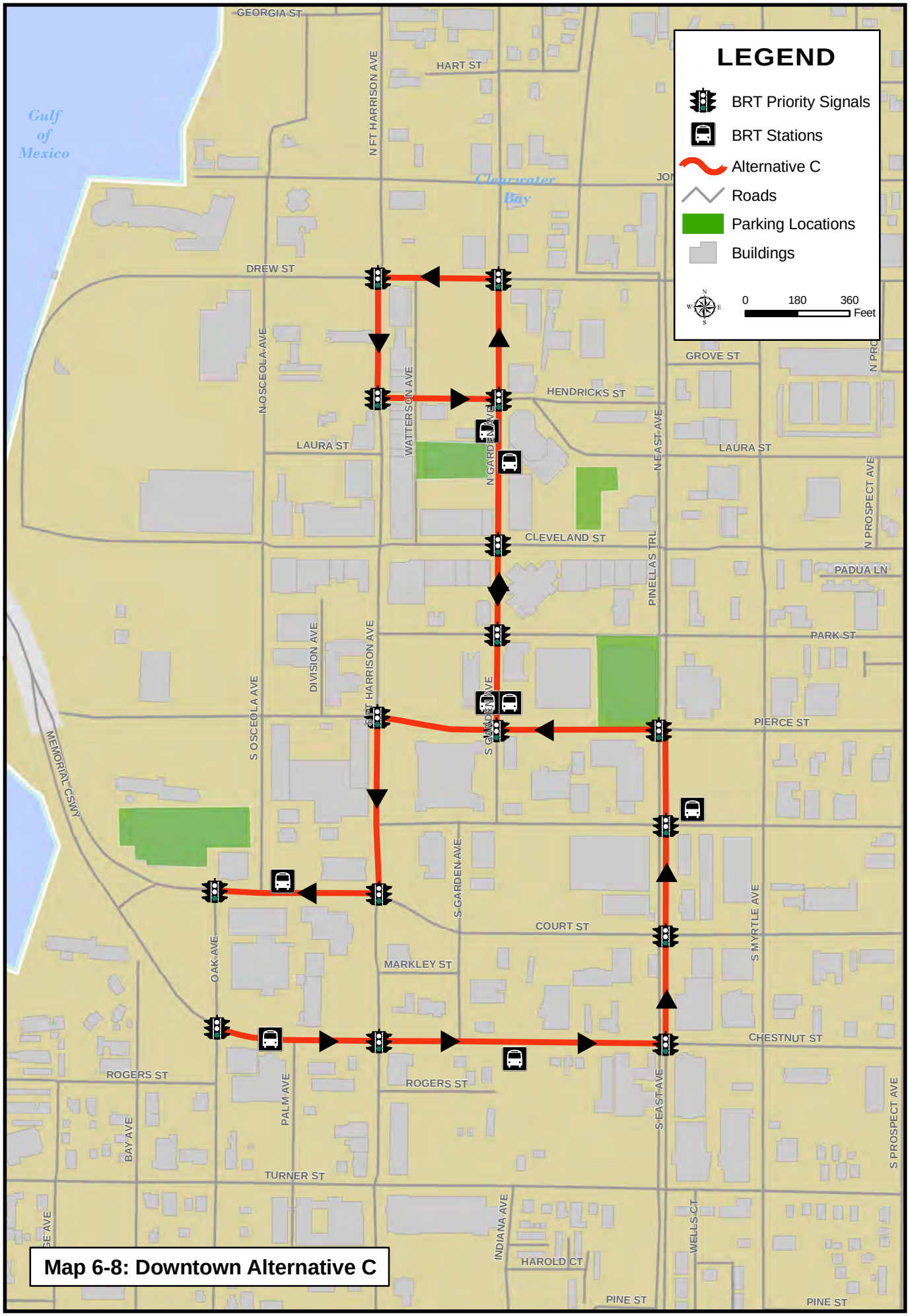
- **Alternative G** travels along Chestnut Street, continues north on Myrtle Avenue, west on Franklin Street, north on Garden Avenue, west on Hendricks Street, enters a station off of Hendricks Street, re-enters traffic heading south on Garden Avenue, east on Franklin Street, south on Myrtle Avenue, and west on Court Street. Alternative G includes a proposed station that would require the acquisition of property off of Hendricks Street to facilitate during the bus around.



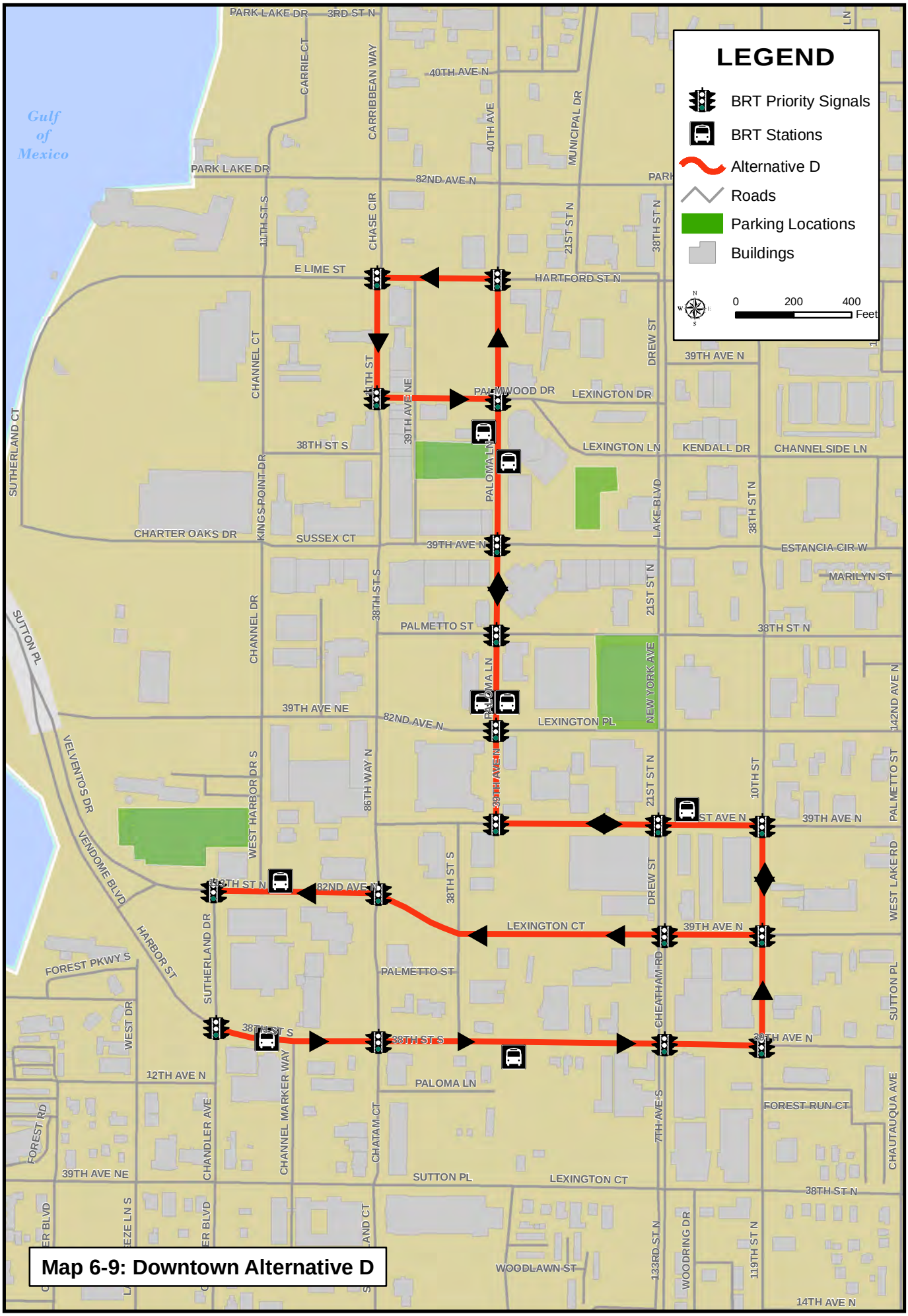

Map 6-6: Downtown Alternative A



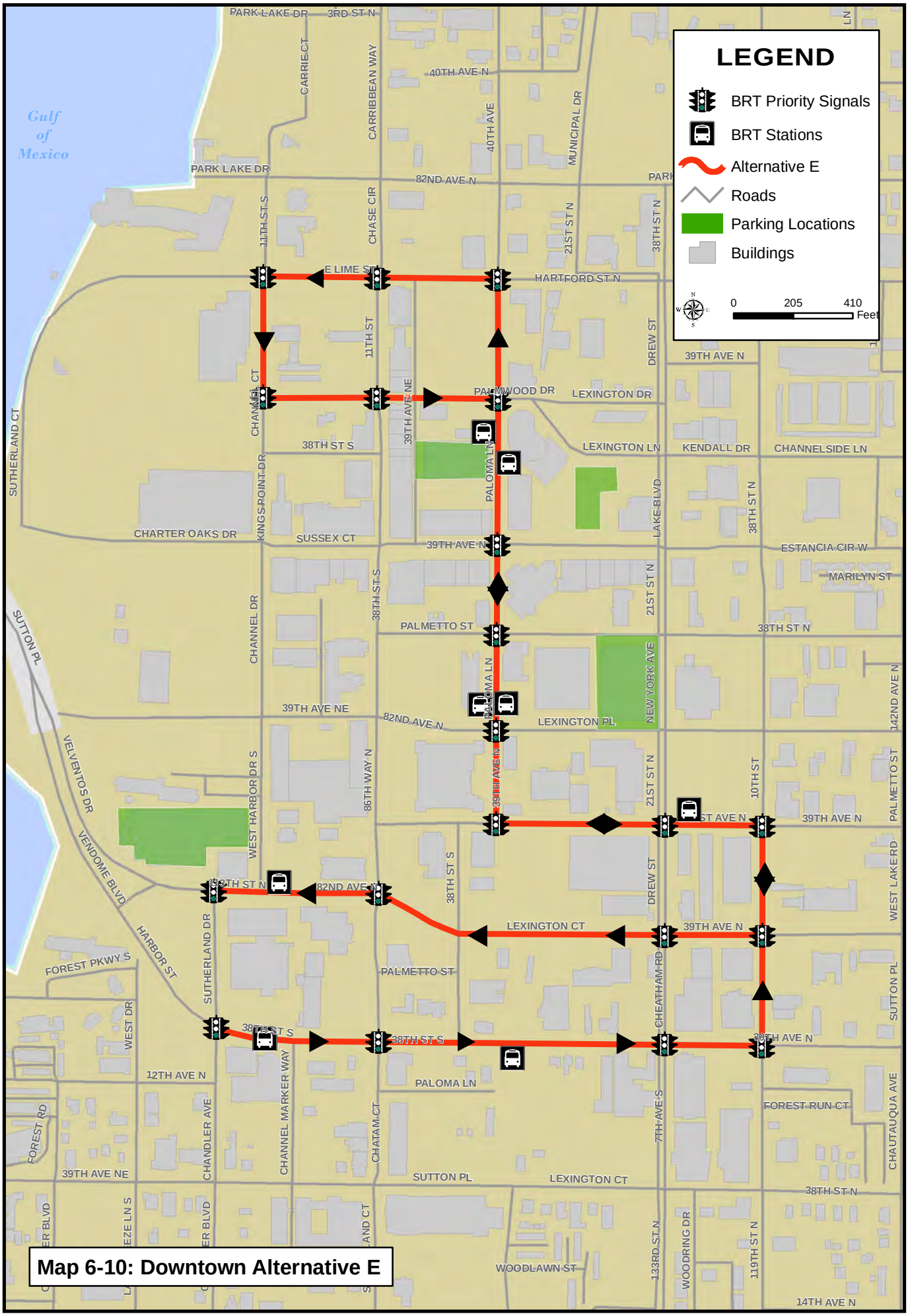

Map 6-7: Downtown Alternative B




Map 6-8: Downtown Alternative C

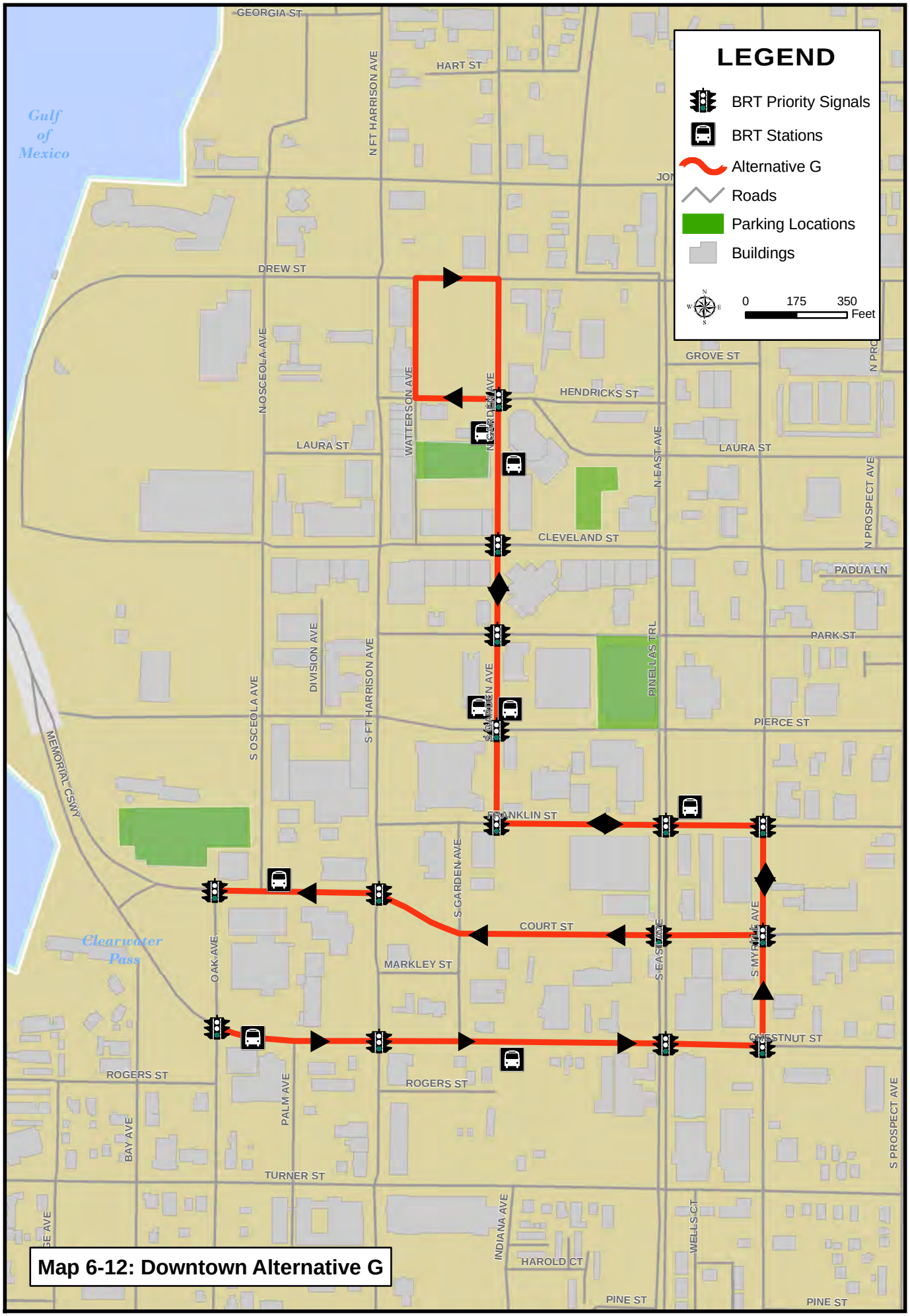



Map 6-9: Downtown Alternative D




Map 6-10: Downtown Alternative E


Map 6-11: Downtown Alternative F




Map 6-12: Downtown Alternative G

The following analysis was used to determine which of the seven alternatives was best suited for review at the public workshops and the PMI Steering Committee meeting. The analysis focused on determining the balance between maximizing access to existing downtown parking garages, minimizing travel time, and facilitating convenient circulation.

Table 6-1 identifies three preferential options for serving downtown. The two short turn-back loops (Alternatives A and B) serve fewer total parking spaces and less of the downtown areas, but they maximize the number of parking spaces served per minute of travel. Option G serves all the parking areas, but it serves fewer parking spaces per minute of travel. Options A, B, and G were presented during the two November 2009 open houses and the PMI Steering Committee meeting in December 2009.

**Table 6-1**
**Comparison of Downtown Circulation Alternatives**

| Downtown Circulation Alternative | Parking Spaces (Number) | Running Time (Minutes) | RANK | Spaces Served/ Minute of Service | RANK | Route Length (Miles) | Single or Two-Way Service | RANK | SCORE |
|---|---|---|---|---|---|---|---|---|---|
| Alternative A | 1,386 | 3.4 | 1 | 411 | 1 | 0.90 | Single | 2 | 1.3 |
| Alternative B | 1,386 | 3.8 | 2 | 370 | 2 | 1.00 | Single | 2 | 2.0 |
| ~~Alternative C~~[1] | ~~1,739~~ | ~~6.4~~ | - | ~~273~~ | - | ~~1.70~~ | ~~Single~~ | - | - |
| Alternative D | 1,739 | 7.9 | 4 | 221 | 4 | 2.10 | Two-way | 1 | 3.0 |
| Alternative E | 1,739 | 8.6 | 6 | 202 | 6 | 2.30 | Two-way | 1 | 4.3 |
| Alternative F | 1,739 | 8.3 | 5 | 211 | 5 | 2.20 | Two-way | 1 | 3.7 |
| Alternative G | 1,739 | 7.3 | 3 | 238 | 3 | 1.95 | Two-way | 1 | 2.3 |

[1]Alternative C was removed from consideration due to its alignment requiring unacceptable one-way operation.
Note: Lower scores indicate a better option.

## TYPICAL SECTIONS

In addition to the alternative alignment maps and the downtown circulation maps prepared for this analysis, typical sections have been developed to illustrate the range of roadway sections that are expected to be required for the Hybrid and Shared Path alignment alternatives and for the downtown circulator options. These typical sections are provided for informational purposes as part of conceptual planning. These illustrations are located in Appendix F.

## LOCALLY PREFERRED ALTERNATIVE

At the January 11, 2010, PMI Steering Committee meeting, the Steering Committee voted on a locally preferred alternative and confirmed it at the April 10, 2010, meeting. The Committee agreed that the best option for beach circulation is to encourage and support PSTA and Jolley Trolley in providing improved services. For the beach-to-downtown alignment, the committee agreed that the best alternative is the Hybrid alternative, but the committee indicated a desire to

provide separate access for the transit vehicle over Mandalay Channel. The committee agreed that the Hybrid alternative should be modified to provide a separate bridge across Mandalay Channel. The committee also asserted that a portion of the Clearwater Marina property should be transformed into a transit station that would support the new transit service as well as transfers to the Jolley Trolley and PSTA services. Map 6-13 displays the preferred alternative for the beach-to-downtown alignment.

For downtown circulation, the committee preferred a modified Alternative A. Alternative A originally turned north on East Avenue directly from Chestnut Street. The recommended alignment was to turn north from Chestnut Street onto Myrtle Avenue as there is a stop light there. The transit vehicle would then travel north on Myrtle two blocks, turn west on Franklin Street, north on East Avenue, and west on Pierce Street. Map 6-14 displays the preferred alternative for downtown circulation.

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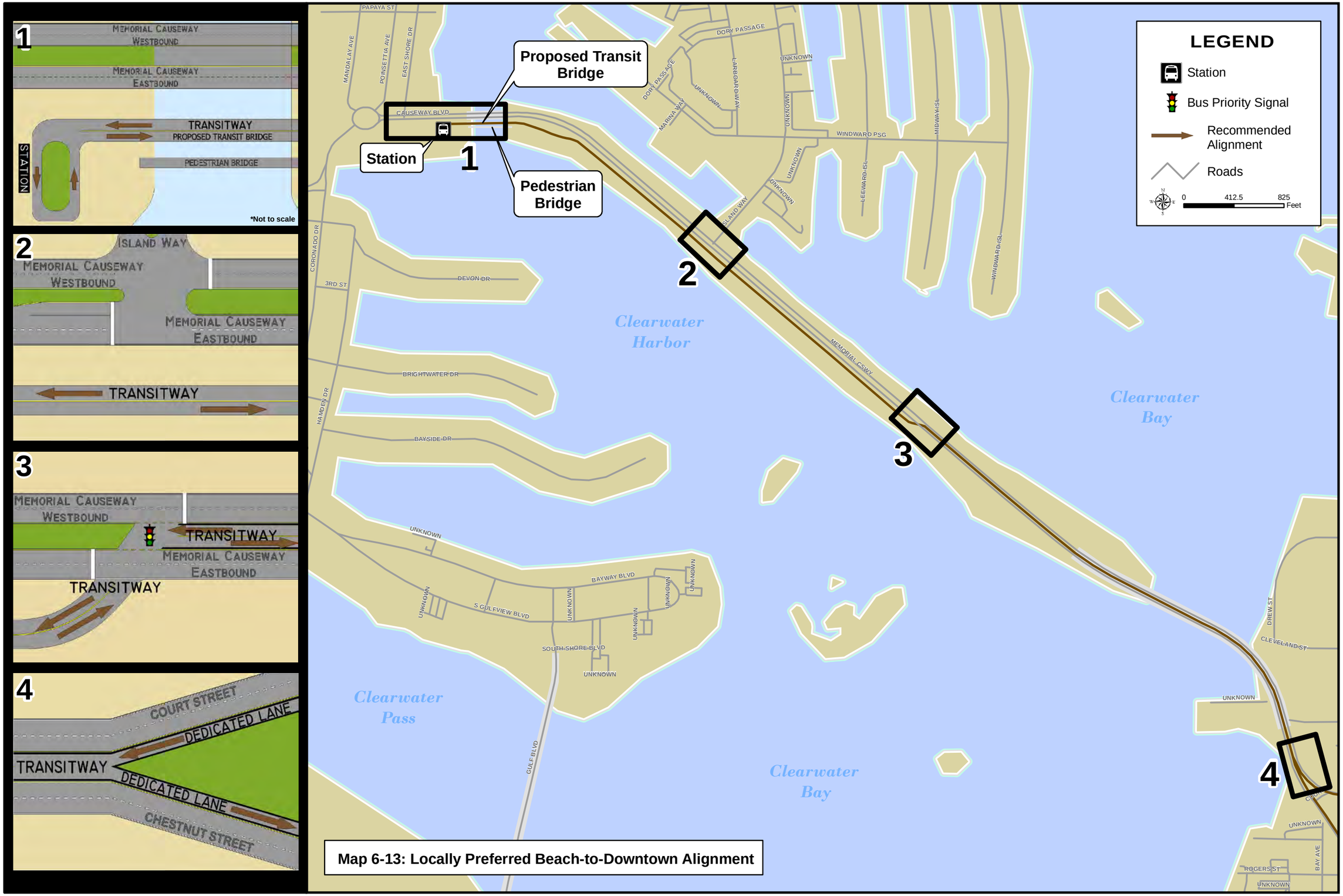


Map 6-13: Locally Preferred Beach-to-Downtown Alignment

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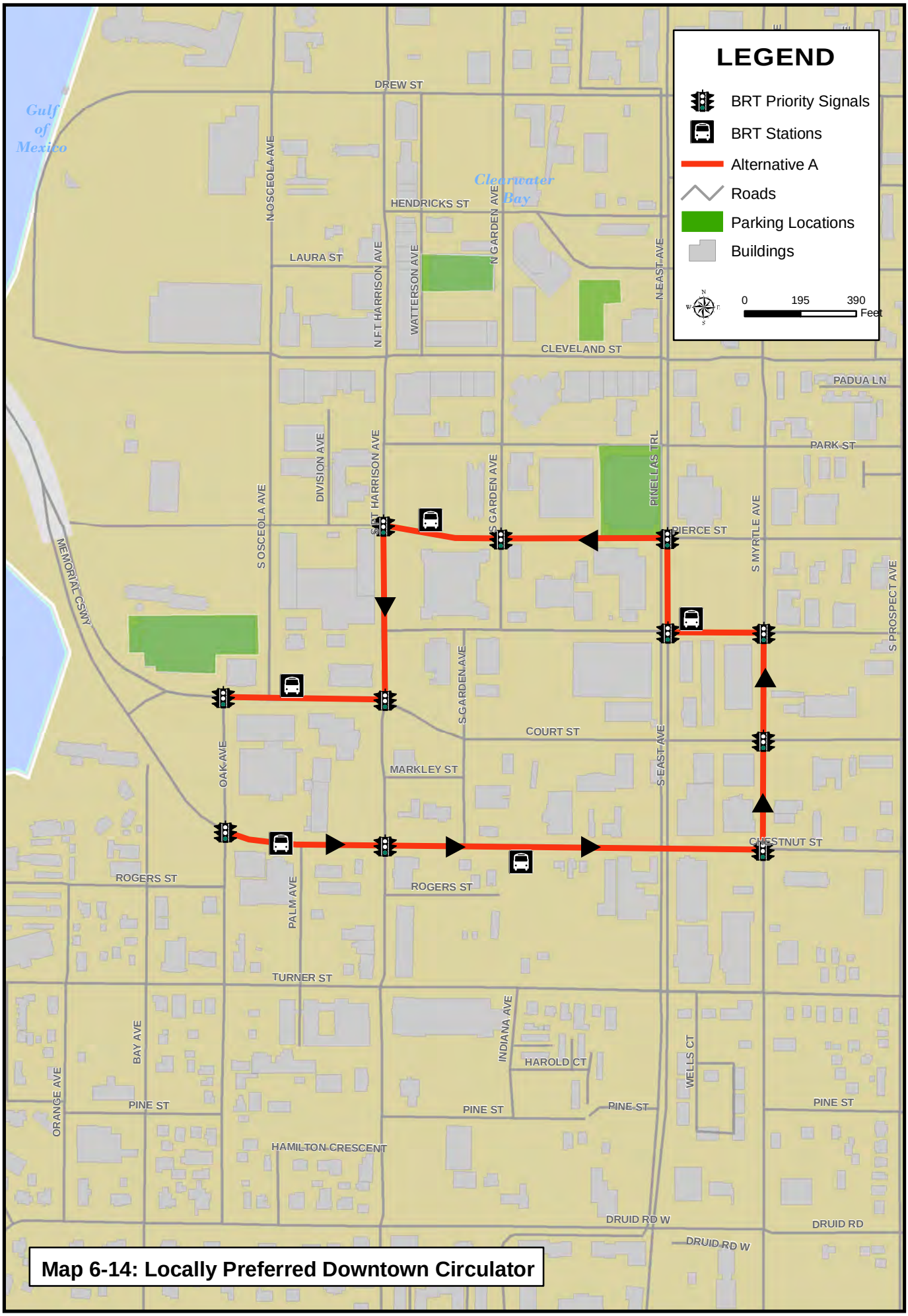


Map 6-14: Locally Preferred Downtown Circulator

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*If we build it, will they come?*

## SECTION 7 RIDERSHIP

This section provides an overview of the ridership projections completed for this study. Several different processes for projecting ridership were used throughout the process. While primarily an indication of the potential demand for the utilization of a new service, ridership also provides information to determine vehicle size, as discussed in this section.

### PRELIMINARY RIDERSHIP PROJECTION

At the beginning of this project, a preliminary ridership projection was conducted using the Aggregate Rail Ridership Forecasting (ARRF) Tool. The preliminary projection was based on the station locations found on Map 6-1. This projection was conducted primarily to determine whether station location impacted ridership; in particular, the model was run to determine whether a station at Island Estates would have a significant impact on ridership.

The analysis indicated that ridership was not affected significantly by station location, including the addition or exclusion of a station at Island Estates. The preliminary ridership projections using ARRF indicated that ridership would be between 4,700 and 5,100 daily in projection year 2015. This range was with or without a station at Island Estates. A copy of the ridership report is included in Appendix G.

### RESIDENT RIDERSHIP PROJECTION

After the selection of the locally preferred alternative route and station locations, a second iteration of ridership projections was conducted using the ARRF model. Building on the model

used in the preliminary ridership projects, the second iteration used a more robust calculation system. The ARRF model used for the preliminary ridership projections projected only home-based work trips since it primarily was being used solely for alternative comparison purposes. To mirror a more complete transportation network, the model was adjusted to take into account home-based non-work trips and non-home-based trips. By adding these categories of trips, a more complete ridership projection is achieved.

To provide a more complete ridership picture, a few other elements of the model were adjusted between runs. The impact of increasing station buffers from ½ mile to 1 mile was explored, and two projection years, 2015 to 2025, were evaluated. Table 7-1 provides the projections from the ARRF model under various scenarios.

**Table 7-1**
**AARF Resident Ridership Projections**

| Year | 1/2-Mile Origin Buffer to 1/2-Mile Destination Buffer | 1/2-Mile Origin Buffer to 1-Mile Destination Buffer | 1-Mile Origin Buffer to 1-Mile Destination Buffer |
|---|---|---|---|
| 2015 | 3,790 | 7,012 | 13,307 |
| 2025 | 3,988 | 7,319 | 13,766 |

The ½-mile origin to ½-mile destination buffer projections for 2015 are the most conservative. The 1-mile origin to 1-mile destination buffer projections for 2025 are the most aggressive.

## OVERNIGHT VISITOR RIDERSHIP PROJECTION

As referenced in Section 3, there is a significant seasonal population in Clearwater. Ridership projections calculated by ARRF do not include seasonal populations although they are an important source of ridership for the system.

Using data from the Pinellas County Planning Department, projections for 2015 and 2035 seasonal and tourist populations are provided in Table 7-2. (For definitions of seasonal population and tourist population, see Section 3.)

**Table 7-2**
**Seasonal and Tourist Populations**

| Year | Equivalent Seasonal Population | Equivalent Tourist Population | Total Annual Seasonal and Visitor Population |
|---|---|---|---|
| 2015 | 466 | 4,699 | 5,165 |
| 2035 | 652 | 4,806 | 5,458 |

Note: Equivalent Seasonal Population assumes that the seasonal population remains in Pinellas County for 6 months per year; therefore, two seasonal visitors are equal to one equivalent seasonal visitor.

In late April 2010, PSTA conducted an on-board survey of its passengers. The results of that survey have been analyzed to provide data specific to the Suncoast Beach Trolley[SM]. The survey data indicate that 4.3 percent of the passengers on the Suncoast Beach Trolley[SM] are seasonal residents and 21.3 percent are tourists. Assuming similar ridership patterns on the new transit system between downtown Clearwater and Clearwater Beach, the ridership figures presented in Table 7-3 would be achieved.

**Table 7-3**
**Total Ridership Projections Based on PSTA Ridership**

| Year | Residential Ridership | Seasonal Ridership | Tourist Ridership | Total Ridership |
|---|---|---|---|---|
| 2015 | 3,790 | 219 | 1,085 | 5,094 |
| 2035 | 3,988 | 230 | 1,142 | 5,360 |

Note: Conservative Residential Ridership figures were taken from Table 7-1 and used as the basis for Table 7-3. The ½-mile origin buffer to ½-mile destination buffer results were used as a baseline for projecting ridership. Ridership could be higher if passengers are willing to travel more than ½ mile between their origin and transit station or their destination and transit station.

The previous analysis is based on current ridership trends on a different transit service (i.e., PSTA). As part of this study, hotel guests were surveyed to determine their likelihood to use the proposed service. Over 79 percent of respondents indicated that they would consider using the proposed service. Applying this percentage to the tourist population in Table 7-2, potential daily ridership levels from tourists could be as high as 3,700 additional passengers. Given these results, the tourist ridership projections in Table 7-3 appear to be on the conservative side.

## DAY VISITOR RIDERSHIP PROJECTION

The previous section projected the number of passengers based on overnight guests; this section explores the number of passengers from day trippers. These visitors travel from relatively short distances, which could be within Pinellas County or surrounding counties, and stay only for the day. To assist with these projections, the Tampa Bay Regional Planning Model (TBRPM) Version 7.0 was used.

Using the data in the model and applying some assumptions, it is projected that approximately 13,500 to 20,000 daily person trips are made across causeway between Clearwater Beach and downtown Clearwater for social and recreational purposes. These estimates are based on 2006 and 2035 socioeconomic data. These figures include trips that originate or terminate on Clearwater Beach and use the causeway as the path of travel. The trips could be by a resident of Clearwater Beach who travels to Tampa for recreational purposes or a resident of Pasco County who travels to Clearwater Beach to visit the beach. These trips may also include intra-county travel within Pinellas County.

Based on the 2008 American Community Survey, the transit mode split in Pinellas County is 1.6 percent of total trips. Applying this rate to the daily home-based social recreation trips for Clearwater Beach, the capture rate would be between 217 and 318 persons per day. The modal split is based on the current PSTA system, which operates regular bus service throughout Pinellas County. The proposed service is a premium service and, therefore, it is expected to capture a greater percentage than the regular bus service. Assuming the proposed system was only as attractive to passengers as the current PSTA traditional buses, these figures are the projected daily ridership from day visitors.

Adding 200 to 325 day trip passengers would raise daily ridership to between 5,300 and 5,700. For more detailed information regarding these calculations, see Appendix H.

**BENEFITTING RIDERS**

The benefitting ridership will be conducted as part of the second phase of this project.

**VEHICLE SIZE**

Basing the ridership analysis previously presented, vehicle size was determined. The employee survey described in Section 4 provided insight into the morning and evening peak commute periods. Most employees arrive to work between 7:30 A.M. and 8:30 A.M. and leave between 4:30 P.M. and 5:30 P.M. Based on these arrival and departure times, peak periods were assumed to be 6:00 A.M. to 9:00 A.M. and 4:30 P.M. to 6:30 P.M. Assuming these peak times account for 30 percent of daily ridership, it is assumed that the remaining 70 percent is distributed equally throughout the day.

During the peak evening period in 2015, 795 passengers (i.e., 15 percent of 5,300 daily passengers) are projected to ride this service over a two-hour span. Assuming ten-minute headways, this equates to five trips per hour per bus or ten trips over a two-hour period. Assuming even distribution, 79.5 passengers would need to be accommodated on each trip. It is recommended for serving this level of passenger demand that two 60-foot articulated buses be employed. According to Table 5-5, each of this type of bus can accommodate up to 65 seated passengers and up to 90 total passengers (i.e., seated and standing).

Understanding that ridership builds over time, it is may be advisable for service to begin with smaller vehicles and then transition to articulated vehicles over time. These vehicles may only be necessary during peak periods as well.


*How can placement of stations be balanced with providing fast, convenient service?*

## SECTION 8 STATIONS

As previously discussed, a set of general station locations was developed for Clearwater Beach, Island Estates, and downtown Clearwater. The preliminary set of station locations was used to guide discussions concerning route alignment. As this project has continued to evolve, the initial listing of potential station locations has been refined. This section provides an overview of the refinement process.

### CLEARWATER BEACH STATION LOCATIONS

During the first phase of the study, five stations in Clearwater Beach were identified as potential stations for the downtown-to-beach service. However, beach circulation already is provided by Jolley Trolley and PSTA. Instead of providing yet another circulator on the beach, it was determined that the City of Clearwater should work with PSTA and Jolley Trolley to improve the frequency of service and provide a connection to the proposed beach-to-downtown service. As a result, it was determined that no additional stations on Clearwater Beach are necessary, with the exception of an anchor station near the roundabout to allows transfers between the beach-to-downtown service and the beach circulator.

#### Clearwater Beach Station Location

Two locations at the roundabout were identified as potential station locations, including:

- **Station Location "A"** – located directly west of the roundabout at Pier 60 Park.

- **Station Location "B"** – located in a small parking lot northeast of the roundabout.

While locating a station at Clearwater Marina just southeast of the roundabout seemed feasible in terms of location, it was not advisable operationally. This location would require that the vehicle travel in mixed traffic over Mandalay Channel, around the roundabout, and then drop passengers off. It was concluded that it was ill-advised to take passengers close to the beach and then continue to move away from it before allowing them to alight. Policy decisions regarding the ultimate alignment of the route ultimately made these considerations moot.

**ISLAND ESTATES STATION LOCATIONS**

Two station locations initially were identified for consideration at Island Estates: Memorial Causeway at Island Way and Island Way and Dory Passage. Upon further review and analysis, it was determined that since the Jolley Trolley already provides service from Clearwater Beach to Island Estates, additional service provided by the downtown-to-beach line is not necessary at this time. Should the need arise for the downtown-to-beach line to serve Island Estates, a station can be added at that time.

**DOWNTOWN CLEARWATER STATION LOCATIONS**

Initially, six general station locations were identified for the purpose of evaluating the relative attractiveness of service in downtown Clearwater. A ridership analysis of these stations indicated that ridership is not affected by station location. Therefore, several sets of potential station locations were identified based on one of seven downtown circulation alternatives. The alternatives are presented in Section 6 of this document.

As the number of downtown circulation alternatives has narrowed, the list of potential station locations has been refined. Following the December 2009 meeting of the PMI Steering Committee, it was decided that the two preferred downtown circulation alternatives are:

- **Alternative A**, which travels along Chestnut Street, continues north on East Avenue, west on Pierce Street, and west on Court Street. This alternative is the shortest in length of the seven alternatives considered. See Map 6-6.

- **Alternative B**, which travels along Chestnut Street, continues north on East Avenue, west on Park Street, and west on Court Street. Alternative B differs from Alternative A only in that it travels west one block north on Park Street instead of Pierce Street. See Map 6-7.

Since there is only a minor difference between the route alignments for Alternative A versus Alternative B, the initial station locations developed for two alternatives are very similar, with the following differences:

- **Chestnut Street Station (between Oak Avenue and Ft. Harrison Avenue)** – Provides access to commercial, governmental, medical, and residential uses at the southwest end of the downtown study area.

- **Chestnut Street Station (between S. Garden Avenue and S. East Avenue)** – Provides access to commercial, governmental, and residential uses at the southeast end of the downtown study area.

- **East Avenue Station (at Franklin Street)** – Provides access to development on the eastern end of the downtown study area, as well as access to the Pinellas Trail. This station location will also provide access to planned redevelopment and a potential regional multimodal (bus/rail) transit center to be located somewhere along East Avenue.

- **Pierce Street Station (between S. Garden Avenue and Ft. Harrison Avenue) (Alternative "A" only)** – Provides access to the existing PSTA bus station, as well as commercial, governmental, religious, and residential uses in the central downtown study area.

- **Park Street Station (at Ft. Harrison Avenue) (Alternative "B" only)** – Provides access to the existing PSTA bus station, as well as commercial, governmental, medical, religious, and residential uses in the central downtown study area.

- **Court Street Station (between Oak Avenue and Ft. Harrison Avenue)** – Provides access to downtown commercial, governmental, residential, retail, and religious uses. This station location is close to existing PSTA bus transfer facility.

The remainder of this section focuses on the analysis and evaluation used to refine the potential station locations identified above.

## RECOMMENDATIONS TO PMI STEERING COMMITTEE

Because the purposes of the beach anchor station and the downtown stations differ, separate criteria were applied to evaluate the two types of potential stations. The criteria used to evaluate each are discussed in the remainder of this section.

**Beach Station Locations**

Evaluation of the beach station location was based on discussions with representatives of the City of Clearwater Parks and Recreation Department, as well as input received from the public.

Discussions with City representatives were held regarding the two beach anchor station locations identified previously, particularly regarding the feasibility of Station "A," located west of the roundabout in Pier 60 Park. Issues with placement of the beach anchor station in the Pier 60 Park include the following:

- Loss of staging area for major events on Clearwater Beach, such as the Ironman competition, off-shore boat race, etc.

- Safety concerns regarding the park playground with respect to nearby bus travel.

- Preservation of the beach view and maintaining the park being viewed as a gateway to the beach.

At the two public open houses held in November 2009, input was gathered from the public regarding the preferred route alignment, downtown circulation alternative, and potential station locations. The results of the public input are summarized in detail later in this section. The majority of individuals preferred beach Station Option "B," citing visual impacts to the beach and safety issues as the main concerns.

It should be noted that several open house participants indicated that locating the beach station at the Marina would be the most suitable location. Several officials indicated the same idea.

As a result of this input, Station "B," located in a small parking lot northeast of the roundabout, was recommended to the PMI Steering Committee.

**Island Estates Station Locations**

As discussed in the previous section, no downtown-to-beach line serving Island Estates is necessary since service between the beach and Island Estates is currently being provided by the Jolley Trolley. As such, the recommendation to the PMI Steering Committee was to not include a station at Island Estates in the immediate future.

**Downtown Clearwater Station Locations**

The criteria used to evaluate the downtown station locations include the following:

- Public input
- Connectivity with pedestrian generators

- Connectivity to parking garages
- Connectivity with existing and future transit stations
- Connectivity with trails and bicycle facilities

***Public Input***

A number of stakeholders in downtown Clearwater and on Clearwater Beach will be affected by the transit alternative ultimately selected to link the two areas. Therefore, during the development of this study, a consensus-building approach to public involvement was used. This approach employed several different public involvement activities in an effort to gather consensus regarding an agreeable solution to providing connectivity between Clearwater Beach and downtown Clearwater. As documented in Section 4, hundreds of individuals participated in the initial public involvement activities to assist in guiding the development the initial route alignments.

As part of the development of the station locations, open houses were held in both downtown Clearwater and Clearwater Beach for the purpose of gathering public input. Input received during these open houses is documented in Section 4 and was used to select the preferred route alignment and guide the development of station locations and concepts.

***Connectivity with Pedestrian Generators***

There are advantages and disadvantages of having the proposed downtown-to-beach system directly serve multiple downtown stations. One major advantage is that people need to walk only a few blocks to a station from the majority of downtown pedestrian generators. On the other hand, stopping at multiple stations will result in a longer trip time. Therefore, when evaluating which station will serve each pedestrian generator, it is important to consider the fact that pedestrians may walk a few extra blocks to reduce their travel time if they are arriving from or departing to the beach. For example, someone leaving City Hall or the adjacent Opus Condominiums for the beach might choose the Court Street station on the way to the beach, but may choose to walk an additional block from the Chestnut Street Station (between Oak and Fort Harrison) when returning from the beach.

Although it is impossible to predict the decisions of individual pedestrians, in general, each station will serve several pedestrian generators or activity centers. For this evaluation, an analysis of the proposed station locations was conducted to determine the proximity of each station to various pedestrian generators. To complete this analysis, a ¼-mile buffer was drawn around each station to determine which activity centers previously identified in Section 3 (see Map 3-7) are within walking distance to the station. (Note: Due to the close proximity of the stations in downtown, a ¼-mile distance was used as opposed to a ½-mile distance. A ½-mile distance would have led to considerable overlap between stations which would have defeated the purpose of the exercise which was to distinguish between station locations.)

- *Chestnut Street Station (between Oak and Fort Harrison)* – Since this is the first station in downtown and located only a block from the Court Street Station, this station will be used primarily by people disembarking from the buses on their way to downtown from the beach. However, this portion of downtown is far enough from the north end of downtown that some people will choose to use the BRT line to get from here to destinations at the north end of downtown (e.g., the library). The pedestrian generators served by the Chestnut Street Station include the County Courthouse, several county office buildings, the Church of Scientology Headquarters, Church of Scientology downtown lodging and hotel facilities including the Fort Harrison Hotel, and Publix. In addition, there are several high-density residential buildings on and near the bay south of the Memorial Causeway Bridge, including the Oak Bluffs senior living facility, Prelude 80, Viewpoint On the Bay, and Harbor Oaks Place.

  Facilities such as City Hall, the Waters Edge Opus condominiums, Harborview Center and whatever replaces it in the long term, and even the western end of the cluster of redevelopment on Cleveland Street are other pedestrian generators located somewhat further that might attract people due to the convenience of this being the first station in downtown.

- *Court Street Station* **–** This station should be considered a paired stop with the Chestnut Street Station. Since this is the last station in downtown, it will be used primarily by people boarding buses to go to the beach from downtown. The pedestrian generators served by this station include the County Courthouse, several county office buildings, the Church of Scientology Headquarters, Church of Scientology downtown lodging and hotel facilities including the Fort Harrison Hotel, Publix, and the high-density residential buildings near the bay south of the Memorial Causeway Bridge.

  Facilities such as City Hall, the Waters Edge Opus condominiums, Harborview Center and whatever replaces it in the long term, and even the western end of the cluster of redevelopment on Cleveland Street are other pedestrian generators located somewhat further that might attract people due to the convenience of this being the last station in downtown.

- *Chestnut Street Station (between Fort Harrison and Osceola)* – This station will serve relatively little existing pedestrian-generating land use, though Publix, high-density residential buildings like the Prospect Towers Apartments, and existing residential neighborhoods south of the station are located nearby. However, this area is anticipated to have high density residential in the future.

- *Regional Transit Center* **–** The possible future Regional Transit Center could include a BRT station on Franklin Street, allowing for convenient transfers for PSTA passengers to and from the BRT line. This station would serve the new Residence Inn Hotel and

several City of Clearwater offices. For passengers headed to the beach, this would be the most convenient station for existing and future high density residential developments south of Chestnut Street, including the Prospect Towers Apartments. Until the recent economic downturn, a mixed-use development was proposed south of Cleveland Street and east of Prospect Avenue. When the economy recovers, this development likely will be pursued and would be served reasonably well by this station.

- *Pierce at Garden Station* **–** This station is adjacent to the existing transit center, allowing for transfers for PSTA passengers until the new Regional Transit Center is built. Several office buildings and businesses on Cleveland Street are nearby, including the SunTrust Building. Although this station is further from Cleveland Street than the other station on Garden Street, it is closer to Clearwater Beach, which might encourage pedestrians to use it. This station is very close to the Church of Scientology's Fort Harrison Hotel and headquarters building. However, these buildings also are convenient to the stations on Court Street and Chestnut Street, which provide more convenient service to and from the beach.

- *Garden Avenue Station (between Hendricks and Cleveland)* **–** This station is in the core of the downtown business area and serves several office buildings including the Bank of America Building. The redevelopment on Cleveland Street, including the Station Square condominiums, also is served by this station.

- *Hendricks at Fort Harrison Station* **–** This station is the closest station to the library, Coachman Park, and Harborview Center. In addition, several existing high-density residential buildings are north of this station, including the Bayview Condominiums and the Harbor Bluffs Condominiums. It is important to note that this station is in an area of downtown that is likely to see a significant increase in pedestrian-generating land use in the future. Several underutilized parcels of land are located in this area, including the block southeast of the proposed station that is primarily surface parking. Additionally, the "superblock" bound by Drew Street, Fort Harrison Avenue, Osceola Avenue, and Cleveland Street has relatively few landowners and is viewed as a prime future development location in downtown. Population density projections indicate the likelihood of high population density throughout much of the area north of Drew Street near this station.

***Connectivity to Parking Garages***

Public parking plays a key role in a successful transit connection between Clearwater Beach and downtown Clearwater. The concept is that people will park in the available downtown parking and use the transit service to go to the beach. Therefore, the proximity of public parking locations to each station is important in evaluating the potential station location.

Three public parking garages are located in downtown Clearwater, all within a block or so of a proposed BRT station:

- *Garden Avenue Garage* – The Garden Avenue Garage has 253 parking spaces and is located at 28 Garden Avenue, between Cleveland Street and Hendricks Street. This facility is located within walking distance of either the Pierce Street Station or the Park Street Station, depending on which downtown circulation alternative is ultimately selected.

- *Municipal Services Garage* – The Municipal Services Garage has 475 spaces and is located at 240 Pierce Street. The garage spans the entire length of the block of East Avenue between Pierce Street and Park Street. On weekdays, this garage is reserved in its entirety for City employee parking, but it is mostly vacant on weekends. It is within a block of the Pierce Street Station. This garage offers an excellent opportunity for beach-goers to leave their vehicles downtown and ride the downtown-to-beach service for two reasons: the large number of vacant parking spaces on weekends and the garage's convenient location for motorists arriving in downtown Clearwater from the east.

- *Station Square Parking Garage* – The Station Square Garage has 96 public parking spaces and is located at 628 Cleveland Street between Garden Avenue and East Avenue. This station is located within walking distance of either the Pierce Street Station or East Avenue Station.

***Connectivity with Existing and Future Transit Stations***

Connectivity to existing and future transit services is also a key component to the success of the downtown-to-beach connector service.

- *Existing Park Street Transit Center* **–** The existing downtown transit center is directly adjacent to the proposed Pierce Street Station, allowing for easy transfers for PSTA passengers until the time that a new Regional Transit Center is constructed.

- *Proposed Regional Transit Center* **–** City officials are considering the development of a regional transit center along the East Avenue corridor in downtown. The East Avenue location would provide access to both the current rail line in downtown and the Pinellas Trail. Desired amenities at the regional transit center include approximately 250-300 parking spaces, 16 bus bays, accommodations for a future rail terminal, a ticket booth, and retail space sufficient for a dozen or so small retail tenants. While the specific location of the regional transit center has not been identified, the downtown circulation alternatives were developed with a focus on providing a connection to East Avenue.

***Connectivity with Trails and Bicycle Facilities***

The City of Clearwater has several existing bicycle facilities, including bicycle lanes, shared lane markings, and trails. The City produced the document titled *Shifting Gears - Clearwater Bicycle and Pedestrian Master Plan 2006*, which identifies many additional proposed bicycle facilities. Bicyclists are less likely than pedestrians to use the downtown-to-beach service due to the relatively convenient existing bicycle access to the beach. For example, once a cyclist who wants to go to the beach travels through city streets and trails to downtown, he or she likely will continue across the causeway to the beach using the trail built to the south of the causeway with beautiful views and no intersections interrupting the route. However, some cyclists may want to transition to the downtown-to-beach system, so it is important to look at how well existing and future bicycle facilities connect to the potential alignment and stations.

- *Trails* - Currently, the Pinellas Trail is the only trail that connects into downtown Clearwater. In the downtown area, the Pinellas Trail runs along East Avenue and connects to the proposed East Avenue Station.

  The Druid Trail is proposed to run along Druid Road connecting to the south end of downtown. This trail is currently under design and some sections are being constructed. This trail will jog north along Bay Avenue and come within one to two blocks of both the Court Street Station and the Chestnut Street Station (between Oak and Fort Harrison).

  The CSX Trail is planned to run along the existing CSX rail line connecting the northeastern parts of the City with the Pinellas Trail at the intersection of East Avenue and Drew Street. Though no current action is taking place to install this trail, it would provide excellent access to the downtown-to-beach service because it would connect to the Pinellas Trail.

- *Bicycle Lanes* - There are few existing bicycle lanes in or near downtown Clearwater. The streets with existing bicycle lanes are as follows:

  - Fort Harrison Avenue is the only street in the downtown area that currently has bicycle lanes. These bicycle lanes run from Court Street south about 0.6 miles to Jeffords Street. As such, Harrison Street bicycle lanes provide good connectivity for bicyclists from neighborhoods south of downtown to the Chestnut Street Station and the Court Street Station.

  - Cleveland Street has relatively recently been reconfigured in some areas to remove the previous four-lane cross section and replace it with a three-lane cross section with bicycle lanes. This configuration runs from the east terminus of Cleveland Street at Belcher Road for about 1.75 miles to Glenwood Avenue. In addition, the City of Clearwater has done a major reconstruction of Cleveland Street from Myrtle Avenue

to Osceola Avenue, including significant traffic calming features and shared lane markings, which combine to create comfortable conditions for bicyclists. However, this leaves a 1.3-mile gap in bicycle accommodation between Glenwood Avenue and Myrtle Avenue. The traffic volumes on this section of Cleveland Street are fairly low, since Clearwater Beach traffic now uses Court Street and Chestnut Street. Therefore, it is fairly likely that the City will eventually reconfigure the rest of Cleveland Street to remove the four-lane cross section and install bicycle lanes. Conversations with city staff indicate that this is planned for the future, but it is yet unfunded. However, once completed, Cleveland Street will provide a good connection for bicyclists from neighborhoods east of downtown into the downtown area and within two blocks of the recommended BRT alignment in downtown.

*Shifting Gears: A Bicycle and Pedestrian Master Plan* includes proposed bicycle lanes on the following streets in and near downtown Clearwater:

- Drew Street from Osceola Avenue to McMullen Booth Road – Drew Street is parallel to Cleveland Street but about three blocks further from downtown. Thus, it does not provide quite as good a connection to downtown as Cleveland Street, but bicycle lanes on Drew Street will improve connections for bicyclists between the BRT line and neighborhoods on the east side of town. Given the relative cost of bicycle lane construction for Drew Street and Cleveland Street, it is likely that continuous bicycle lanes connecting to downtown will be implemented on Cleveland Street prior to Drew Street.

- Osceola Avenue between Drew Street and Cleveland Street – This is the only section of Osceola Avenue where bicycle lanes are specified, but if the City adds bicycle lanes here and on additional sections of Osceola Avenue, this would provide connectivity for bicyclists from neighborhoods north of downtown to the Court Street BRT station.

- Martin Luther King, Jr. (MLK) Avenue between Drew Street and Court Street – This is the downtown section of MLK and is slated for bicycle lanes, but other sections of MLK have less available space and are planned for two- to three-foot shoulders. Once completed, these facilities on MLK Avenue can provide some connectivity for bicyclists from neighborhoods north and south of downtown, with short east-west connectivity on Cleveland Street.

- Missouri Avenue between Drew Street and Belleair Street – Missouri Avenue is parallel to MLK Avenue, but about four blocks further from the downtown area. However, the bicycle plan shows full bicycle lanes, as opposed to narrower paved shoulders on MLK. Bicycle lanes on Missouri Avenue would provide connectivity for bicyclists from many neighborhoods and businesses southeast of downtown Clearwater.

### Implications for Land Use

As previously discussed in Section 3, land use classifications play an important role in shaping the character of the downtown. Downtown Clearwater is classified primarily as Central Business District (CBD). North of the CBD, downtown Clearwater is primarily residential, with a smaller portion of land designated as Commercial General traversing the land designated Residential. The benefit to providing multiple stations along the downtown circulator route is that it allows passengers to circulate throughout the downtown, which exposes visitors and other individuals not familiar with downtown Clearwater to the many businesses located within the CBD. The presence of the downtown circulator will also emphasize a need to pursue transit oriented development (TOD) design elements as part of future developments in downtown.

## PREFERRED STATION LOCATIONS

After a presentation on January 11, 2010, the PMI Steering Committee determined the preferred station locations.

On Clearwater Beach, the PMI concluded that the most appropriate location for an anchor station is the area currently occupied by surface parking for the Clearwater Marina. While this location will require reconstruction of the area, the Committee determined it to be the most convenient for beachgoers and most appropriate for the preferred alignment. They agreed that no station should be located at Island Estates in the near term, although this may be reconsidered in the long term.

Downtown stations were determined to be most appropriately located at or near the following locations:

- Chestnut Street Station (between Oak Avenue and Ft. Harrison Avenue)
- Chestnut Street Station (between S. Garden Avenue and S. East Avenue)
- East Avenue Station (at Franklin Street)
- Pierce Street Station (between S. Garden Avenue and Ft. Harrison Avenue)
- Court Street Station (between Oak Avenue and Ft. Harrison Avenue)

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*How will beach-goers learn how to access the transit system?*

## SECTION 9 WAYFINDING AND TRAFFIC IMPACTS

This section contains information on the need for a wayfinding system and the possible impacts BRT elements could have on traffic flow. A wayfinding system allows potential passengers to orient themselves, find stations, and determine their path of travel. As presented in Section 6, the locally preferred alternative includes the addition of traffic signals and signal prioritization. The impact these signals have on regular vehicular traffic is discussed in the latter half of this section.

### WAYFINDING

Without an effective wayfinding system, prospective passengers will not be able to successfully locate and use the system. The wayfinding system for the proposed system must address pedestrian traffic and vehicular traffic from both a regional and local perspective.

The wayfinding system must have the following attributes:

- **Legible** – For those unfamiliar with the transit system, the legibility of the wayfinding system will be important, as it must clearly direct users to parking options and transit stations.

- **Concise** – Signage must be concise enough to convey significant amounts of information in a manner that can be absorbed while driving.

- **Consistent** – Signage must be consistent so as to be effective. Motorists and pedestrians must be able to easily identify the appropriate signs in order to follow them.

- **Adaptive** – The wayfinding system must be adaptive in order to direct visitors under changing conditions such as parking availability and levels of congestion on Memorial Causeway.

A well-designed wayfinding system can steer potential users to the system by increasing awareness of the system and contributing to its usability. A poor wayfinding system can discourage use of the system.

A good wayfinding system can be particularly important in an area such as Clearwater because of the prevalence of tourists, many of whom are likely first-time users of the service. Without well-designed wayfinding devices, tourists and day-trippers may be unwilling to invest the time and energy needed to locate the transit system. Without a well-established wayfinding system, the average tourist may not even know that transit is an option.

**Wayfinding System Structure**

The Clearwater Beach wayfinding system needs to function on several levels. Communication needs to be functional and informative for both regional motorists and pedestrians. Good communication to motorists will promote the use of downtown parking and encourage use of the transit system. The system also must communicate effectively to pedestrians to adequately assist in location transit stations. Effective downtown communication to motorists and pedestrians will help minimize frustration and encourage repeat use of the system.

This plan visualizes incorporating Intelligent Transportation Systems (ITS) technology to effectively and accurately communicate information to visitors. A fiber network would provide the backbone of this system. It is assumed that at the time of deployment the fiber infrastructure would be in place and would be accessible. The use of this infrastructure would need to be coordinated with the controlling agency.

Although there is an abundance of parking in the downtown area, the guidance to motorists will focus on four key parking garages:

- Garden Avenue Garage
- Municipal Services Garage
- Station Square Garage
- County Parking Garage

Map 9-1 provides a view of the parking facilities currently available in downtown. Although the additional surface lots should be individually signed to indicate the availability of parking and any applicable restrictions, motorists will not be directed toward them as they move through the downtown Clearwater area to parking destinations.

In preparing this analysis, four levels of signage were identified to direct visitors:

- Level 1 Regional Signage
- Level 2 Approach Signage
- Level 3 Downtown Guidance Signage
- Level 4 Pedestrian Signage

**Level 1 Regional Signage**

The goal of regional signage is to convey to motorists the advantages and availability of downtown parking and the transit system with sufficient time to consider their use. This signage would be on the major arteries approaching the downtown area. Variable message signs (VMS) would be activated during times when visitors are being encouraged to use the transit system, such as periods of limited parking availability at the beach or high congestion levels on the roads leading to the beach. Examples of the messages are provided in Figure 9-1.

| | |
|---|---|
| **Clearwater Beach Parking Full<br>Use Downtown Parking &<br>Rapid Transit to Clearwater Beach** | **Heavy Congestion to Clearwater Beach<br>Use Downtown Parking &<br>Rapid Transit to Clearwater Beach** |

**Figure 9-1**
**Sample VMS Language**

Figure 9-2 shows an example of how current VMS signage on SR-60 could be used.

This study has identified the primary routes to Clearwater Beach as SR-60 from the east and Alternate US-19 for approaching from the north and south. To maximize effectiveness, VMS need to be placed at key points approaching the downtown area and at key decision points to direct visitors to the proper route if it differs from the one to the beach.

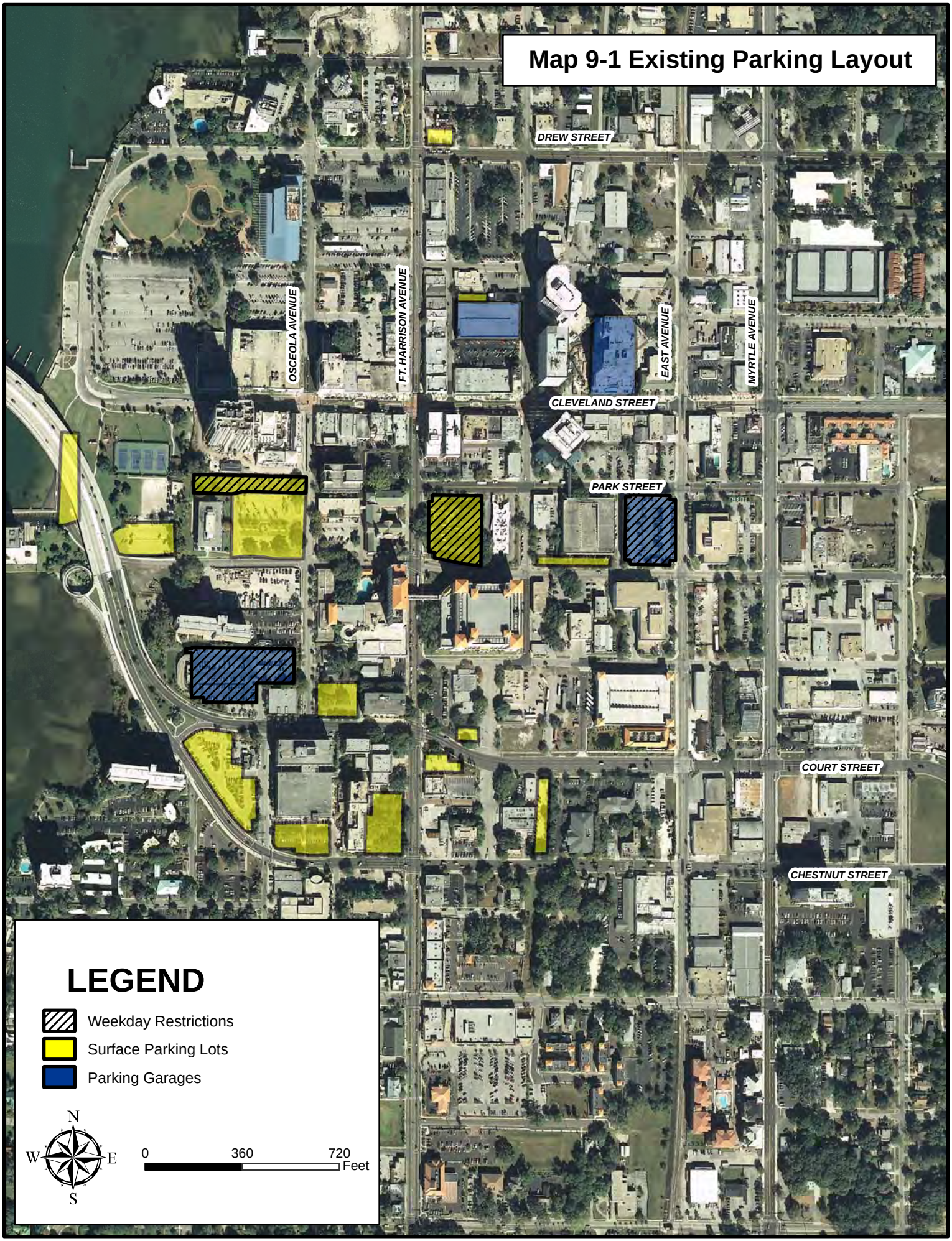
Map 9-1 Existing Parking Layout
DREW STREET
OSCEOLA AVENUE
FT. HARRISON AVENUE
EAST AVENUE
MYRTLE AVENUE
CLEVELAND STREET
PARK STREET
COURT STREET
CHESTNUT STREET
LEGEND
Weekday Restrictions
Surface Parking Lots
Parking Garages
N
W
E
S
0
360
720
Feet


**Figure 9-2**
**Example of VMS on SR-60**

The VMS shown in Figure 9-2 currently is located at an ideal location along SR-60, just east of Highlands Road, where motorists approaching from the east must decide whether to proceed along Court Street towards the beach or veer right on Gulf to Bay Boulevard towards downtown. (The text has been altered in Figure 9-2 to provide an example of possible VMS text for regional signage.)

The proposed locations of the VMS are presented in Map 9-2. This type of signage is very flexible and has many control options. The software used with VMS signage can allow for custom messages and messages based on a set time of day, day of week, and week of year schedule. It can be pre-programmed for peak periods such as major holidays and scheduled events. It can also be updated to respond to sudden changes in conditions such as an accident or weather event. It can be linked directly to beach parking lot capacity monitoring systems and automated congestion monitoring software to provide up-to-date information.

**Level 2 Approach Signage**

Due to the advance regional signage, motorists approaching downtown have already been informed of the need to park in downtown garages. The intent of approach signage is not only to direct motorists to appropriate parking garages, but to give confirmation that motorists are being directed to beach and transit parking and to ensure that parking is available.

# Map 9-2 Proposed Approach VMS Locations

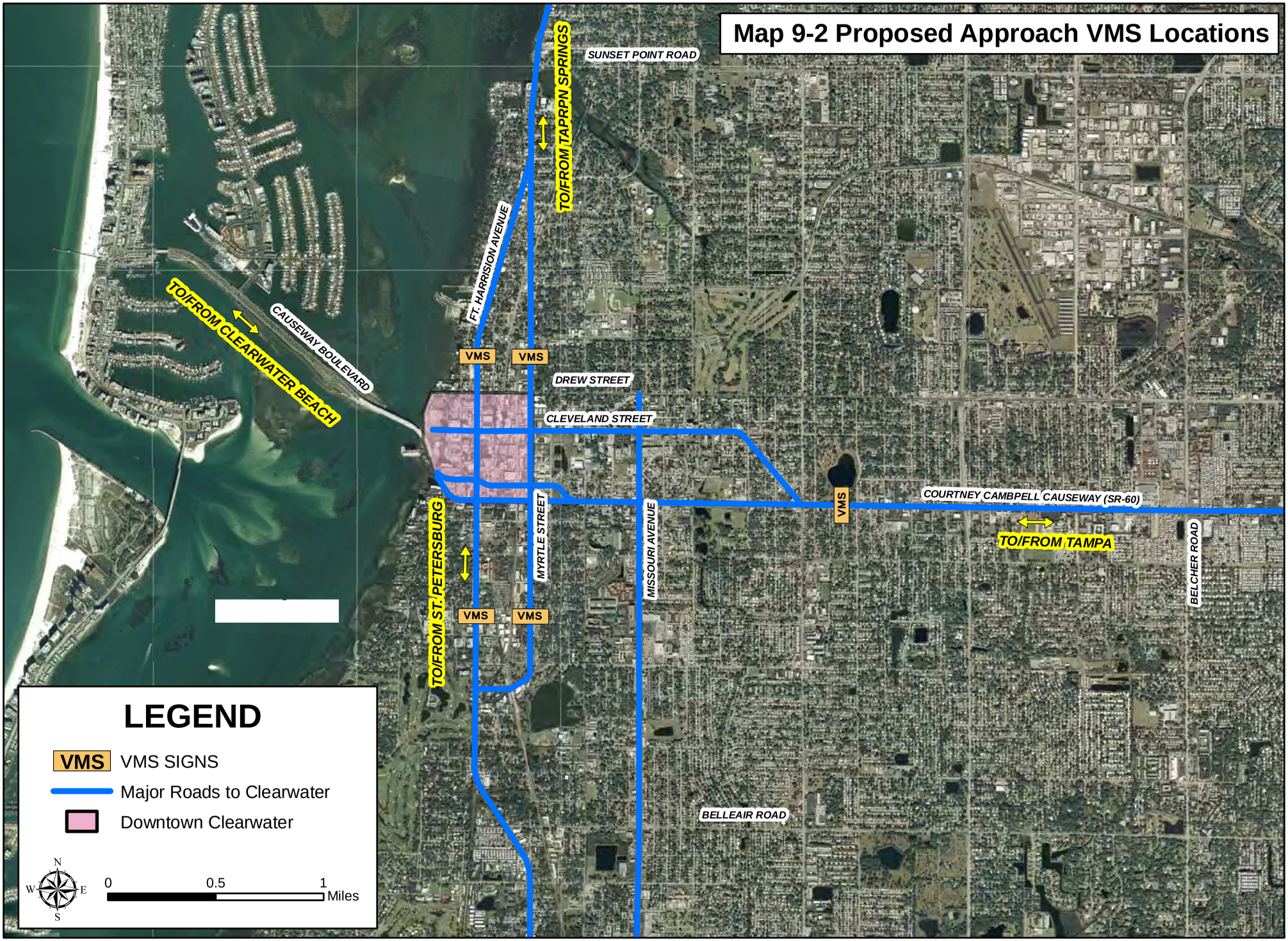


**Figure 9-3**
**Example of Approach Signage**

If VMS is not used to indicate parking availability, motorists could become frustrated with the search for parking and proceed to the beach via personal vehicle.

Signage such as that shown in Figure 9-3 should be prominently displayed when nearing downtown. Drawing motorist attention to the signs and symbols would increase the ease of identifying the guidance signage once they enter the downtown area and begin circulation. A conceptual layout of the circulation routes and signage location is shown in Map 9-3.

For wayfinding signage to be effective, it must communicate the information accurately and be visually consistent. Having several different styles of signage can lead to driver confusion and increases the probability that signage will be overlooked and drivers will be prevented from locating the appropriate parking area. Surface signage should be consistently located on the vehicle's side of the roadway and in advance of the intended route.

A simple sign design, such as the one currently being used downtown shown in Figure 9-4, is advised. It is effective and does not blend into the surrounding buildings and the other decorative destination signage that is typical of downtown.

**Figure 9-4**
**Example of Parking Sign**

Parking signage should be designed with consideration that it is also used for purposes other than access to the beach rapid transit system. The final destination for some visitors will be downtown Clearwater and not Clearwater Beach.

However, visitors to the beach who have been directed to use downtown parking for purposes of using the transit system should get reinforcement that they are following the proper path. Guidance signs should be supplemented, where appropriate, with an auxiliary plaque, perhaps with a logo and text, informing motorists that they are being directed towards parking suggested for transit use. This auxiliary plaque would be mounted to the pole directly beneath the directional parking signage. Figure 9-5 provides a conceptual sign.


**Figure 9-5**
**Conceptual Sign and Plaque**


Map 9-3 Conceptual Parking Signage
OSCEOLA AVENUE
FT. HARRISON AVENUE
EAST AVENUE
MYRTLE AVENUE
CLEVELAND STREET
PARK STREET
COURT STREET
CHESTNUT STREET
LEGEND
Parking Lot
Weekday Restrictions
Surface Parking Lots
Parking Garages
Parking Directional Sign
Advanced Parking Sign
N
W
E
S
0
362.5
725
Feet

As an alternative to standard, static aluminum signage, ITS could be incorporated into downtown guidance signs. By monitoring the availability of parking capacity in the garages, VMS signage could direct visitors to garages where capacity is available. If a garage is full, the signage would direct motorists to a different garage. Supplementing this with "Lot is Full" automatic signage at the garage entrances could further enhance this system. Directing drivers to a full lot where they must enter, leave, and continue circulation could add to driver frustration and deter future use of the transit system.

**Level 3 Downtown Guidance Signage**


**Figure 9-6**
**Example of Parking Garage Sign**

As motorists approach parking garages, signage should indicate the garage entrance. This signage should be supplemented with a transit plaque to further reassure motorists they are at a parking location served by the beach transit system. Figure 9-6 provides an example of the type of sign recommended, which is already in use on Clearwater Beach.

The garages should be clearly identified by color, number, or other means. Color is the preferred method as it is easier to remember, especially if motorists did not note their garage location as they exited. This identification method would be communicated to transit passengers when returning from the beach to easily identify the correct station for the chosen garage, such as "Cleveland Street Station, Access to the Red Parking Garage."

Once in the garage, a map must direct transit passengers to the nearest transit station. Beach-goers likely will be carrying various items for a day at the beach, and walking long distances or being uncertain of the appropriate path could discourage use of the transit system. The signage in the parking garages should be of the "You Are Here" variety. These signs would communicate where the driver is at the moment and provide the precise path to the desired transit station, e.g., "Use elevator to Cleveland Street and Beach Rapid Transit System."

**Level 4 Pedestrian Signage**

Until this point, wayfinding deployment has focused primarily on vehicles approaching from major arterials. However, there are also minor streets, hotels, downtown workplaces, and various other locations from which prospective passengers will seek to take the transit system to the beach. As such, pedestrian routes to transit stations should be identified.

These signs should also be “You Are Here” signs with a map showing the locations of nearby transit stations. Also on these signs, various parking locations—particularly garages—should be clearly indicated to accommodate pedestrians in the downtown area who are attempting locate their vehicles. Figure 9-7 provides an example of the type of signage that would be appropriate and is already in use in downtown Clearwater.


**Figure 9-7**
**Example of “You Are Here” Sign**

Because there are other transit systems serving the downtown area, signage at beach transit stations should provide a transit schedule and confirm to passengers that they are at the correct station. A downtown map also should display downtown attractions and parking garage locations. Beach transit stations should be clearly labeled with the same logo that is used on street signage.

By implementing a wayfinding system such as the one described in the preceding discussion, the transit system is more likely to have the desired effect of re-routing motorists otherwise intending to drive personal vehicles to the beach. Without a wayfinding system that is legible, concise, consistent, and adaptive, potential users will be deterred by the amount of effort it requires to navigate the system.

**TRAFFIC IMPACTS**

As indicated, the locally preferred alternative alignment requires the addition of traffic signals and the implementation of signal prioritization. The additional signalization may have impacts to regular vehicular traffic flow.


*What are the key elements of a premium service station?*

## SECTION 10 STATION DESIGN CONCEPTS

An important aspect of implementing any new product or service is providing a quality product that is distinctive and recognizable. Premium transit service such as BRT is no different and must be viewed as a consumer product that can be distinguished from other products by branding, among other elements. As previously discussed in Section 5, branding premium bus service—whether it be the color scheme and design theme of the vehicles, the style of the stations and wayfinding signage, or the advertising and promotional campaigns prepared for the services—is a fundamental component of the system's success.

Along with vehicles, the most visible elements of any transit system are the transit stations and shelters. Therefore, when evaluating the station locations for the proposed downtown-to-beach service, station design concepts must be discussed in tandem with the selection of the downtown circulator alignment.

The purpose of this section is to provide an overview of station elements and design concepts associated with premium transit service. The purpose of this section is not to propose an actual station design for the downtown-to-beach service, but to familiarize the reader with the elements of a functional and identifiable premium service transit shelter.

### TRANSIT STATION ELEMENTS

A transit station or shelter for a premium transit service should contain features that serve the comfort, convenience, and communication or information needs of the passenger. As presented in Figure 10-1, a typical station or shelter could contain a number of elements.

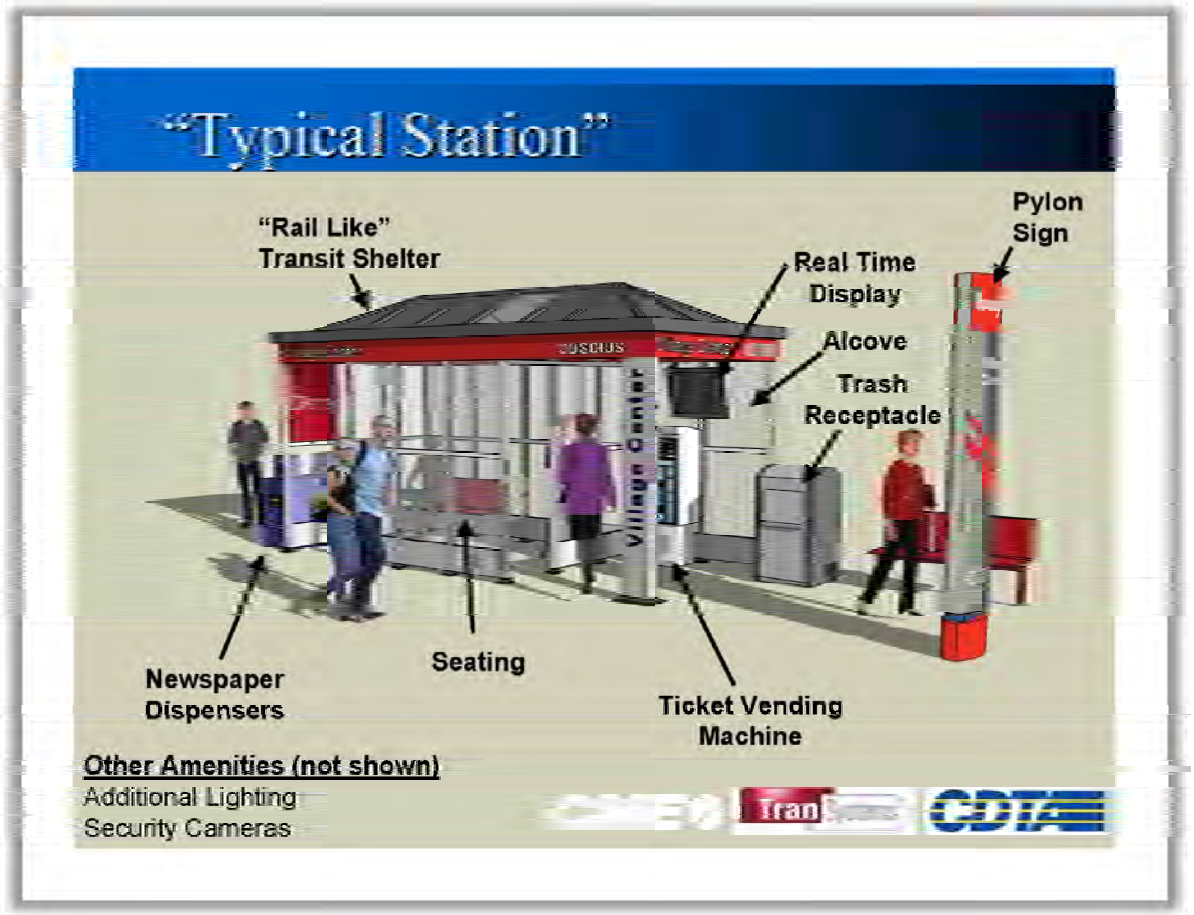


**Figure 10-1**
**Elements of Typical Premium Transit Service Station**
Source: Capital District Transportation Authority.

As presented in Figure 10-1, key features or elements of premium service station or shelters could include the following:

Shelter Comfort

- Cover from the weather (roof, sides, shade)
- Seating and/or standing areas
- Safety amenities, including illumination

Communication/Convenience

- Transit system information (e.g., route maps and schedules)
- Electronic information kiosks to include "real time" arrival information and wireless internet connectivity
- Vending operations such as newspaper stands and vending machines
- Street furniture (e.g., trash receptacles, bicycle racks, etc.)

Each of these elements is discussed in more detail below.

**Shelter Comfort**

*Covered Protective Space*

Transit shelters and stations should be sized according to estimated ridership demand and, in many cases, these stations should be sized to accommodate 10-20 persons seated and standing. Industry standards estimate the need for approximately 15 square feet of waiting space per person, with an additional 25 percent of space to accommodate passenger circulation, boarding, and alighting needs. To accommodate potential ridership, it is expected that the typical downtown station footprint will be 10 feet by 25 feet; the beach station anchor will be slightly larger.

The covered space of a transit station must accommodate disabled patrons and comply with regulations and standards of the American with Disabilities Act (ADA). To be considered ADA compliant, there must be a three-foot clear width for wheelchairs as well as a five-foot clear turning diameter. A two-foot by four-foot clear floor space is also required. These requirements apply to the uncovered portions of the station. Access points to the covered shelter should be at least three feet wide, and three feet of circulation clearance should be provided around site furnishing, amenities, posts, and columns.

Covered or protective space can be provided through different shelter design types, such as roofed shelters with zero to four full walls or partial walls. For example, many shelters include translucent walls along the back and sides to increase visibility, lighting, and safety. In many instances, these walls are only partial height to improve ventilation and reduce maintenance and upkeep. Figures 10-2 and 10-3 provide examples of different types of station protective coverings.


**Figure 10-2**
**Roof-Only Station**

*Seating and Standing Area*

A balance of seating and standing areas should be determined based on design considerations, such as patron population demographics, wait times between vehicles, safety, and other elements at the transit station location. Some level of seating should be provided, either by individual seats or bench arrangements. In many seat designs, there are components that discourage lying down or multi-seat usage by an individual.

**Figure 10-3**
**Four-Sided Station**

**Figure 10-4**
**Station with Seating and Standing Areas**

Standing areas should be provided both within the covered area and adjacent to the shelter structure. Again, determining the capacity of seated and/or standing patrons should be evaluated based on ridership demands and other physical site constraints. Figure 10-4 shows a station with both seating and standing areas.

*Safety*

Regardless of the design and size of the transit station, safety concerns and overall security should be considered in the design, operation, and maintenance of the facilities. During the design and installation phases, techniques and concepts recommended by Crime Prevention Through Environmental Design (CPTED) experts should be evaluated and implemented to the greatest extent possible. In general, "defensive space" elements related to CPTED include areas with natural access control and surveillance, illumination (lighting) levels, and landscaping location and materials. In particular, it is important to provide unobstructed views within the vertical 2.5ft to 7ft sight lines area to increase visibility to areas surrounding a station.

**Communication/Convenience**

*Transit System Information*

Information regarding the transit services available to passengers should be available at the transit station. Basic information, such as transit schedules and routing maps, should be readily available to assist the transit passenger with trip planning. This information can be provided as static displays mounted at the station or copies of the maps and schedules of transit services in brochure format. Figure 10-5 shows a station with a static map display.


**Figure 10-5**
**Station with Route Map**

*Electronic Kiosks and Internet Connectivity*

Providing information beyond basic transit service information represents an added benefit to the transit passenger. For example, information kiosks can display "real time" information regarding the general transit system, as well as specific route and next vehicle information. These kiosks can also display information regarding nearby food and entertainment, along with advertisements, television, etc.

The key priority is to provide information that is useful for the passenger regarding both the current trip and return trips during the same travel day. To provide "real time" information for

next vehicle arrival times, the vehicles will need to be outfitted with automated vehicle location (AVL) equipment that communicates with the kiosks and centralized information center.

Providing Internet connectivity is a growing amenity for all types of travelers. Having Internet access for passengers could be provided with an "umbrella" operation that covers an entire area such as downtown, or site specific for each station. Internet connections also allow for fare payment systems to be installed such that customers can purchase fare cards via credit card or cash. Figure 10-6 is an example of an information kiosk and fare collection system.

**Figure 10-6**
**Information Kiosk and Fare Payment System**
**Source: Daytech Limited**

*Vending Operations*

Amenities such as vending machines for beverages and snacks, along with newspaper stands and similar items, provide a level of convenience to the transit patron. It is important that the vending operations are integrated into the overall design of the transit shelter to ensure proper scale, ADA compliance, materials compatibility, site circulation, and CPTED safety considerations. They should be well-maintained and contribute to the overall sense of place.

*Street Furniture*

As with other urban spaces, outdoor furniture associated with transit shelters should be coordinated with the shelter design and context. Street furnishings could include trash receptacles, benches, bicycle racks, and light poles and fixtures. It is important to coordinate shelter furnishings with existing urban furniture within the context. However, as part of the branding of the premium transit service, the operator may choose to provide contrasting furnishings so that these facilities will be identified with the premium transit service. As with vending operations, street furniture should be integrated into the overall design of the transit shelter to ensure proper scale, ADA compliance, materials compatibility, and site circulation and CPTED safety considerations. Figure 10-7 shows compatible street furniture.

**Figure 10-7**
**Street Furniture**
**Source: Daytech Limited Products**

*Transit Station/Shelter Alternatives*

Transit stations represent the major fixed facilities of a transit system and in the case of a premium transit service such as BRT, should be developed to "set apart" the service from other transit operations. While specific design characteristics have not been developed for the

downtown-to-beach premium service, Figures 10-8 through 10-11 present several types and styles of stations that could be considered.

**Charlotte, NC**

**Oakville, ON Canada**


**Boston, MA**

**Orlando, FL**

**Figure 10-8: Premium Transit Service Shelter Examples**

## CLEARWATER TRANSIT STATION/SHELTER CONCEPTUAL RENDERINGS

Two station concept renderings were developed to convey the spirit of the proposed transit service between downtown Clearwater and Clearwater Beach. The renderings reflect a conceptual image of the transit station and related facilities as they might be integrated into the community. The actual design of beach side and downtown stations will be developed through future design efforts. Figure 10-9 presents a conceptual design for the beach station and Figure 10-10 presents a conceptual design for a downtown station.


**Figure 10-9**
**Clearwater Beach Station Concept Rendering**


**Figure 10-10**
**Downtown Clearwater Station Concept Rendering**

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*Can we afford this system?*

## SECTION 11 ESTIMATE OF PROBABLE COST

This section provides estimates of the probable costs of operating a system that adheres to the recommendations outlined in this document. It includes estimates of capital costs for the busway, stations, and vehicles. It also includes operating and maintenance costs for the system. These costs are based on the locally preferred alternative. Assumptions were made as necessary, and these are detailed with the cost estimates. All cost estimates will need to be refined as engineering design plans are generated in further detail or assumptions regarding operations are updated.

All costs are provided in 2009 dollars. A more detailed analysis of the estimate of probable costs is contained in Appendix I.

### CAPITAL COSTS

There are three categories of capital costs: busway, stations, and vehicles.

#### Busway Costs

Busway costs include the cost of constructing the busway as well as all necessary intersection improvements. The busway for the preferred alternative includes an exclusive busway to the south of Memorial Causeway as well as a bridge over Mandalay Channel.

The preliminary estimate of probable cost for the bridge over Mandalay Channel is approximately $1.1 million. This includes the construction of a bridge able to support a 60-foot BRT vehicle. It also is based on a vertical clearance (13 feet, 4 inches) equal to that of the current Memorial Causeway bridge over Mandalay Channel. The estimate of probable cost

does not include demolition of existing structures, utility relocation, roadway approach reconfiguration, mobilization, maintenance of boat and vehicular traffic, manatee watch, landscaping, etc. All of these will need to be included and estimated when more detailed engineering designs are completed.

The exclusive busway assumes two 10-foot bus lanes with 5-foot shoulders. Use of the median over the Memorial Causeway Bridge requires removal of the current raised median and relocation of lighting structures to the outside of the bridge. Cost factors were taken from FDOT guidance. The estimated cost for the busway, excluding the Mandalay Channel Bridge, is approximately $11.0 million. Total busway costs, as displayed in Table 11-1, are approximately $12.1 million.

**Table 11-1**
**Busway Estimate of Probable Cost**
**(2009$)**

| | **Estimate of Probable Cost** |
|---|---|
| Bridge | $1.1 million |
| Busway | $11.0 million |
| Total | $12.1 million |

**Station Costs**

As noted in the station section, six stations are projected for this project. The beach-side station is estimated to be the largest and require the most reconstruction as it is to be located in the current parking lot of the Clearwater Municipal Marina. It is estimated that this station will cost $500,000.

The PMI Steering Committee expressed interest in developing a new regional transit center in downtown Clearwater, which would act as the downtown anchor for this BRT system. The exact location of the regional transit center has not been determined, but it could be located at the current PSTA Park Street Terminal or somewhere along East Avenue. The portion of the facility serving the BRT system is estimated to be $200,000.

The other stations are all located in downtown Clearwater. Each has a footprint of approximately 10 feet by 25 feet. These are estimated to cost approximately $100,000 each. Total costs, as displayed in Table 11-2, are $1.1 million for stations.

**Table 11-2**
**Station Estimate of Probable Cost**
**(2009$)**

| Station Location | Estimate of Probable Cost |
|---|---|
| Beach Station | $500,000 |
| Regional Transit Center | $200,000 |
| Downtown Stations (4) | $400,000 |
| Total | $1,100,000 |

### Vehicles

The number of vehicles purchased will depend upon ridership estimates to be fine-tuned with further analysis. The cost for a 60-foot BRT vehicle is estimated to be $1 million each. This estimate is based on the purchase of a hybrid electric vehicle and includes branding and typical technological features used on those vehicles. It is assumed for the purposes of this analysis that two vehicles will be purchased for a total of $2 million.

### Total Capital Costs

Total capital costs are summarized in Table 11-3. Costs total $15.2 million.

**Table 11-3**
**Capital Cost Summary (2009$)**

| Cost Category | Estimate of Probable Cost |
|---|---|
| Busway | $12,100,000 |
| Stations | $1,100,000 |
| Vehicles | $2,000,000 |
| Total | $15,200,000 |

## OPERATING AND MAINTENANCE COSTS

Operating and maintenance costs cover the day-to-day operation of the system. These costs are based on the 4.7-mile route length—3.7 miles of which are exclusive busway—of the preferred alternative. The average operational speed is estimated to be 35 miles per hour on the excusive busway and 20 miles per hour in mixed traffic. Running time is estimated at 9.3 minutes. Headways are assumed to be 10 minutes during peak periods (6:00 A.M. to 9:00 A.M. and 4:30 P.M. to 6:30 P.M.) and 15 minutes during off-peak periods. Service hours are assumed to be from 6 A.M. to midnight for a service span of 18 hours. Operating days per year are assumed to be 365.

The hourly cost per hour is estimated to be $84.24 per hour, with total operating and maintenance costs being approximately $553,500 annually. The hourly operating cost of $84.24 is based on PSTA's 2010 operating costs.

*How do we implement the system?*

## SECTION 12 NEXT STEPS

With the preferred alignment selected, the next step is to secure funding for the project. First, the MPO must pursue federal funding through a Very Small Starts or Small Starts application. To this end, the MPO must prepare materials for submittal to FTA.

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# APPENDIX A EMPLOYEE SURVEY DATA

Appendix A contains copies of the following documents:

- Summary of Employee Travel Survey
- Sample letter to business owners
- Sample letter to employees
- Screen shots from electronic survey conducted using Survey Monkey
- Results for City of Clearwater employees
- Results for Johnson Pope employees
- Results for Pinellas County employees

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# SUMMARY OF EMPLOYEE TRAVEL SURVEY

TO: Laura Everitt, Esq., AICP

FROM: Oliver Rodrigues, P.E.

DATE: July 1, 2009

SUBJECT: Downtown Clearwater and Clearwater Beach Transit Evaluation Study

The following is a summary of the employee travel survey for the above study conducted during the month of June 2009.

## Introduction

Employee surveys were collected during the month of June for the Downtown Clearwater area. The purpose of the survey was to collect information to assist in evaluating future transportation solutions, including transit alternatives. A map of the study area including the beaches is attached.

## Employer Candidates

Employment characteristics of over 160 businesses were evaluated from data provided by the Clearwater Downtown Partnership. There were two types of employers considered: government and non-government.

Listed below are the employers that were selected for the employee survey. They were identified based on their location, characteristics, and number of employees. A copy of the letter from the Mayor of the City of Clearwater to the employers is attached.

City of Clearwater
Johnson Pope
Pinellas County

## Survey Questionnaire

The survey questionnaire was developed using the Survey Monkey system. The following items were included with the survey:

- Introduction email
- Survey questionnaire

These items were emailed to the IT or Human Resources Manager for them to distribute to their staff. This ultimately avoided surveys being rejected as spam.

## Survey Participation

Listed below are the summarized survey results from the employers.

| BUSINESS | NUMBER OF EMPLOYEES | Surveys Distributed | Surveys Returned | Percent Returned |
|---|---|---|---|---|
| **City of Clearwater** | 1,700 | 860 | 194 | 23% |
| **Johnson Pope** | 100 | 88 | 14 | 16% |
| **Pinellas County** | 3,172 | 1,126 | 387 | 34% |
| | | | | |
| **Total:** | **4,972** | **2,064** | **595** | **29%** |

Survey results were summarized in Survey Monkey. A copy of the surveys results by business is attached

## ATTACHMENTS

- **Map of Study Area**
- **Letters to All Business HR/Office Managers**
- **Survey Questionnaire Packet**
- **Business Survey-Results**




**Downtown Clearwater to Clearwater Beach Evaluation of Transit Alternatives**

May 18, 2009

Mrs. Carol Hague
Johnson Pope Bokor Ruppel & Burns, LLP
911 Chestnut Street
Clearwater, Florida 33756

Subject: Downtown Clearwater and Clearwater Beach Transit Evaluation Study

Dear Mrs. Hague:

As a business center and popular visitor destination, the City of Clearwater attracts a significant number of employees and visitors to the downtown and beach every day. A sign of a thriving City, your employees and visitors need more transportation alternatives.

The City of Clearwater in conjunction with the Pinellas County Metropolitan Planning Organization (MPO) is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in an employee survey.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard
Mayor

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Dear Staff:

As a business district, the City of Clearwater attracts a significant number of employees and visitors to downtown Clearwater every day. A thriving downtown community such as ours needs more transportation alternatives.

The Pinellas County Metropolitan Planning Organization (MPO) is evaluating future transportation solutions, including transit alternatives. The MPO specifically selected us to assist in this endeavor and would appreciate your assistance.

The link below navigates you to a brief survey questionnaire. Your responses will be kept confidential and submitted directly to the survey administrator. You will only be allowed to complete the survey once.

https://www.surveymonkey.com/s.aspx?sm=MgnFYQBeWEZ2szYgxn_2bWVg_3d_3d

Please complete this survey by Tuesday, June 2nd, 2009. Thank you for your participation!

The Pinellas County Metropolitan Planning Organization (MPO) is conducting a survey of downtown employees to evaluate future transportation solutions, including transit alternatives, between downtown Clearwater and Clearwater beach.

Please complete this survey by Friday, May 15, 2009. Your responses will be kept confidential.

1) How do you commute to work? ____ Drive alone ____ Carpool ____ PSTA Bus ____ Bike/walk
____ Other (please specify) _____

2) What is the zip code where you live? _____

3) Approximately what time do you arrive at work? _____AM/PM

4) Approximately what time do you leave work? _____AM/PM

5) Do you occasionally travel between downtown Clearwater and Clearwater Beach during the work day?
____Yes ____No

(If Yes to Question 5) How do you currently travel between downtown Clearwater and Clearwater Beach during the day? ____ Drive alone ____ Carpool ____ PSTA Bus ____ Bike/walk
____ Other (please specify) ___ _____

(If Yes to Question 5) For what purpose(s) do you travel between downtown Clearwater and Clearwater Beach during the work day? (check all that apply) ____ Work ____ Lunch ____ Errands ____ Exercise/recreation
___ Other (please specify) _____

6) Within the last two years, have you used a bus or some other type of transit service while in Pinellas County or another city? ____Yes ____No

7) If in the future you were going to travel between downtown Clearwater and Clearwater Beach, would you consider using transit if it were separated from regular traffic? ____Yes ____No

(If Yes to Question 7) If you were to use transit to travel between downtown Clearwater and Clearwater Beach, which of the following factors would impact your decision? ____ Speed ____ Convenience
____ Exclusive lanes (transit that operates separately from automobile traffic) ____ Hours of services
____ Mode (rail versus bus) ____ Frequency (how often the transit service serves your stop)

8) If in the future you were going to travel from your place of employment to any other destination in the region, would you consider using transit if the travel time were comparable to driving? ____Yes ____No

Thank you for completing this survey!

# City of Clearwater: Downtown Clearwater Employee Survey

**1. The Pinellas County Metropolitan Planning Organization (MPO) is conducting a survey of downtown employees to evaluate future transportation solutions, including transit alternatives, between Downtown Clearwater and Clearwater Beach. Please complete this survey by Tuesday, June 2nd, 2009. Your responses will be kept confidential. 1. How do you commute to work from home?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **91.8%** | **178** |
| Carpool | 7.7% | 15 |
| PSTA Bus | 1.0% | 2 |
| Bike/Walk | 4.6% | 9 |
| Other (please specify) | 1.0% | 2 |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**2. 2. What is the zip code where you live?**

| | Response Percent | Response Count |
|---|---|---|
| **ZIP:** | **100.0%** | **194** |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**3. 3. Approximately what time do you arrive at work?**

| | Response Percent | Response Count |
|---|---|---|
| **Time:** | **100.0%** | **194** |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**4. 4. How do you commute to home from work?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **90.7%** | **176** |
| Carpool | 7.7% | 15 |
| PSTA Bus | 0.5% | 1 |
| Bike/Walk | 4.1% | 8 |
| Other (please specify) | 2.6% | 5 |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**5. 5. Approximately what time do you leave work?**

| | Response Percent | Response Count |
|---|---|---|
| **Time:** | **100.0%** | **194** |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**6. 6. Do you occasionally travel between Downtown Clearwater and Clearwater Beach during the day?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **52.1%** | **101** |
| No | 47.9% | 93 |
| | ***answered question*** | **194** |
| | ***skipped question*** | **0** |

**7. 6a. How do you currently travel between Downtown Clearwater and Clearwater Beach during the day?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **71.0%** | **71** |
| Carpool | 19.0% | 19 |
| PSTA Bus | 1.0% | 1 |
| Bike/Walk | 15.0% | 15 |
| Other (please specify) | 9.0% | 9 |
| | ***answered question*** | **100** |
| | ***skipped question*** | **94** |

**8. 6b. For what purpose(s) do you travel between Downtown Clearwater and Clearwater Beach during the work day?**

| | Response Percent | Response Count |
|---|---|---|
| **Work** | **64.0%** | **64** |
| Lunch | 53.0% | 53 |
| Errands | 10.0% | 10 |
| Exercise/Recreation | 18.0% | 18 |
| Other (please specify) | 4.0% | 4 |
| | ***answered question*** | **100** |
| | ***skipped question*** | **94** |

**9. 7. Within the last two years, have you used a bus or some other type of transit service while in Pinellas County or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 25.9% | 50 |
| **No** | **74.1%** | **143** |
| | ***answered question*** | **193** |
| | ***skipped question*** | **1** |

**10. 8. If in the future you were going to travel between Downtown Clearwater and Clearwater Beach, would you consider using transit?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **60.6%** | **117** |
| No | 39.4% | 76 |
| | ***answered question*** | **193** |
| | ***skipped question*** | **1** |

**11. 8a. If you were to use transit to travel between Downtown Clearwater and Clearwater Beach, which of the following factors would impact your decision?**

| | Response Percent | Response Count |
|---|---|---|
| Speed | 49.1% | 57 |
| **Convenience** | **87.1%** | **101** |
| Exclusive Lanes (Transit that operates separately from automobile traffic) | 28.4% | 33 |
| Hours of Service | 53.4% | 62 |
| Mode (Rail versus bus) | 31.0% | 36 |
| Frequency (How often the transit service serves your stop) | 84.5% | 98 |
| | ***answered question*** | **116** |
| | ***skipped question*** | **78** |

**12. 9. If in the future you were going to travel from your place of employment to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **75.4%** | **144** |
| No | 24.6% | 47 |
| | ***answered question*** | **191** |
| | ***skipped question*** | **3** |

# Johnson Pope: Downtown Clearwater Employee Survey

**1. The Pinellas County Metropolitan Planning Organization (MPO) is conducting a survey of downtown employees to evaluate future transportation solutions, including transit alternatives, between Downtown Clearwater and Clearwater Beach. Please complete this survey by Tuesday, June 2nd, 2009. Your responses will be kept confidential. 1. How do you commute to work from home?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **92.9%** | **13** |
| Carpool | 7.1% | 1 |
| PSTA Bus | 7.1% | 1 |
| Bike/Walk | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**2. 2. What is the zip code where you live?**

| | Response Percent | Response Count |
|---|---|---|
| **ZIP:** | **100.0%** | **14** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**3. 3. Approximately what time do you arrive at work?**

| | Response Percent | Response Count |
|---|---|---|
| **Time:** | **100.0%** | **14** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 4. 4. How do you commute to home from work? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive Alone** | | **85.7%** | **12** |
| Carpool | | 14.3% | 2 |
| PSTA Bus | | 7.1% | 1 |
| Bike/Walk | | 0.0% | 0 |
| Other (please specify) | | 0.0% | 0 |
| | ***answered question*** | | **14** |
| | ***skipped question*** | | **0** |

| 5. 5. Approximately what time do you leave work? | | Response Percent | Response Count |
|---|---|---|---|
| **Time:** | | **100.0%** | **14** |
| | ***answered question*** | | **14** |
| | ***skipped question*** | | **0** |

| 6. 6. Do you occasionally travel between Downtown Clearwater and Clearwater Beach during the day? | | Response Percent | Response Count |
|---|---|---|---|
| **Yes** | | **78.6%** | **11** |
| No | | 21.4% | 3 |
| | ***answered question*** | | **14** |
| | ***skipped question*** | | **0** |

**7. 6a. How do you currently travel between Downtown Clearwater and Clearwater Beach during the day?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **58.3%** | **7** |
| Carpool | 41.7% | 5 |
| PSTA Bus | 16.7% | 2 |
| Bike/Walk | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **12** |
| | ***skipped question*** | **2** |

**8. 6b. For what purpose(s) do you travel between Downtown Clearwater and Clearwater Beach during the work day?**

| | Response Percent | Response Count |
|---|---|---|
| Work | 16.7% | 2 |
| **Lunch** | **83.3%** | **10** |
| Errands | 33.3% | 4 |
| Exercise/Recreation | 16.7% | 2 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **12** |
| | ***skipped question*** | **2** |

**9. 7. Within the last two years, have you used a bus or some other type of transit service while in Pinellas County or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 28.6% | 4 |
| **No** | **71.4%** | **10** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**10. 8. If in the future you were going to travel between Downtown Clearwater and Clearwater Beach, would you consider using transit?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **71.4%** | **10** |
| No | 28.6% | 4 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**11. 8a. If you were to use transit to travel between Downtown Clearwater and Clearwater Beach, which of the following factors would impact your decision?**

| | Response Percent | Response Count |
|---|---|---|
| Speed | 60.0% | 6 |
| **Convenience** | **80.0%** | **8** |
| Exclusive Lanes (Transit that operates separately from automobile traffic) | 20.0% | 2 |
| Hours of Service | 50.0% | 5 |
| Mode (Rail versus bus) | 20.0% | 2 |
| Frequency (How often the transit service serves your stop) | 70.0% | 7 |
| | ***answered question*** | **10** |
| | ***skipped question*** | **4** |

**12. 9. If in the future you were going to travel from your place of employment to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **69.2%** | **9** |
| No | 30.8% | 4 |
| | ***answered question*** | **13** |
| | ***skipped question*** | **1** |

# Pinellas County: Downtown Clearwater Employee Survey

**1. The Pinellas County Metropolitan Planning Organization (MPO) is conducting a survey of downtown employees to evaluate future transportation solutions, including transit alternatives, between Downtown Clearwater and Clearwater Beach. Please complete this survey by Tuesday, June 2nd, 2009. Your responses will be kept confidential. 1. How do you commute to work from home?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **92.2%** | **357** |
| Carpool | 7.2% | 28 |
| PSTA Bus | 1.3% | 5 |
| Bike/Walk | 4.7% | 18 |
| Other (please specify) | 3.9% | 15 |
| | ***answered question*** | **387** |
| | ***skipped question*** | **0** |

**2. 2. What is the zip code where you live?**

| | Response Percent | Response Count |
|---|---|---|
| **ZIP:** | **100.0%** | **387** |
| | ***answered question*** | **387** |
| | ***skipped question*** | **0** |

**3. 3. Approximately what time do you arrive at work?**

| | Response Percent | Response Count |
|---|---|---|
| **Time:** | **100.0%** | **387** |
| | ***answered question*** | **387** |
| | ***skipped question*** | **0** |

| 4. 4. How do you commute to home from work? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive Alone** | | **92.2%** | **357** |
| Carpool | | 7.2% | 28 |
| PSTA Bus | | 1.8% | 7 |
| Bike/Walk | | 4.9% | 19 |
| Other (please specify) | | 3.4% | 13 |
| | ***answered question*** | | **387** |
| | ***skipped question*** | | **0** |

| 5. 5. Approximately what time do you leave work? | | Response Percent | Response Count |
|---|---|---|---|
| **Time:** | | **100.0%** | **387** |
| | ***answered question*** | | **387** |
| | ***skipped question*** | | **0** |

| 6. 6. Do you occasionally travel between Downtown Clearwater and Clearwater Beach during the day? | | Response Percent | Response Count |
|---|---|---|---|
| Yes | | 23.3% | 90 |
| **No** | | **76.7%** | **297** |
| | ***answered question*** | | **387** |
| | ***skipped question*** | | **0** |

**7. 6a. How do you currently travel between Downtown Clearwater and Clearwater Beach during the day?**

| | Response Percent | Response Count |
|---|---|---|
| **Drive Alone** | **64.4%** | **58** |
| Carpool | 36.7% | 33 |
| PSTA Bus | 1.1% | 1 |
| Bike/Walk | 7.8% | 7 |
| Other (please specify) | 5.6% | 5 |
| | ***answered question*** | **90** |
| | ***skipped question*** | **297** |

**8. 6b. For what purpose(s) do you travel between Downtown Clearwater and Clearwater Beach during the work day?**

| | Response Percent | Response Count |
|---|---|---|
| Work | 24.4% | 22 |
| **Lunch** | **80.0%** | **72** |
| Errands | 20.0% | 18 |
| Exercise/Recreation | 15.6% | 14 |
| Other (please specify) | 6.7% | 6 |
| | ***answered question*** | **90** |
| | ***skipped question*** | **297** |

**9. 7. Within the last two years, have you used a bus or some other type of transit service while in Pinellas County or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 26.2% | 101 |
| **No** | **73.8%** | **284** |
| | ***answered question*** | **385** |
| | ***skipped question*** | **2** |

**10. 8. If in the future you were going to travel between Downtown Clearwater and Clearwater Beach, would you consider using transit?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **57.9%** | **223** |
| No | 42.1% | 162 |
| | ***answered question*** | **385** |
| | ***skipped question*** | **2** |

**11. 8a. If you were to use transit to travel between Downtown Clearwater and Clearwater Beach, which of the following factors would impact your decision?**

| | Response Percent | Response Count |
|---|---|---|
| Speed | 52.9% | 118 |
| **Convenience** | **78.0%** | **174** |
| Exclusive Lanes (Transit that operates separately from automobile traffic) | 18.4% | 41 |
| Hours of Service | 60.1% | 134 |
| Mode (Rail versus bus) | 20.6% | 46 |
| Frequency (How often the transit service serves your stop) | 75.3% | 168 |
| | ***answered question*** | **223** |
| | ***skipped question*** | **164** |

**12. 9. If in the future you were going to travel from your place of employment to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **73.9%** | **283** |
| No | 26.1% | 100 |
| | ***answered question*** | **383** |
| | ***skipped question*** | **4** |

# APPENDIX B HOTEL GUEST SURVEY DATA

Appendix B contains copies of the following documents:

- Summary of Hotel Guest Travel Survey
- Map of study area
- Sample letters to hotel managers (6)
- Sample letters to hotel guests (6)
- Survey instrument
- Front page of brochure included in guest packet
- Results from Sand Pearl Resort spring break survey
- Results from Shephard's Beach Resort spring break survey
- Results from Palm Pavilion Inn spring break survey
- Results from Travelodge Clearwater Beach spring break survey
- Results from Palm Pavilion Inn non-spring break survey
- Results from Sand Pearl Resort non-spring break survey
- Results from Residence Inn by Marriott non-spring break survey

- Results from Shephard's Beach Resort non-spring break survey
- Results from Travelodge Clearwater Beach non-spring break survey

BAYSIDE ENGINEERING

110 North 11th Street, 1st Floor
Tampa, FL 33602-5860
813.314.0314 Phone
813.314.0345 Fax
www.baysideeng.com

# SUMMARY OF HOTEL GUEST TRAVEL SURVEY

TO: Laura Everitt, Esq., AICP

FROM: Oliver Rodrigues, P.E.

DATE: May 29, 2009

SUBJECT: Downtown Clearwater and Clearwater Beach Transit Evaluation Study (Gulfview Blvd to Court Street)

The following is a summary of the hotel guest travel survey for the above study taken during the month of April 2009.

## Introduction

Hotel visitor surveys were collected during the week of Spring Break and two weeks following Spring Break during the month of April. The study area included Clearwater Beach and portions of Downtown Clearwater. A map of the study area is attached.

## Hotels

Listed below are the hotels that were considered for the visitor survey. The hotels were identified based on their location, characteristics, and number of rooms. A copy of the letters from the Mayor of the City of Clearwater to each hotel is attached.

| Hotel | Number of Rooms |
|---|---|
| Hilton Clearwater Beach Resort | 416 |
| Sand Pearl Resort, LLC | 250 |
| Residence Inn by Marriott | 115 |
| Shephards Beach Resort | 94 |
| Red Roof Inn Clearwater Beach | 74 |
| Clearwater Beachview Resort | 64 |
| Days Inn | 62 |
| Travelodge Clearwater Beach | 54 |
| Ritz Resort Motel | 30 |
| Palm Pavillion Inn | 29 |

## Survey Questionnaire

The survey questionnaire included the following material:

- Letter from Mayor Frank V. Hibbard to hotel guest
- Survey questionnaire
- Tourist brochure

These items were placed in an envelope and handed to visitors by the hotel staff. A drop box was provided at the front desk for completed surveys. A copy of the survey, questionnaire packet is attached.

## Survey Participation

The hotel visitor surveys were distributed during the week of Spring Break ending April 10th. Two weeks after, a second group of surveys were distributed.

A list of the hotels along with the number of visitor surveys distributed and collected are summarized below:

| HOTEL | NUMBER OF ROOMS | Surveys Distributed | Surveys Returned | Percent Returned |
|---|---|---|---|---|
| **Sand Pearl Resort, LLC** | 250 | 300 | 42 | 14% |
| **Residence Inn By Marriott** | 115 | 14 | 3 | 21% |
| **Shephards Beach Resort** | 94 | 109 | 23 | 21% |
| **Red Roof Inn Clearwater Beach** | 74 | 45 | 0 | 0% |
| **Travelodge Clearwater Beach** | 54 | 90 | 10 | 11% |
| **Palm Pavillion Inn** | 29 | 39 | 25 | 64% |
| **Total:** | **616** | **597** | **103** | **17.2%** |

Survey results were summarized in Survey Monkey. A copy of the surveys results by hotel is attached

## ATTACHMENTS

- **Map of Study Area**
- **Letters to All Hotel Managers**
- **Letter to Guests at All Participating Hotels**
- **Survey Questionaire Packet**
- **Hotel Survey-Results – Spring Break**
- **Hotel Survey-Results – Non Spring Break**


**Downtown Clearwater to Clearwater Beach Evaluation of Transit Alternatives**

**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Hotel Manager
Clearwater Beachview Resort
355 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Sir or Madame:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

h:\users\cendocs\mpo\ letter to hoteliers completed.ck

**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Hotel Manager
Ritz Resort Motel
355 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Sir or Madame:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Kathy Mittler
Travelodge Clearwater Beach
401 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Ms. Mittler:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Hotel Manager
Red Roof Inn Clearwater Beach
421 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Sir or Madame:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Larry Frederick
Days Inn
504 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Mr. Frederick:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Erica Clancey
Residence Inn by Marriott Clearwater Downtown
940 Court Street
Clearwater, FL 33756

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Ms. Clancey:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Stuart Arp
Sand Pearl Resort, LLC
500 Mandalay Avenue
Clearwater, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Mr. Arp:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

h:\users\cendocs\mpo\ letter to hoteliers completed.dc

**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Debbie Diaz Welsh
Palm Pavilion Inn
18 Bay Esplanade
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Ms. Welsh:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

We appreciate your time and look forward to working with you.

Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Bob Walters
Hilton Clearwater Beach Resort
400 Mandalay Avenue
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Mr. Walters:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

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Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Paul Andrews
Shephard's Beach Resort
619 Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Mr. Andrews:

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

The City of Clearwater, in conjunction with the Pinellas County Metropolitan Planning Organization (MPO), is evaluating future transportation solutions, including transit alternatives. The MPO carefully selected a few businesses in the area to assist in this endeavor and would appreciate your assistance. A consultant representative on behalf of the MPO will be contacting you in the near future to schedule a meeting to further discuss how your business can participate in a survey of tourist and visitors.

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Chairman, Pinellas County Mobility Initiative Steering Committee

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PINELLAS COUNTY
METROPOLITAN PLANNING ORGANIZATION
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Shephard's Beach Resort
619 Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

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Your input is a valuable source of information for us as we strive to improve the City for everyone's benefit. Thank you for your input and we hope that you enjoy your visit. We look forward to providing you an even better experience the next time you visit.

Sincerely,

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Palm Pavilion Inn
18 Bay Esplanade
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

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Sincerely,

Frank V. Hibbard

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Sand Pearl Resort, LLC
500 Mandalay Avenue
Clearwater, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

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Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Residence Inn by Marriott Clearwater Downtown
940 Court Street
Clearwater, FL 33756

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

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Frank V. Hibbard

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Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Red Roof Inn Clearwater Beach
421 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

As you know, Clearwater Beach is a popular destination for tourist and seasonal residents. This fact gives our community a great source of pride.

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Chairman, Pinellas County Mobility Initiative Steering Committee

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**PINELLAS COUNTY**
**METROPOLITAN PLANNING ORGANIZATION**
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Travelodge Clearwater Beach
401 S. Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

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PINELLAS COUNTY
METROPOLITAN PLANNING ORGANIZATION
600 Cleveland Street Suite 750 Clearwater, Florida 33755 (727) 464-8200 Phone
(727) 464-8201 Fax

April 1, 2009

Valued Visitor!
Shephard's Beach Resort
619 Gulfview Blvd
Clearwater Beach, FL 33767

**RE: Downtown Clearwater and Clearwater Beach Transit Evaluation Study**

Dear Valued Visitor:

Welcome to Clearwater Beach! We are glad you are here.

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Sincerely,

Frank V. Hibbard, Mayor City of Clearwater
Chairman, Pinellas County Mobility Initiative Steering Committee

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# Clearwater Beach and Downtown Clearwater Visitor Survey

Welcome to Clearwater! The City of Clearwater in conjunction with the Pinellas County Metropolitan Planning Organization (MPO) is conducting a survey to evaluate future transportation solutions.

- Please complete this survey and return it to the front desk at any time. Your responses will be kept confidential.
- Your input is important to assisting us in improving the City for everyone's benefit.
- You may keep the enclosed brochure as a token of our appreciation.

**Please answer questions 1, 2 and 3.**

1. During this visit, how many nights will you stay at this hotel?
   ☐ 1 ☐ 2 or 3 ☐ 4 or 5 ☐ 6 or 7 ☐ More than 7
2. What is the primary purpose of your visit to the area?
   ☐ Vacation ☐ Work ☐ Visit Friends/Relatives
   ☐ Other (specify) _____
3. Will you have a car available for your use during your visit?
   ☐ Yes, personal car ☐ Yes, rental car ☐ No car available

**If you are staying on Clearwater Beach (as opposed to downtown), then please answer questions 4, 5 and 6.**

4. Will you visit downtown Clearwater during your stay?
   ☐ Yes ☐ No ☐ Not sure (If no, skip to question 10)
5. If so, how will you travel to downtown Clearwater?
   ☐ Drive ☐ Hotel shuttle ☐ Bus ☐ Taxi ☐ Walk/bike ☐ Not sure
6. For what purpose(s) will you travel to downtown Clearwater? (✓ all that apply)
   ☐ Sightseeing ☐ Have a meal or beverage ☐ Shopping
   ☐ Exercise/recreation ☐ Other (specify) _____

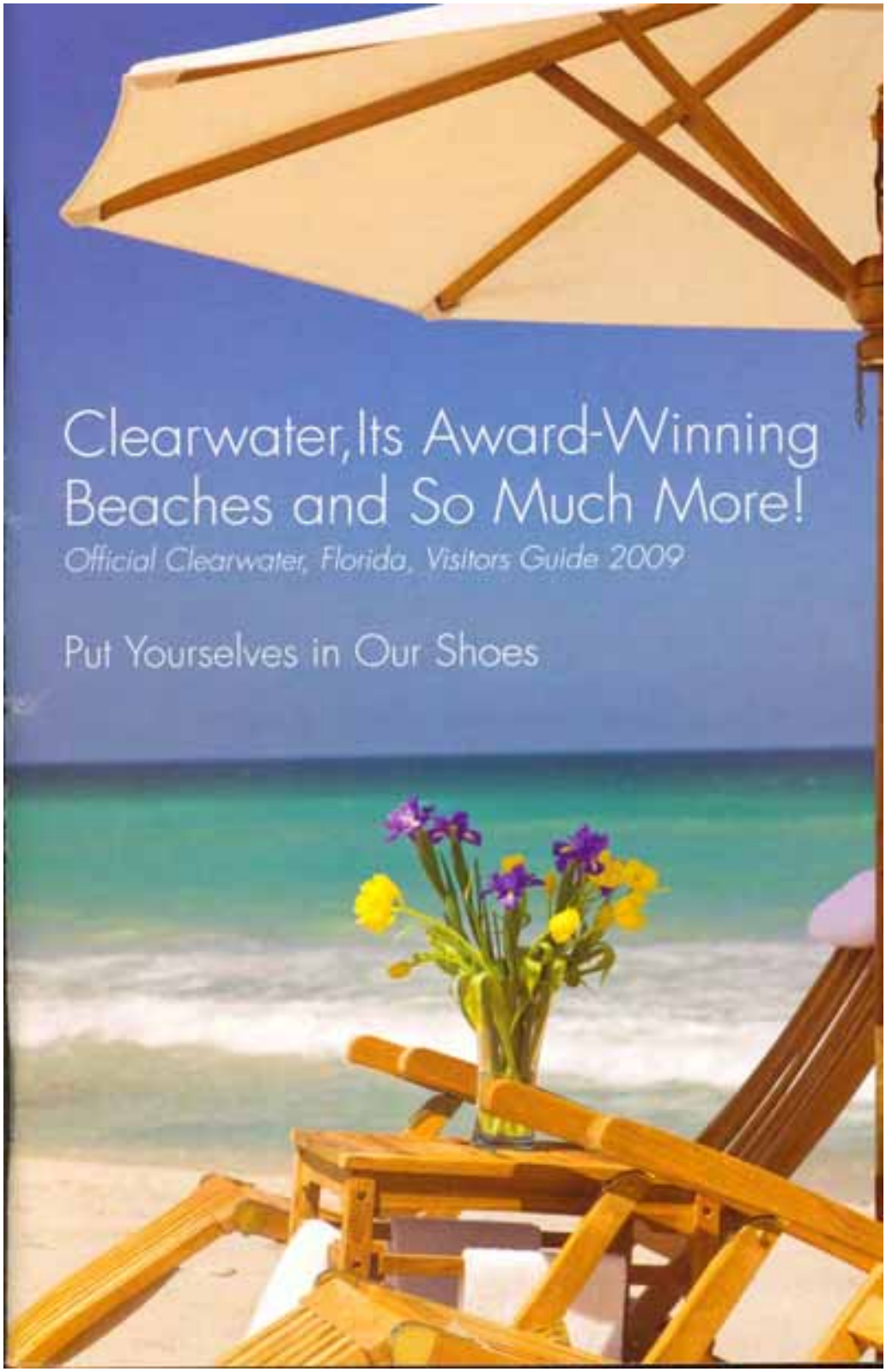
**If you are staying in downtown Clearwater, then please answer questions 7, 8 and 9.**

7. Will you visit the Clearwater Beach area during your stay?
   ☐ Yes ☐ No ☐ Not sure (If no, skip to question 10)
8. If so, how will you travel to the Clearwater Beach area?
   ☐ Drive ☐ Hotel shuttle ☐ Bus ☐ Taxi ☐ Walk/bike ☐ Not sure
9. For what purpose(s) will you travel to the Clearwater Beach area? (✓ all that apply)
   ☐ Sightseeing ☐ Have a meal or beverage ☐ Shopping
   ☐ Exercise/recreation ☐ Other (specify) _____

**Please answer questions 10, 11, 12 and 13.**

10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?
    ☐ Yes ☐ No ☐ I do not plan on leaving the hotel
11. Have you ever used a transit or bus system while visiting Clearwater or another city? ☐ Yes ☐ No
12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic? ☐ Yes ☐ No
13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving? ☐ Yes ☐ No
    If yes, list destinations _____
    _____

**Thank you for completing this survey. Please return it to the front desk at any time.**


Clearwater, Its Award-Winning Beaches and So Much More!
Official Clearwater, Florida, Visitors Guide 2009
Put Yourselves in Our Shoes

# Clearwater Beach Visitor Survey: Sand Pearl 041009 Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 5.3% | 1 |
| 2 or 3 | 15.8% | 3 |
| 4 or 5 | 26.3% | 5 |
| **6 or 7** | **42.1%** | **8** |
| More than 7 | 10.5% | 2 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **84.2%** | **16** |
| Work | 10.5% | 2 |
| Visit Friends / Relatives | 5.3% | 1 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes, personal car** | | **47.4%** | **9** |
| Yes, rental car | | 31.6% | 6 |
| No car available | | 21.1% | 4 |
| | ***answered question*** | | **19** |
| | ***skipped question*** | | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **52.6%** | **10** |
| No | | 26.3% | 5 |
| Not sure (if no, skip to question 10) | | 21.1% | 4 |
| | ***answered question*** | | **19** |
| | ***skipped question*** | | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive** | | **61.1%** | **11** |
| Hotel shuttle | | 0.0% | 0 |
| Bus | | 0.0% | 0 |
| Taxi | | 5.6% | 1 |
| Walk/bike | | 0.0% | 0 |
| Not sure | | 11.1% | 2 |
| N/A | | 22.2% | 4 |
| | ***answered question*** | | **18** |
| | ***skipped question*** | | **1** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | Response Percent | Response Count |
|---|---|---|---|
| Sightseeing | | 26.3% | 5 |
| **Have a meal or beverage** | | **57.9%** | **11** |
| Shopping | | 21.1% | 4 |
| Exercise/recreation | | 5.3% | 1 |
| N/A | | 26.3% | 5 |
| Other (please specify) | | 0.0% | 0 |
| | ***answered question*** | | **19** |
| | ***skipped question*** | | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **19** |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **19** |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **19** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 31.6% | 6 |
| **No** | **63.2%** | **12** |
| I do not plan on leaving the hotel | 5.3% | 1 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**11. Have you ever used a transit or bus system while visiting Clearwater or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 10.5% | 2 |
| **No** | **89.5%** | **17** |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **84.2%** | **16** |
| No | 15.8% | 3 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 26.3% | 5 |
| **No** | **73.7%** | **14** |
| | If yes, list destinations | 5 |
| | ***answered question*** | **19** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 1 |
| | ***answered question*** | **1** |
| | ***skipped question*** | **18** |

# Clearwater Beach Visitor Survey: Shephard's 041009 Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 11.1% | 1 |
| 2 or 3 | 11.1% | 1 |
| **4 or 5** | **44.4%** | **4** |
| 6 or 7 | 22.2% | 2 |
| More than 7 | 11.1% | 1 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **66.7%** | **6** |
| Work | 11.1% | 1 |
| Visit Friends / Relatives | 22.2% | 2 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| Yes, personal car | | 33.3% | 3 |
| **Yes, rental car** | | **55.6%** | **5** |
| No car available | | 11.1% | 1 |
| | | ***answered question*** | **9** |
| | | ***skipped question*** | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **77.8%** | **7** |
| No | | 11.1% | 1 |
| Not sure (if no, skip to question 10) | | 11.1% | 1 |
| | | ***answered question*** | **9** |
| | | ***skipped question*** | **0** |

| 5. If so, how will you travel to downtown Clearwater? | Response Percent | Response Count |
|---|---|---|
| **Drive** | **44.4%** | **4** |
| Hotel shuttle | 11.1% | 1 |
| Bus | 0.0% | 0 |
| Taxi | 11.1% | 1 |
| Walk/bike | 11.1% | 1 |
| Not sure | 11.1% | 1 |
| N/A | 11.1% | 1 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | Response Percent | Response Count |
|---|---|---|
| **Sightseeing** | **55.6%** | **5** |
| **Have a meal or beverage** | **55.6%** | **5** |
| Shopping | 22.2% | 2 |
| Exercise/recreation | 11.1% | 1 |
| N/A | 11.1% | 1 |
| Other (please specify) | 11.1% | 1 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **9** |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **9** |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **9** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **88.9%** | **8** |
| No | 11.1% | 1 |
| I do not plan on leaving the hotel | 0.0% | 0 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**11. Have you ever used a transit or bus system while visiting Clearwater or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 22.2% | 2 |
| **No** | **77.8%** | **7** |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **77.8%** | **7** |
| No | 22.2% | 2 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **77.8%** | **7** |
| No | 22.2% | 2 |
| | If yes, list destinations | 7 |
| | ***answered question*** | **9** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 0 |
| | ***answered question*** | **0** |
| | ***skipped question*** | **9** |

# Clearwater Beach Visitor Survey: Palm Pavillion 041009 Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 11.8% | 2 |
| **2 or 3** | **35.3%** | **6** |
| **4 or 5** | **35.3%** | **6** |
| 6 or 7 | 17.6% | 3 |
| More than 7 | 0.0% | 0 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **100.0%** | **17** |
| Work | 0.0% | 0 |
| Visit Friends / Relatives | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes, personal car** | | **68.8%** | **11** |
| Yes, rental car | | 25.0% | 4 |
| No car available | | 6.3% | 1 |
| | ***answered question*** | | **16** |
| | ***skipped question*** | | **1** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| Yes | | 17.6% | 3 |
| **No** | | **76.5%** | **13** |
| Not sure (if no, skip to question 10) | | 5.9% | 1 |
| | ***answered question*** | | **17** |
| | ***skipped question*** | | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | Response Percent | Response Count |
|---|---|---|---|
| Drive | | 17.6% | 3 |
| Hotel shuttle | | 0.0% | 0 |
| Bus | | 0.0% | 0 |
| Taxi | | 0.0% | 0 |
| Walk/bike | | 5.9% | 1 |
| Not sure | | 0.0% | 0 |
| **N/A** | | **76.5%** | **13** |
| | ***answered question*** | | **17** |
| | ***skipped question*** | | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | Response Percent | Response Count |
|---|---|---|---|
| Sightseeing | | 5.9% | 1 |
| Have a meal or beverage | | 17.6% | 3 |
| Shopping | | 17.6% | 3 |
| Exercise/recreation | | 11.8% | 2 |
| **N/A** | | **76.5%** | **13** |
| Other (please specify) | | 0.0% | 0 |
| | ***answered question*** | | **17** |
| | ***skipped question*** | | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **17** |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **17** |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **17** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **47.1%** | **8** |
| No | 41.2% | 7 |
| I do not plan on leaving the hotel | 11.8% | 2 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**11. Have you ever used a transit or bus system while visiting Clearwater or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 47.1% | 8 |
| **No** | **52.9%** | **9** |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **82.4%** | **14** |
| No | 17.6% | 3 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **58.8%** | **10** |
| No | 41.2% | 7 |
| | If yes, list destinations | 10 |
| | ***answered question*** | **17** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 1 |
| | ***answered question*** | **1** |
| | ***skipped question*** | **16** |

# Clearwater Beach Visitor Survey: Travel Lodge 041009 Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| **1** | **25.0%** | **1** |
| **2 or 3** | **25.0%** | **1** |
| **4 or 5** | **25.0%** | **1** |
| 6 or 7 | 0.0% | 0 |
| **More than 7** | **25.0%** | **1** |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **100.0%** | **4** |
| Work | 0.0% | 0 |
| Visit Friends / Relatives | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | **Response Percent** | **Response Count** |
| **Yes, personal car** | | **75.0%** | **3** |
| Yes, rental car | | 25.0% | 1 |
| No car available | | 0.0% | 0 |
| | | ***answered question*** | **4** |
| | | ***skipped question*** | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | **Response Percent** | **Response Count** |
| Yes | | 25.0% | 1 |
| **No** | | **75.0%** | **3** |
| Not sure (if no, skip to question 10) | | 0.0% | 0 |
| | | ***answered question*** | **4** |
| | | ***skipped question*** | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 25.0% | 1 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **75.0%** | **3** |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 25.0% | 1 |
| Have a meal or beverage | 25.0% | 1 |
| Shopping | 25.0% | 1 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **75.0%** | **3** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **4** |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **4** |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **4** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| **Yes** | **75.0%** | **3** |
| No | 0.0% | 0 |
| I do not plan on leaving the hotel | 25.0% | 1 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

| 11. Have you ever used a transit or bus system while visiting Clearwater or another city? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 25.0% | 1 |
| **No** | **75.0%** | **3** |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **75.0%** | **3** |
| No | 25.0% | 1 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **75.0%** | **3** |
| No | 25.0% | 1 |
| | If yes, list destinations | 3 |
| | ***answered question*** | **4** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 0 |
| | ***answered question*** | **0** |
| | ***skipped question*** | **4** |

# Clearwater Beach Visitor Survey: Palm Pavillion 042409 Non-Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 25.0% | 2 |
| **2 or 3** | **50.0%** | **4** |
| 4 or 5 | 12.5% | 1 |
| 6 or 7 | 12.5% | 1 |
| More than 7 | 0.0% | 0 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **87.5%** | **7** |
| Work | 0.0% | 0 |
| Visit Friends / Relatives | 25.0% | 2 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| Yes, personal car | | 25.0% | 2 |
| **Yes, rental car** | | **75.0%** | **6** |
| No car available | | 0.0% | 0 |
| | | ***answered question*** | **8** |
| | | ***skipped question*** | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **37.5%** | **3** |
| **No** | | **37.5%** | **3** |
| Not sure (if no, skip to question 10) | | 25.0% | 2 |
| | | ***answered question*** | **8** |
| | | ***skipped question*** | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive** | | **62.5%** | **5** |
| Hotel shuttle | | 0.0% | 0 |
| Bus | | 0.0% | 0 |
| Taxi | | 0.0% | 0 |
| Walk/bike | | 0.0% | 0 |
| Not sure | | 0.0% | 0 |
| N/A | | 37.5% | 3 |
| | | ***answered question*** | **8** |
| | | ***skipped question*** | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | Response Percent | Response Count |
|---|---|---|---|
| Sightseeing | | 25.0% | 2 |
| **Have a meal or beverage** | | **37.5%** | **3** |
| Shopping | | 25.0% | 2 |
| Exercise/recreation | | 12.5% | 1 |
| **N/A** | | **37.5%** | **3** |
| Other (please specify) | | 25.0% | 2 |
| | | ***answered question*** | **8** |
| | | ***skipped question*** | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **8** |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **8** |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

| 9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **8** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

| 10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 12.5% | 1 |
| **No** | **87.5%** | **7** |
| I do not plan on leaving the hotel | 0.0% | 0 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

| 11. Have you ever used a transit or bus system while visiting Clearwater or another city? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 37.5% | 3 |
| **No** | **62.5%** | **5** |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **87.5%** | **7** |
| No | 12.5% | 1 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **62.5%** | **5** |
| No | 37.5% | 3 |
| | If yes, list destinations | 5 |
| | ***answered question*** | **8** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 3 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **5** |

# Clearwater Beach Visitor Survey: Sand Pearl 042409 Non-Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 21.7% | 5 |
| **2 or 3** | **26.1%** | **6** |
| **4 or 5** | **26.1%** | **6** |
| 6 or 7 | 13.0% | 3 |
| More than 7 | 13.0% | 3 |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **60.9%** | **14** |
| Work | 26.1% | 6 |
| Visit Friends / Relatives | 8.7% | 2 |
| Other (please specify) | 8.7% | 2 |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| Yes, personal car | | 34.8% | 8 |
| **Yes, rental car** | | **47.8%** | **11** |
| No car available | | 17.4% | 4 |
| | ***answered question*** | | **23** |
| | ***skipped question*** | | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **43.5%** | **10** |
| No | | 34.8% | 8 |
| Not sure (if no, skip to question 10) | | 21.7% | 5 |
| | ***answered question*** | | **23** |
| | ***skipped question*** | | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive** | | **43.5%** | **10** |
| Hotel shuttle | | 0.0% | 0 |
| Bus | | 0.0% | 0 |
| Taxi | | 0.0% | 0 |
| Walk/bike | | 4.3% | 1 |
| Not sure | | 21.7% | 5 |
| N/A | | 30.4% | 7 |
| | | ***answered question*** | **23** |
| | | ***skipped question*** | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | Response Percent | Response Count |
|---|---|---|---|
| **Sightseeing** | | **50.0%** | **11** |
| Have a meal or beverage | | 40.9% | 9 |
| Shopping | | 36.4% | 8 |
| Exercise/recreation | | 4.5% | 1 |
| N/A | | 31.8% | 7 |
| Other (please specify) | | 4.5% | 1 |
| | | ***answered question*** | **22** |
| | | ***skipped question*** | **1** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **23** |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **23** |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

**9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **23** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

**10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 30.4% | 7 |
| **No** | **47.8%** | **11** |
| I do not plan on leaving the hotel | 21.7% | 5 |
| | ***answered question*** | **23** |
| | ***skipped question*** | **0** |

**11. Have you ever used a transit or bus system while visiting Clearwater or another city?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 18.2% | 4 |
| **No** | **81.8%** | **18** |
| | ***answered question*** | **22** |
| | ***skipped question*** | **1** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **63.6%** | **14** |
| No | 36.4% | 8 |
| | ***answered question*** | **22** |
| | ***skipped question*** | **1** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| Yes | 36.4% | 8 |
| **No** | **63.6%** | **14** |
| | If yes, list destinations | 8 |
| | ***answered question*** | **22** |
| | ***skipped question*** | **1** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 1 |
| | ***answered question*** | **1** |
| | ***skipped question*** | **22** |

# Clearwater Beach Visitor Survey: Residence Inn Marriott 042409 Non-Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 0.0% | 0 |
| 2 or 3 | 33.3% | 1 |
| **4 or 5** | **66.7%** | **2** |
| 6 or 7 | 0.0% | 0 |
| More than 7 | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **100.0%** | **3** |
| Work | 0.0% | 0 |
| Visit Friends / Relatives | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | **Response Percent** | **Response Count** |
| **Yes, personal car** | | **33.3%** | **1** |
| **Yes, rental car** | | **33.3%** | **1** |
| **No car available** | | **33.3%** | **1** |
| | | ***answered question*** | **3** |
| | | ***skipped question*** | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | **Response Percent** | **Response Count** |
| Yes | | 0.0% | 0 |
| No | | 0.0% | 0 |
| Not sure (if no, skip to question 10) | | 0.0% | 0 |
| | | ***answered question*** | **0** |
| | | ***skipped question*** | **3** |

| 5. If so, how will you travel to downtown Clearwater? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **3** |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **3** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| **Yes** | **100.0%** | **3** |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| N/A | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| **Drive** | **66.7%** | **2** |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 33.3% | 1 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| N/A | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 33.3% | 1 |
| Have a meal or beverage | 66.7% | 2 |
| Shopping | 33.3% | 1 |
| **Exercise/recreation** | **100.0%** | **3** |
| N/A | 0.0% | 0 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **66.7%** | **2** |
| No | 33.3% | 1 |
| I do not plan on leaving the hotel | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**11. Have you ever used a transit or bus system while visiting Clearwater or another city?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **66.7%** | **2** |
| No | 33.3% | 1 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **100.0%** | **3** |
| No | 0.0% | 0 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **100.0%** | **3** |
| No | 0.0% | 0 |
| | If yes, list destinations | 3 |
| | ***answered question*** | **3** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 0 |
| | ***answered question*** | **0** |
| | ***skipped question*** | **3** |

# Clearwater Beach Visitor Survey: Shephard's 042409 Non-Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 21.4% | 3 |
| 2 or 3 | 21.4% | 3 |
| **4 or 5** | **28.6%** | **4** |
| 6 or 7 | 14.3% | 2 |
| More than 7 | 14.3% | 2 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **50.0%** | **7** |
| Work | 21.4% | 3 |
| Visit Friends / Relatives | 28.6% | 4 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes, personal car** | | **44.4%** | **4** |
| Yes, rental car | | 22.2% | 2 |
| No car available | | 33.3% | 3 |
| | ***answered question*** | | **9** |
| | ***skipped question*** | | **5** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **50.0%** | **7** |
| No | | 35.7% | 5 |
| Not sure (if no, skip to question 10) | | 14.3% | 2 |
| | ***answered question*** | | **14** |
| | ***skipped question*** | | **0** |

**5. If so, how will you travel to downtown Clearwater?**

| | Response Percent | Response Count |
|---|---|---|
| Drive | 33.3% | 4 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 25.0% | 3 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **41.7%** | **5** |
| | ***answered question*** | **12** |
| | ***skipped question*** | **2** |

**6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply)**

| | Response Percent | Response Count |
|---|---|---|
| Sightseeing | 8.3% | 1 |
| Have a meal or beverage | 33.3% | 4 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **41.7%** | **5** |
| Other (please specify) | 16.7% | 2 |
| | ***answered question*** | **12** |
| | ***skipped question*** | **2** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **14** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **14** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **14** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 42.9% | 6 |
| **No** | **50.0%** | **7** |
| I do not plan on leaving the hotel | 7.1% | 1 |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

| 11. Have you ever used a transit or bus system while visiting Clearwater or another city? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| **Yes** | **50.0%** | **7** |
| **No** | **50.0%** | **7** |
| | ***answered question*** | **14** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **76.9%** | **10** |
| No | 23.1% | 3 |
| | ***answered question*** | **13** |
| | ***skipped question*** | **1** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **61.5%** | **8** |
| No | 38.5% | 5 |
| | If yes, list destinations | 9 |
| | ***answered question*** | **13** |
| | ***skipped question*** | **1** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 0 |
| | ***answered question*** | **0** |
| | ***skipped question*** | **14** |

# Clearwater Beach Visitor Survey: Travel Lodge 042409 Non-Spring Break

**1. During this visit, how many nights will you stay at this hotel?**

| | Response Percent | Response Count |
|---|---|---|
| 1 | 0.0% | 0 |
| 2 or 3 | 16.7% | 1 |
| **4 or 5** | **50.0%** | **3** |
| 6 or 7 | 33.3% | 2 |
| More than 7 | 0.0% | 0 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

**2. What is the primary purpose of your visit to the area?**

| | Response Percent | Response Count |
|---|---|---|
| **Vacation** | **83.3%** | **5** |
| Work | 0.0% | 0 |
| Visit Friends / Relatives | 16.7% | 1 |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

| 3. Will you have a car available for your use during your visit? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes, personal car** | | **50.0%** | **3** |
| **Yes, rental car** | | **50.0%** | **3** |
| No car available | | 0.0% | 0 |
| | | ***answered question*** | **6** |
| | | ***skipped question*** | **0** |

| 4. Will you visit downtown Clearwater during your stay? | | | |
|---|---|---|---|
| | | Response Percent | Response Count |
| **Yes** | | **50.0%** | **3** |
| No | | 0.0% | 0 |
| **Not sure (if no, skip to question 10)** | | **50.0%** | **3** |
| | | ***answered question*** | **6** |
| | | ***skipped question*** | **0** |

| 5. If so, how will you travel to downtown Clearwater? | | Response Percent | Response Count |
|---|---|---|---|
| **Drive** | | **80.0%** | **4** |
| Hotel shuttle | | 0.0% | 0 |
| Bus | | 0.0% | 0 |
| Taxi | | 0.0% | 0 |
| Walk/bike | | 0.0% | 0 |
| Not sure | | 20.0% | 1 |
| N/A | | 0.0% | 0 |
| | | ***answered question*** | **5** |
| | | ***skipped question*** | **1** |

| 6. For what purpose(s) will you travel to downtown Clearwater? (Check all that apply) | | Response Percent | Response Count |
|---|---|---|---|
| **Sightseeing** | | **75.0%** | **3** |
| Have a meal or beverage | | 25.0% | 1 |
| Shopping | | 50.0% | 2 |
| Exercise/recreation | | 0.0% | 0 |
| N/A | | 0.0% | 0 |
| Other (please specify) | | 0.0% | 0 |
| | | ***answered question*** | **4** |
| | | ***skipped question*** | **2** |

| 7. Will you visit the Clearwater Beach area during your stay? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 0.0% | 0 |
| No | 0.0% | 0 |
| Not sure (If no, skip to question 10) | 0.0% | 0 |
| **N/A** | **100.0%** | **6** |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

| 8. If so, how will you travel to the Clearwater Beach area? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Drive | 0.0% | 0 |
| Hotel shuttle | 0.0% | 0 |
| Bus | 0.0% | 0 |
| Taxi | 0.0% | 0 |
| Walk/bike | 0.0% | 0 |
| Not sure | 0.0% | 0 |
| **N/A** | **100.0%** | **6** |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

| 9. For what purpose(s) will you travel to the Clearwater Beach area? (Check all that apply) | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Sightseeing | 0.0% | 0 |
| Have a meal or beverage | 0.0% | 0 |
| Shopping | 0.0% | 0 |
| Exercise/recreation | 0.0% | 0 |
| **N/A** | **100.0%** | **6** |
| Other (please specify) | 0.0% | 0 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

| 10. When you leave the hotel to visit other nearby destinations, are you concerned about traffic congestion? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| **Yes** | **66.7%** | **4** |
| No | 33.3% | 2 |
| I do not plan on leaving the hotel | 0.0% | 0 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

| 11. Have you ever used a transit or bus system while visiting Clearwater or another city? | | |
|---|---|---|
| | **Response Percent** | **Response Count** |
| Yes | 33.3% | 2 |
| **No** | **66.7%** | **4** |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

**12. If you were going to travel between the beach area and downtown Clearwater, would you consider using transit if it were separated from regular traffic?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **100.0%** | **6** |
| No | 0.0% | 0 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

**13. If you were going to travel from your hotel to any other destination in the region, would you consider using transit if the travel time were comparable to driving?**

| | Response Percent | Response Count |
|---|---|---|
| **Yes** | **83.3%** | **5** |
| No | 16.7% | 1 |
| | If yes, list destinations | 5 |
| | ***answered question*** | **6** |
| | ***skipped question*** | **0** |

**14. Additional Comments:**

| | Response Count |
|---|---|
| | 0 |
| | ***answered question*** | **0** |
| | ***skipped question*** | **6** |

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# APPENDIX C OPEN HOUSE DATA

Appendix C contains copies of promotional materials, sign-in sheets, surveys instruments, and completed instruments for the four open houses described in Section 4 Public Involvement.


# Clearwater Beach to Downtown Transit Options

## Public Input Open Houses

The Pinellas County Metropolitan Planning Organization (MPO) is seeking input on transit alternatives between downtown Clearwater and Clearwater Beach. The format is open house so stop by any time during the event. We want your input!

**OPEN HOUSE 1**

**Wednesday, June 24, 2009 (4:30 p.m. - 6:30 p.m.)**
**Clearwater Beach Recreation Center**
**69 Bay Esplanade**
**Clearwater, Florida**
*Located on the Jolley Trolley and PSTA Suncoast Beach Trolley SM routes.*

**OPEN HOUSE 2**

**Friday, June 26, 2009 (5:30 p.m. - 7:30 p.m.)**
**4th Friday Celebration**
**500 - 600 blocks of Cleveland Street (downtown)**
**Clearwater, Florida**
*Located near PSTA Park Street Transfer facility served by PSTA Routes 18, 52, 60, 61, 66, 67, 73, 76, 78, 93, 98, and the Suncoast Beach Trolley SM.*

**For those persons unable to attend one of the workshops, written comments will be accepted through June 30, 2009, and may be sent to:**

**Pinellas County Metropolitan Planning Organization**
**Attn: Heather Sobush**
**600 Cleveland Street, Suite 750**
**Clearwater, Florida 33755**

**If you are a person with a disability who needs any accommodation, or if you need language assistance in order to participate in this proceeding, you are entitled to the provision of certain assistance at no cost. Please call the Office of Human Rights, (727) 464-4062 (V/TDD) by Monday, June 22, 4p.m.**

**Si usted necesita la ayuda de un traductor del idioma español, por favor comuníquese con la Oficina de Derechos Humanos situada en la siguiente dirección, 400 South Fort Harrison Avenue, Piso 5, en la Cuidad de Clearwater, Florida 33756; Telefono: (727) 464-4062; (V/TDD).**

# CLEARWATER BEACH TO DOWNTOWN TRANSIT OPTIONS AND LONG RANGE TRANSPORTATION PLAN UPDATE

Public Input Open Houses

The Pinellas County Metropolitan Planning Organization (MPO) is seeking input on transit alternatives between downtown Clearwater and Clearwater Beach and transportation needs and improvements in Pinellas County that will be addressed in the MPO Long Range Transportation Plan Update, which is scheduled for adoption in October. The format is open house so stop by any time during the event. We want your input!

**OPEN HOUSE 1** **Wednesday, June 24, 2009**
**(4:30 p.m. - 6:30 p.m.)**
**Clearwater Beach Recreation Center**
**69 Bay Esplanade**
**Clearwater, Florida**
*Located on the Jolley Trolley and PSTA Suncoast Beach Trolley℠ routes*

**OPEN HOUSE 2** **Friday, June 26, 2009 (5:30 p.m. - 7:30 p.m.)**
**4th Friday Celebration**
**500 - 600 blocks of Cleveland Street**
**(downtown) Clearwater, Florida**
*Located near PSTA Park Street Transfer facility served by PSTA Routes 18, 52, 60, 61, 66, 67, 73, 76, 78, 93, 98, and the Suncoast Beach Trolley℠.*

For those persons unable to attend one of the workshops, written comments will be accepted through June 30, 2009, and may be sent to:

Pinellas County Metropolitan Planning Organization
Attn: Heather Sobush
600 Cleveland Street, Suite 750
Clearwater, Florida 33755

If you are a person with a disability who needs any accommodation, or if you need language assistance in order to participate in this proceeding, you are entitled to the provision of certain assistance at no cost. Please call the Office of Human Rights, (727) 464-4062 (V/TDD) by Monday, June 22, 4p.m.

Si usted necesita la ayuda de un traductor del idioma espa ol, por favor comun quese con la Oficina de Derechos Humanos situada en la siguiente direcci n, 400 South Fort Harrison Avenue, Piso 5, en la Cuidad de Clearwater, Florida 33756; Telefono: (727) 464-4062; (V/TDD).

June 19, 2009

041707-01

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

1) Where do you live?

*If you check one of these responses, go to question 2*

_____ Downtown Clearwater
_____ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
_____ Island Estates

*If you check one of these responses, go to question 6*

_____ North of downtown Clearwater
_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

_____ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
_____ Dining/entertainment
_____ Exercise/recreation
_____ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

_____ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
_____ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

_____ Yes (go to question 7)
_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

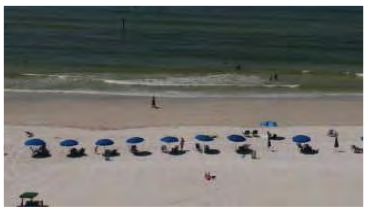
_____ Yes
_____ No

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
_____ Night time service
_____ Storage lockers at Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Downtown message boards indicating number of parking spaces available on Beach
_____ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

_____ $0
_____ $1
_____ $2
_____ $3
_____ $4
_____ $5



Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

_____ Library
_____ Cleveland Street
_____ County Courthouse
_____ Morton Plant Hospital
_____ PSTA Bus Terminal
_____ Church of Scientology
_____ Other (specify_____)

11) If there were a bus circulating on the Beach that connected to the bus going to downtown, what areas would it have to serve? (Check all that

_____ North Beach (north of roundabout)
_____ South Beach (south of roundabout)
_____ Very South Beach (past Shephard's)
_____ Island Way
_____ Other (specify_____)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

_____ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

_____
_____
_____
_____

**Additional Comments**

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank you! Please return your survey to the survey attendant.

## SIGN-IN SHEET

**Public Open House, Downtown Clearwater to Clearwater Beach Transit Alternatives**

**Clearwater Beach Recreation Center**

**Wednesday, June 24, 2009 (4:30 pm to 6:30 pm)**

| Name | Mailing Address | E-mail Address |
|---|---|---|
| Sherla Cole | P.O. Box 3573 | office@beachclean.com |
| JERRY MURPHY | 959 MANDALAY AVE CLEARWATER, FL 33767 | PAPAMURPHY@AOL.COM |
| Terri Hidu | 609 Cypress Ave Clw Bch, FL 33767 | porpoiseinn@verizon.net |
| Sue Johnson | 730 Bruce Av. Clw Bch. FL 33767 | bjohn@verizon.net |
| DAVID KANTHA | 881 BRUCE AVE CLW. BEACH FL 33767 | DK1524@HOTMAIL.COM |
| JOE + STAYCEE CALIO | 1290 Gulf Blvd #1608 Clearwater 33767 | |
| BOBBY ROWE | 812 Narcissus Ave CLEARWATER BCH FL 33767 | Ubeachbum@aol.com |
| ROD DELP | P.O. BOX 3356 CLW, FL 33767 | SHILOGH@AOL.COM |
| Bill Coleason | 53 Aster 33767 | |
| JOHN DORAN | P.O. Box 3266 CLEARWATER FL 33767 | Johndoanlaw@yahoo.com |
| R. LONGENECKER | 201 PALM ISL. SW 33767 | bob@clearwaterjolley trolley.com |
| | | |

## SIGN-IN SHEET

**Public Open House, Downtown Clearwater to Clearwater Beach Transit Alternatives**

**Clearwater Beach Recreation Center**

**Wednesday, June 24, 2009 (4:30 pm to 6:30 pm)**

| Name | Mailing Address | E-mail Address |
|---|---|---|
| Mick Fritsch | 1310 Gulf Blvd 8D CW 33767 | nfritsch@tampabay.rr.com |
| Frank Dame | 407 Leeward Island Clearwater, FL 33767 | FDAME@YAHOO.com |
| David Jackson | 8 Windward Island Clearwater FL | djackson@gmail.com |
| Gary Hidu | Sheraton Sand Key | Ghidu@sheratonsandkey.com |
| Justin Villeneuve | PSTA | |
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# SIGN-IN SHEET

Public Open House Downtown Clearwater to Clearwater Beach Transit Alternatives

Clearwater Beach Recreation Center

Wednesday, June 24, 2009 (4:30 - 6:30 pm)

| Name | Mailing Address | E-mail Address |
|---|---|---|
| DAVID MACNAMEE | 827 MandeLay Ave 33767 | |
| MARK Miglio | 689 Bay Esplanade #20 C.W. B. 33767 | MWJMiglio@HotMail.Com |
| Ramon Soltus | MPO staff | |
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## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

1) Where do you live?

*If you check one of these responses, go to question 2*

_____ Downtown Clearwater
_____ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
_____ Island Estates

*If you check one of these responses, go to question 6*

X North of downtown Clearwater
_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

_____ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
_____ Dining/entertainment
_____ Exercise/recreation
_____ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

_____ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
_____ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

X Yes (go to question 7)
_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

X Yes
_____ No

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
X Night time service
_____ Storage lockers at Beach for beach gear
_____ Luggage racks on the bus
X Restrooms at stations
X Station signs indicating next bus status
_____ Downtown message boards indicating number of parking spaces available on Beach
X Other (specify alternative energy Bus

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

_____ $0
X $1
_____ $2
_____ $3
_____ $4
_____ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

_____ Library
_____ Cleveland Street
_____ County Courthouse
_____ Morton Plant Hospital
_____ PSTA Bus Terminal
_____ Church of Scientology
__X__ Other (specify all)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

_____ North Beach (north of roundabout)
_____ South Beach (south of roundabout)
_____ Very South Beach (past Shephard's)
_____ Island Way
__X__ Other (specify all)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

__X__ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

Tampa

**Additional Comments**

Parking garages downtown
Electric vehicles going to Beach

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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1) Where do you live?

*If you check one of these responses, go to question 2*

_____ Downtown Clearwater
_____ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
__X__ Island Estates

*If you check one of these responses, go to question 6*

_____ North of downtown Clearwater
_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

__X__ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

__X__ Work
__X__ Dining/entertainment
__X__ Exercise/recreation
__X__ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

__X__ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

__X__ Frequent buses (every 15 minutes)
__X__ Uses a trolley vehicle instead of bus
_____ Free or very low fare
__X__ Night time service
__X__ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
__X__ Restrooms at stations
__X__ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

__X__ Yes (go to question 7)
_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

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8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

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9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

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_____ $1
_____ $2
_____ $3
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_____ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

- X Library
- X Cleveland Street
- X County Courthouse
- ___ Morton Plant Hospital
- X PSTA Bus Terminal
- ___ Church of Scientology
- ___ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

- X North Beach (north of roundabout)
- X South Beach (south of roundabout)
- X Very South Beach (past Shephard's)
- X Island Way
- X Other (specify Sand Key)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- X Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

**Additional Comments**

1) reciprical agreement between PSTA and Jolley trolley allowing Jolley Trolley to accept bus passes,
2) PSTA and Jolley Trolley should share in providing 15 minute service Between Downtown, Island Estates, North Beach, South Beach, and Sand Key. (is a in interest)
3) Very important, with global warming public transit provides an affordable way for people to travel and is more energy efficient. Buses can get over 100 passenger miles per gallon.

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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_____ East of downtown Clearwater
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2) Do you make trips between downtown Clearwater and Clearwater Beach?

__x__ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
_____ Dining/entertainment
_____ Exercise/recreation
__x__ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

__x__ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

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__x__ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
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_____ Other (specify_____)

*Go to question 10*

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_____ $2
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__x__ Very South Beach (past Shephard's)
_____ Island Way
__x__ Other (specify SAND KEY)

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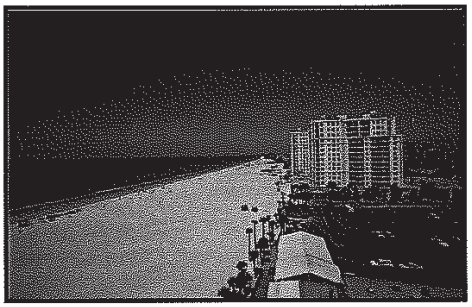
__x__ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

Busch Gardens
Channelside



**Additional Comments**

Glad to see someone looking into this

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

_____ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

_____
_____
_____
_____

**Additional Comments**

_____

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

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_____ Clearwater Beach (north of roundabout)
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_X_ Island Estates

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_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

_X_ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_X_ Work
_X_ Dining/entertainment
_____ Exercise/recreation
_____ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

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_____ No

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*Go to question 10*

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_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

_____ Yes
_____ No LIVE ON IE

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

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_X_ Uses a trolley vehicle instead of bus
_X_ Free or very low fare
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_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Downtown message boards indicating number of parking spaces available on Beach
_____ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

_____ $0
_____ $1
_____ $2
_____ $3
_X_ $4
_____ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

- X Library
- X Cleveland Street
- X County Courthouse
- X Morton Plant Hospital
- X PSTA Bus Terminal
- X Church of Scientology
- ___ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

- X North Beach (north of roundabout)
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- X Island Way
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12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- X Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

- ST PETE
- SPORTS ARENAS
- REH

**Additional Comments**

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

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_____ Island Estates

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_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

●____ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
●____ Dining/entertainment
_____ Exercise/recreation
●____ Shopping/errands
_____ Medical services
●____ Other (specify scientology)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

●____ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

●____ Frequent buses (every 15 minutes)
●____ Uses a trolley vehicle instead of bus
●____ Free or very low fare
●____ Night time service
●____ Storage lockers near Beach for beach gear
●____ Luggage racks on the bus
●____ Restrooms at stations
●____ Station signs indicating next bus status
●____ Other (specify Real time arrival times)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

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7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

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- ✓ Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

**Additional Comments**

I would like to see the bus schedule posted at each bus stop, for all bus lines.

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
__X__ Dining/entertainment
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__X__ Shopping/errands
__X__ Medical services
_____ Other (specify_____)

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12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- X Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

Sports Venues
Train Stations

**Additional Comments**

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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_____ Medical services
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X Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

COUNTY

**Additional Comments**

People come with too much equipment to the Beach (Chairs coolers etc.) What happens if it rains?

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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_____ Medical services
✓ Other (specify Stein Mart)

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✓ No

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N/A

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
_____ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach? I live here

_____ Yes (go to question 7)
_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

_____ Yes
_____ No N/A

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

N/A

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
_____ Free or very low fare
_____ Night time service
_____ Storage lockers at Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Downtown message boards indicating number of parking spaces available on Beach
_____ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

N/A

_____ $0
_____ $1
_____ $2
_____ $3
_____ $4
_____ $5

Please see reverse side.

OVER for Comments

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

_____ Library
_____ Cleveland Street
_____ County Courthouse
_____ Morton Plant Hospital
_____ PSTA Bus Terminal
_____ Church of Scientology
_____ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

_____ North Beach (north of roundabout)
_____ South Beach (south of roundabout)
_____ Very South Beach (past Shephard's)
_____ Island Way
_____ Other (specify_____)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

NO _____ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

_____
_____
_____
_____

**Additional Comments**

All of your questions deal with routes from Clearwater Beach to downtown Clearwater. Most of the beach residents do not need transportation to downtown Clearwater – we need a frequent trolley running from Sand Key to North Beach to Island Estates and stops in between.

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

1) Where do you live?

*If you check one of these responses, go to question 2*

_____ Downtown Clearwater
_____ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
__X__ Island Estates

*If you check one of these responses, go to question 6*

_____ North of downtown Clearwater
_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

__X__ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
__X__ Dining/entertainment
__X__ Exercise/recreation
__X__ Shopping/errands
__X__ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

__X__ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

__X__ Frequent buses (every 15 minutes)
__X__ Uses a trolley vehicle instead of bus
__X__ Free or very low fare
__X__ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
__X__ Restrooms at stations
__X__ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

__X__ Yes (go to question 7)
_____ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

_____ Yes
__X__ No

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

__X__ Frequent buses (every 15 minutes)
__X__ Uses a trolley vehicle instead of bus
__X__ Free or very low fare
__X__ Night time service
_____ Storage lockers at Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
__X__ Station signs indicating next bus status
__X__ Downtown message boards indicating number of parking spaces available on Beach
_____ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

_____ $0
_____ $1
__X__ $2
_____ $3
_____ $4
_____ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

- X Library
- X Cleveland Street
- X County Courthouse
- X Morton Plant Hospital
- X PSTA Bus Terminal
- ___ Church of Scientology
- ___ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

- X North Beach (north of roundabout)
- X South Beach (south of roundabout)
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- X Island Way
- ___ Other (specify_____)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- X Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

PSTA

**Additional Comments**

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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1) Where do you live?

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✓ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
_____ Island Estates

*If you check one of these responses, go to question 6*

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_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

✓ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

_____ Work
_____ Dining/entertainment
_____ Exercise/recreation
✓ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

_____ Yes
✓ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

_____ Frequent buses (every 15 minutes)
_____ Uses a trolley vehicle instead of bus
✓ Free or very low fare
_____ Night time service
_____ Storage lockers near Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

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_____ No (go to question 10)

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_____ Yes
✓ No

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_____ Uses a trolley vehicle instead of bus
✓ Free or very low fare
_____ Night time service
_____ Storage lockers at Beach for beach gear
_____ Luggage racks on the bus
_____ Restrooms at stations
_____ Station signs indicating next bus status
_____ Downtown message boards indicating number of parking spaces available on Beach
_____ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

✓ $0
✓ $1
_____ $2
_____ $3
_____ $4
_____ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

- ✓ Library
- ✓ Cleveland Street
- ✓ County Courthouse
- ___ Morton Plant Hospital
- ___ PSTA Bus Terminal
- ___ Church of Scientology
- ___ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

- ✓ North Beach (north of roundabout)
- ✓ South Beach (south of roundabout)
- ✓ Very South Beach (past Shephard's)
- ✓ Island Way
- ___ Other (specify_____)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- ___ Yes *(go to question 13)*
- ✓ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

_____

**Additional Comments**

HOW ARE YOU GOING TO FORCE "BEACH GOERS" TO USE THE BUS OR TROLLEY OR WHATEVER BETWEEN THE BEACH AND THE MAINLAND.

CONCEPT IS GOOD IF YOU CAN FORCE/MAKE/ ENCOURAGE FOLKS (BEACH GOERS) USE IT

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

1) Where do you live?

*If you check one of these responses, go to question 2*

___ Downtown Clearwater
X Clearwater Beach (north of roundabout)
___ Clearwater Beach (south of roundabout)
___ Island Estates

*If you check one of these responses, go to question 6*

___ North of downtown Clearwater
___ South of downtown Clearwater
___ East of downtown Clearwater
___ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

X Yes *(go to question 3)*
___ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

X Work
X Dining/entertainment
X Exercise/recreation
X Shopping/errands
___ Medical services
___ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

X Yes
___ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

X Frequent buses (every 15 minutes)
___ Uses a trolley vehicle instead of bus
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X Luggage racks on the bus
___ Restrooms at stations
___ Station signs indicating next bus status
___ Other (specify_____)

*Go to question 10*

6) Do you make trips to Clearwater Beach?

X Yes (go to question 7)
___ No (go to question 10)

7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

X Yes
___ No

8) What amenities would make you more likely to use the park-and-ride with bus connection to the Beach? (check all that apply)

X Frequent buses (every 15 minutes)
___ Uses a trolley vehicle instead of bus
X Free or very low fare
X Night time service
___ Storage lockers at Beach for beach gear
X Luggage racks on the bus
X Restrooms at stations
X Station signs indicating next bus status
X Downtown message boards indicating number of parking spaces available on Beach
___ Other (specify_____)

9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

___ $0
X $1
___ $2
___ $3
___ $4
___ $5

Please see reverse side.

10) If there were a bus circulating downtown that connected to the bus going to the Beach, what destinations would it need to serve? (Check all that apply.)

- X Library
- X Cleveland Street
- ___ County Courthouse
- X Morton Plant Hospital
- X PSTA Bus Terminal
- ___ Church of Scientology
- ___ Other (specify_____)

11) connected to the bus going to downtown, what areas would it have to serve? (Check all that apply.)

- X North Beach (north of roundabout)
- X South Beach (south of roundabout)
- X Very South Beach (past Shephard's)
- X Island Way
- ___ Other (specify SANDKEY)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- X Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

PSAT

**Additional Comments**

BUS CONNECTIONS
TO TAMPA BAY RAYS
TAMPA BAY BUCCANEERS
TAMPA AIRPORT
ST. PETERSBURG

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

✓ Yes *(go to question 3)*
_____ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

✓ Work
✓ Dining/entertainment
✓ Exercise/recreation
✓ Shopping/errands
✓ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

✓ Yes
_____ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

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_____ Downtown message boards indicating number of parking spaces available on Beach
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9) What is the most you would be willing to pay for parking at a downtown park-and-ride with bus service to the Beach?

_____ $0
_____ $1
_____ $2
_____ $3
_____ $4
_____ $5

Please see reverse side.

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- ___ PSTA Bus Terminal
- ___ Church of Scientology
- ___ Other (specify ___)

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- ✓ North Beach (north of roundabout)
- ✓ South Beach (south of roundabout)
- ✓ Very South Beach (past Shephard's)
- ✓ Island Way
- ✓ Other (specify Sandlay TV Motels + Shopping)

12) Would you use bus service between downtown Clearwater and Clearwater Beach if it connected to a larger regional transit network (e.g., Tampa, St. Petersburg, etc.)?

- ✓ Yes *(go to question 13)*
- ___ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

TIA

**Additional Comments**

Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

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_____ No *(go to question 10)*

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_____ Exercise/recreation
✓ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

_____ Yes
✓ No

5) Which amenities of a bus between downtown Clearwater and Clearwater Beach would make you more likely to use it? (Check all that apply.)

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_____ Luggage racks on the bus
✓ Restrooms at stations
_____ Station signs indicating next bus status
_____ Other (specify_____)

*Go to question 10*

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7) If so, would you be willing to park in downtown Clearwater and ride a bus to Clearwater Beach?

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_____ No

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_____ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

_____
_____
_____
_____

**Additional Comments**

_____
_____
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Please see reverse side.

## Downtown to Clearwater Beach Transit Alternatives Study

The Pinellas Metropolitan Planning Organization is studying the possibility of creating a transit connection between downtown Clearwater and Clearwater Beach. Please assist us in our study by answering the following survey questions. Thank you!

1) Where do you live?

*If you check one of these responses, go to question 2*

_____ Downtown Clearwater
_____ Clearwater Beach (north of roundabout)
_____ Clearwater Beach (south of roundabout)
_____ Island Estates
Sand Key

*If you check one of these responses, go to question 6*

_____ North of downtown Clearwater
_____ South of downtown Clearwater
_____ East of downtown Clearwater
_____ Outside Pinellas County

2) Do you make trips between downtown Clearwater and Clearwater Beach?

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__X__ No *(go to question 10)*

3) For what purpose do you make trips between downtown Clearwater and Clearwater Beach?

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__X__ Dining/entertainment
_____ Exercise/recreation
__X__ Shopping/errands
_____ Medical services
_____ Other (specify_____)

4) Would you use a bus between downtown Clearwater and Clearwater Beach if it were separated from regular traffic?

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__X__ No

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Please see reverse side.

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__x__ Yes *(go to question 13)*
_____ No *(you have completed the survey)*

13) What part of the larger regional area would you want to connect to?

Clearwater Mall
Shops at Countryside

**Additional Comments**

Please see reverse side.


# Clearwater Beach to Downtown Transit Options

## Public Input Open Houses

The Pinellas County Metropolitan Planning Organization (MPO) is seeking input on transit alternatives between downtown Clearwater and Clearwater Beach. The MPO is examining the possibility of a new service that would provide transportation between downtown and the beach. The format is open house so stop by any time during the event. We want your input!

**OPEN HOUSE 1**

**Wednesday, November 18, 2009 (11:00 a.m. - 1:00 p.m.)**
**Downtown Clearwater Farmer's Market**
**500 Block of Cleveland Street**
**Clearwater, Florida**
*Located near PSTA Park Street Transfer facility served by PSTA Routes 18, 52, 60, 61, 66, 67, 73, 76, 78, 93, 98, and the Suncoast Beach Trolley℠.*

**OPEN HOUSE 2**

**Wednesday, November 18, 2009 (4:00 p.m. - 5:30 p.m.)**
**Clearwater Beach Recreation Center**
**69 Bay Esplanade**
**Clearwater, Florida**
*Located on the Jolley Trolley and PSTA Suncoast Beach Trolley ℠ routes*

**For those persons unable to attend one of the workshops, written comments will be accepted through November 25, 2009, and may be sent to:**

**Pinellas County Metropolitan Planning Organization**
**Attn: Heather Sobush**
**600 Cleveland Street, Suite 750**
**Clearwater, Florida 33755**
**hsobush@co.pinellas.fl.us**

**If you are a person with a disability who needs any accommodation, or if you need language assistance in order to participate in this proceeding, you are entitled to the provision of certain assistance at no cost. Please call the Office of Human Rights, (727) 464-4062 (V/TDD) by Monday, November 16, 4p.m.**

**Si usted necesita la ayuda de un traductor del idioma español, por favor comuníquese con la Oficina de Derechos Humanos situada en la siguiente dirección, 400 South Fort Harrison Avenue, Piso 5, en la Cuidad de Clearwater, Florida 33756; Telefono: (727) 464-4062; (V/TDD).**

LEGAL NOTICE LEGAL NOTICE

# CLEARWATER BEACH TO DOWNTOWN CLEARWATER TRANSIT OPTIONS PROJECT

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**November 7, 2009**

137111-01

## SIGN-IN SHEET

**Public Open House, Downtown Clearwater to Clearwater Beach Transit Alternatives**

**Clearwater Beach Recreation Center**

**Wednesday, November 18, 2009 (4:00 p.m. - 5:30 p.m.)**

| Name | Mailing Address | E-mail Address |
|---|---|---|
| Glen Vickery | | |
| Lois Davis | Eldorado Ave Clw Bch | |
| John Doran | City Hall | |
| TOMMY DUFF | CBCC | |
| BOB LONGENECKER | JOLLEY TROLLEY | |
| RON DELP | | SHILOGH@AOL.COM |
| | | |
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## SIGN-IN SHEET

**Public Open House, Downtown Clearwater to Clearwater Beach Transit Alternatives**

**Downtown Clearwater Farmer's Market**

**Wednesday, November 18, 2009 (11:00 a.m. - 1:00 p.m.)**

| Name | Mailing Address | E-mail Address |
|---|---|---|
| LAURA EVERIT | | |
| John Pimenidis | 45 Papaya St Clw Beach 33767 | |
| Randall Gillion | 16 N - ft- Harrison 33755 | |
| Jane Ellis | | |
| Van Farber | 2466 Hustvalie Clearwater | vetty farber@hotmail.com |
| MITCH PARKER | DONEDIN | MITCH1950USA@gmail.com |
| Anne Foggy-France | city of clearwater | |
| | | |
| | | |
| | | |
| | | |
| | | |

others ||||| ||||| ||

# Downtown Station Examples

1

2

3

4


5

6

7

8

# Beach Station Examples

1

2

3

4

5


6

The Pinellas County Metropolitan Planning Organization is conducing a survey to determine the viability of bus service between downtown Clearwater and Clearwater Beach. After an initial round of public workshops, input from a steering committee composed of stakeholders, and input from the Pinellas Mobility Initiative Board, two alternatives for the trunk line alignment have been developed and are being presented to the public at this workshop. The purpose of this survey is to gather input from the public regarding the route alignments and stations that will serve both the beach and downtown.

1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ____Shared Path Alignment ____Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ____Alternative "B" ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   _____

   _____

   _____

   _____

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

_____

_____

_____

6) On a scale of 1 to 5, with **1** being **least** important and **5** being **most** important, please rate the importance of each station amenity listed below.

_____ Sign and route map
_____ Security camera/system
_____ Electronic signs signaling next bus
_____ Other (please specify_____)
_____ Nearby restroom
_____ Shelter
_____ Locker (beach only)
_____ Bench
_____ Bicycle Rack

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

_____ Coffee/snack shop
_____ Drugstore/pharmacy
_____ Others (please specify _____)
_____ Bookstore
_____ Market
_____ Dry Cleaner
_____ Bicycle rental

8) Please provide any additional comments in the space provided below.

_____

_____

_____

_____

_____

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   ____Shared Path Alignment ✓ Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ✓ Alternative "B" ____Alternative "G" Alt. G too long

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ✓ Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   Likes 4 & 5 - clear shelter

   3 + 5

   _____

   _____

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Likes 4 + 7

6) On a scale of 1 to 5, with **1** being **least** important and **5** being **most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 5 Sign and route map | ____ Nearby restroom | 5 Bench |
| 1 Security camera/system | 5 Shelter | ____ Bicycle Rack |
| ____ Electronic signs signaling next bus | ____ Locker (beach only) | |
| ____ Other (please specify_____) | | |

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

| | | |
|---|---|---|
| ____ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ____ Market | ____ Bicycle rental |
| ✓ Others (please specify Hot dog stand) | | |

8) Please provide any additional comments in the space provided below.

Likes the gondola concept for connecting
Likes Alt. B but could to see it serve
Library downtown near Lowry then connect back
to Memorial Causeway
Old train station a good place for transit center

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1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ____Shared Path Alignment ____Hybrid Alignment Neither - monorail cleaner - thinks funding is here - can be tourist attraction

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ____Alternative "B" ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   _____

   _____

   _____

   _____

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_____

_____

_____

6) On a scale of 1 to 5, with **1 being least important** and **5 being most important**, please rate the importance of each station amenity listed below.

_____ Sign and route map
_____ Security camera/system
_____ Electronic signs signaling next bus
_____ Other (please specify_____)
_____ Nearby restroom
_____ Shelter
_____ Locker (beach only)
_____ Bench
_____ Bicycle Rack

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

_____ Coffee/snack shop
_____ Drugstore/pharmacy
_____ Others (please specify _____)
_____ Bookstore
_____ Market
_____ Dry Cleaner
_____ Bicycle rental

8) Please provide any additional comments in the space provided below.

monorail (and use ped/bike trail on bridge
make it a tourist attraction

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1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ✓ Shared Path Alignment ____Hybrid Alignment

   - Hybrid will hurt congestion more
   - lines traffic light

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ✓ Alternative "B" ____Alternative "G"

   ↳ functional for some

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

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   _____

   _____

   _____

   _____

Please turn the page over to complete the survey.

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All are nice, lighting is most important

Advertising on stops ok

6) On a scale of 1 to 5, with **1** being **least** important and **5** being **most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 5 Sign and route map | 1 Nearby restroom | 5 Bench |
| 5 Security camera/system | 5 Shelter | 1 Bicycle Rack |
| 1 Electronic signs signaling next bus | 1 Locker (beach only) | |

5 Other (please specify lit schedules)
↳ wifi/phone ↳ backlight ↳ solar powered

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| | | |
|---|---|---|
| ____ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ✓ Market | ____ Bicycle rental |

✓ Others (please specify Cellphone utility kiosk)
↳ to pay bills

8) Please provide any additional comments in the space provided below.

Can use van or smaller bus ~~for~~ for downtown circulator

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3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ✓ Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   I prefer 1 & 6

   _____

   _____

   _____

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

No preference

6) On a scale of 1 to 5, with **1 being least important** and **5 being most important**, please rate the importance of each station amenity listed below.

5 Sign and route map
4 Security camera/system
2 Electronic signs signaling next bus
____ Other (please specify_____)

5 Nearby restroom
3 Shelter
____ Locker (beach only)

5 Bench
2 Bicycle Rack

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

✓ Coffee/snack shop
____ Drugstore/pharmacy
____ Others (please specify _____)

____ Bookstore
____ Market

____ Dry Cleaner
____ Bicycle rental

8) Please provide any additional comments in the space provided below.

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   ____Alternative "A"  ____Alternative "B"  ____Alternative "G"  not sure

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes  ____No  ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   yes

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   likes 2

Please turn the page over to complete the survey.

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lines modern look 1,2,4,5

6) On a scale of 1 to 5, with **1 being least important** and **5 being most important**, please rate the importance of each station amenity listed below.

no opinion

_____ Sign and route map
_____ Security camera/system
_____ Electronic signs signaling next bus
_____ Other (please specify_____)
_____ Nearby restroom
_____ Shelter
_____ Locker (beach only)
_____ Bench
_____ Bicycle Rack

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

no opinion

_____ Coffee/snack shop
_____ Drugstore/pharmacy
_____ Others (please specify _____)
_____ Bookstore
_____ Market
_____ Dry Cleaner
_____ Bicycle rental

8) Please provide any additional comments in the space provided below.

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3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   N/A

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   N/A

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

likes 6 + 8 smaller stops, not too artsy - needs to fit in

6) On a scale of 1 to 5, with **1** being **least** important and **5** being **most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 5 Sign and route map | 1 Nearby restroom | 5 Bench |
| 1 Security camera/system | 5 Shelter | 1 Bicycle Rack |
| 1 Electronic signs signaling next bus | 1 Locker (beach only) | |
| ____ Other (please specify_____) | | |

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

| | | |
|---|---|---|
| ____ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ____ Market | ____ Bicycle rental |
| ____ Others (please specify _____) | | |

8) Please provide any additional comments in the space provided below.

Doesn't see much congestion once roundabout installed

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Not fitting [illegible] alternative

1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

People would be more apt to use if said bus transitions by their car

____Shared Path Alignment ✓ Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

____Alternative "A" ✓ Alternative "B" ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

____Yes ____No ____Not sure

If no, please indicate below why not or what could be changed to better meet your needs.

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

likes 7 - need air + shade

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likes 3

6) On a scale of 1 to 5, with **1 being least** important and **5 being most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 5 Sign and route map | 4 Nearby restroom | 4 Bench |
| 5 Security camera/system | 4 Shelter | 4 Bicycle Rack |
| 4 Electronic signs signaling next bus | 3 Locker (beach only) | |
| ____ Other (please specify_____) | | |

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

| | | |
|---|---|---|
| ✓ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ____ Market | ✓ Bicycle rental |
| ____ Others (please specify _____) | | |

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   ____Alternative "A" ____Alternative "B" ____Alternative "G" neither

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ✓ Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   With the exception of not turning north onto N. Ft. Harrisson during A few weeks of peak Tourist Season, There's Absolutely NO REASON to go to EAST ST. TURN NORTH ON FT HARRISSON TO go to PSTA Terminal

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   I Think #2 for Beach Station And #8 For Downtown Station Examples are best. I'd use #2 For Both. #3 is the least Beach Station that's aesthetically pleasing.

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

#8 is the best and #1 the least.
I'd make both the Beach and Downtown Stations
Like Beach Station #2

6) On a scale of 1 to 5, with **1 being least important** and **5 being most important**, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 3 Sign and route map | 2 Nearby restroom | 5 Bench |
| 1 Security camera/system | 5 Shelter | 4 Bicycle Rack |
| 1 Electronic signs signaling next bus | 1 Locker (beach only) | |
| ____ Other (please specify ____) | | |

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| | | |
|---|---|---|
| ✓ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ____ Market | ✓ Bicycle rental |
| ____ Others (please specify ____) | | |

8) Please provide any additional comments in the space provided below.

Need Public Transportation on weekends
between Pinellas County and Tampa!

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   ____Shared Path Alignment  _X_Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   _X_Alternative "A"  _X_Alternative "B"  ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes  ____No  ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   _____

   _____

   _____

   _____

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_____

_____

_____

6) On a scale of 1 to 5, with **1 being least** important and **5 being most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| _____ Sign and route map | _____ Nearby restroom | _____ Bench |
| _____ Security camera/system | _____ Shelter | _____ Bicycle Rack |
| X Electronic signs signaling next bus | _____ Locker (beach only) | |
| _____ Other (please specify_____) | | |

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| | | |
|---|---|---|
| _____ Coffee/snack shop | _____ Bookstore | _____ Dry Cleaner |
| _____ Drugstore/pharmacy | _____ Market | _____ Bicycle rental |
| _____ Others (please specify _____) | | |

8) Please provide any additional comments in the space provided below.

1 – like openness

8 – looks so fits into area

~~[illegible]~~ next bus sign – deal w/ humidity better

Thank you for completing the survey. Please return once finished.

The Pinellas County Metropolitan Planning Organization is conducing a survey to determine the viability of bus service between downtown Clearwater and Clearwater Beach. After an initial round of public workshops, input from a steering committee composed of stakeholders, and input from the Pinellas Mobility Initiative Board, two alternatives for the trunk line alignment have been developed and are being presented to the public at this workshop. The purpose of this survey is to gather input from the public regarding the route alignments and stations that will serve both the beach and downtown.

1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ____Shared Path Alignment ___✓___Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ___✓___Alternative "B" ____Alternative "G"

   Wants to hit Cleveland + garden - get rid of bulb outs

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   Hendricks - Ft. Harrison

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   _____

   _____

   _____

   _____

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

6 fits in best

7 - Smaller Scale

Bricks fit in

6) On a scale of 1 to 5, with **1 being least** important and **5 being most** important, please rate the importance of each station amenity listed below.

| | | | | | |
|---|---|---|---|---|---|
| 5 | Sign and route map | 3 | Nearby restroom | 5 | Bench |
| 1 | Security camera/system | 5 | Shelter | 4 | Bicycle Rack |
| 4 | Electronic signs signaling next bus | 5 | Locker (beach only) | | |
| ____ | Other (please specify_____) | | | | |

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

| | | | | | |
|---|---|---|---|---|---|
| 5 | Coffee/snack shop | 4 | Bookstore | 3 | Dry Cleaner |
| 1 | Drugstore/pharmacy | 4 | Market | 4 | Bicycle rental |
| ____ | Others (please specify _____) | | | | |

8) Please provide any additional comments in the space provided below.

If there was light Rail from Tampa to Downtown CW & the Beach the Businesses downtown would be FAR better off.

Thank you for completing the survey. Please return once finished.

The Pinellas County Metropolitan Planning Organization is conducing a survey to determine the viability of bus service between downtown Clearwater and Clearwater Beach. After an initial round of public workshops, input from a steering committee composed of stakeholders, and input from the Pinellas Mobility Initiative Board, two alternatives for the trunk line alignment have been developed and are being presented to the public at this workshop. The purpose of this survey is to gather input from the public regarding the route alignments and stations that will serve both the beach and downtown.

1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ____Shared Path Alignment ____Hybrid Alignment No preference but likes concept

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ____Alternative "B" ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ✓ Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

   _____

   _____

   _____

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   N/A - no preference

   _____

   _____

   _____

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

NO preference

6) On a scale of 1 to 5, with **1 being least** important and **5 being most** important, please rate the importance of each station amenity listed below.

| | | |
|---|---|---|
| 5 Sign and route map | 2 Nearby restroom | 5 Bench |
| 3 Security camera/system | 5 Shelter | 1 Bicycle Rack |
| 3 Electronic signs signaling next bus | 1 Locker (beach only) | |
| ____ Other (please specify_____) | | |

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

| | | |
|---|---|---|
| ✓ Coffee/snack shop | ____ Bookstore | ____ Dry Cleaner |
| ____ Drugstore/pharmacy | ✓ Market | ____ Bicycle rental |
| ____ Others (please specify _____) | | |

8) Please provide any additional comments in the space provided below.

Water taxi would work - none used to be one a long time ago

Thank you for completing the survey. Please return once finished.

The Pinellas County Metropolitan Planning Organization is conducing a survey to determine the viability of bus service between downtown Clearwater and Clearwater Beach. After an initial round of public workshops, input from a steering committee composed of stakeholders, and input from the Pinellas Mobility Initiative Board, two alternatives for the trunk line alignment have been developed and are being presented to the public at this workshop. The purpose of this survey is to gather input from the public regarding the route alignments and stations that will serve both the beach and downtown.

1) For this question, please refer to the two route alignments presented on the display. Which alignment do you prefer (please choose only one):

   ____Shared Path Alignment ____Hybrid Alignment

2) For this question, please refer to the three downtown circulator alternatives. Which alternative do you prefer (please choose only one):

   ____Alternative "A" ____Alternative "B" ____Alternative "G"

3) For this question, please refer to the stations identified on each of the route alignment displays. Do the stations identified for each route alignment meet your needs?

   ____Yes ____No ____Not sure

   If no, please indicate below why not or what could be changed to better meet your needs.

4) For this question, please refer to the board labeled "Beach Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for the beach area? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a beach station.

   Sorry, but I am not in favor of any of the above examples.

Please turn the page over to complete the survey.

5) For this question, please refer to the board labeled "Downtown Station Examples." Do you feel that these examples have characteristics that are aesthetically pleasing for downtown Clearwater? Please provide any detail below as to what you do or do not find aesthetically pleasing or any concepts/ideas you may have for a downtown station.

_____

_____

_____

6) On a scale of 1 to 5, with **1 being least** important and **5 being most** important, please rate the importance of each station amenity listed below.

_____ Sign and route map
_____ Security camera/system
_____ Electronic signs signaling next bus
_____ Other (please specify_____)
_____ Nearby restroom
_____ Shelter
_____ Locker (beach only)
_____ Bench
_____ Bicycle Rack

7) There are plans for a future multi-modal transit center in downtown Clearwater that will ideally be located along the Pinellas Trail. This transit center will serve bus transit, planned future rail lines, bicycles, pedestrians, and automobiles. Conceptual designs for the transit center include on-site retail space. What sort of tenants would you be interested in having located at the downtown transit center?

_____ Coffee/snack shop
_____ Drugstore/pharmacy
_____ Others (please specify _____)
_____ Bookstore
_____ Market
_____ Dry Cleaner
_____ Bicycle rental

8) Please provide any additional comments in the space provided below.

_____

_____

_____

_____

_____

Thank you for completing the survey. Please return once finished.

"Only the sun covers more of Clearwater"
Clearwater Gazette
Land of the Free, Because of the Brave
www.clearwatergazette.com Since 1950 November 25, 2009

# Rapid Transit to Clearwater Beach, Maybe

**By Anne McKay Garris**

At last, there's been a study on how to get some sort of public transportation quickly across Memorial Causeway without the delay of waiting in the traffic that ties it up on at least 53 days of the year. But, according to the experts, it will happen only at the expense of more cement and less landscaping at the entrance to Clearwater Beach.

The Pinellas Mobility Initiative Committee of the Metropolitan Planning Organization (MPO) hired the firm of Tindale-Oliver and Associates, Inc. to study a way to encourage people to park in the less used parking garages of Downtown Clearwater and take public transportation to Clearwater Beach. This is something the Clearwater Beach Association has hardily supported through all the discussions of parking garages and such on Clearwater Beach.

On Wednesday, the planners had an Open House at the Clearwater Beach Recreation Center to get input from the citizenry on the plan. Unfortunately, few people on the Beach were aware of the Open House so the input was scarce.

Both plans moved the public transportation, probably a trolley, across the east-bound traffic on the east bridge and across the west-bound traffic at the west bridge, so that the vehicle would not be held up in traffic.

According to Joel Rey of Tindale-Oliver, who patiently answered all questions and listened to our comments, there is technology which would allow for traffic lights at both bridges which would be triggered by a device within the bus so crossing over would be doable. There would be a trolley trail, beside the current pedestrian/bicycle trail to speed the passengers on to their destination.

Research is ongoing as to what would have to be done to the brand new pedestrian bridge at the end of the trail so that the trolley could cross over into the Marina property without re-crossing traffic. Asked why the station couldn't be located at the Marina, making the whole plan less complicated, and probably less expensive, we were told that someone from Clearwater government had told them not to consider the Marina in their plans as it was slated for redevelopment.

The alternative, as shown in the drawings, was a station at the west terminal of the Roundabout which would require a paved driveway for the Trolley, around the perimeter of the green space where the Welcome To Clearwater Beach sign now stands, adding another

entering access just feet from the already complicated Roundabout entry at Mandalay Avenue. The other alternative would be a station on the parking lot just north of the approach to the Roundabout.

Other proposals were to bring the trolley down the center medium of the Causeway until it could cross over the traffic, removing a large section of the landscaping at the beginning of the Causeway. Input from citizens will be accepted up to December 7, when the plan will go before the Pinellas Mobility Initiative, chaired by Clearwater Mayor Frank Hibbard, and then on to the Metropolitan Planning Council for further action.

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# APPENDIX D STAKEHOLDER INTERVIEW DATA

Appendix D contains copies of the following document:

- Stakeholder interview script

**CLEARWATER TO CLEARWATER BEACH TRANSIT**
**ALTERNATIVES EVALUATION**
Stakeholder Interview Script

**Please ensure that all interviewees are asked the first four questions. From there you may deviate from the script to adjust to the knowledge brought by the interviewee.**

**Project Overview and Current Situation**

On behalf of the Pinellas County Metropolitan Planning Organization, Tindale-Oliver & Associates and Jacobs Engineering is conducting an evaluation of transit alternatives to serve the area between downtown Clearwater and Clearwater Beach. We are interviewing various members of the community in order to gather information regarding possible transit solutions. We are interested in gathering input on the use of transit for this corridor, the type of transit, station locations, etc.

**Questions**

1) **Looking at the preliminary alignment map, do you feel this alignment is a good option? How would you change it? How/where should this service connect with the larger regional system being planned by TBARTA?**

2) **Looking at the preliminary station location map, do you feel these station locations are appropriate? How would you change them?**

3) **Do you think mode choice will impact ridership? We are currently looking at both bus and rail options. Will ridership differ depending upon mode?**

4) **Who do you think the likely users would be and how we can make the service attractive to the intended users? Of the following factors, which do you think will impact people's decision to use transit between downtown Clearwater and the Beach?**
    a. **Frequency**
    b. **Hours of operation**
    c. **Mode**
    d. **Speed of travel**
    e. **Convenience**
    f. **Exclusive lanes (being separated from car traffic)**

5) Do you believe that the development of a new frequent (every 10-15 minutes) high quality mass transit system can offer a viable solution to the traffic congestion problem in the downtown Clearwater to Clearwater Beach corridor?

6) The current study is evaluating the use of bus rapid transit in this corridor as an initial service phase with the goal of implementing a fixed guideway service in the future. Do you believe residents and visitors of Clearwater/Clearwater Beach

will use BRT in the interim? Do you believe residents and visitors will use a fixed guideway system in the future?

7) What times of day should the service operate? How often should it run?

8) What do you think a reasonable fare should be for passengers who use this service? Would people be willing to pay more or less for this service? (Note: Current fares on PSTA are $1.75 for regular service and $3.00 for express service.)

9) How should we collect fares (on-board versus off board collection systems)?

10) What sort of technological features should the service offer?
    a. Real-time service status information displays
    b. Security cameras
    c. On vehicle information screens

11) In order to leverage federal and state dollars for this project, we will need to have local and/or private dollars in the funding mix? What options should be considered?
    a. Transit mobility fees
    b. TIF districts
    c. Sales tax referendum

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# APPENDIX E TIER ONE AND TIER TWO SCREENING PROCESSES

Appendix E contains documentation of the Tier One and Tier Two Screening processes used to narrow 192 preliminary alignments to 4. By design, the screening process is intended to move alternative definitions from broad and loosely-defined to focused and specific.

While the focus of this technical memorandum is to identify a near-term alignment between the beach and downtown, the development of a near-term locally preferred alternative required the examination of long-term transit alternatives. Efforts to identify plausible long-term alternatives yielded a series of options that all include connection to an anticipated regional transit center located along East Avenue in downtown. Therefore, all feasible near-term transit alternatives developed consider a connection to the planned regional transit center along East Avenue in downtown. (Note: The following analysis was conducted prior to the decision to forego the long-term study. This analysis contains references to a long-term study that was not completed due to a change in project scope.)

The alternatives development and screening process includes two iterations of alternatives development and evaluation: Tier One Screening process and Tier Two Screening process. The Tier One Screening process employed for this effort assesses the preliminary conceptual alignments based primarily on the eligibility requirements for FTA Very Small Starts and Small Starts projects. This approach was taken to focus on near-term buildable (affordable) projects. The Tier Two Screening process focuses on more detailed project eligibility criteria.

The FTA criteria used for the two screening processes are listed in Table E-1. In addition, eight other factors that were considered are reflected in Table E-1.

**Table E-1**
**Transit Alignment Alternatives Evaluation Criteria**

| Category | Criteria |
|---|---|
| **FTA Very Small Starts Requirements** | |
| Project Costs | Less than $50 million total<br>Less than $3 million/mile excluding vehicles |
| Project | Bus, Rail, Ferry |
| Transit Stations | Substantial |
| Transit Signal Priority | Bus and Rail |
| Low Floor or Level Boarding | Bus and Rail |
| Branded Service | Bus and Rail |
| Headways | 10 min peak; 15 min off-peak |
| Service Span | 14 hours/day |
| Ridership | Benefit at least 3,000 current riders/day-corridor |
| Operating & Maintenance Costs | Operating & Maintenance budget |
| Local Funds | Demonstrated Availability |
| Fiscal Capacity | Demonstrated Fiscal Capacity of Agency |
| **FTA Small Starts Requirements** | |
| Project Costs | Less than $250 million total<br>Less than $75 million from FTA |
| Project | At least 50% fixed guideway in peak and/or a designated Bus Corridor Project |
| Transit Stations | Substantial |
| Transit Signal Priority | Bus and Rail |
| Low Floor or Level Boarding | Bus and Rail |
| Branded Service | Bus and Rail |
| Headways | 10 min peak; 15 min off-peak |
| Service Span | 14 hours/day |
| Cost-effectiveness | Incremental cost/hour of system user compared to opening year baseline alternative |
| Operating & Maintenance Costs | Less than 5% of current Operating & Maintenance budget |
| Land Use | Existing Land Use Patterns; Transit Supportive Land Use Policy; Impact of Land Use Policies |
| Economic Development | Demonstrate Positive Impacts |
| Local Funds | Demonstrated Availability |
| Fiscal Capacity | Demonstrated Fiscal Capacity of Agency |
| **Other Criteria** | |
| **Ridership Demand** | Daily Ridership Demand |
| **Transit Operational Considerations** | Total Travel Time<br>Frequency of Service<br>Transit Priority Treatments<br>Conflicts with Surrounding Traffic<br>Service Accessibility |
| **Enhance Local Mobility** | Connections to Local Network |

**Table E-1 (continued)**
**Transit Alignment Alternatives Evaluation Criteria**

| Category | Criteria |
|---|---|
| **Other Criteria** | |
| **Enhance Regional Mobility** | Connections to Regional Network |
| **Minimize Capital Costs** | Total Capital Cost |
| **Minimize Operating & Maintenance Costs** | Annual Operating & Maintenance Cost |
| **Transition to Long-Term Option** | Constructive or Not Constructive |
| **Station Location Considerations** | Accessibility<br>Transit Oriented Development Potential |

## TIER ONE SCREENING

Near-term alignment alternatives were developed for testing and evaluation. All assume some portion of transit service operating in a separate right-of-way from the general traffic. The mode, given the near-term focus, is assumed to be BRT operating on a separate right-of-way or in mixed-traffic with substantial transit priority treatments. The busway is assumed to be at-grade in most cases.

The range of near-term alternatives may take the following possible forms:

- Enhanced bus operating on existing lanes
- BRT on shoulder lanes
- BRT on existing lanes converted to bus-only lanes
- BRT on existing lanes converted to HOT lanes
- BRT on new BRT lanes in median
- BRT on new BRT lanes on outside of roadway
- Fixed guideway at-grade
- Fixed guideway elevated

There are 24 potential near-term alternative alignments to be considered from an alignment perspective (not considering mode or whether the service is at-grade or elevated). Each is described in the following section.

**NT1 – Short Downtown Loop** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Pierce Street, south on Osceola Avenue, west on Court, along the causeway and back to the traffic circle (5.10 miles).

**NT2** – **Long Downtown Loop A** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Drew Street, south on Ft. Harrison Avenue, west on Court, along the causeway and back to the traffic circle (5.70 miles).

**NT3 – Long Downtown Loop B** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Drew Street, south on Osceola Avenue, west on Court, along the causeway and back to the traffic circle (5.70 miles).

**NT4 – Short Downtown Loop** with Island Way station at Dory Passage (6.00 miles)

**NT5 – Long Downtown Loop A** with Island Way station at Dory Passage (6.60 miles)

**NT6 – Long Downtown Loop B** with Island Way station at Dory Passage (6.60 miles)

**NT7 – Short Downtown Loop** with north loop to Baymont Street (5.75 miles)

**NT8 – Long Downtown Loop A** with north loop to Baymont Street (6.45 miles)

**NT9 – Long Downtown Loop B** with north loop to Baymont Street (6.45 miles)

**NT10 – Short Downtown Loop** with north loop to Acacia Street (7.05 miles)

**NT11 – Long Downtown Loop A** with north loop to Acacia Street (7.65 miles)

**NT12 – Long Downtown Loop B** with north loop to Acacia Street (7.65 miles)

**NT13 – Short Downtown Loop** with south loop to 5$^{th}$ Street (6.10 miles)

**NT14 – Long Downtown Loop A** with south loop to 5$^{th}$ Street (6.70 miles)

**NT15 – Long Downtown Loop B** with south loop to 5$^{th}$ Street (6.70 miles)

**NT16 – Short Downtown Loop** with south loop to Gulf Boulevard (7.25 miles)

**NT17 – Long Downtown Loop A** with south loop to Gulf Boulevard (7.85 miles)

**NT18 – Long Downtown Loop B** with south loop to Gulf Boulevard (7.85 miles)

**NT19 – Short Downtown Loop** and to Baymont Street and 5th Street (6.85 miles)

**NT20 – Long Downtown Loop A** and to Baymont Street and 5th Street (7.45 miles)

**NT21 – Long Downtown Loop B** and to Baymont Street and 5th Street (7.45 miles)

**NT22 – Short Downtown Loop** and to Acacia Street and Gulf Boulevard (9.20 miles)

**NT23 – Long Downtown Loop A** and to Acacia Street and Gulf Boulevard (9.80 miles)

**NT24 – Long Downtown Loop B** and to Acacia Street and Gulf Boulevard (9.80 miles)

**Tier One Evaluation Analysis**

Each of the 24 possible alignment alternatives identified above may take one of the eight operational forms identified above. This yields a set of 192 potential alternatives to be evaluated. The near-term alternatives initially were examined based on a subset of the evaluation criteria identified in Table E-1 to eliminate those alternatives that clearly did not meet the following criteria: project capital cost limitations, enhanced local mobility, enhanced regional mobility, and constructive transition to long-term option. The Tier One Screening of alternatives was performed using a binary process for the factors listed in Table E-2. For each of the 192 alternatives, a simple yes or no was determined for each criterion.

The near-term alternatives that meet the Tier One Screening criteria are listed below. There are 14 alignments and 4 potential operational configurations that remain following the preliminary evaluation of the Tier One screening criteria. This results in a potential of 56 different alignments to be evaluated further.

**NT1 – Short Downtown Loop** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Pierce Street, south on Osceola Avenue, west on Court, along the causeway and back to the traffic circle (5.10 miles).

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**Table E-2**
**Tier One Screening Criteria**

| Category | Criteria |
|---|---|
| **FTA Very Small Starts Requirements** | |
| Project Costs | Less than $50 million total<br>Less than $3 million/mile excluding vehicles |
| Project | Bus, Rail, Ferry |
| Transit Stations | Substantial |
| Transit Signal Priority | Bus and Rail |
| Low Floor or Level Boarding | Bus and Rail |
| Branded Service | Bus and Rail |
| Headways | 10 min peak; 15 min off-peak |
| Service Span | 14 hours/day |
| **FTA Small Starts Requirements** | |
| Project Costs | Less than $250 million total<br>Less than $75 million from FTA |
| Project | At least 50% fixed guideway in peak and/or a designated Bus Corridor Project |
| Transit Stations | Substantial |
| Transit Signal Priority | Bus and Rail |
| Low Floor or Level Boarding | Bus and Rail |
| Branded Service | Bus and Rail |
| Headways | 10 min peak; 15 min off-peak |
| Service Span | 14 hours/day |
| **Other Criteria** | |
| **Transit Operational Considerations** | Conflicts with Surrounding Traffic |
| **Enhance Local Mobility** | Connections to Local Network |
| **Enhance Regional Mobility** | Connections to Regional Network |
| **Transition to Long-Term Option** | Constructive or Not Constructive |

**NT2 – Long Downtown Loop A** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Drew Street, south on Ft. Harrison Avenue, west on Court, along the causeway and back to the traffic circle (5.70 miles).

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT7 – Short Downtown Loop** with north loop to Baymont Street (5.75 miles)

- As BRT on existing lanes converted to bus-only lanes

- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT8 – Long Downtown Loop A** with north loop to Baymont Street (6.45 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT10 – Short Downtown Loop** with north loop to Acacia Street (7.05 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT11 – Long Downtown Loop A** with north loop to Acacia Street (7.65 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT13 – Short Downtown Loop** with south loop to 5th Street (6.10 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median

- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT14 – Long Downtown Loop A** with south loop to 5th Street (6.70 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT16 – Short Downtown Loop** with south loop to Gulf Boulevard (7.25 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT17 – Long Downtown Loop A** with south loop to Gulf Boulevard (7.85 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT19 – Short Downtown Loop** and to Baymont Street and 5th Street (6.85 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway

- As fixed guideway at-grade

**NT20 – Long Downtown Loop A** and to Baymont Street and 5th Street (7.45 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT22 – Short Downtown Loop** and to Acacia Street and Gulf Boulevard (9.20 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT23 – Long Downtown Loop A** and to Acacia Street and Gulf Boulevard (9.80 miles)

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

The results of the binary evaluation of the near-term alternatives are presented in Table E-3. The shading in the table identifies the alternatives that meet the Tier One evaluation criteria.

Further review of the circulation concepts at the beach and discussion with the project Steering Committee resulted in the determination that PSTA and Jolley Trolley should provide circulation on the beach that would connect to the beach-to-downtown service. It was also determined that service to Island Estates would be provided by PSTA and Jolley Trolley. These determinations reduced the alternatives from 14 alignments to 2 alignments. These two alignments with the four operational forms follow.

**NT1 – Short Downtown Loop** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Pierce Street, south on Osceola Avenue, west on Court, along the causeway and back to the traffic circle (5.10 miles).

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

**NT2 – Long Downtown Loop A** - Traffic circle along the causeway, east on Chestnut Street, north on Myrtle Avenue, west on Drew Street, south on Ft. Harrison Avenue, west on Court, along the causeway and back to the traffic circle (5.70 miles).

- As BRT on existing lanes converted to bus-only lanes
- As BRT on new BRT lanes in median
- As BRT on new BRT lanes on outside of roadway
- As fixed guideway at-grade

The aforementioned eight near-term alternatives were then advanced to the Tier Two Screening process.

**Table E-3**
**Near-Term Alternatives Tier One Screening**

| | | NT1 | NT2 | NT3 | NT4 | NT5 | NT6 | NT7 | NT8 | NT9 | NT10 | NT11 | NT12 | NT13 | NT14 | NT15 | NT16 | NT17 | NT18 | NT19 | NT20 | NT21 | NT22 | NT23 | NT24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Enhanced Bus Option** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Transit Operational Considerations | Eliminates conflict with traffic | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| **BRT on Shoulder** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Transit Operational Considerations | Eliminates conflict with traffic | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| **BRT on Converted Bus Lanes** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transit Operational Considerations | Eliminates conflict with traffic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **BRT on Converted HOT Lanes** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Transit Operational Considerations | Conflicts with surrounding traffic | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Enhance Local Mobility | Connections to local network | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Enhance Regional Mobility | Connections to regional network | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Transition to Long-Term Option | Constructive or not constructive | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

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**Table E-3 (continued)**
**Near-Term Alternatives Tier One Screening**

| | | NT1 | NT2 | NT3 | NT4 | NT5 | NT6 | NT7 | NT8 | NT9 | NT10 | NT11 | NT12 | NT13 | NT14 | NT15 | NT16 | NT17 | NT18 | NT19 | NT20 | NT21 | NT22 | NT23 | NT24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BRT in Median Bus-Only Lanes** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transit Operational Considerations | Eliminates conflict with traffic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **BRT in Outside Bus Only Lanes** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transit Operational Considerations | Eliminates conflict with traffic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Fixed Guideway at Grade** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No |
| Transit Operational Considerations | Eliminates conflict with traffic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Fixed Guideway Elevated** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Very Small Starts Project Costs | Less than $50 million total; Less than $3 million/mile excluding vehicles | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Small Starts Project Costs | Less than $250 million total; Less than $75 million from FTA | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No | No |
| Transit Operational Considerations | Eliminates conflict with traffic | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Enhance Local Mobility | Connections to local network | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | No |
| Enhance Regional Mobility | Connections to regional network | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Transition to Long-Term Option | Constructive or not constructive | Yes | Yes | Yes | No | No | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

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## TIER TWO SCREENING

### Tier Two Evaluation Analysis

The Tier Two Screening evaluation criteria are based on a more detailed examination of the project eligibility criteria for the FTA Very Small Starts and Small Starts programs as reflected in Table E-4.

**Table E-4**
**Tier Two Screening Criteria**

| Category | Criteria |
|---|---|
| **FTA Very Small Starts Requirements** | |
| Ridership | Benefit at least 3,000 current riders/day-corridor |
| Operating & Maintenance Costs | Less than 5% of current Operating & Maintenance budget |
| Local Funds | Demonstrated Availability |
| Fiscal Capacity | Demonstrated Fiscal Capacity of Agency |
| **FTA Small Starts Requirements** | |
| Cost-effectiveness | Incremental cost/hour of system user compared to opening year baseline alternative |
| O&M Costs | Less than 5% of current O&M budget |
| Land Use | Existing Land Use Patterns; Transit Supportive Land Use Policy; Impact of Land Use Policies |
| Economic Development | Demonstrate Positive Impacts |
| Local Funds | Demonstrated Availability |
| Fiscal Capacity | Demonstrated Fiscal Capacity of Agency |
| **Other Criteria** | |
| **Ridership Demand** | Daily Ridership Demand |
| **Transit Operational Considerations** | Total Travel Time |
| | Frequency of Service |
| | Transit Priority Treatments |
| | Conflicts with Surrounding Traffic |
| | Service Accessibility |
| **Enhance Local Mobility** | Connections to Local Network |
| **Enhance Regional Mobility** | Connections to Regional Network |
| **Minimize Capital Costs** | Total Capital Cost |
| **Minimize Operating & Maintenance Costs** | Annual Operating & Maintenance Cost |
| **Transition to Long-Term Option** | Constructive or Not Constructive |
| **Station Location Considerations** | Accessibility<br>TOD Potential |

### Near-Term Alignments

Each of the near-term alternatives that emerged from Tier One underwent the Tier Two Screening analysis. During the development of the Tier Two Screening process, it was

determined that only those alternatives that qualified for Very Small Starts funding should emerge. This determination was made based on the desire to implement the service in the near-term. The Small Starts program has greater project justification requirements and requires longer lead times to implement. It was determined that in the interest of faster implementation only those projects meeting the Very Small Starts criteria should be moved forward.

With this determination, four near-term alternatives dropped out from further consideration because the capital cost per mile estimate was greater than $3 million per mile as required under the Very Small Starts program. The remaining alignments include bus-only exclusive lanes and median options.

**NT1A** – Short Downtown Loop BRT on existing road converted to a bus lane

**NT2A** – Long Downtown Loop BRT on existing road converted to a bus lane

**NT1B** – Short Downtown Loop BRT in median bus lane

**NT2B** – Long Downtown Loop BRT in median bus lane

The above alternatives were presented to the Steering Committee with the recommendation that they be further refined into more realistic transit alternatives that provide the following:

- A direct and convenient connection between the beach and downtown
- Downtown circulation that balances service accessibility with minimal travel time
- Total project capital cost less than $50 million
- Capital cost per mile less than $3 million excluding vehicles.

The following refined near-term alternatives were developed and presented to the Steering Committee. In-depth descriptions and maps of each alternative are provided in Section 6.

- Mixed Traffic Alternative
- Median Alternative
- Shared Path Alternative
- Hybrid Alternative

These four alternatives were evaluated using a side-by-side pros and cons comparison for each alignment segment. The pros and cons comparison is presented in Table E-5. In Table E-5, there are two versions of each alternative. Version A assumes that one lane of travel is converted to a bus-only lane, while Version B assumes that all travel lanes remain open to all vehicles.

The Steering Committee immediately rejected all options involving Version A. The group determined that the two current travel lanes across Memorial Causeway should remain open to all traffic. Table E-6 provides a detailed comparison of the four alternatives.

The alternative comparative evaluation matrix presented in Table E-6 was used by the Steering Committee to reduce the number of beach-to-downtown alternatives to two alternatives. The recommendation from the Steering Committee was to maximize opportunities for travel in bus-only lanes and advance the Shared Path and the Hybrid alternatives for further comparative evaluation.

**Table E-5**
**Pros and Cons Evaluation**

| Version | Roundtrip Route Length (miles) | Length of Exclusive Lane (miles) | Pros | Cons |
|---|---|---|---|---|
| **Mixed Traffic Alternative** | | | | |
| Version A | 5.1 | 4.0 | Bus lane provides travel advantage for persons using bus compared to driving. | Eliminates one general purpose lane; Increases auto congestion. |
| | | | Reduces bus travel time; Reduces peak bus requirement; Reduces operating & maintenance cost. | |
| | | | Minimal capital cost for restriping and signing bus only lanes. | |
| Version B | 5.1 | 0.0 | Minimal capital cost for roadway. | No advantage over driving; Bus stuck in traffic with autos. |
| | | | | Increases travel time on bus; Increases peak bus requirement; Increases operating & maintenance cost. |
| | | | | Increased number of buses and thus capital cost for buses. |
| **Median Alternative** | | | | |
| Version A | 5.1 | 4.0 | Bus lane provides travel advantage for persons using bus compared to driving. | Higher capital cost for bus lane and signal improvements. |
| | | | Reduces bus travel time; Reduces peak bus requirement; Reduces operating & maintenance cost. | Possible adverse impacts to vehicle access management. |
| | | | | Eliminates general purpose lane west of Island way; Increased traffic impacts. |
| Version B | 5.1 | 2.8 | Provides limited exclusive bus lane and travel time savings. | Bus mostly in mixed traffic; Increases travel time and operating & maintenance costs. |
| | | | | Possible adverse impacts to vehicle access management. |
| | | | | Capital cost of bus lane and signal improvements. |

**Table E-5 (continued)**
**Pros and Cons Evaluation**

| Version | Roundtrip Route Length (miles) | Length of Exclusive Lane (miles) | Pros | Cons |
|---|---|---|---|---|
| **Shared Path Alternative** | | | | |
| Version A | 5.1 | 4.0 | Bus lane provides travel advantage for persons using bus compared to driving. | Capital cost of bus lane, shared path and signal improvements. |
| | | | Reduces bus travel time; Reduces peak bus requirement; Reduces operating & maintenance cost. | Existing signal location conflicts with new shared path construction at Island Way. |
| Version B | 5.1 | 1.6 | Provides minimal exclusive bus lane; Travel time savings. | Capital cost of bus lane, shared path and signal improvements. |
| | | | | Existing signal location conflicts with new shared path construction at Island Way. |
| | | | | Limited bus lanes; Limited travel time savings. |
| **Hybrid Alternative** | | | | |
| Version A | 5.1 | 4.0 | Bus lane provides travel advantage for persons using bus compared to driving. | Higher capital costs for bus lanes, shared path and signal improvements. |
| | | | Reduces bus travel time; Reduces peak bus requirement; Reduces operating & maintenance cost. | Existing signal location conflicts with new shared path construction at Island Way. |
| | | | | Possible adverse impacts to vehicle access management. |
| Version B | 5.1 | 3.5 | Bus lane provides travel advantage for persons using bus compared to driving. | Higher capital costs for bus lanes, shared path and signal improvements. |
| | | | Reduces bus travel time; Reduces peak bus requirement; Reduces operating & maintenance cost. | Existing signal location conflicts with new shared path construction at Island Way. |
| | | | | Possible adverse impacts to vehicle access management. |

**Table E-6**
**Detailed Comparison of Four Beach-to-Downtown Alternatives**

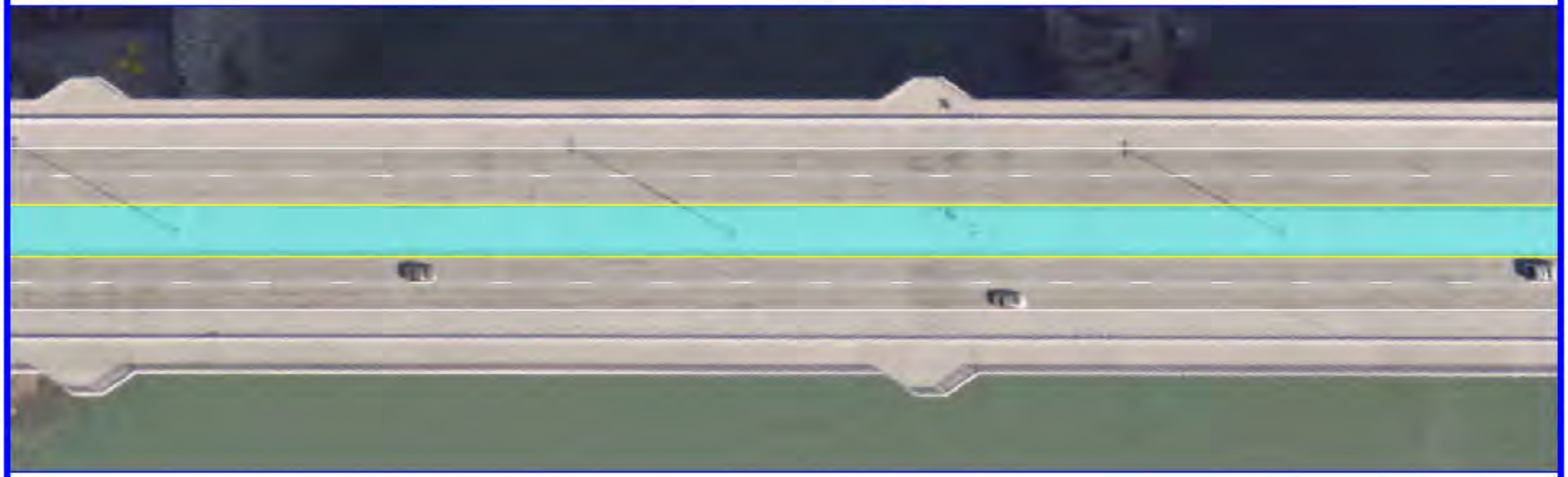
| FTA Requirement | FTA Evaluation Criteria | Mixed Traffic Alternative | Median Alternative | Shared Path Alternative | Hybrid Alternative |
|---|---|---|---|---|---|
| Ridership | Benefit at least 3,000 current riders/day | 4,779 | 4,779 | 4,779 | 4,779 |
| Operating & Maintenance Costs | Less than 5% current operating & maintenance budget | $1,938 | $1,516 | $1,938 | $1,516 |
| Capital Costs | Less than $50 Million Total | Yes | Yes | Yes | Yes |
| | Less than $3 Million per/Mile Excluding Vehicles | $1,436,275 | $2,904,902 | $2,102,941 | $3,181,373 |
| Cost-Effectiveness | O&M Cost/Passenger | $0.41 | $0.32 | $0.41 | $0.32 |
| Transit Operational Considerations | Round Trip Travel Time (minutes) | 15.3 | 11.7 | 13.2 | 10.8 |
| | Frequency of Service (10 min peak; 15 min off-peak) | Yes | Yes | Yes | Yes |
| | Transit Priority Treatments/TSP | Yes | Yes | Yes | Yes |
| | Reduces Traffic Conflict | No | No | No | Yes |
| | Number of Stations | 8 | 8 | 8 | 8 |
| Enhance Local Mobility | Connections to Local Transit | Yes | Yes | Yes | Yes |
| Enhance Regional Mobility | Connections to Regional Transit | Yes | Yes | Yes | Yes |
| Minimize Capital Costs | Total Capital Cost (excluding vehicles) | $7,325,000 | $14,815,000 | $10,725,000 | $16,225,000 |
| | Avg Capital Cost/Passenger | $1,533 | $3,100 | $2,244 | $3,395 |
| Minimize Operating & Maintenance Costs | Annual Operating & Maintenance Cost | $707,195 | $553,457 | $707,195 | $553,457 |

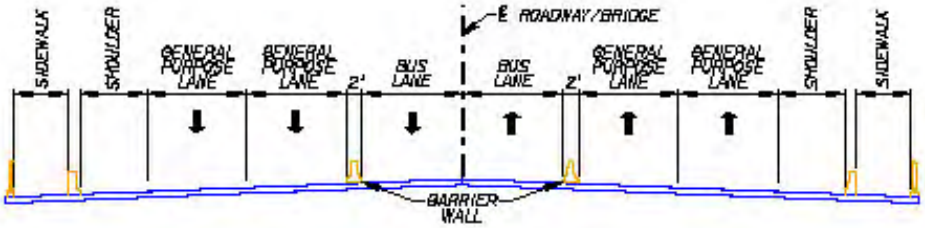
## APPENDIX F SECTIONS

Appendix F contains typical sections for the Shared Path and Hybrid Alternatives.

# CLEARWATER TYPICAL SECTIONS FOR BEACH / CAUSEWAY / BRIDGE

## A. MEDIAN - BRIDGE

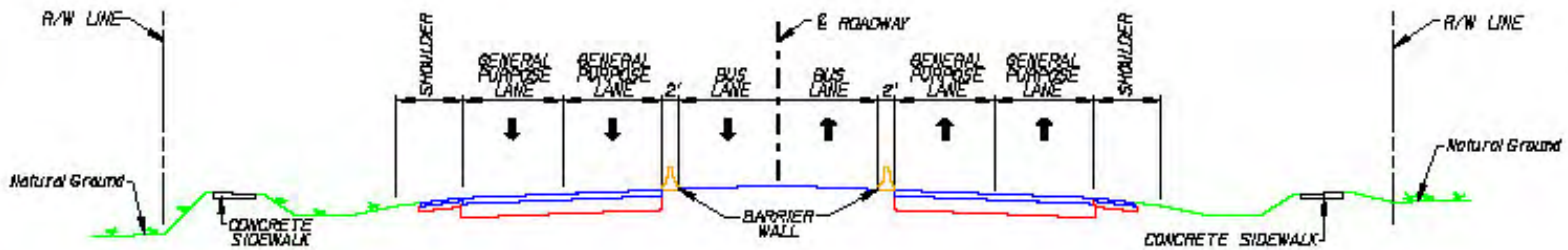





TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR BEACH / CAUSEWAY / BRIDGE

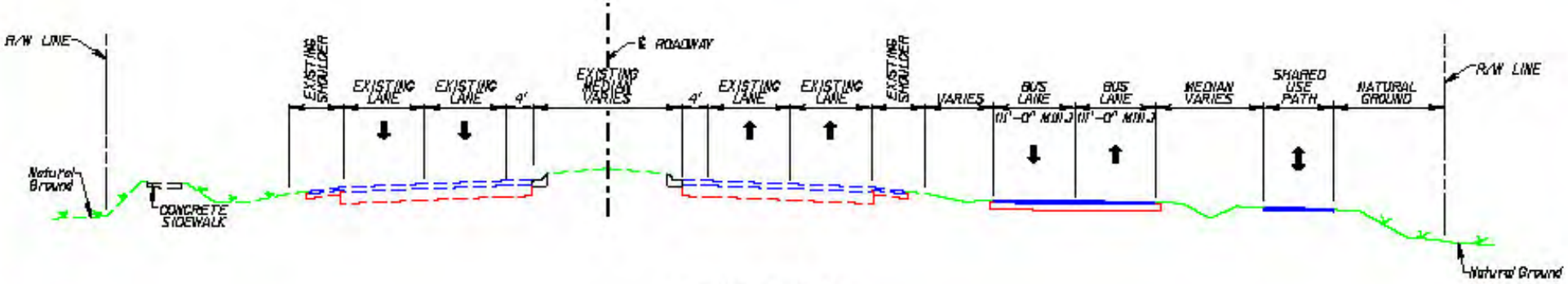
## B. MEDIAN




TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR BEACH / CAUSEWAY / BRIDGE

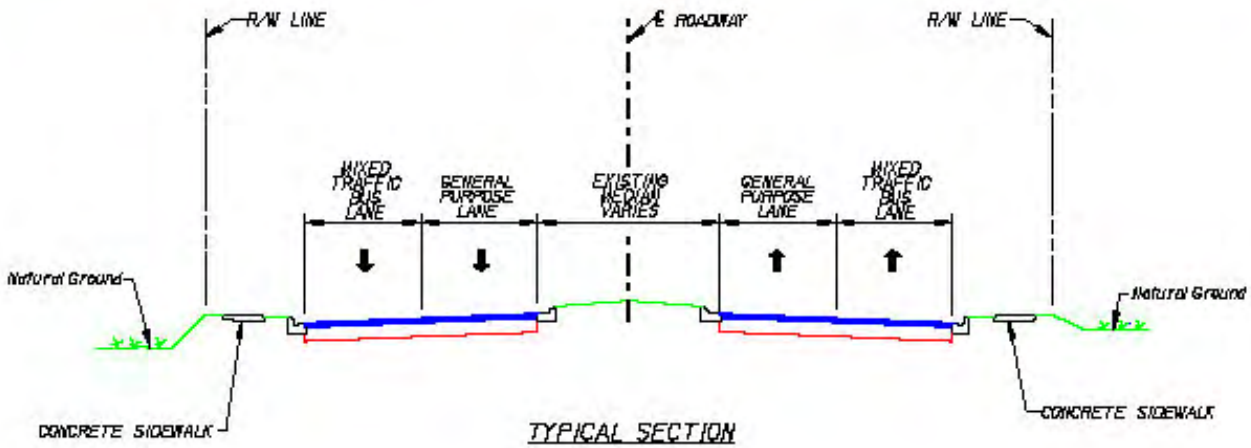
## C. SHARED PATH


TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR BEACH / CAUSEWAY / BRIDGE

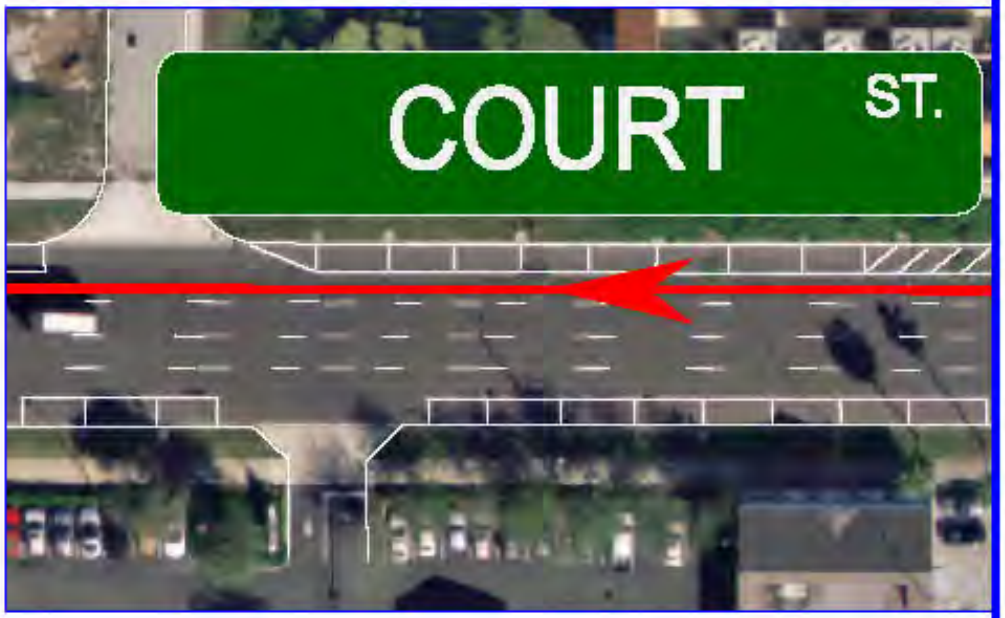
## D. OUTSIDE LANES

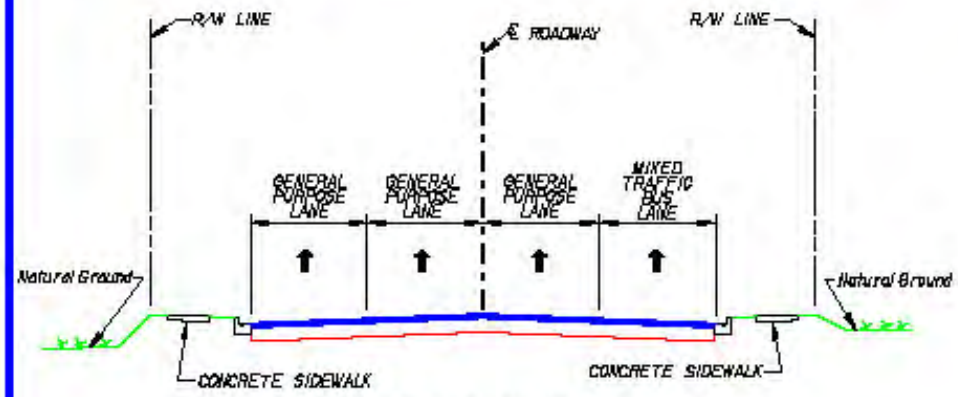



TYPICAL SECTION

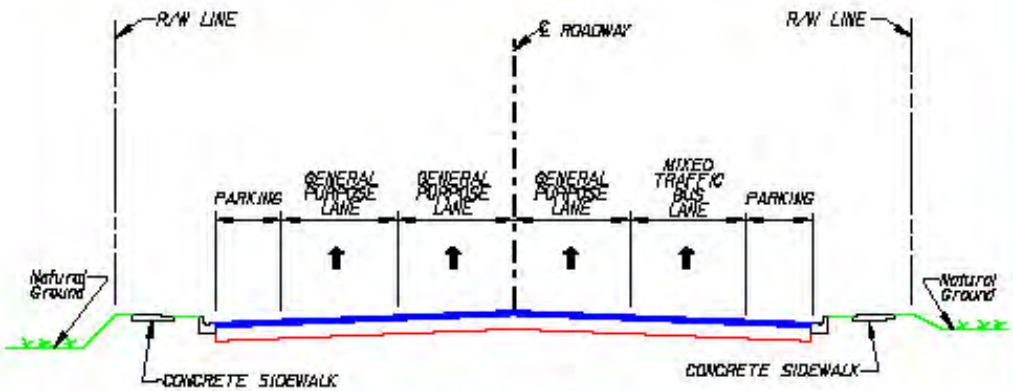
# CLEARWATER TYPICAL SECTIONS FOR DOWNTOWN

## A. OUTSIDE LANE (CHESTNUT ST. AND COURT ST.)

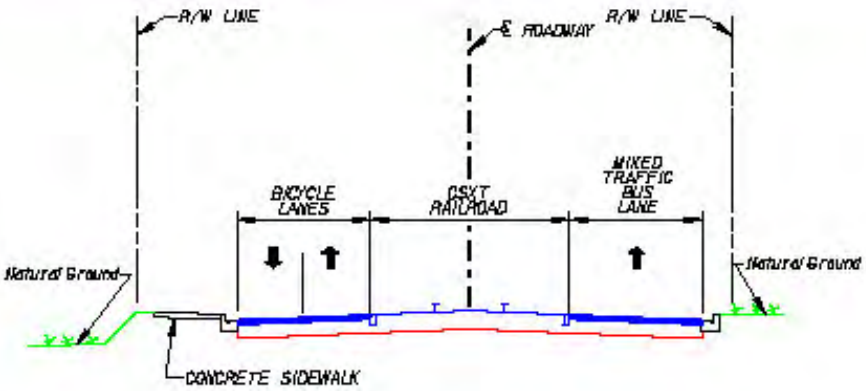

CHESTNUT ST.
TYPICAL SECTION




COURT ST.
TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR DOWNTOWN

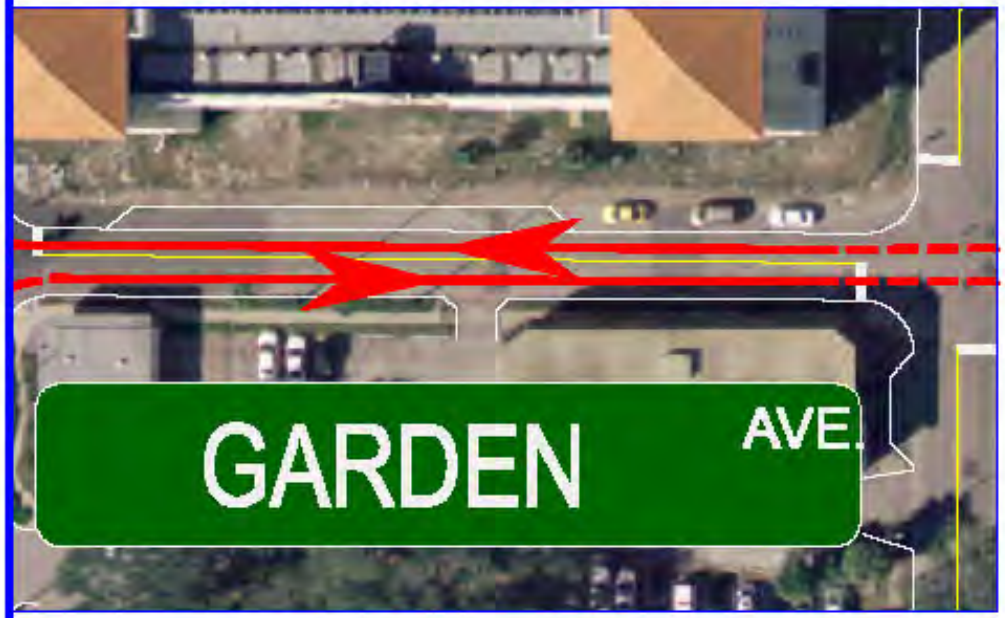
## B. ONE WAY MIXED TRAFFIC (EAST AVE.)

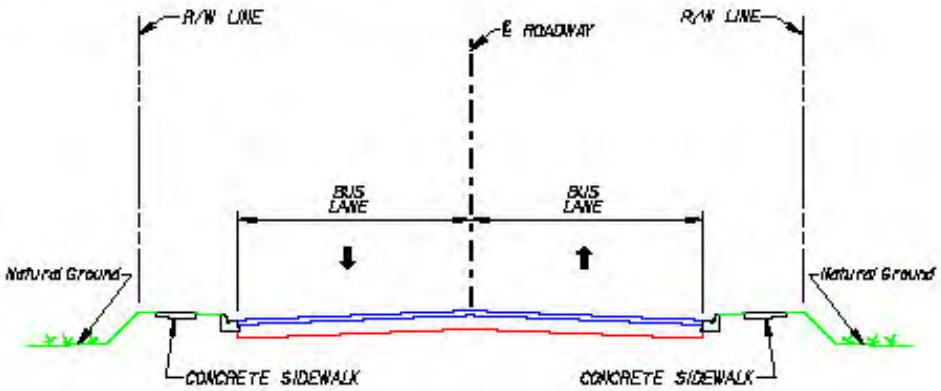

TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR DOWNTOWN

## C. BRT ONLY LANES (GARDEN AVE. AND FRANKLIN ST.)



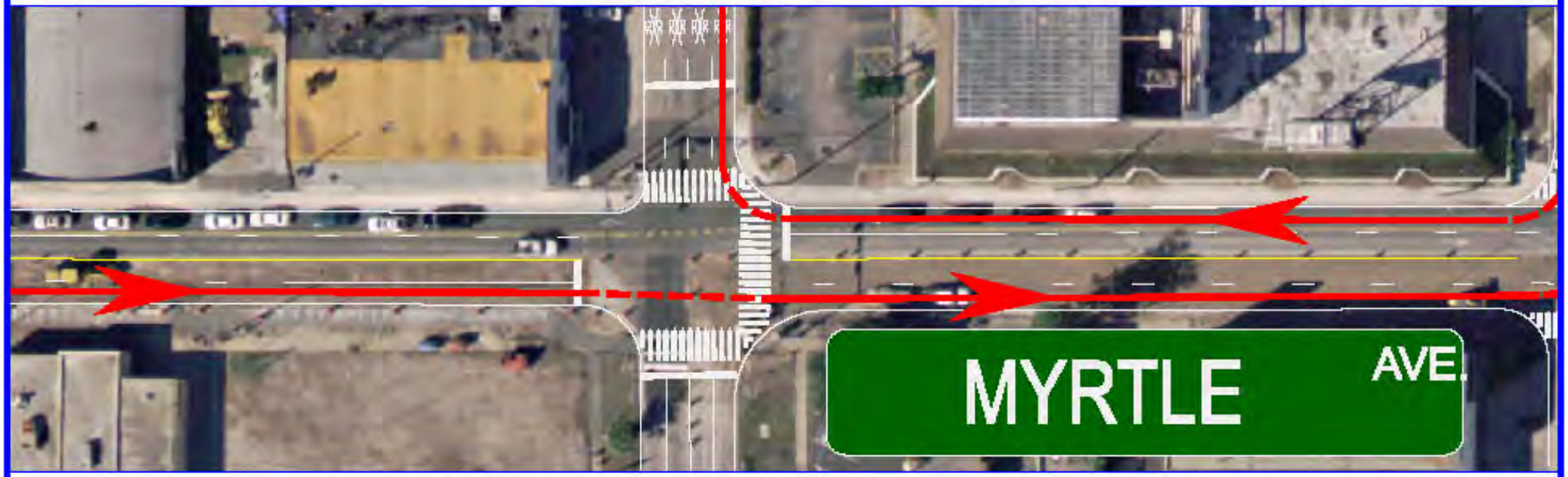


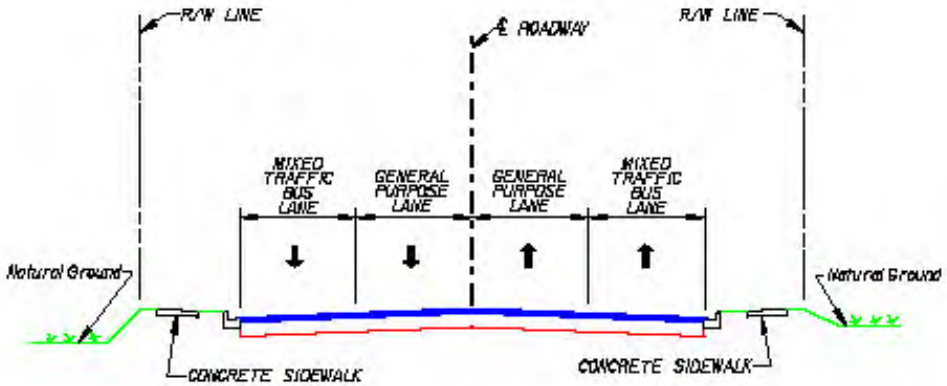



TYPICAL SECTION

# CLEARWATER TYPICAL SECTIONS FOR DOWNTOWN

## D. OUTSIDE LANES (MYRTLE AVE.)




TYPICAL SECTION

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## APPENDIX G RIDERSHIP REPORT

Appendix G contains a copy of the ridership report prepared for this study.

# *Ridership Forecasting for Bus Rapid Transit Service between Downtown Clearwater and Clearwater Beach*

## *Application of the Aggregate Rail Ridership Forecasting Tool to Estimate BRT Demand between Downtown Clearwater and Clearwater Beach via the Preferred Transit Alternative*

Report Presents the Original Preliminary Forecasts and the Supplemental Forecast for the Preferred Alternative

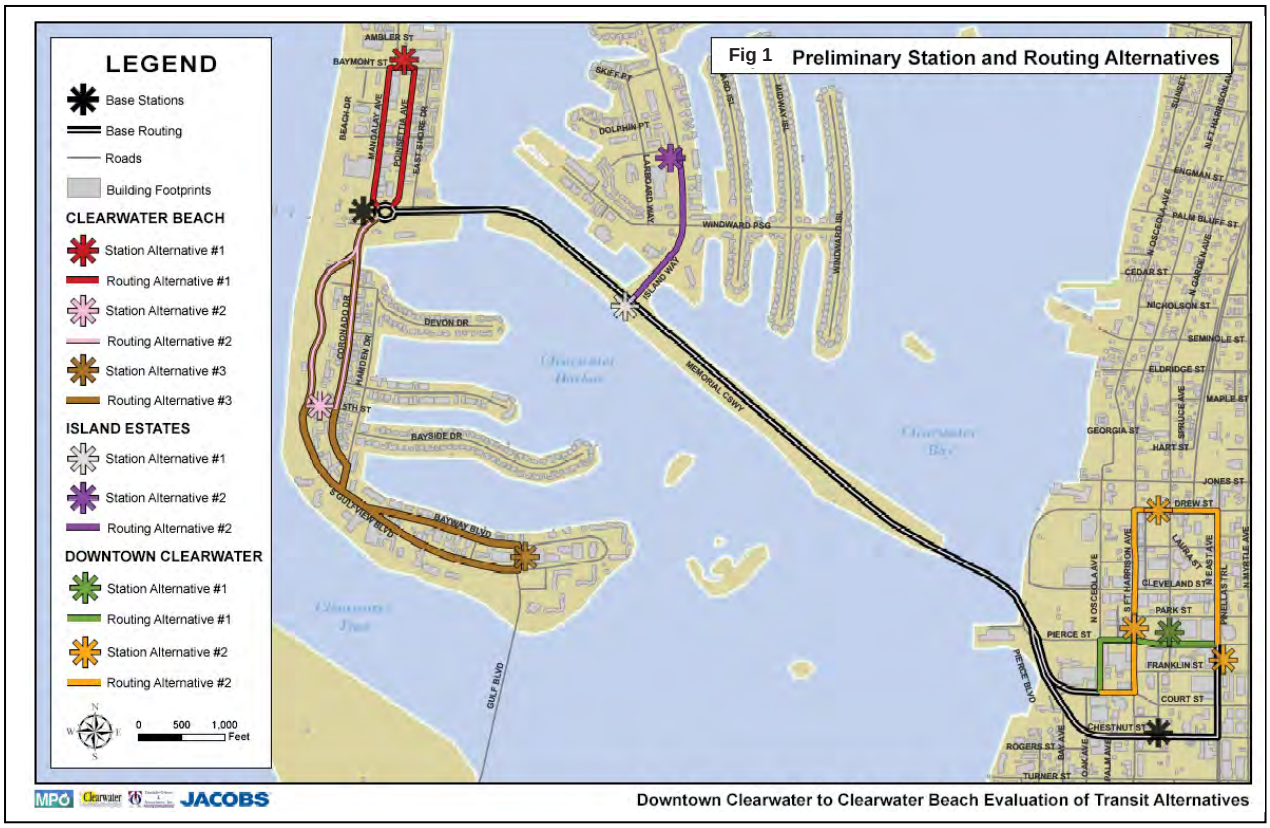
**July 15, 2010**

JACOBS

### *Study Purpose*

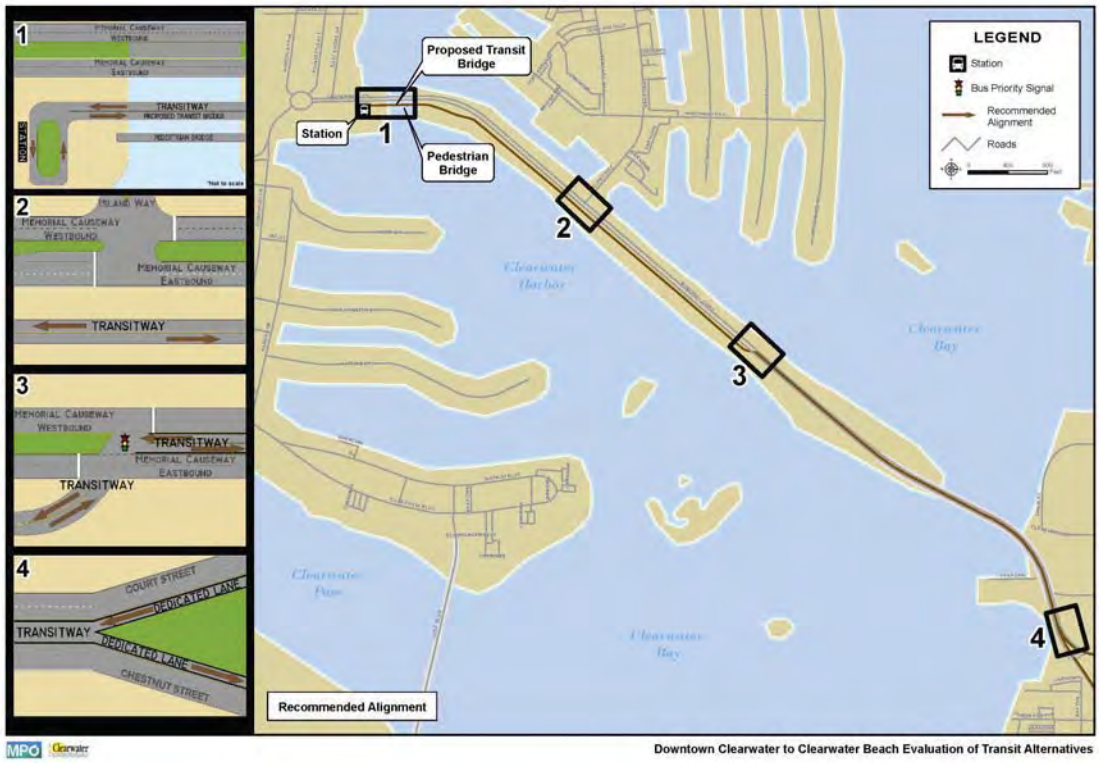
A proposed bus rapid transit (BRT) connection between downtown Clearwater and Clearwater Beach, as shown in Figure 1, is intended to operate like a rail system to move large volumes of people quickly and directly between activity centers. Figure 1 represents the range of potential corridors and stations initially considered. The feasibility of BRT service was examined in two phases, including the near-term BRT and development of longer-term fixed guideway transit alternatives. Through the development and evaluation of the near-term alternatives, the project Steering Committee (Pinellas Mobility Initiative) selected a preferred alternative that meets both near-term and long-term objectives. Figure 2 presents the Preferred BRT Alignment and station locations as adopted by the PMI. This alternative is expected to meet the Federal Transit Administration Very Small Starts project eligibility requirements. Very Small Starts project eligibility is important since it allows for a much shorter and less expensive project development and implementation. The preliminary forecasts and methodology are described in the body of this report. The supplemental demand forecast for the preferred alternative is presented as Appendix B of this report.

Figure 1 Preliminary Station and Routing Alternatives in Clearwater




One of the major tasks for successful implementation of the BRT project was to provide an accurate and reliable ridership forecast for the proposed BRT project, 2008 serves as the base year, 2012 serves as the opening year and 2015 serves as the target year for the ridership forecasting. The original preliminary ridership forecast yielded a range of demand of 4708 to 5102 daily riders in 2015. The updated forecast based on the preferred alternative estimates 7012 daily riders in 2015.

Figure 2: Preferred BRT Alignment and Station Locations




The FTA does not require ridership modeling for Very Small Starts projects. Instead, the FTA requires that the project show a benefit to at least 3,000 existing transit riders in the proposed transit corridor. From, our review of existing PSTA and Jolly Trolley ridership, it appears that there are more than 3,000 existing transit riders in the corridor.

Two rounds of ridership sketch planning analysis were performed to provide evidence that the proposed BRT service will serve a reasonable transit market. As part of efforts to support quality forecasts for new proposed transit lines, FTA has sponsored research to supply insights on ridership potential through the Aggregate Rail Ridership Forecasting Model (AARF), which uses data from the Census Transportation Planning Package (CTPP 2000) to predict unlinked rail transit trips for light rail and commuter rail systems. The ARRF model has also been successfully applied to BRT service since BRT operating characteristics are similar to light rail. The ARRF model was developed to provide a sketch planning tool to estimate ridership demand in the early stages of transit project development without incurring the significant time and expense required to perform detailed travel demand forecasting. The ARRF model was employed twice to test the demand for the service between Clearwater Beach and downtown Clearwater. The initial set of possible stations and alignments as illustrated in Figure 1 were tested creating a range of potential transit demand. ARRF was run again to estimate the ridership for the preferred alternative including alignment and station locations as illustrated in Figure 2. The results of the ARRF model are intended to provide a reasonable estimate of potential daily transit demand in the corridor.

Ridership forecasting in this study adopted the ARRF model that employs Journey-to-Work (JTW) data from the CTPP 2000 to estimate the transit ridership based on the study area's socioeconomic conditions. Since the base travel information for the ARRF model is 2000 CTPP JTW flow data, estimates of 2015 demand were prepared to represent the travel growth in the corridor since 2000. The calibrated ARRF model was implemented to estimate the ridership for the proposed BRT.

The Tampa Bay Regional Planning Model (TBRPM) developed by the Florida Department of Transportation (FDOT) and Pinellas County MPO forecasts future trips by purpose (e.g., home based work (HBW), home based non-work (HBNW) and non-home based work (NHBW)) and mode (e.g., LOV, HOV, and Truck) for different years, including 2000, 2015, and 2025. The TBRPM was utilized as a supplemental data source to obtain the new trips generated at the base year 2000 and at the target year 2015.

Ridership forecasts were developed based on the ARRF methodology with two independent data sources. The first data source was the CTPP dataset that contains the JTW trips in the year 2000. The second data source was the TBRPM model that generated the HBW trips in the years 2000 and 2015. The difference between the HBW trips generated in the TBRPM in 2000 and 2015 was calculated as the incremental JTW trips occurring from 2000 to 2015. The CTPP 2000 data and incremental JTW trips were included in the ARRF model for 2015 BRT ridership forecasting. Another approach utilizes the projected 2015 travel demand from the TBRPM directly in the ARRF model for 2015 BRT ridership forecasting. The first approach, the use of the CTPP base data and the regional planning model data, enhances the utility of the existing data and expands the application scope for the ARRF. The estimates from the two independent data sources were compared and analyzed to provide a more reliable result.

The remainder of this report, described the ARRF model and how it was applied in this project to develop the set of original preliminary ridership forecasts. Appendix B of this report provides a brief description of the supplemental demand forecasting effort applied to the preferred alternative alignment and stations for 2015 and 2025 targeting demand within ½ mile of originating station locations and within 1 mile of destination station locations for all travel: HBW trips; HBNW trips; and NHBW trips.

### *The ARRF Model*

The Aggregate Rail Ridership Forecasting Model uses data from the CTPP to predict unlinked rail transit trips for light rail and commuter rail systems. This model is intended by FTA as a way for project sponsors to develop order-of-magnitude estimates of ridership for new rail lines in metropolitan areas where no existing fixed guideway transit facilities are present – often called "new" New Starts.

Generally speaking, the ARRF model estimates total unlinked transit trips for transit systems by applying a series of expected transit shares to the amount of total (all mode) travel to work occurring within the project corridor. The corridor is defined using a series of concentric buffers around each station. The total travel within these buffers is obtained from two resources, including the JTW flow data from the Year 2000 CTPP and additional JTW flow data occurring from the year 2000 to the project year 2015 by extracting the JTW flows from the TBRPM.

The development of data for the CTPP-Based Aggregate Rail Ridership Forecasting Model has seven steps, including

1. Understand the analysis framework
2. Obtain basic input data files
3. Determine the socioeconomic characteristics of the geography
4. Prepare CTPP JTW flow data for analysis
5. Determine the relationships between rail stations and the geography
6. Run the *RailMarket* program to determine the number of workers in the Year 2000 who both live and work within particular distances of a rail station
7. Enter the output information from Step 6 as the input to the ARRF model.

### *A. Obtain Basic Input Data Files*

The ARRF model requires two major types of data: GIS shape files for the transit line and the underlying Census geography, and The CTPP JTW flow data. Pinellas County was used as the geographic unit for GIS data since the service area was found to fall entirely within the boundaries of the Pinellas MPO. CTPP JTW data is available at the MPO geographic level. In addition, it was observed that the TBRPM TAZ structure (Figure 3) is identical to the census TAZ units that were used in CTPP dataset (Figure 4). Therefore, the census TAZ was selected as the geographic unit so both data sources (CTPP and TBRPM) would share the same geographic level-of-detail for future data fusion and integration to complete project ridership forecasting.

Figure 3 the TAZ Structure in the TBRPM

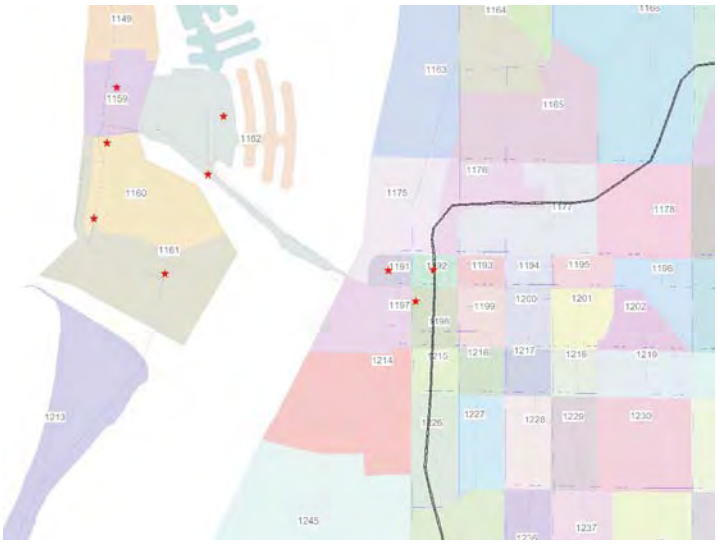


Figure 4 the TAZ Structure in the CTPP

The CTPP provides tabulations of households, persons and workers. It summarizes information by place of residence, by place of work, and the JTW flows between the home and work locations in the three parts of the CTPP package. With its large sample size, the data is some of

the most reliable travel data available on work patterns in the United States. This data was used to evaluate existing conditions, develop and update travel forecasting models and analyze demographic and travel trends for the study area.

### *B. Determine Socioeconomic Characteristics of the Geography*

CTPP Part 1 data contains the percentage of households in low (<$25,000), medium ($25,000-$60,000) and high income (>$60,000) groups by geographic unit. Since Census TAZ was selected as the geographic unit in this study, the TAZ-level analysis was conducted by extracting the household income classification based on TAZ. Figures 5, 6, and 7 show the percentage of households for each of three income groups in downtown Clearwater as part of the transit market analysis. The service area of the proposed BRT line lies entirely within Pinellas County (FIPS code 012103).

Three steps were required to extract the income distribution at the TAZ level, including: retrieval of the TAZ information from census dataset in the entire area; importing the CTPP income classification output dataset and grouping them into three categories for Pinellas county; and looking up each TAZ to obtain their income classification and normalize them into percentages.

The percent households by income categories were mapped by joining TAZ census layer and the retrieved income group distribution. The new joined files stratified by quantity are shown in Figure 5, 6, and 7.

Figure 5

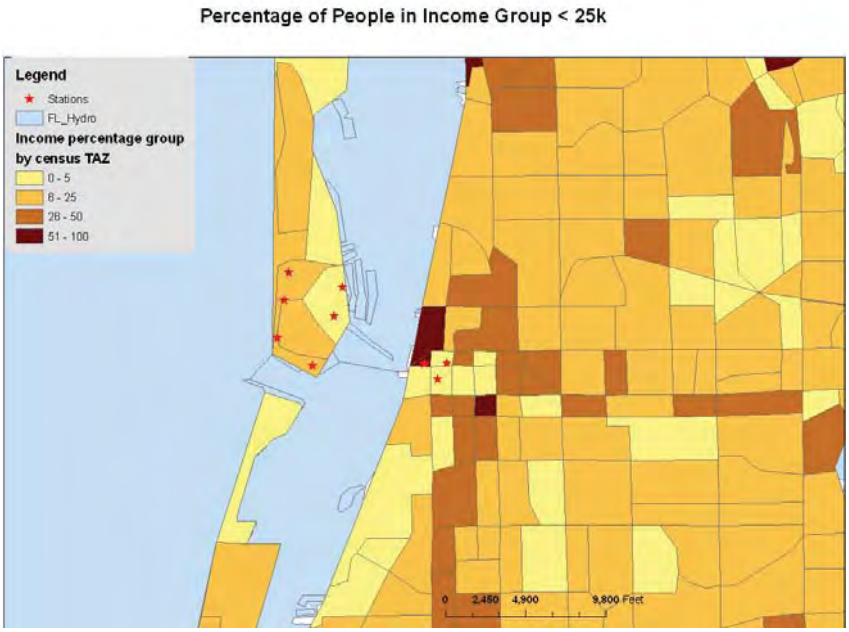


Figure 6

Percentage of People in Income Group 25k < 60k

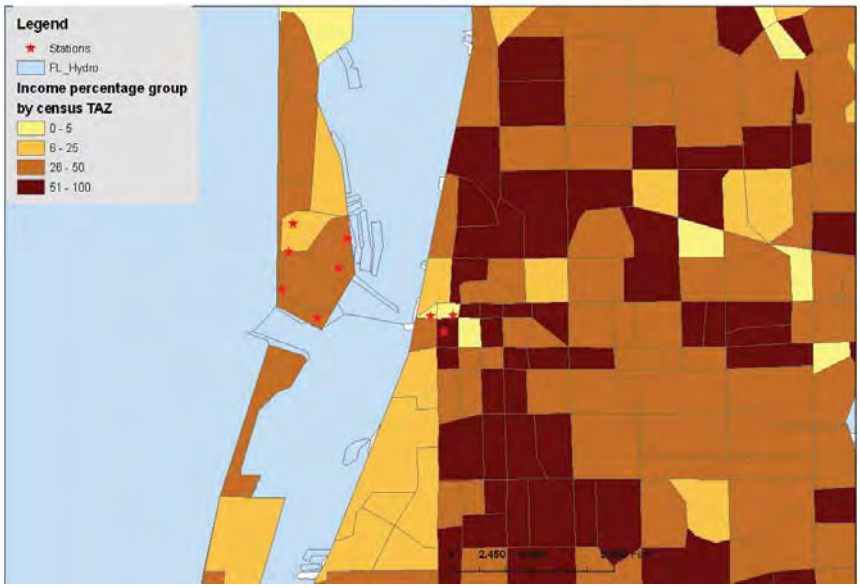



Figure 7

Percentage of People in Income Group > 60k

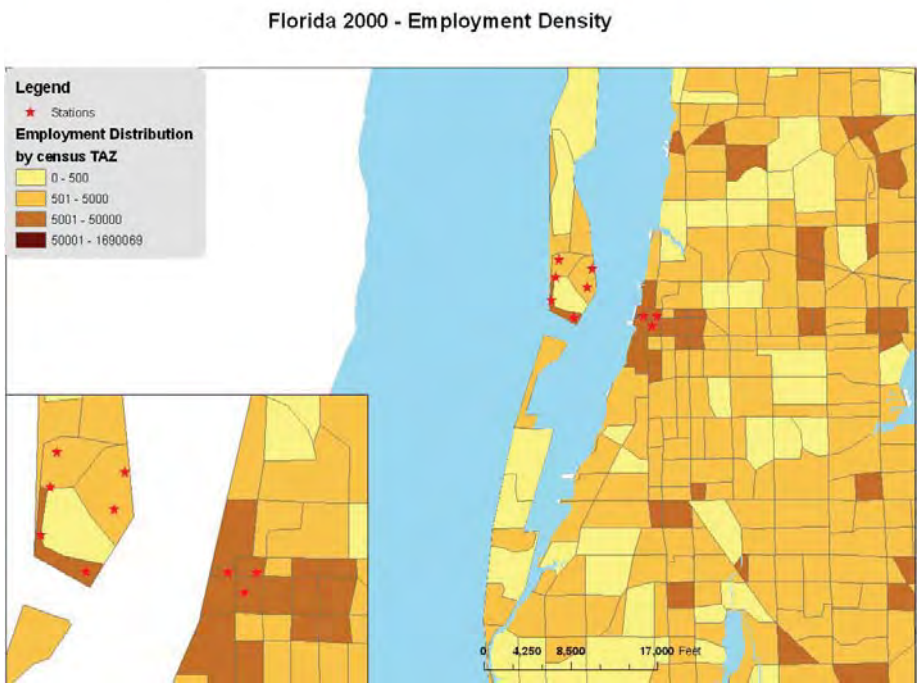
CTPP Part 2 data was used to calculate the number of workers in each TAZ and was combined with an estimate of land area to compute employment density. The 4 steps established to extract the employment density at the TAZ level are:

(1) clip the hydro (surface water) layer out of each TAZ,
(2) look up the TAZ that contains hydro layers and subtract the area of water bodies from the total area to obtain the actual land area for each TAZ,
(3) extract the employment data in each TAZ from CTPP dataset, and
(4) compute the employment density by dividing the employment number by the actual land area in each TAZ.

The employment density was mapped by joining the TAZ and the employment density data. The new joined file was stratified by quantity, as shown in Figure 8.

Once the household income distribution and employment density were generated for each TAZ in the study, the socioeconomic data required by the RailMarket program was complete.

Figure 8 Employment Density by Census TAZ in Study Area




### *C. Prepare CTPP JTW Flow Data for Analysis*

The CTPP part 3 data contains JTW flow data by all modes based on different geographic units. It is saved in a series of collected data files, one for each of the MPOs in the state and one collected file for the entire state. Since the proposed rail system will serve a single MPO, the MPO format CTPP part 3 data was used directly as the input data for the RailMarket estimation program implementation. No advance processing was required as the transit system did not traverse multiple MPOs.

### *D. Determine the Relationships Between Transit Stations and Geography*

Since no park-and-ride (PNR) facilities were provided at the stations along the transit line, it was only necessary to determine the relationships between the rail stations and the CTPP TAZs that fell within specific buffer distances around each station.

After clipping the buffered area out of the TAZ layer in GIS, the proportion of various buffer distances in each TAZ was calculated. A relationship file was created, where each record for each geographic unit defined the proportion of the area within various distances of a proposed transit station. Each file included one record for each TAZ in the region, with the county, TAZ number, and the proportion of the area within various distance bands of the study transit stations. The buffers created around the stations for each alternative plan with different buffer distance are shown in Figures 9-24.

Figure 9 Buffers for All Stations along Alternative 1-1-1

Figure 10 Buffers for All Stations along Alternative 1-1-2


Figure 11 Buffers for All Stations along Alternative 1-2-1

Figure 12 Buffers for All Stations along Alternative 1-2-2

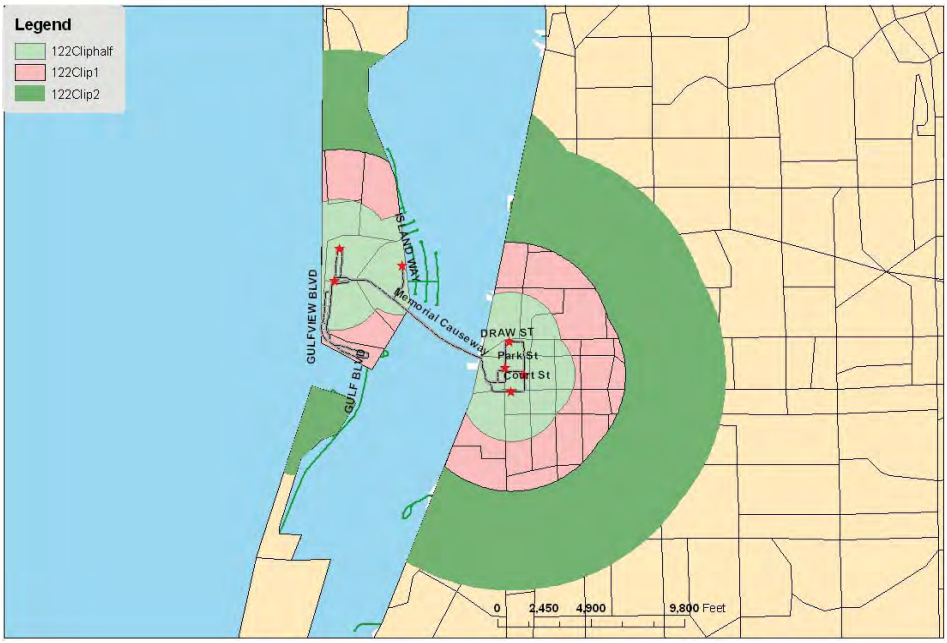



Figure 13 Buffers for All Stations along Alternative 2-1-1

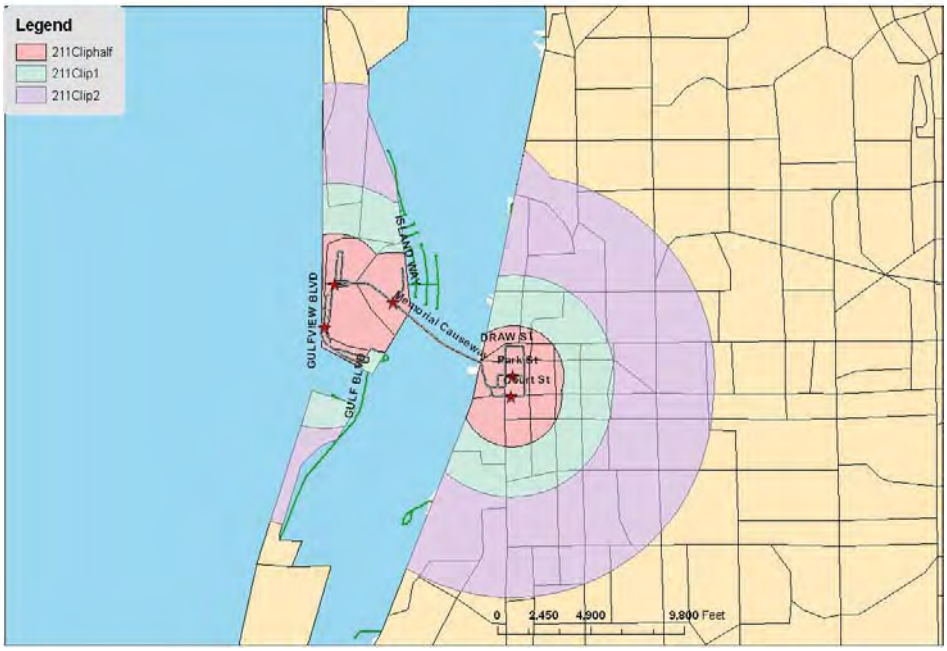


Figure 14 Buffers for All Stations along Alternative 2-1-2

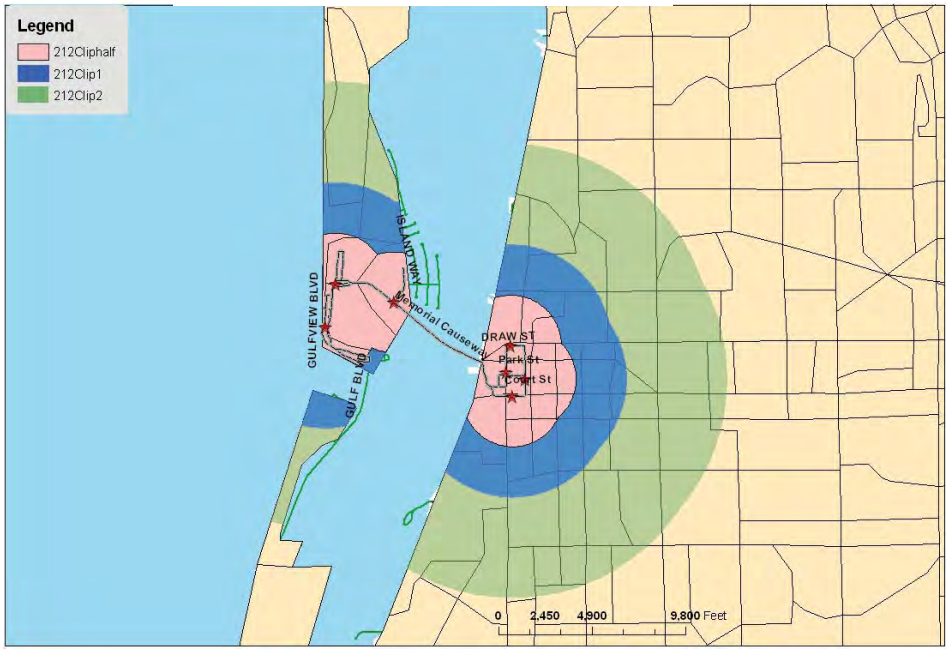



Figure 15 Buffers for All Stations along Alternative 2-2-1

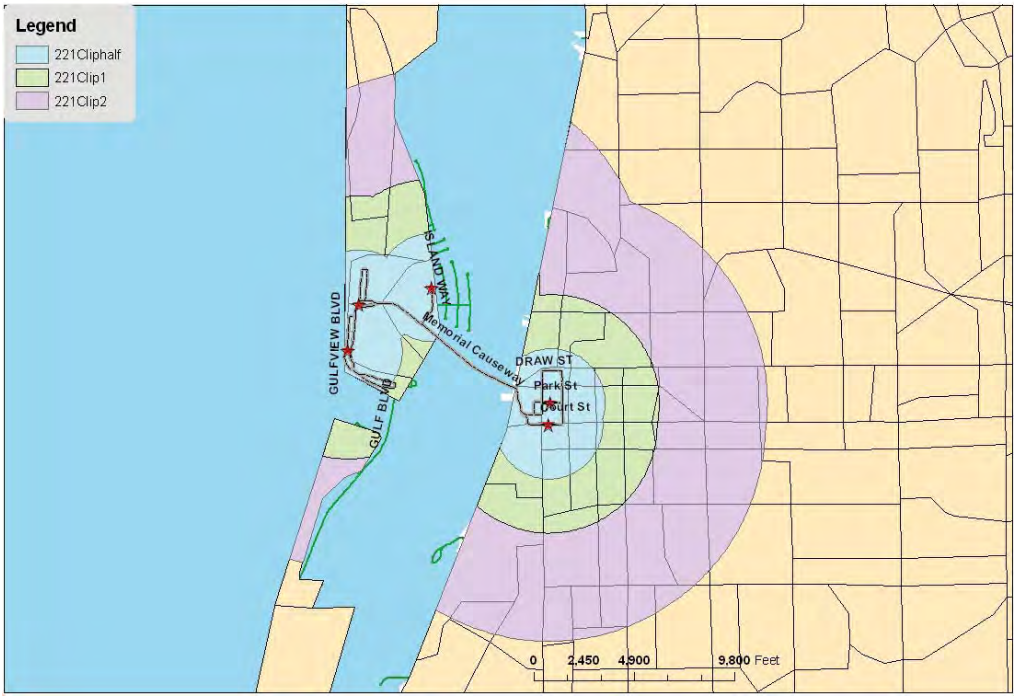


Figure 16 Buffers for All Stations along Alternative 2-2-2

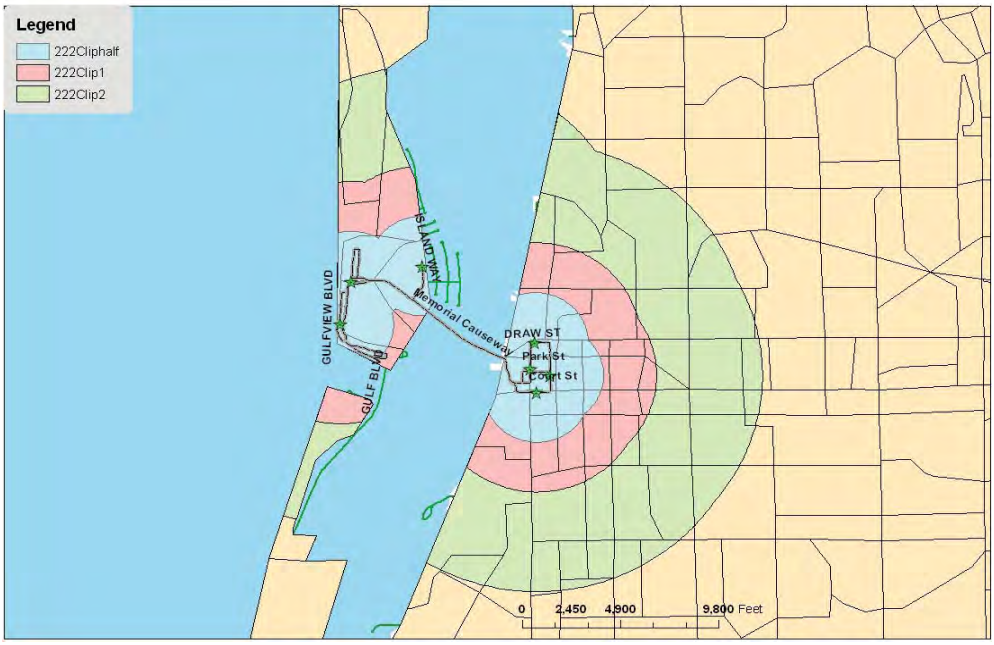



Figure 17 Buffers for All Stations along Alternative 3-1-1

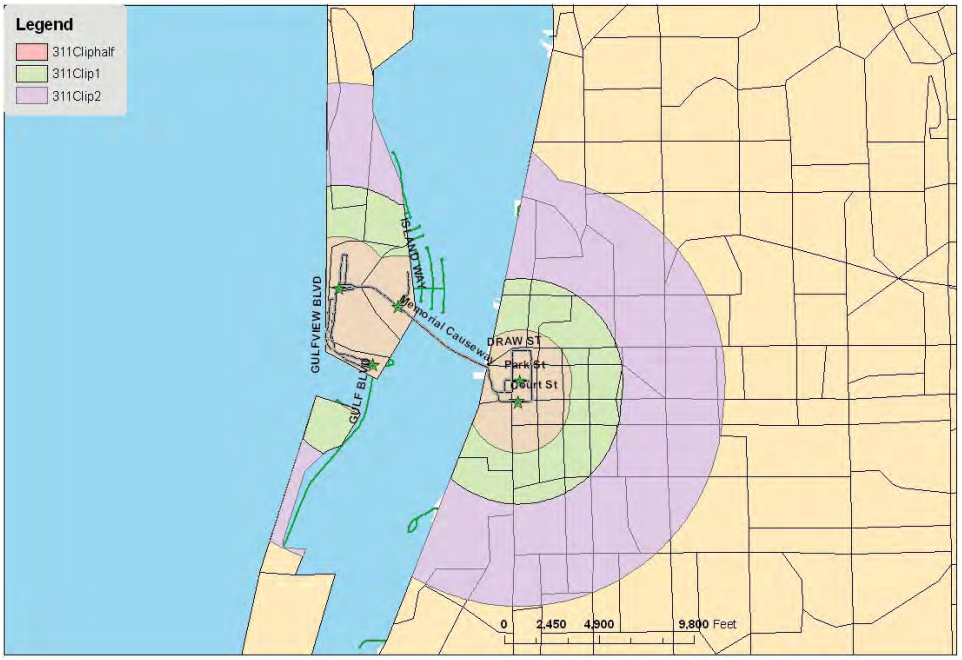


Figure 18 Buffers for All Stations along Alternative 3-1-2

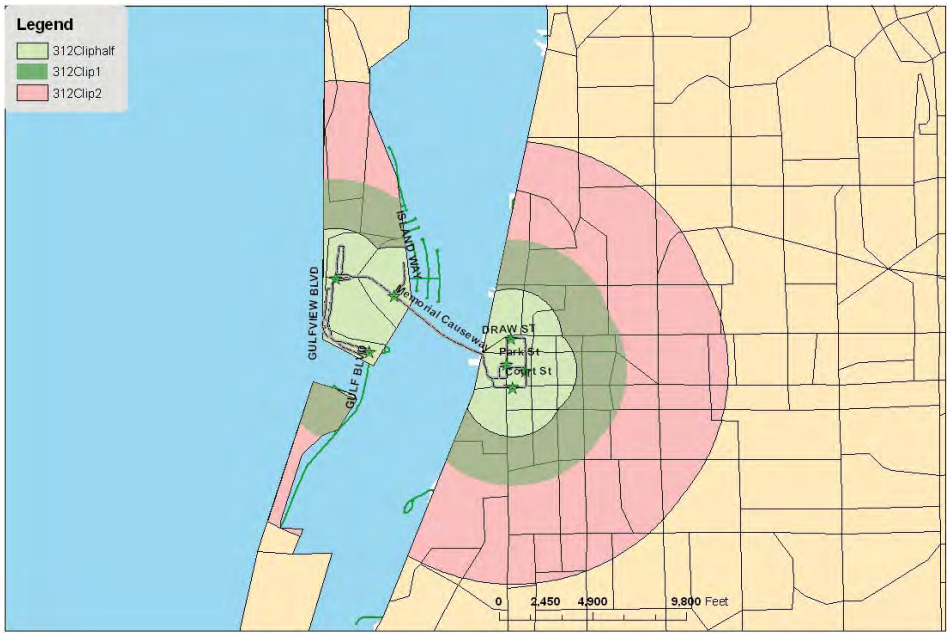



Figure 19 Buffers for All Stations along Alternative 3-2-1

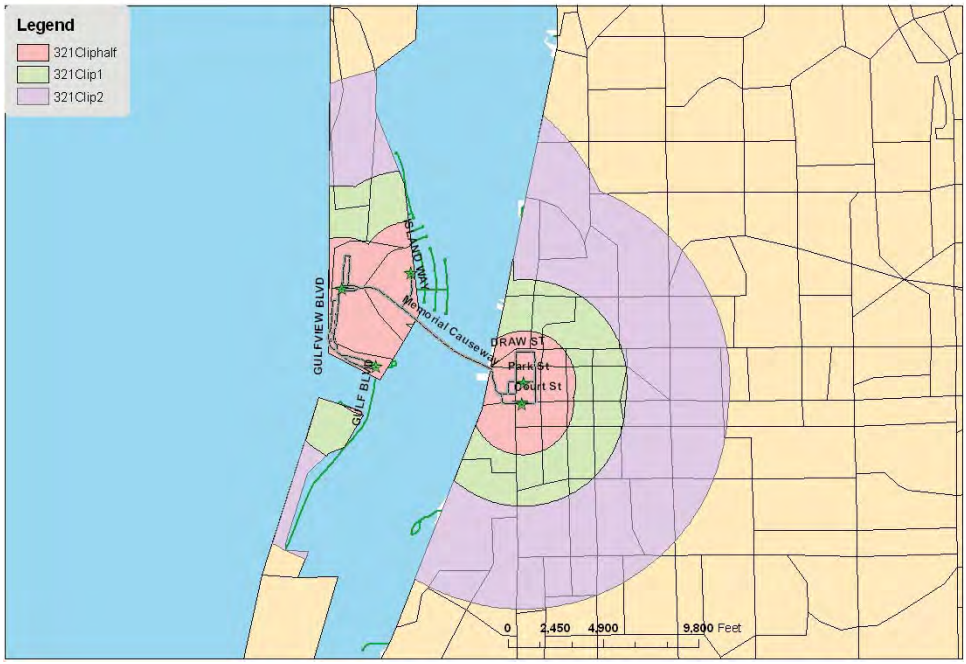


Figure 20 Buffers for All Stations along Alternative 3-2-2

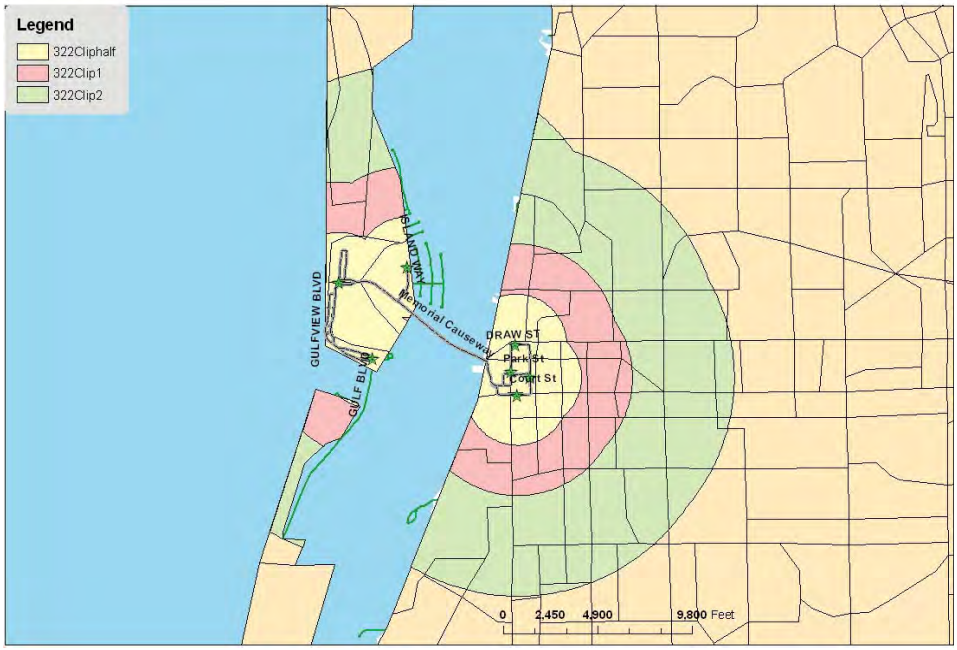



Figure 21 Buffers for All Stations along Alternative 4-1-1

Figure 22 Buffers for All Stations along Alternative 4-1-2

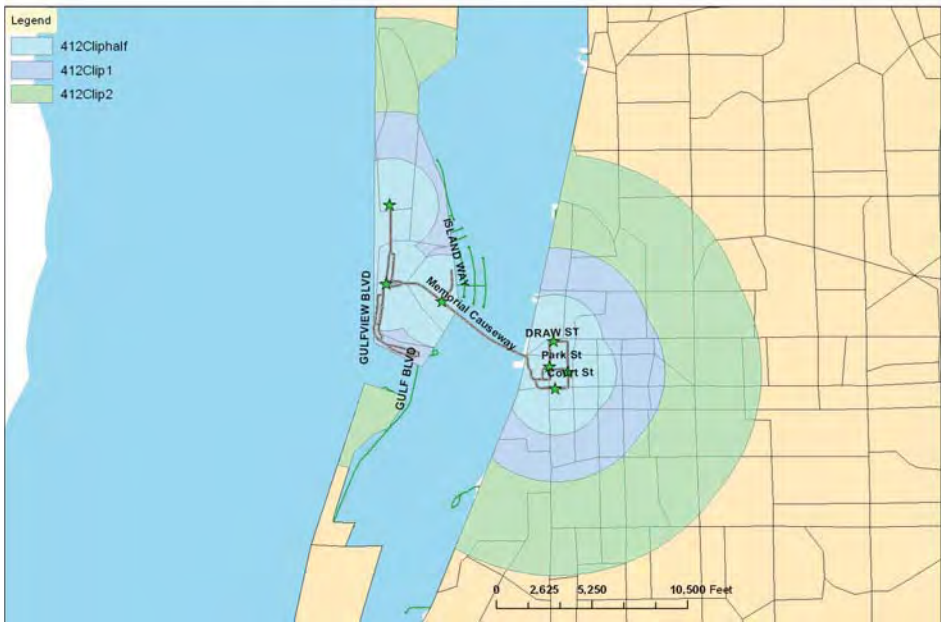
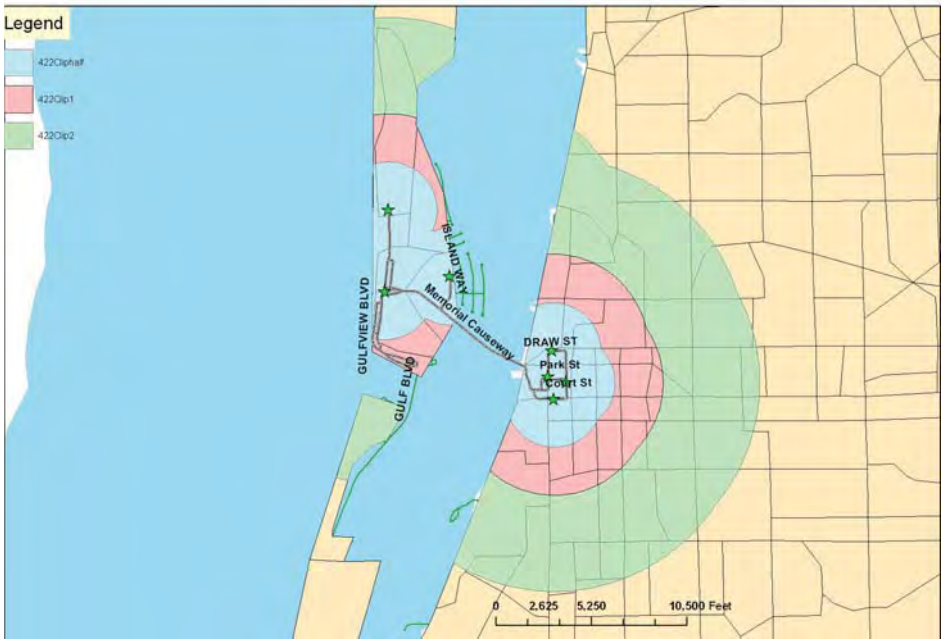



Figure 23 Buffers for All Stations along Alternative 4-2-1

Figure 24 Buffers for All Stations along Alternative 4-2-2




### *E. Executing the RailMarket Program to Extract the JTW trips in Buffer Areas*

The RailMarket program was developed by FTA to extract the total personal trips occurring in the study area, based on the stratified CTPP data. The RailMarket program is then run to compute JTW flows within transit service area. The control file is set and the program is run to generate the input variables required in the ARRF model for the subject project ridership forecasting.

The specifications in the control file for the RailMarket program include the data input files and the index files. The data input files include: the buffer file that defines the proportion of the zone covered in specific buffer distances for all stations; the socioeconomic file that contains income group and employment density information for each geographic unit in the study area; and the CTPP dataset. The index files include the FIPS list for all the counties within the study area, the indexes for the range of the production buffer distance and the attraction buffer distance, the attributes of the PNR stations, the CTPP data status, the threshold for study zones to eliminate contribution of areas with trivial buffer coverage to the transit market, and the socioeconomic conditions.

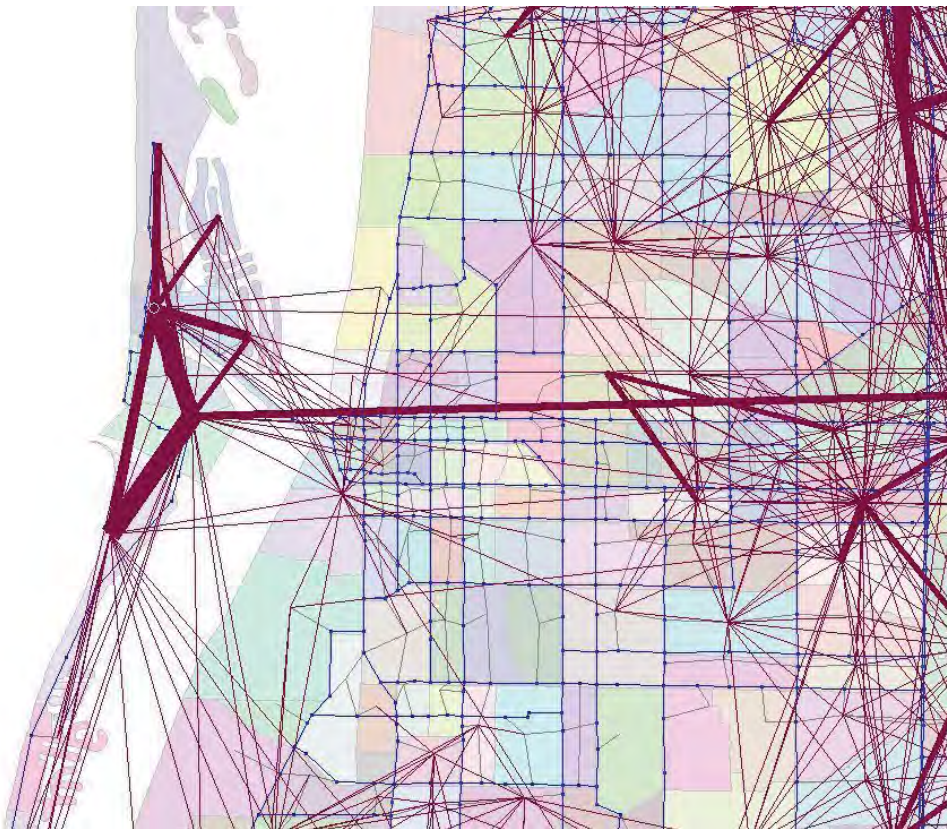
### *F. Implementation of the TBRPM to Obtain the Travel Demand in 2000 and 2015*

Upon the completion of step 6 (described on page 5), the JTW flow was estimated at the study area for the total travel demand. Since the results we an estimate based on the year 2000, the TBRPM model was used to extract additional data for the ARRF implementation. This process is described below.

(1) Run the TBRPM model to obtain the traffic assignment in the network

The TBRPM can forecast future trips by purpose (e.g., HBW, HBNW and NHBW) and mode (e.g., LOV, HOV, and truck) for the years 2000, 2015, and 2025, respectively. The available traffic flow that can be extracted from the TBRPM could be classified by different trip purpose and by different transportation mode. The TAZ structure in the TBRPM is identical to that in the CTPP dataset; the TAZ numbers in the TBRPM are equal to the TAZ numbers in the census data plus 280. The TBRPM network and OD desire lines are reflected in Figure 25.

Figure 25 TBRPM Travel Network and Desirelines



(2) Convert the HBW vehicle trips into HBW personal trips

The CTPP – Part 3 data is a tabulation of workers while the HBW trips generated in the TBRPM is the average weekday vehicle trips. A means to reconcile the difference between the two data sources is required. The Metropolitan Washington Council of Governments proposed an acceptable method to accomplish this by applying a series of adjustment factors to convert the CTPP data into HBW vehicle trips so it is comparable to the output from regional travel demand models.[1]

The ARRF model is based on the personal trips obtained through census survey. Thus, the HBW vehicle trips from the TBRPM were converted into personal trips to make them consistent with the personal trips obtained from the CTPP. Both components were summed as the 2015 total trips for the implementation of the ARRF.

(3) Normalize the HBW personal trip table generated from the TBRPM

To normalize the HBW trip data, the HBW personal trip table for the study area was clipped out of the entire trip table from the TBRPM; The HBW personal trip table generated from the TPRPM was converted into the JTW trip table using common TAZ numbers with the CTPP dataset.

(4) Calculate the proportion of buffer area with different distances within each TAZ, then extracting the JTW trips obtained from the TBRPM

For the proposed BRT route, the potential ridership was determined from a 2-mile buffer area to a 1-mile buffer area, according to the ARRF method. The OD demand among these TAZs from the TBRPM was extracted and multiplied with the proportion assigned to each TAZ for 2-mile buffer area around the origin stations and 1-mile buffer area around the destination stations for the year of 2000 and 2015. The results are the HBW personal trips estimated from the TBRPM for each alternative in the study area for 2000 and 2015, respectively.

(5) Calculate the difference of the aggregated JTW trips between 2000 and 2015 to obtain the incremental trips from 2000 to 2015

The results from step (4) are the estimated JTW trips based on the TBRPM for year 2000 and 2015. The difference between these two periods is the forecasted incremental JTW trip from 2000 to 2015.

### *G. Selection of the CTPP and the TBRPM Data for ARRF Model Implementation*

The HBW person trips extracted from the TBRPM were compared to the JTW trips extracted from the CTPP dataset for the year 2000. It should be noted that the HBW and JTW trips are obtained from different data sources (independent household travel surveys and census surveys, respectively) and are not the same subject. However, the HBW trips from the regional planning model are similar in nature to the CTPP JTW trips, which is how HBW trips were used in conjunction with the CTPP data for ridership forecasting in this study.

For the same buffered area in each alternative plan, it was observed that the total HBW personal trips were significantly higher than the JTW trips. One previous study conducted by the *Metropolitan Washington Council of Governments* found a similar issue, and the professionals on that study “speculated that the 2000 Census may have underestimated the total number of

workers in the region and this may explain why the modal shares looked reasonable, but the total number of trips was low." [1] Another study also analyzed the same discrepancy between the CTPP and the regional planning model and found that the [i]reason is probably due to the sample size, disparate cross-sectional characteristics, different geography, etc. [2]

In general, the CTPP data has a larger sample size with about 10 percent of the entire population, while the National Household Transportation Survey (NHTS) has less sample size in general. However, the TBRPM is taken as a better source in this study because it is more current, reflective of better future development planning information, and consistent as the basis for other transportation planning efforts in the region, especially considering its dynamic demographic changes. Therefore, the HBW personal trips were used as the primary data source in the ARRF for the ridership forecasting, while the CTPP data in conjunction with the TBRPM data was used as a secondary approach to estimate the BRT ridership. This is included in the Appendix A of the report.

### *H. Implementation of the ARRF Model for 2015 Rail Ridership Forecasting*

The input to the ARRF model was the work-flow data generated from the TBRPM. The properties of the socioeconomic class at the home end and employment density at the work end were extracted from the CTPP data. Steps 5 and 7 used a series of concentric buffers around each rail station to establish the overall travel demand around the transit line, where residence and workplace locations are both located within station buffers. Based on these data, the ARRF model extracted the typical number of transit trips generated by these flows.

Using 2000 ridership and transit stations to define the corridors, the coefficients for the input data were trained and calibrated for ridership forecasting in the ARRF model to preserve consistency with 2000 CTPP data. Calibration relied upon the ridership and station locations for the survey year rather than the 2000 data. In cities where the system was extended during 2000 (or the system was not yet opened), ridership for another year was used so that the data unambiguously represents the stabilized volume associated with the system being modeled. Table 1 summarizes the selected data used to calibrate the LRT model. Table 1 summarizes the peer data used to calibrate the ARRF model.

Table 1. Ridership Data Used for Weekday LRT Model Calibration

| Statistic | Baltimore | Buffalo | Cleveland | Dallas | Denver* | Portland | Sacramento | Salt Lake City | San Diego | San Jose** | St. Louis |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | LRT Only | LRT | LRT Only | LRT Only | LRT | LRT | LRT | LRT | LRT Only | LRT Only | LRT |
| Survey Year | 1996 | 2003 | 1994 | 1998 | unknown | 2002 | 1999 | 2002 | 2003 | 2000 | 2002 |
| Survey Reported Ridership | | | | | | | | | | | 37,381 |
| Selected Year | 2000 | 2000 | 2000 | 2000 | 2001 | 2000 | 2000 | 2002 | 2000 | 2001 | 2002 |
| Select NTD or APTA? | NTD | NTD | NTD | NTD | NTD | NTD | NTD | NTD | NTD | NTD | Survey |
| NTD Mileage for Year | 57.6 | 12.4 | 30.8 | 40.8 | 28.0 | 64.9 | 40.7 | 34.2 | 96.6 | 58.4 | 68.8 |
| NTD Ridership for Year | 27,415 | 23,155 | 14,062 | 37,682 | 31,423 | 73,562 | 29,102 | 33,615 | 83,474 | 30,295 | 43,541 |
| APTA Ridership for Year | 25,600 | 23,800 | 12,900 | 38,100 | 32,800 | 71,100 | 28,800 | 31,400 | 82,600 | 25,200 | 38,400 |
| Selected Ridership | 27,415 | 23,155 | 14,062 | 37,682 | 31,423 | 73,562 | 29,102 | 33,615 | 83,474 | 30,295 | 37,381 |
| Mileages (from GIS Data) | | | | | | | | | | | |
| LRT Miles | 54.1 | 12.6 | 29.1 | 38.4 | 27.2 | 62.2 | 39.7 | 32.7 | 90.3 | 55.7 | 64.1 |
| Streetcar Miles | - | - | - | - | - | 4.5 | - | - | - | - | - |
| RRT Miles | - | - | - | - | - | - | - | - | - | - | - |
| CR Miles | - | - | - | - | - | - | - | - | - | - | - |

*SW Corridor Opened 7/17/00 **Tasman Opened 12/17/99

*'00 NTD data for year ended 12/31/00, use 2001 **'00 NTD data for year ended 6/30/00, use 2001

[1] (http://www.mwcog.org/uploads/committee-documents/oVpcXlo20060123085346.pdf)

[2] (http://www.trb.org/conferences/nhts/Venigalla.pdf)

The final ARRF Model is documented below.

Weekday Unlinked Drive Access to Work Rail Trips =
0.030 * CTPP PNR 6 -to-1 Mile JTW Flows (<50K Den) + 0.202 * CTPP PNR 6 -to-1 Mile JTW Flows (>50K Den)

Weekday Unlinked Other (Non-Drive Access to Work) Rail Trips =
0.395 * CTPP 2 -to-1 Mile JTW Flows (<50K Den) + 0.445 * CTPP 2 -to-1 Mile JTW Flows (>50K Den)

Total Weekday Unlinked Rail Trips
Rail Trips =Weekday Unlinked Drive Access to Work Rail Trips + Trips Weekday Unlinked Other Rail

Where:

- CTPP PNR 6-to-1 Mile JTW Flows (<50K Den) is the total JTW flow for cases where home is within 6 miles of a rail station with Park-Ride facilities, work is within 1 mile of any rail station, and the worker density (from the CTPP) at the work end of the journey is less than 50,000 workers per square mile.

- CTPP PNR 6-to-1 Mile JTW Flows (>50K Den) is the total JTW flow for cases where home is within 6 miles of a rail station with Park-Ride facilities, work is within 1 mile of any rail station, and the worker density (from the CTPP) at the work end of the journey is greater than 50,000 workers per square mile.

- CTPP 2-to-1 Mile JTW Flows (<50K) is the total JTW flow for cases where home is within 2 miles of any rail station, work is within 1 mile of any rail, and the worker density (from the CTPP) at the work end of the journey is less than 50,000 workers per square mile.

- CTPP 2-to-1 Mile JTW Flows (>50K) is the total JTW flow for cases where home is within 2 miles of any rail station, work is within 1 mile of any rail, and the worker density (from the CTPP) at the work end of the journey is greater than 50,000 workers per square mile.

The ARRF model was implemented with the TBRPM total travel demand estimates of 2015; the socioeconomic properties were retrieved from the CTPP data. The final BRT ridership forecasted for each alternative in 2015 is listed below:

**West Beach-Midway-East Downtown**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alt 1-1-1 | 4708 | | Alt 2-1-1 | 4745 | | Alt 3-1-1 | 4790 | | Alt 4-1-1 | | 4768 |
| Alt 1-1-2 | 5019 | | Alt 2-1-2 | 5056 | | Alt 3-1-2 | 5102 | | Alt 4-1-2 | | 5061 |
| Alt 1-2-1 | 4763 | | Alt 2-2-1 | 4815 | | Alt 3-2-1 | 4861 | | Alt 4-2-1 | | 4819 |
| Alt 1-2-2 | 5038 | | Alt 2-2-2 | 5090 | | Alt 3-2-2 | 5097 | | Alt 4-2-2 | | 5078 |
| max | **5102** | | min | **4708** | | | | | | | |

**Alternative Priority**

| | | |
|---|---|---|
| West Beach: | Alt 3 > Alt 4 > Alt 2 > Alt 1 | |
| Midway: | Alt 2 > Alt 1 | |
| East Downtown: | Alt 2 > Alt 1 | |

It was concluded that at on Clearwater Beach, locating the bus station at the southern end was the best option. Locating the station at the northern end was second best option, with very close ridership compared to south end. Locating at 5th street was the third best option. Along the causeway, locating the bus station at Dory Passage on Midway Island was preferred over a location directly on the causeway. In downtown Clearwater, the long loop alternative attracts more ridership than the short loop alternative.

## APPENDIX A

The CTPP-based JTW travel demand extracted for the study area in each alternative was implemented in the ARRF model. The 2015 JTW trips were calculated by summing the 2000 CTPP trips and incremental trips between 2000 and 2015 obtained from the TBRPM. The estimation results are listed below.

**West Beach-Midway-East Downtown**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alt 1-1-1 | 1688 | | Alt 2-1-1 | 1683 | | Alt 3-1-1 | 1702 | | Alt 4-1-1 | | 1737 |
| Alt 1-1-2 | 1828 | | Alt 2-1-2 | 1838 | | Alt 3-1-2 | 1858 | | Alt 4-1-2 | | 1887 |
| Alt 1-2-1 | 1708 | | Alt 2-2-1 | 1713 | | Alt 3-2-1 | 1732 | | Alt 4-2-1 | | 1755 |
| Alt 1-2-2 | 1848 | | Alt 2-2-2 | 1855 | | Alt 3-2-2 | 1823 | | Alt 4-2-2 | | 1892 |
| max | **1858** | | min | **1683** | | | | | | | |

**Alternative Priority**

| | | |
|---|---|---|
| West Beach: | Alt 4 > Alt 3 > Alt 2 > Alt 1 | |
| Midway: | Alt 2 > Alt 1 | |
| East Downtown: | Alt 2 > Alt 1 | |

With the exception of the beach end, the priority of the alternative bus station locations is almost equal when the ridership was estimated based on the CTPP data compared to the TBRPM. Alternative 4 has slightly higher ridership than Alternative 3. However, the difference was so marginal that it can be concluded that alternatives 3 and 5 have very similar effects on the ridership attractions at the beach end. For Midway Island and downtown Clearwater, the CTPP forecasting results drew the same conclusion in terms of the priority of the bus station locations as the TBRPM forecasting.

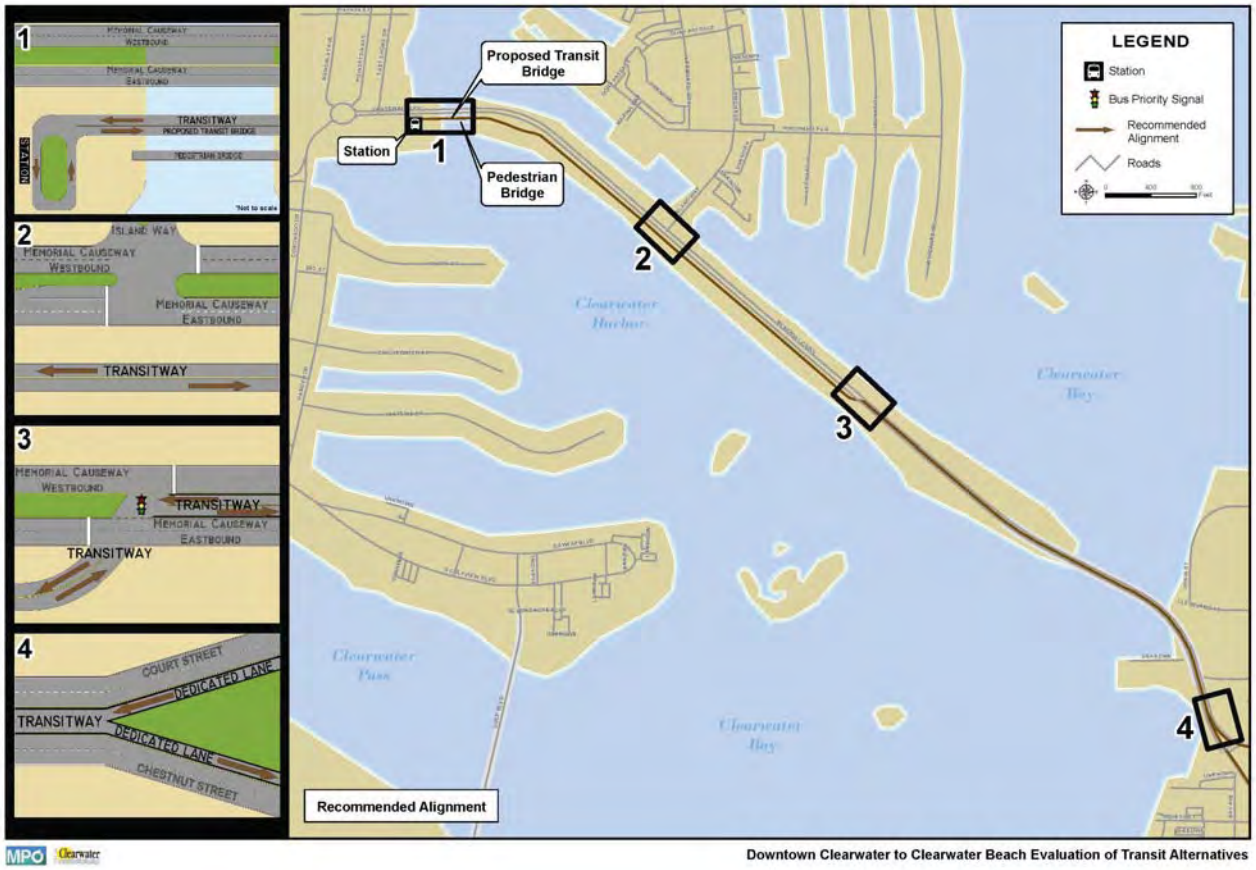
## Appendix B

## Supplemental Ridership Estimation for the Preferred Alternative

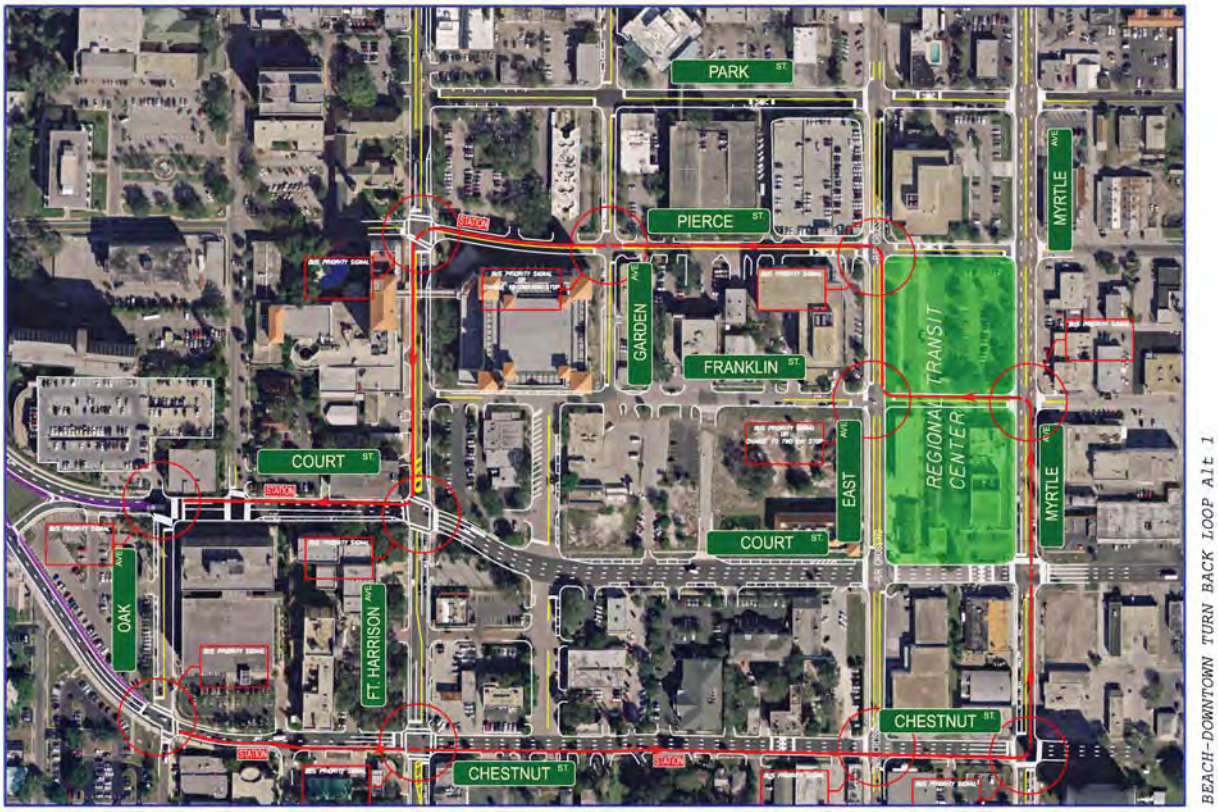
*1 Preferred Alternative for BRT Alignment*

The PMI selected a preferred BRT alignment to connect Clearwater Beach and downtown Clearwater. This supplemental ridership estimate was developed to provide the PMI with a better understanding of the potential daily demand for the proposed service so that they may better evaluate the relative costs and benefits of the project. However, the project is expected to qualify as a Federal Ttransit Administration Very Small Starts project and therefore only needs to demonstrate that it will benefit more than 3000 existing transit riders in the corridor. The FTA will not require additional ridership forecasting.

The figure below presents the beach to downtown segment of the preferred alternative.



The figure below presents the downtown circulation of the preferred alternative.




*2 Comparison of the Daily Ridership of the Preferred BRT line with Other Alternatives*

To assess the preferred BRT line's performance for attracting the daily work journey trips compared with previous alternatives, the ARRF model was implemented based on the same setting adopted previously for the preliminary BRT alignments. Based on the ARRF model default settings, the work journey trips and home-based work trips (HBW) are generated from a 2-mile buffer area around the trip origin stations to 1-mile buffer areas around the trip destination stations. The demand within these areas accounts for the potential ridership for the proposed transit line.

The new BRT stop locations were updated accordingly based on the preferred alternative following with the same technical procedures to estimate the ridership in the preliminary ridership estimation. The data from TBRPM was used rather than CTPP data due to its more robust description of current conditions in the study area as opposed to the CTPP data. To develop the new ridership estimates, the following process was employed:

First the same 2-mile to 1-mile buffer area around the origin and destination stations (respectively) of the preferred BRT alternative was used to extract the data and the

proportion of the buffer area falling within each TAZ was retrieved geographically using the GIS platform.

Second, the total demand for work journey, or Home-based work trips was retrieved from the TBRPM for the study area.

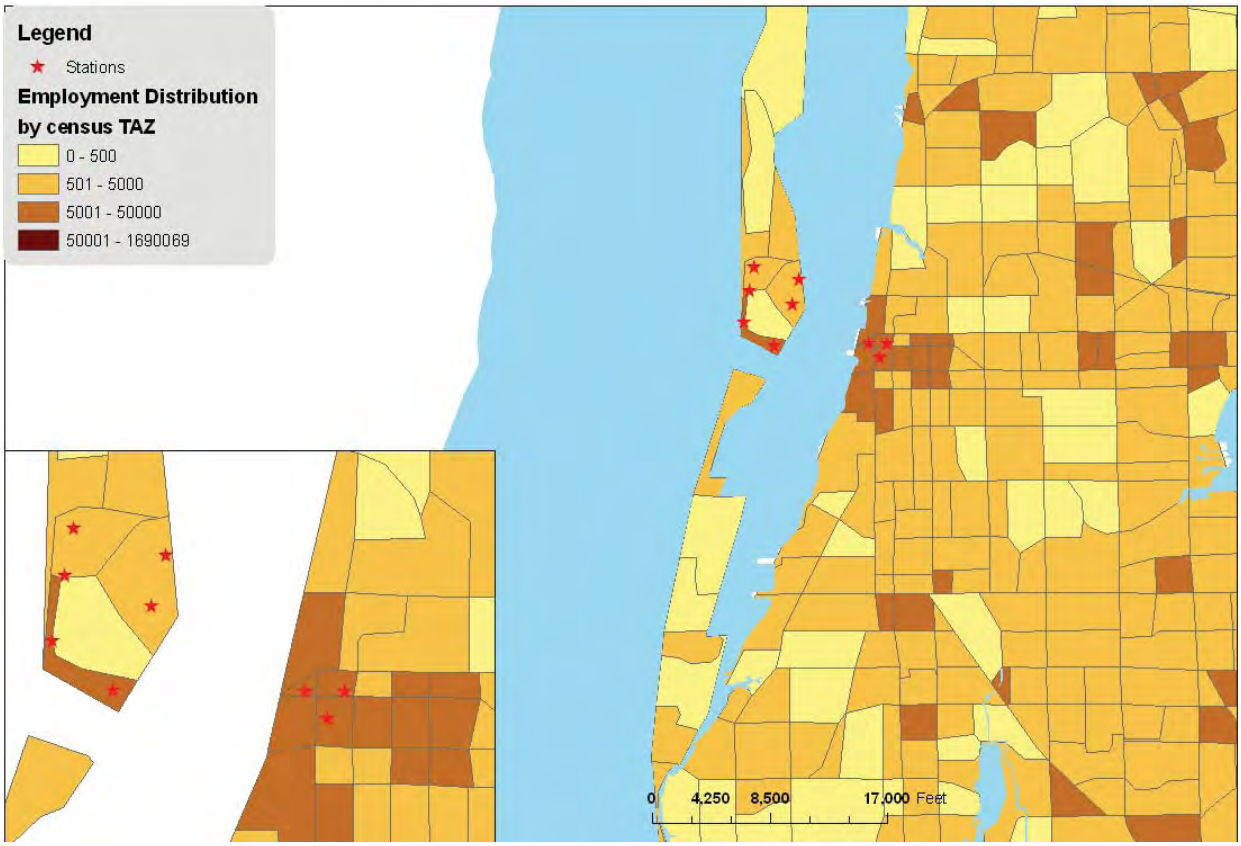
Third, the total demand of work journey in the buffer area was calculated.

Fourth, the percentage for the work journey trips that will be served by the proposed transit line was estimated based on the coefficient provided by AFFR that has been calibrated with historic data from recent transit line developments.

The new buffer area with default buffer distance in the ARRF model for the preferred BRT line is shown:

**Final Alternative Buffer Area with Default Distance**

Florida 2000 - Employment Density




As shown in the figure above, the employment density in the whole study area is below 50K work trips per square mile. In addition, there are no PNR facilities provided at the preferred BRT stations. Drive access to work related rail trips were ignored. The LRT aggregate rail ridership forecasting model was used to replicate BRT ridership and was simplified as:

Estimated weekday unlinked trips for BRT = 0.395 * total demand 2-to-1 Mile JTW Flows.

Using the original model parameters of 1 to 2 mile buffers around the origin and destination stations using HBW trips only, the ridership estimate for the preferred BRT alternative is equal to **4843** trips/day. The table below presents the range of potential daily ridership estimates calculated based on the preliminary alignments and station locations (4708 to 5102 daily trips).

**West Beach-Midway-East Downtown**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alt 1-1-1 | 4708 | | Alt 2-1-1 | 4745 | | Alt 3-1-1 | 4790 | | Alt 4-1-1 | | 4768 |
| Alt 1-1-2 | 5019 | | Alt 2-1-2 | 5056 | | Alt 3-1-2 | 5102 | | Alt 4-1-2 | | 5061 |
| Alt 1-2-1 | 4763 | | Alt 2-2-1 | 4815 | | Alt 3-2-1 | 4861 | | Alt 4-2-1 | | 4819 |
| Alt 1-2-2 | 5038 | | Alt 2-2-2 | 5090 | | Alt 3-2-2 | 5097 | | Alt 4-2-2 | | 5078 |
| max | **5102** | | min | **4708** | | | | | | | |

Compared with previously assessed alternatives, the preferred BRT line could perform quite well to attract the ridership in the study area among all potential alternatives.

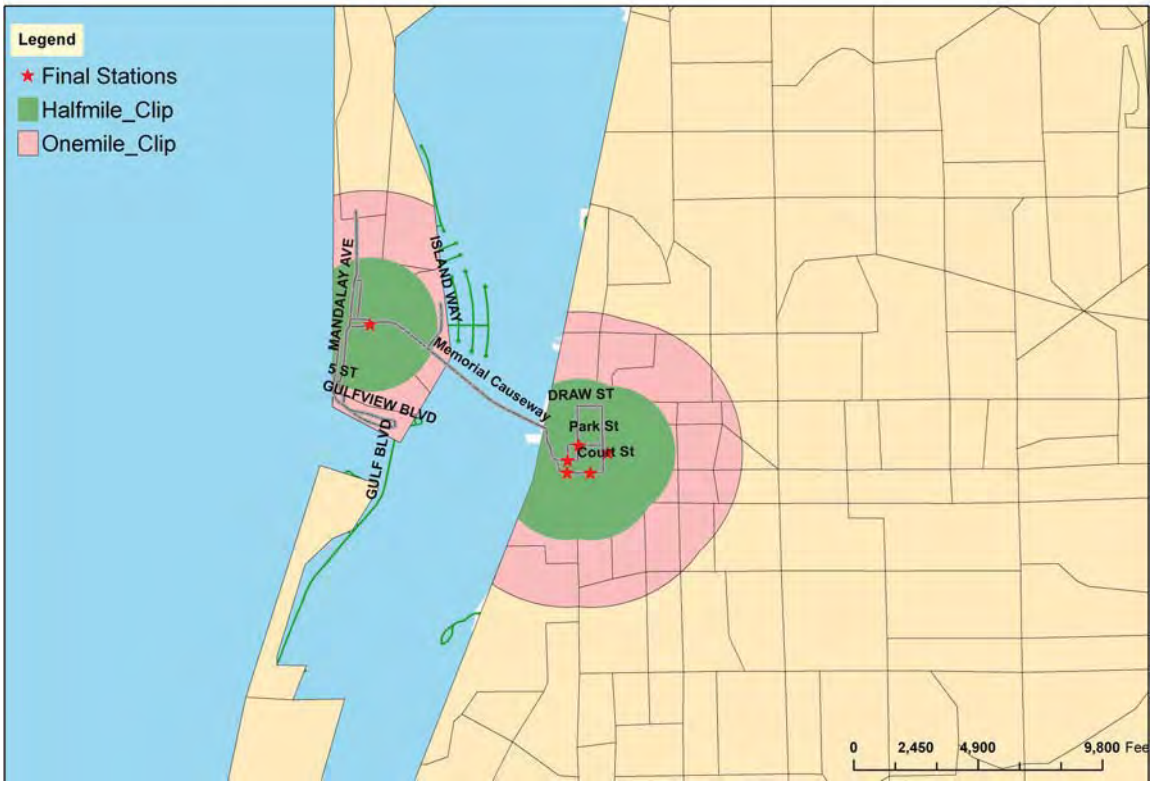
*3 Daily Ridership of the Fine-tuned BRT Line*

It should be noted that the estimated ridership by ARRF only accounts for the work journey trips to be serviced by the proposed BRT line. In order to provide a more reliable estimation, a fine-tuned methodology is proposed for this study. Its improvement is mainly focused on three aspects:

(1) Trips with other trip purposes, such as HBNW, NHB are included in the estimation for BRT ridership, in addition to HBW.
(2) The buffer distance is adjusted shorter to address the small spacing for the proposed station along the preferred BRT line. A combination of 0.5-mile and 1-mile buffer distance will be applied in the preferred BRT line.
(3) The project year is extended to 2025 in addition to 2015 based on the TBRPM model.

The fine-tuned buffer areas are graphically shown in the diagram below, with 0.5-mile and 1-mile buffer distance where trips are assumed to have potential to take the preferred BRT line.

**Final Alternative Buffer Area with Fine Tuned Distance**




A combination of different buffer distance is selected as shown in table below for different projection years. Considering the short distance for riders to walk in the downtown Clearwater and Clearwater Beach, the base estimation assumes that BRT riders will have a 0.5-mile walk distance around the origin station and a 1-mile walk distance around the destination station. In addition, 0.5-to-0.5 mile buffer area and 1-to-1mile buffer area are also examined in this study to provide ridership estimation in a range, in which 0.5-to-0.5 mile buffer area represents a conservative lower boundary, and 1-to-1mile buffer area stands for an aggressive upper boundary for the ridership estimation.

| | **2015** | **2015** | **2025** | **2025** |
|---|---|---|---|---|
| | **½ mile Destination** | **1 mile Destination** | **½ mile Destination** | **1 mile Destination** |
| **½ mile Origin** | YES | **YES** | YES | **YES** |
| **1 mile Origin** | | YES | | YES |

Based on the travel demand projected by TBRPM and the new fine-tuned inputs, the estimated daily BRT ridership with all trip purposes including HBW, HBNW, and NHB trips for the preferred BRT alternative (alignment and station locations) is listed as below:

**Estimated Ridership for the Preferred BRT Line**

| Buffer area/Year | 0.5mile-to-0.5mile | **0.5mile-to-1mile** | 1mile-to-1mile |
|---|---|---|---|
| 2015 | 3790 | **7012** | 13307 |
| 2025 | 3988 | **7319** | 13766 |

It can be observed that the estimated ridership with all trip purposes results in a significant increase when compared with only the HBW trip based ridership. For example, a 2mile-to-1mile buffer area around the preferred BRT stations has a HBW-based ridership of 4843, but a 1mile-to-1mile buffer area could have a total ridership of 13,307 including all trip purposes, including HBW, HBNW and NHB trips. It indicates that the trips associated with HBNW and NHB purposes contribute much more ridership than the HBW trips. This finding seems to be consistent with the observed travel demand of Clearwater.

Another finding that was observed is that the estimated ridership is homogeneously distributed over the study area. The increase in ridership for all trip purposes is roughly proportional to the total buffer designated by the buffer distance of origin station and destination station. The finding would allow transit planners to propose BRT line alignment with more freedom to focus on other service planning aspects, since the ridership appears to be fairly uniformly distributed in the study area.

# APPENDIX H DAY TRIPPER RIDERSHIP

Appendix H contains data from the Tampa Bay Regional Planning Model Version 7.0. The data look at vehicle and person trips in 2006 and 2035 originating or terminating in Clearwater Beach and crossing the causeway. Specifically, the data look at home-based social-recreational trips. A map identifying the location of specific transportation analysis zones (TAZs) is also provided.

## Vehicle Trip Origin and Destination Tables

| 2006 Vehicle Trips - West of Island Way | | | | | | | |
|---|---|---|---|---|---|---|---|
| from/to | Hillsborough | Pinellas | Pasco | Hernando | Citrus | External | Total |
| Hillsborough | - | 2,096 | - | - | - | - | 2,096 |
| Pinellas | 2,080 | 30,547 | 458 | 61 | 7 | 3 | 33,154 |
| Pasco | - | 458 | - | - | - | - | 458 |
| Hernando | - | 65 | - | - | - | - | 65 |
| Citrus | - | 7 | - | - | - | - | 7 |
| External | - | 3 | - | - | - | - | 3 |
| Total | 2,080 | 33,175 | 458 | 61 | 7 | 3 | 35,782 |

| 2006 Vehicle Trips - East of Island Way | | | | | | | |
|---|---|---|---|---|---|---|---|
| from/to | Hillsborough | Pinellas | Pasco | Hernando | Citrus | External | Total |
| Hillsborough | - | 2,395 | - | - | - | - | 2,395 |
| Pinellas | 2,384 | 36,350 | 509 | 74 | 9 | 3 | 39,329 |
| Pasco | - | 512 | - | - | - | - | 512 |
| Hernando | - | 78 | - | - | - | - | 78 |
| Citrus | - | 9 | - | - | - | - | 9 |
| External | - | 3 | - | - | - | - | 3 |
| Total | 2,384 | 39,347 | 509 | 74 | 9 | 3 | 42,326 |

| 2035 Vehicle Trips - West of Island Way | | | | | | | |
|---|---|---|---|---|---|---|---|
| from/to | Hillsborough | Pinellas | Pasco | Hernando | Citrus | External | Total |
| Hillsborough | - | 2,499 | - | - | - | - | 2,499 |
| Pinellas | 2,530 | 35,449 | 567 | 122 | 11 | 26 | 38,705 |
| Pasco | - | 567 | - | - | - | - | 567 |
| Hernando | - | 122 | - | - | - | - | 122 |
| Citrus | - | 10 | - | - | - | - | 10 |
| External | - | 27 | - | - | - | - | 27 |
| Total | 2,530 | 38,675 | 567 | 122 | 11 | 26 | 41,930 |

| 2035 Vehicle Trips - East of Island Way | | | | | | | |
|---|---|---|---|---|---|---|---|
| from/to | Hillsborough | Pinellas | Pasco | Hernando | Citrus | External | Total |
| Hillsborough | - | 2,782 | - | - | - | - | 2,782 |
| Pinellas | 2,802 | 42,231 | 644 | 137 | 13 | 33 | 45,860 |
| Pasco | - | 643 | - | - | - | - | 643 |
| Hernando | - | 136 | - | - | - | - | 136 |
| Citrus | - | 12 | - | - | - | - | 12 |
| External | - | 34 | - | - | - | - | 34 |
| Total | 2,802 | 45,839 | 644 | 137 | 13 | 33 | 49,467 |

## Home-Based Social Recreational Trips

| | 2006 Memorial Causeway Bridge Analysis | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Select Link - West of Island Way[4] | | | Select Link - East of Island Way[5] | | |
| TAZ[1] | HBSR Person Trips[2] | Total Vehicle Trips[3] | Vehicle Trips[6] | % Trips on Bridge[7] | HBSR Person Trips[8] | Vehicle Trips[9] | % Trips on Bridge[10] | HBSR Person Trips[11] |
| 1081 | - | 4 | 2 | 50% | - | 2 | 50% | - |
| 1148 | 2,560 | 5,045 | 3,113 | 62% | 1,580 | 2,930 | 58% | 1,487 |
| 1149 | 3,254 | 6,842 | 4,172 | 61% | 1,984 | 3,748 | 55% | 1,783 |
| 1159 | 5,533 | 12,901 | 8,452 | 66% | 3,625 | 7,442 | 58% | 3,192 |
| 1160 | 2,676 | 6,349 | 3,811 | 60% | 1,606 | 3,460 | 54% | 1,458 |
| 1161 | 10,741 | 21,314 | 9,517 | 45% | 4,796 | 8,610 | 40% | 4,339 |
| 1150 | 2,231 | 4,542 | 957 | | | 3,326 | 73% | 1,634 |
| 1162 | 4,524 | 10,094 | 2,782 | | | 7,053 | 70% | 3,161 |
| Total | 31,519 | 67,091 | 32,806 | | 13,591 | 36,571 | | 17,053 |

| | 2035 Memorial Causeway Bridge Analysis | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Select Link - West of Island Way[4] | | | Select Link - East of Island Way[5] | | |
| TAZ[1] | HBSR Person Trips[2] | Total Vehicle Trips[3] | Vehicle Trips[6] | % Trips on Bridge[7] | HBSR Person Trips[8] | Vehicle Trips[9] | % Trips on Bridge[10] | HBSR Person Trips[11] |
| 1081 | - | 10 | 8 | 80% | - | 7 | 70% | - |
| 1148 | 2,686 | 5,355 | 3,563 | 67% | 1,787 | 3,391 | 63% | 1,701 |
| 1149 | 4,378 | 9,156 | 5,913 | 65% | 2,827 | 5,460 | 60% | 2,611 |
| 1159 | 5,785 | 13,966 | 9,359 | 67% | 3,877 | 8,454 | 61% | 3,502 |
| 1160 | 3,392 | 7,929 | 4,963 | 63% | 2,123 | 4,590 | 58% | 1,964 |
| 1161 | 11,244 | 24,162 | 11,385 | 47% | 5,298 | 10,496 | 43% | 4,884 |
| 1150 | 2,269 | 4,595 | 815 | | | 3,567 | 78% | 1,761 |
| 1162 | 4,834 | 10,710 | 2,788 | | | 7,709 | 72% | 3,479 |
| Total | 34,588 | 75,883 | 38,794 | | 15,912 | 43,674 | | 19,902 |

[1]TAZ stands for transportation analysis zone.

[2]This category measures home-based social recreation (HBSR) person trips originating or terminating in the respective TAZ.

[3]This category measures all vehicle trips that originate or terminate in the respective TAZ. The model does not provide a breakdown of vehicle trips. It provides only total vehicle trips but not HBSR vehicle trips.

[4]This category examines those trips that travel over the causeway as measured at a point to the west of Island Way.

[5]This category examines those trips that travel over the causeway as measured at a point to the east of Island Way.

[6]This category indicates the number of vehicles that originate or terminate in the respective TAZ and also cross some point to the west of Island Way on the causeway.

[7]This category indicates the percentage of vehicles that originate or terminate in the respective TAZ that also travel across a point on the causeway which is west of Island Way.

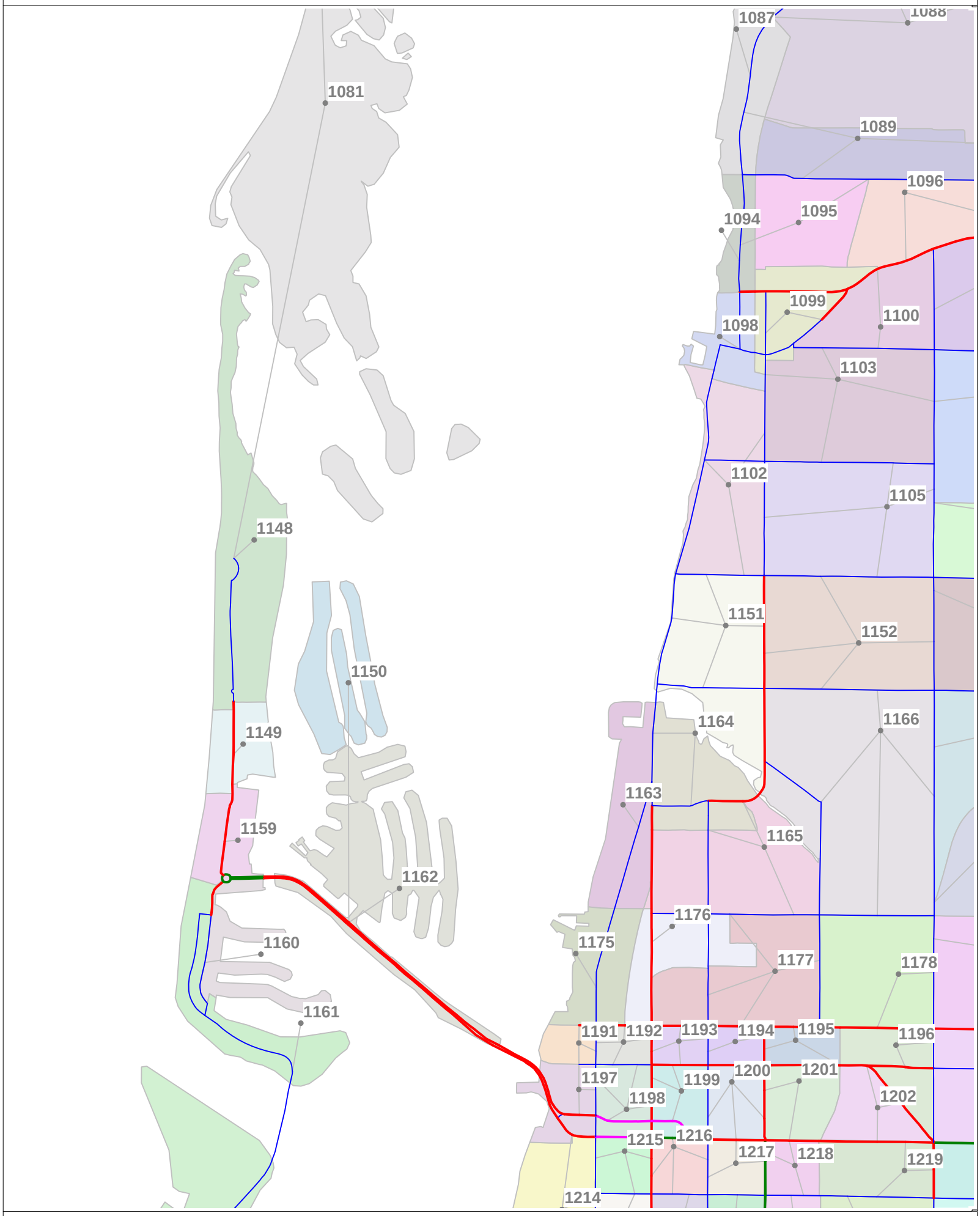
[8]This category applies the same percentage of vehicle trips that originate and terminate in the respective TAZ and also travel across a point on the causeway to the west of Island Way to the total number of HBSR person trips originating or terminating in the respective TAZ to determine the number of HBSR person trips that orginate or terminate in the respective TAZ and also travel across a point on the causeway to the west of Island Way.

[9]This category indicates the number of vehicles that originate or terminate in the respective TAZ and also cross some point to the east of Island Way on the causeway.

[7]This category indicates the percentage of vehicles that originate or terminate in the respective TAZ that also travel across a point on the causeway which is east of Island Way.

[8]This category applies the same percentage of vehicle trips that originate and terminate in the respective TAZ and also travel across a point on the causeway to the east of Island Way to the number of HBSR person trips to determine the number of HBSR person trips that orginate or terminate in the respective TAZ and also travel across a point on the causeway to the east of Island Way.

# TBRPM 2006 Base Year Number of Lanes



## APPENDIX I COST ESTIMATES

The spreadsheets found in this appendix provide detailed estimates of probable cost for the proposed system. It also provides information on assumptions made during the probable cost calculations.

# Preferred Alternative - Marina to Downtown via Busway - Service and Cost Summary

| FTA Requirement | FTA Evaluation Criteria | **Hybrid (Median + Shared Path) = Marina to Downtown via** Bus Lane, Downtown Loop H east on Chestnut Street, north on Myrtle Avenue, west on Franklin Avenue, north on East Avenue, west on Pierce Street, south on Ft. Harrison Avenue, and west on Court Street | **Meets FTA and Project Objectives and Criteria?** |
|---|---|---|---|
| Ridership | Benefit at least 3,000 current riders/day-corridor | 4779 | Yes |
| O&M Costs | Less than 5% current O&M budget<br>Annual assuming 365 operating days PSTA<br>2008 Annual O&M Costs = $55.6 million<br>Projected O&M = 1% of 2008 PSTA O&M | $553,457 | Yes |
| Capital Costs | Less than $50 Million Total | $14,372,407 | Yes |
| | Less than $3 Million per/Mile Excluding Vehicles | $2,649,338 | Yes |
| Cost-effectiveness | O&M Cost/Passenger | $0.32 | Yes |
| Transit Operational Considerations | Round Trip Travel Time (minutes) | 9.3 | Yes |
| | Frequency of Service<br>(10 min peak; 15 min off-pk) | Yes | Yes |
| | Transit Priority Treatments/TSP | Yes | Yes |
| | Reduces Traffic Conflict | Yes | Yes |
| | Number of Stations | 6 | Yes |
| Enhance Local Mobility | Connections to Local Transit | Yes | Yes |
| Enhance Regional Mobility | Connections to Regional Transit | Yes | Yes |
| Minimize Capital Costs | Total Capital Cost (excluding vehicles) | $12,372,407 | Yes |
| | Average Capital Cost/Passenger | $2,589 | Yes |
| Minimize O&M Costs | Annual O&M Cost | $553,457 | Yes |
| Vehicles | Number of Vehicles | 2 | Yes |
| | Cost of Vehicles | $2,000,000 | Yes |
| Total Capital Cost with Vehicles | | $14,372,407 | Yes |

| O&M Cost Estimates/Cost Basis | Preferred Alternative |
|---|---|
| Roundtrip Distance (miles) | 4.7 |
| Length of Route in Exclusive Bus Only Lane (roundtrip miles) | 3.7 |
| Length of Route in Mixed Traffic (roundtrip miles) | 1.0 |
| Average MPH - Exclusive Bus Lanes | 35 |
| Average MPH - Mixed Traffic | 20 |
| Running Time (RT) | 9.3 |
| Peak Headway (minutes) | 10 |
| Peak Vehicles (calculated) | 0.9 |
| Peak Vehicles Assigned | 1.0 |
| Off-Peak Headway (minutes) | 15 |
| Off-Peak Vehicles (calculated) | 0.6 |
| Off-Peak Vehicles Assigned | 1 |
| Service Span - 600-2400 (hours) | 18.0 |
| Peak Hours (6-9; 16.5-18.5) | 5.0 |
| Off-Peak Hours | 13.0 |
| Vehicle Service Hours - Peak | 5 |
| Vehicle Service Hours - Off-Peak | 13 |
| Daily Vehicle Service Hours | 18 |
| O&M Unit Cost ($84.24/hr) - Daily | $1,516 |
| ARRF Estimate (Daily Riders) | 4,779 |
| Average O&M Cost/Rider | $0.32 |
| Number of Vehicles + Spare | 2 |
| Annual Operating Days | 365 |
| Annual O&M Costs | $553,457 |

| Capital Cost Estimates - Summary | Preferred Alternative |
|---|---|
| Vehicle Cost - Each | $1,000,000 |
| Capital Cost (including vehicles) | $14,372,407 |
| Capital Cost (excluding vehicles) | $12,372,407 |
| Capital cost runningway | $8,372,407 |
| Capital cost intersections | $2,800,000 |
| Capital cost stations | $1,200,000 |

| **Runningway Cost Basis:** | **Preferred Alternative** |
|---|---|
| Segment west of Mandalay Channel including bridge, roadway, relocating shared path, prep for station (engineer estimate) | $2,456,969 |
| Shared Path Busway (2-10' bus lanes w/5' shoulder)(East End of Mandalay Bridge to First Existing Turn Around West of High Level Bridge) Cost Factor/Mile (Source FDOT LRE) | $2,196,326 |
| Median - Roadway West of H. L. Bridge (First Existing Turn Around West of High Level Bridge to West End of High Level Bridge) Cost Factor/Mile (engineers Estimate) | $829,847 |
| Median - High Level Bridge (Bridge Median Only) Cost Factor/Mile | $4,000,000 |
| Median - Roadway East of H.L. Bridge (East End of High Level Bridge to Oak Street) Cost Factor/Mile | $2,196,326 |
| Intersections with TSP ( cost per intersection) | $200,000 |
| Downtown (Lane and Striping) Cost Factor/Mile | $250,000 |

| **Stations Cost Basis:** | **Preferred Alternative** |
|---|---|
| Beach including Transit Bridge | $500,000 |
| Regional Transit Center | $200,000 |
| PSTA Facility or Pierce St (Cost at grade station) (level boarding with Enhanced Shelter) | $200,000 |
| Chestnut 1 (Cost at grade station) (level boarding with Enhanced Shelter) | $100,000 |
| Chestnut 2 (Cost at grade station) (level boarding with Enhanced Shelter) | $100,000 |
| Court (Cost at grade station) (level boarding with Enhanced Shelter) | $100,000 |
| Number of Stations (cswy+dntwn): | 6 |
| Capital Cost/Mile | $2,649,338 |
| Avg Capital Cost/Rider | $2,589 |

| **Distances and Units Basis:** | **Preferred Alternative** |
|---|---|
| Capital / O&M Distance Total (miles) | 4.67 |
| Segment west of Mandalay Channel including bridge, roadway, relacoating shared path, prep for station | 0.15 |
| Shared Path Busway (2-10' bus lanes w/ 5' shldrs)(East End of Mandalay Bridge to First Existing Turn Around West of High Level Bridge) | 0.80 |
| Median - Roadway West of H. L. Bridge (First Existing Turn Around West of High Level Bridge to West End of High Level Bridge) | 0.21 |
| Median - High Level Bridge (Bridge Median Only) | 0.55 |
| Median - Roadway East of H.L. Bridge (East End of High Level Bridge to Oak Street) 1-way pair | 0.40 |
| Downtown Lane/Striping | 1.00 |
| Intersections with TSP (dwtn+cswy) | 14 |

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