TRANSPORTATION ELEMENT

CITY OF TARPON SPRINGS

Prepared by:
The City of Tarpon Springs
Planning & Zoning
Department

ORIGINAL ADOPTION (TRAFFIC CIRCULATION ELEMENT): Ordinance 89-35, October 10, 1989

REVISIONS:

Ordinance 91-05	September 17, 1991
Ordinance 92-32	June 1, 1993
Ordinance 2007-49	July 1, 2008
Ordinance 2008-32	August 18, 2009
Ordinance 2017-06	May 2, 2017

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I. PURPOSE AND FORMAT

The Transportation Element replaces the Traffic Circulation Element that was part of the City of Tarpon Springs Comprehensive Plan adopted pursuant to the 1985 Growth Management Act. In an effort to broaden the scope of transportation planning, Rule 9J-5.007 Traffic Circulation was repealed and replaced with Rule 9-J5.019 Transportation. The purpose of the Transportation Element is to provide policy guidelines which promote multimodal transportation solutions to mobility problems. The primary emphasis is geared toward promoting effective public transportation systems including roads, public transit, biking, walking and parking facilities. The location and capacity of such systems are directly linked to the density and intensity of land use designations contained in the Future Land Use Map Series.

The City of Tarpon Springs is required to prepare and adopt a Transportation Element because its jurisdiction is located within the urban area of the Pinellas County Metropolitan Planning Organization (MPO) pursuant to Chapter 163, Part II, Florida Statutes (FS), *"Growth Policy; County and Municipal Planning; Land Development Regulation"* and Rule 9J-5, Florida Administrative Code (FAC), *"Minimum Criteria for Review of Local Government Comprehensive Plans and Plan Amendments, Evaluation and Appraisal Reports, Land Development Regulations and Determinations of Compliance"*.

II. INTRODUCTION

The City of Tarpon Springs is located in the northwestern portion of Pinellas County, Florida (See Map 1, Future Transportation Map Series). The corporate boundaries are generally Klosterman Road north to the Pasco County line, and from the Gulf of Mexico east to the intersection of Keystone Road and Richard Ervin Parkway. Several areas within the planning area of the City of Tarpon Springs are part of unincorporated Pinellas County and are included in this analysis (See Map 2, Future Transportation Map Series). Historically, the City's development patterns have been based upon several factors including the growth of water dependent industries, the retail activity center of the historic downtown district, the tourist draw of the Greek Sponge Docks and a moderate climate that attracts seasonal residents and tourists.

As Pinellas County and the City of Tarpon Springs in particular switch focus from new development of greenfields to the redevelopment of the urban areas, it has become evident that the approach to transportation planning must emphasize and promote alternatives to the single occupant vehicle. As we plan for the future, we must also be cognizant of the fact that there will continue to be a significant amount of traffic volume caused by trips that are generated from outside of Pinellas County. Current data shows that nearly 17% of the vehicle trips in Pinellas County originate from outside of the county and projections indicate that by 2015, this number is expected to increase to 21%. Based on this reality, it is imperative that we take every step to manage growth appropriately, emphasize transportation alternatives and maximize the efficiency of the roadway network.

III. INVENTORY OF EXISTING SYSTEM

A. Roadway System

The inventory of the roadway system is the basis for examining existing deficiencies and projected needs of the Tarpon Springs urban area. The major roadways in the City of Tarpon Springs are Anclote Boulevard, Anclote Road, Beckett Way, Curlew Place, Dixie Highway, Martin Luther King Jr. Drive, Florida Avenue, Gulf Road, Keystone Road,

Klosterman Road, Live Oak Street, Meres Boulevard, Riverside Drive, Safford Avenue, Tarpon Avenue/S.R. 582, U.S. Highway 19/S.R. 55 and U.S. Alternate 19/S.R. 595.

U.S. Highway 19/S.R. 55 and U.S. Alternate 19/S.R. 595 are the major north/south thoroughfares in the City. It is important to note that much of the peak hour traffic on both these state facilities represents through traffic caused by extensive residential growth experienced in the adjoining jurisdiction of Pasco County. Safford Avenue is also a north/south corridor that serves several land uses from commercial to residential to civic. The corridor also includes the Pinellas Trail within its' right-of-way. The Pinellas Trail is a 35-mile transportation facility that accommodates walking, running, biking and skating and extends the entire length of Pinellas County.

Tarpon Avenue, Martin Luther King Jr. Drive, Live Oak Street and Klosterman Road are the City's major east/west roads and provide linkages between U.S. Highway 19/S.R. 55 and U.S. Alternate 19/S.R. 595. East of U.S. Highway 19/S.R. 55, Tarpon Avenue/S.R. 582 becomes Keystone Road, a Pinellas County maintained collector roadway. Keystone Road becomes a relatively rural roadway east of the City limits. Nevertheless, this roadway provides an important link for vehicular traffic from Hillsborough County and Pasco County commuters. Congestion on Keystone Road primarily occurs during peak hours as a result of inadequate capacity and signal timing issues at East Lake Road and U.S. Highway 19/S.R. 55. On Tarpon Avenue, older commercial properties in the downtown area are developed with no setback from the existing road right-of-way lines and rely substantially upon on-street parking. The U.S. Alternate 19 corridor is also constrained in the downtown area by existing development that consists of older residential, institutional, commercial and office uses which present a physical barrier to roadway widening.

Anclote Boulevard, Anclote Road, Beckett Way and Dixie Highway are minor facilities and are located north of the Anclote River and serve distinctly different land uses. Anclote Boulevard and Anclote Road traverse primarily through commercial and industrials areas in the northern part of the City. Beckett Way and Dixie Highway provide mobility for the residential areas north of the Anclote River.

Curlew Place, Florida Avenue, Meres Boulevard, Gulf Road and Riverside Drive are also minor facilities that are located in the western portion of the City. These facilities serve the main residential areas of the City and also provide access to the Sunset Hills Elementary School, Tarpon Springs Middle School and Tarpon Springs High School.

The functional classification of roadways is the process by which roads are grouped into classes, according to the character of the service they provide. The four types of classes are Principal Arterial, Minor Arterial, Collector and Local (See Appendix A for definitions). The jurisdiction and classification of the major roadways is outlined in Table 1 which follows below.

Table 1 - Roadway Classification

Roadway Name	Jurisdiction	Classification*
Anclote Boulevard	Pinellas County	Minor Arterial
Anclote Road	Pinellas County	Collector
Beckett Way	Pinellas County	Collector
Curlew Place	Pinellas County	Collector
Florida Avenue	Pinellas County	Collector
Gulf Road	Pinellas County	Collector
Keystone Road	Pinellas County	Minor Arterial
Klosterman Road	Pinellas County	Minor Arterial

Live Oak Street	**City of Tarpon Springs**	**Collector**
Martin Luther King Jr. Drive	**City of Tarpon Springs**	**Collector**
Meres Boulevard	**Pinellas County**	**Collector**
Dixie Highway	**Pinellas County**	**Collector**
Riverside Drive	**Pinellas County**	**Collector**
Safford Avenue	**City of Tarpon Springs**	**Collector**
Tarpon Avenue	**State of Florida**	**Minor Arterial**
U.S. Highway 19	**State of Florida**	**Principal Arterial**
U.S. Alternate 19	**State of Florida**	**Principal Arterial**

*** All other roadways are considered local roads**

Source: City of Tarpon Springs Planning & Zoning Division

The Pinellas County Metropolitan Planning Organization (MPO) prepares an annual Level of Service Report, conducts Average Annual Daily Traffic Counts (AADT) and prepares a Long Range Transportation Plan (LRTP) for all the major thoroughfares throughout Pinellas County. This information is provided to the local governments to assist in their transportation planning efforts. As part of the MPO's Level of Service Report, the Florida Department of Transportation (FDOT) estimates conditions during the 100th highest hour of traffic using the K100 factor. The estimated level of service is refined from the FDOT generalized service volume tables by incorporating actual operating conditions into the roadway analysis. In some cases, the roadway segments are aggregated with the adjacent segments to establish a level of service which is more representative of the actual operating conditions of the roadway. A volume to capacity (v/c) ratio of over 1.00 can be used as an indication of congestion with the understanding that there are other factors (i.e. signal timing, travel speeds, adjacent land uses) which can affect the level of service for a particular roadway. Table 2 provides data from the Pinellas County Metropolitan Planning Organization ~~2007~~ 2008 Level of Service Report on the existing conditions for the road network in Tarpon Springs.

Table 2 - Current Traffic Characteristics

Roadway	From	To	Lane Type	V/C	Capacity	Length (miles)	LOS	AADT
~~Curlew Place~~	~~Florida Avenue~~	~~Bay Street~~	~~2U~~	~~.21~~	~~1700~~	~~.49~~	~~A~~	~~6116~~
~~Florida Avenue~~	~~Riverside Drive~~	~~Curlew Place~~	~~2U~~	~~.36~~	~~954~~	~~1.87~~	~~A~~	~~6116~~
Keystone Road	US 19	East Lake Road	2U	~~1.46~~ 1.56	~~951~~ 846	2.99	F	~~26525~~ 25328
Klosterman Road	US 19	ALT 19	~~2U~~ 4D	~~.58~~ .50	~~1596~~ 1767	1.27	B	~~17810~~ 16833
Klosterman Road	ALT 19	Carlton Road	2U	~~.43~~ .49	~~1700~~ 1235	.74	~~B~~ C	~~12208~~ 11575
Live Oak Street	US 19	ALT 19	2U	~~.13~~ .16	~~1700~~ 1235	.18	~~A~~ B	~~3827~~ 3785
Meres Boulevard	ALT 19	Florida Avenue	2U	~~.25~~ .27	~~1368~~ 1235	1.60	~~A~~ C	~~6550~~ 6354
Tarpon Avenue	ALT 19	US 19	2D	~~1.13~~ 1.02	~~796~~ 890	1.44	F	~~17200~~ 17400
US 19	Klosterman Road	Tarpon Avenue	6D	~~1.22~~ 1.57	~~3243~~ 2790	1.60	F	~~75514~~ 84000
~~US 19~~	~~Tarpon Avenue~~	~~Pasco County Line~~	~~6D~~	~~.83~~	~~4078~~	~~1.85~~	~~A~~	~~64783~~
US 19	Tarpon Avenue	Beckett Way	6D	1.36	2790	1.41	F	72500
US 19	Beckett Way	Pasco County Line	6D	.69	5500	.43	D	72500
ALT 19	Klosterman Road	Meres Boulevard	2U	~~.68~~ 1.05	~~1357~~ 935	1.05	~~A~~ F	~~17673~~ 17900
ALT 19	Meres Boulevard	Tarpon Avenue	2D	~~.68~~ 1.05	~~1357~~ 935	.59	~~B~~ F	~~17673~~ 17900
ALT 19	Tarpon Avenue	Anclote Boulevard	2U	~~1.07~~ 1.12	~~967~~ 935	1.50	~~B~~ F	~~19880~~ 18983

Source: Pinellas County MPO Level of Service Report - ~~2007~~ 2008

As demonstrated by the information contained Table 2, a majority of the thoroughfares in the City of Tarpon Springs are operating at an acceptable level of service. The deficient roadway links are as follows:

- Keystone Road from U.S. 19 to East Lake Road
- Tarpon Avenue from Alt. 19 to U.S. 19
- U.S. 19 from Klosterman Road to ~~Tarpon Avenue~~ Beckett Way
- Alt. 19 from ~~Tarpon Avenue~~ Klosterman Road to Anclote Boulevard

B. Public Transit System

The Pinellas Suncoast Transit Authority (PSTA) and Pasco County Public Transportation (PCPT) are the transit service providers in the City of Tarpon Springs. PSTA serves the City of Tarpon Springs by operating two fixed routes, Route 19 and Route 66. Route 19 provides mobility along the U.S. 19 corridor and Route 66 services the Helen Ellis Memorial Hospital, the Sponge Docks, the Union Academy Neighborhood Center and the Tarpon Mall. PCPT also operates two fixed routes, Route 18 and Route 19. Route 18 provides service to the Sponge Docks from Pasco County and Route 19 provides service to the Tarpon Mall area from Pasco County.

The City of Tarpon Springs also leases a trolley-style wheeled vehicle from PSTA to serve the tourist district. The "Tarpon Trolley" operates along a 3-mile fixed route with headways of between 25-30 minutes.

C. Community Redevelopment Area

The City of Tarpon Springs has a designated Community Redevelopment Area (CRA) located generally north of Meres Boulevard, east of Banana Street, west of Levis Avenue and south of the Anclote River. The CRA was created to resolve the urban form and economic problems of the downtown area through community-based improvement strategies. Part of the CRA Plan addresses transportation and parking issues along the primary thoroughfares by outlining techniques that will improve the overall efficiency of the transportation network inside the CRA. More specifically, the plan calls for the utilization of traffic calming techniques, improving the pedestrian environment and preservation of on-street parking.

D. Significant Bicycle and Pedestrian Facilities

Like many cities around the country, Tarpon Springs has seen an increase in the utilization of biking and walking as a means of travel. The bicycle is a low-cost and effective means of transportation that is quiet, non-polluting, extremely energy-efficient, versatile, healthy and fun. Bicycles and walking also offer low-cost mobility to the non-driving public, especially the young. Because of rising gas prices, a moderate climate and the availability of bicycle and pedestrians facilities, Tarpon Springs is in a posture to shape trail policies that will benefit our citizens for years to come.

The City of Tarpon Springs requires sidewalk construction with all new development. The City has also established a sidewalk construction and rehabilitation program where funds are set aside each fiscal year to upgrade existing facilities and provide new facilities for pedestrian travel.

The Pinellas Trail is a 35-mile multi-use facility that extends from St. Petersburg to Tarpon Springs. The trail has several amenities including bike racks, trash receptacles, benches, restrooms, etc. and it used by approximately 90,000 persons per month. Within the Tarpon

Springs city limits, the Pinellas Trail is 3.1 miles in length, runs generally in a north-south direction and accommodates a variety of recreational activities from bicycling to walking to skating.

The Pinellas County MPO's Bicycle Pedestrian Master Plan contains trail projects for Tarpon Springs. The Meres Trail is a potential trail connection from the Pinellas Trail to Fred Howard Park in western Tarpon Springs. This alignment would travel east from Fred Howard Park along Sunset Drive to Florida Avenue, continue south on Florida Avenue, and travel east along Meres Boulevard to connect with the Pinellas Trail. The Elfers Trail Extension would extend from the North Anclote River Nature Park along the former CSX right-of-way now owned by the City and link to a potential trail facility constructed by Pasco County. The Howard Park Trail would extend from the Pinellas Trail in the downtown district and move along Tarpon Avenue, North Spring Boulevard, Riverside Drive to Sunset Drive and connect to Howard Park along the coast of Tarpon Springs. The Whitcomb Bayou Trail is another trail that would connect the Pinellas Trail to the coast by utilizing the right-of-way along Martin Luther King, Jr. Drive, Whitcomb Boulevard and Gulf Road and terminating at Sunset Beach. The Northeast Extension-Jasmine Segment is part of a larger effort by Pinellas County to construct a continuous looping trail from St. Petersburg to Tarpon Springs. This particular trail segment would utilize the Keystone Road right-of-way and connect to the existing trail facility on East Lake Road (See Map 4, Future Transportation Map Series).

At this time, a portion of Klosterman Road is the only facility that has an on-street bicycle lane. The City should take steps to add on-street bicycle lanes, where technically feasible, as part of the construction of future road segments.

E. Port Facilities

There are no major port facilities within the Tarpon Springs City limits.

F. Airport Facilities

There are no airport facilities within the Tarpon Springs City limits.

G. Freight and Passenger Rail Terminals

There are no freight or passenger rail terminals within the Tarpon Springs City limits.

H. Intermodal Terminals

There are no intermodal terminals within the Tarpon Springs City limits.

I. Major Public Transit Trip Generators and Attractors

The major generators and attractors are the Tarpon Mall area, Helen Ellis Memorial Hospital, the National Register Historic District and the Sponge Docks. Public transit is provided to all of these generators and attractors.

J. Evacuation Routes

The critical regional evacuation routes for the City of Tarpon Springs are Alternate U.S. 19, U.S. 19 and Keystone Road. The critical local evacuation routes for the City of Tarpon Springs are Beckett Way, Dixie Highway, Live Oak Street, Tarpon Avenue, Martin Luther

King, Jr. Drive, Riverside Drive, Florida Avenue, Gulf Road, Meres Boulevard, Curlew Place, Carlton Road and Klosterman Road (See Map 9, Future Transportation Map Series).

K. Landscaping

The City of Tarpon Springs is very supportive of landscaping along our roadways. The current resurfacing of Alt. U.S. 19 and Tarpon Avenue includes provisions for median islands and bulb-outs which will have landscaping materials and an irrigation system to help improve the aesthetics of the corridor.

IV. ANALYSIS OF PROJECTED NEEDS

A. Roadway System

For roadways within the corporate limits of the City of Tarpon Springs, the minimum acceptable level of service standard is LOS D peak hour. The Pinellas County MPO 2006 Level of Service Report and the Pinellas County MPO 2025 Long Range Transportation Plan (LRTP) were analyzed to show the deficient links within the study area. The Pinellas County MPO 2007 Level of Service Report indicated that there are four deficient roadway segments within the City of Tarpon Springs (See Table 2). The Pinellas County MPO 2025 LRTP estimated traffic figures are as follows:

Table 3 - Future Traffic Forecast

Roadway	From	To	Lane Type	2025 AADT Forecast	P.M. Peak LOS
ALT 19	Anclote Boulevard	Dixie Highway	2E	25488	A
ALT 19	Dixie Highway	Anclote Road	2E	20804	A
ALT 19	Anclote Road	Live Oak Street	2E	17136	A
ALT 19	Live Oak Street	Orange Street	2U	17136	A
ALT 19	Orange Street	Tarpon Avenue	2U	17136	A
ALT 19	Tarpon Avenue	MLK	2D	24173	B
ALT 19	MLK	Meres Boulevard	2D	18670	B
ALT 19	Meres Boulevard	Curlew Place	2U	23968	A
ALT 19	Curlew Place	Klosterman Road	2U	23013	A
Anclote Boulevard	ALT 19	Anclote Road	2U	9021	D
Anclote Road	ALT 19	Anclote Boulevard	2U	3218	B
Beckett Way	US 19	Dixie Highway	2U	5353	C
Curlew Place	Florida Avenue	Bay Street	2U	4291	B
Curlew Place	Bay Street	ALT 19	2U	10019	A
Dixie Highway	ALT 19	Beckett Way	2U	5353	C
Dixie Highway	Beckett Way	Pasco County Line	2U	6263	D
Florida Avenue	Riverside Drive	Gulf Road	2U	7437	D
Florida Avenue	Gulf Road	Meres Boulevard	2U	7437	D
Gulf Road	Florida Avenue	Whitcomb Boulevard	2U	2000	A
Keystone Road	US 19	1 mile E of US 19	4D	31874	A
Klosterman Road	US 19	Disston Avenue	4D	31329	B
Klosterman Road	Disston Avenue	ALT 19	4D	25961	B
Klosterman Road	ALT 19	Carlton Road	2U	13675	D
Live Oak Street	ALT 19	US 19	2U	3792	B
Meres Boulevard	ALT 19	Carolina Avenue	2U	12000	A
Meres Boulevard	Carolina Avenue	Florida Avenue	2U	9000	A
Riverside Drive	North Spring Boulevard	E of N Spring Boulevard	2U	6168	D
Safford Avenue	Live Oak Street	Tarpon Avenue	2D	28	A
Safford Avenue	Tarpon Avenue	Lemon Street	2D	6916	D
Safford Avenue	Lemon Street	Meres Boulevard	2D	9319	D
Tarpon Avenue	Riverside Drive	ALT 19	2U	10111	C
Tarpon Avenue	ALT 19	Safford Avenue	2U	18148	F
Tarpon Avenue	Safford Avenue	Disston Avenue	2U	18148	F
Tarpon Avenue	Disston Avenue	US 19	2D	18148	F

US 19	Pasco County Line	Beckett Way	6D	72000	A
US 19	Beckett Way	Live Oak Street	6D	72000	A
US 19	Live Oak Street	Tarpon Avenue	6D	72000	A
US 19	Tarpon Avenue	MLK	6A	80000	F
US 19	MLK	Klosterman Road	6A	80000	F

Source: Pinellas County MPO Year 2025 AADT Traffic Forecast and PM Peak Level of Service

In an effort to address the existing and projected deficiencies, the following projects are included in the 2007/2008 - 2011/2012 Pinellas County MPO Five-Year Transportation Improvement Program (TIP) and FDOT Adopted Work program.

Table 4 - Future Transportation Projects

Jurisdiction	Project Description	Improvement	FY
Pinellas County	Keystone Road from US 19 to East Lake Road	Reconstruction/Widening	2008/09-2012/13
City of Tarpon Springs	Enhancement	Lighting	2009/10
City of Tarpon Springs	Sidewalks	Construction/Rehabilitation	2007/08; 2009/10; 2011/12
City of Tarpon Springs	Streets	Pavement Resurfacing	2007/08; 2009/10
City of Tarpon Springs	Brick Streets	Reconstruction	2007/08-2010/11
City of Tarpon Springs	Tarpon Avenue / Pinellas Avenue	Streetscape	2007/08
City of Tarpon Springs	Safford/Live Oak	Pinellas Trail Improvement	2007/08

Source: Pinellas County MPO Transportation Improvement Program FY 2007/08 - 2011/12

While these projects address some of the mobility challenges, there are still segments that currently have or are projected to operate below an acceptable level of service. The current FDOT Adopted Work Program does not include any projects that will improve capacity along the state roadway system within the City. However, the Pinellas County Work Program includes the widening of Keystone Road from a 2-lane divided facility to a 4-lane divided facility. This project is estimated to add capacity for approximately 1,160 peak hour trips and approximately 12,300 average annual daily trips. The City's policies are compatible with the policies and guidelines of those plans. Solutions to improve the level of service on the remaining facilities are more complex. The principal arterials, U.S. 19, Alt. 19 and Tarpon Avenue have been widened to the maximum extent possible and the projected deficiencies can only be mitigated by the construction of parallel facilities, by the implementation of operational improvements or significant investment in public transit.

In a larger context, the roadway system within the corporate limits of the City of Tarpon Springs is increasingly impacted by vehicle trips that originate from outside its borders. Managing these impacts presents a considerable challenge since the City of Tarpon Springs has very limited ability to influence development decisions made in the adjacent local governments of Pinellas and Pasco County. Other issues that affect the ability to implement future roadway projects include; physical constraints with buildings that are immediately adjacent to the right-of-way line, policy constraints of other governmental agencies, escalating right-of-way costs, neighborhood opposition, environmental impacts, etc.

B. Future Local Roadways

Map 7 of the Future Transportation Map Series identifies areas that are designated for future new roads and they are shown in Table 5.

Table 5 - Future Roads

Roadway	Project Description	Improvement
Meres Boulevard	From ALT 19 to US 19	Extension of Existing Facility
Disston Avenue	From Curlew Place to Mango Street	Extension of Existing Facility
L&R Industrial Boulevard	From Anclote Road to Wesley Avenue	Extension of Existing Facility
Curlew Place	From Polo Club Drive to ALT 19	Extension of Existing Facility
Spruce Street	From US 19 to Jasmine Avenue	New 2-Lane Undivided Roadway

One positive characteristic of the existing road network is that it is a grid system. A grid system is the most efficient means of moving vehicular traffic because it disperses traffic flow throughout all areas rather than concentrating movements on a few facilities. The ability to make a choice on the planned route of travel reduces congestion and increases mobility.

The City is in the process of including line items in the current Capital Improvements Element (CIE) and Capital Improvements Program (CIP) to fund Project Development and Environment (PD&E) Study for the Meres Boulevard corridor and Disston Avenue corridor connectors.

C. Public Transit System

The Pinellas Suncoast Transit Authority (PSTA) considers any route that falls below 75% of the system wide average as a deficient route requiring a full staff review. The review includes an improvement plan and route modifications that can bring ridership back to an acceptable level. PSTA has stated that the most recent data for Routes 19 and 66 are operating at an acceptable level of service. Table 6 identifies the performance measures for Routes 19 and 66.

Table 6 - PSTA Performance Measures

Route No.	Headways (minutes)	Ridership FY ~~04/05~~ 06/07	Ridership FY ~~05/06~~ 07/08	Percent Change	Passengers Per Revenue Mile	Passengers Per Revenue Hour
19	20-30	~~525606~~ 934585	~~650724~~ 995655	~~23.80%~~ 6.53%	~~1.38~~ 1.63	~~20.92~~ 23.89
66	60	~~107187~~ 144814	~~112321~~ 170700	~~4.79%~~ 17.88%	~~.84~~ .93	~~13.05~~ 14.16

Source: Pinellas Suncoast Transit Authority (PSTA) ~~Ridership Analysis FY 2005/06~~ Transit Development Plan (TDP)

Pasco County Public Transportation (PCPT) utilizes several variables in estimating their future service needs. Table 7 identifies the performance measures for Routes 18 and 19.

Table 7 - PCPT Performance Measures

Route No.	Headways (minutes)	Route Miles	Veh. Hours Per Day	Veh. Trips Per Day	Annual Miles	Annual Hours
18	60	15.10	14	14	10994	728
19	30	28.69	26	13	97349	6786

Source: Pasco County Public Transportation (PCPT) Transit Development Plan (TDP)

The PCPT Transit Development Plan (TDP) calls for the following service improvements based on the data included in the PCPT TDP:

- the extension of Route 18 to connect with Pinellas Suncoast Transit Authority (PSTA) in Tarpon Springs
- Express Bus Service along U.S. 19 into Pinellas County

Overall, the PSTA and PCPT routes that serve the Tarpon Springs area are performing adequately. Those routes which may fall into a deficient status in the future will be monitored for possible service adjustment by the governing transit provider.

D. Transportation Disadvantaged

In 1990, the Pinellas County MPO was appointed by the Commission for the Transportation Disadvantaged (CTD) as the local Community Transportation Coordinator (CTC). This action authorized the MPO to administer funds for the operation of transportation disadvantaged programs. Chapter 427, Florida Statutes, states that "transportation disadvantaged" means those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities, or children who are handicapped or high-risk or at-risk. This state-funded program provides transportation disadvantaged funding for the transportation of the transportation disadvantaged. Such funds may include, but are not limited to, funds for planning, Medicaid transportation, administration, operation, procurement and maintenance of vehicles or equipment and capital investments.

For an individual to qualify for such services, a person must have no means of transportation, including family and friends, and an income of less than 200 percent of the federal poverty level. Transportation disadvantaged program services include paratransit and bus service. Paratransit provides transportation anywhere in Pinellas County by taxi sedans or minivans at a cost of $3 for a one-way trip. PSTA provides 31-day unlimited bus passes called "GO CARDS" for $4.21 per month.

E. Evacuation Routes

Historically, hurricane events are the natural disasters that require very extensive evacuations of the Tarpon Springs population. The principle tool for analyzing the expected hazards from potential hurricanes that may affect the Tampa Bay Region is the Sea, Lake, Overland Surges from Hurricanes (SLOSH) numerical storm surge model. The Tampa Bay Regional Planning Council (TBRPC) maintains the SLOSH model which can predict the tidal surge heights that result from test data about hypothetical hurricanes with various combinations of pressure, size, forward speed, track and winds. The SLOSH model has indicated that the worst case scenario for Pinellas County is a Category 5 Hurricane heading northeast at less than 15 miles per hour that makes landfall at high tide near New Port Richey. A 24 foot storm surge would inundate almost half of the County while the winds would destroy hundreds if not thousands of homes and cause damage to thousands more.

The posted primary evacuation routes for the City of Tarpon Springs are S.R. 582/Tarpon Avenue, S.R. 595/Pinellas Avenue and S.R. 55/U.S. Highway 19. These facilities are the main east-west and north-south thoroughfares and provide adequate capacity to evacuate the coastal areas of the City with proper evacuation notice. To further improve evacuation capacity, additional parallel roadways should be posted as evacuation routes. The additional evacuation routes should be Live Oak Street, Klosterman Road, Meres Boulevard, Riverside Drive, Beckett Way, Dixie Highway, Live Oak Street, Martin Luther King, Jr. Drive, Florida Avenue, Gulf Road, Meres Boulevard, Curlew Place, Carlton Road and Klosterman Road.

Local evacuation routes are identified on Map 9 of the Transportation Element. According to the Pinellas County Hurricane Evacuation Plan, a traffic control point is to be established by the Tarpon Springs Police Department at the intersection of SR 582 (Tarpon Avenue) and U.S. Highway 19. There are various local and collector roadways which can be used by City residents to access SR 582 and the only bridges affected are on Riverside Drive and

Whitcomb Boulevard. The closure of either or all three of these bridges would not isolate segments of the City since other routes are available. The major evacuation route for Tarpon Springs is SR 582 which is currently operating at a Level of Service "F". However, two important factors must be considered which help offset this situation. One is that during evacuation both lanes will be used to evacuate as incoming traffic is prohibited, thereby increasing the roadway capacity to an acceptable level of service. The second is that according to the Transportation Element of the Pinellas County Comprehensive Plan the following improvements to Keystone Road will be made to eliminate the Level of Service deficiency and maintain a smooth flow of traffic at all times:

1. Intersection improvement at U.S. 19 & East Lake Road
2. Construct 4LD Arterial between U.S. 19 & East Lake Road
3. Construct 2LD Arterial between East Lake Road and the Hillsborough County line

The central factor in an effective evacuation is timing. Factors to be considered when ordering an evacuation are as follows:

- Mobilization Time
- Travel Time
- Delay Time
- Roadway Inundation Time
- Arrival of Gale Force Winds
- Pre-Landfall Hazard Time

Due to the fact that much of the area around Tarpon Springs is low lying and a majority of the City falls within evacuation zones, evacuation timing is especially crucial. The following clearance times for Pinellas County were estimated and reported in the 2006 Tampa Bay Region Hurricane Evacuation Study. These estimates present a range of time depending upon time of year (low season vs. high season) and intensity of background traffic.

	YEAR 2006	**YEAR 2011**
Level A	16.5 - 21.5 hours	16.5 - 21.5 hours
Level B	18.5 - 24 hours	18.5 - 24 hours
Level C	19.25 - 24 hours	19.25 - 24 hours
Level D	20.5 - 25.25 hours	20.5 - 25.25 hours
Level E	23 - 28 hours	23- 28 hours

These clearance times consider only the time necessary for anticipated external trips to cross the county line. For more extensive discussion of regional and state hurricane evacuation times, including contra-flow operations refer to the Tampa Bay Region Hurricane Evacuation Study, 2006.

Measures which can be utilized to maintain necessary evacuation times include the following steps:

- Allow for earlier evacuation notice
- Encouraging residents within evacuation zones to utilize "host homes" nearby that are not located within evacuation zones
- Coordinate with Pinellas County to schedule improvements to the evacuation route (Keystone Road)

- Utilize the Tarpon Springs Fire Department to educate the general public on Hurricane Evacuation procedures
- Post evacuation routes
- Restrict future land use density increases on vacant parcels in evacuation Level A
- Restrict the development of new nursing facilities, hospitals, and Residential Living Facilities (ACLF's) in excess of 15 residents from evacuation Level A and B
- Require new Mobile Home Parks to provide on-site shelter space

F. Movement of Goods

The retail and manufacturing sectors of the local economy require that the City of Tarpon Springs provide adequate facilities for the efficient movement of goods. The primary mode of travel is by freight truck which moves the largest number of goods throughout Pinellas County.

Figure 4 provides the Pinellas County Truck Route Plan which is produced by the Pinellas County MPO. The plan designates routes that are not suitable for truck traffic, suitable for truck traffic during daylight hours and suitable for truck traffic at all times. The unrestricted routes within the City of Tarpon Springs are Anclote Boulevard, Anclote Road, Klosterman Road, U.S. Alternate 19/S.R. 595, U.S. Highway 19/S.R. 55, Tarpon Avenue/S.R. 582 and Keystone Road.

G. Mass Transit

The Pinellas County MPO is involved with partner agencies in studying mass transit applications such as Bus Rapid Transit (BRT) and elevated fixed guideway. The purpose of both of these options is to reduce travel time and road congestion by providing attractive, economic alternatives to the personal automobile.

The fixed guideway or Pinellas Mobility Initiative (PMI) concept is being evaluated for feasibility by the PMI Steering Committee. The PMI consists of a 38-mile elevated guideway system that is supported by express bus, local bus and trolley service. Within the Tarpon Springs corporate limits, the PMI concept consists of enhanced bus service along U.S Highway 19/S.R. 55, a trolley circulator along Tarpon Avenue/S.R. 582 and a trolley route along U.S. Alternate 19/S.R. 595.

Currently, the Pinellas County MPO is evaluating the financial feasibility including ridership, revenue projections and phasing alternatives for these mass transit options.

H. Land Use Patterns

The Tarpon Springs land use pattern is primarily low-density residential with large areas of vacant industrial land in the northwest area of the City. There is an adequate percentage of vacant land that is dispersed throughout all land use categories. The vacant land in the City of Tarpon Springs and in the Annexation Planning Area is as follows:

Table 8 - Vacant & Developable Land

Future Land Use Category	City of Tarpon Springs	Annexation Planning Area
Residential Rural	22.53 acres	97.41 acres
Residential Suburban	0.59 acres	15.44 acres

Residential Low	164.4 acres	195.01 acres
Residential Urban	76.25 acres	108.29 acres
Residential Low Medium	9.83 acres	11.92 acres
Residential Medium	68.5 acres	68. acres
SUBTOTAL	***342.1 acres***	***496.62 acres***
Commercial Recreation	0.3 acres	0.3 acres
Residential Office General	36.06 acres	39.08 acres
Residential Office Retail	20.91 acres	22.24 acres
SUBTOTAL	***57.27 acres***	***61.62 acres***
Commercial Neighborhood	2.94 acres	5.75 acres
Commercial Limited	6.68 acres	6.68 acres
Commercial General	71.19 acres	77.02 acres
SUBTOTAL	***80.81 acres***	***89.45 acres***
Institutional	9.54 acres	9.54 acres
SUBTOTAL	***9.54 acres***	***9.54 acres***
Industrial Limited	53.21 acres	86.01 acres
Industrial General	1.97 acres	46.53 acres
SUBTOTAL	***55.18 acres***	***132.54 acres***
Transportation/Utility	0.00 acres	0.17 acres
SUBTOTAL	***0.00 acres***	***0.17 acres***
TOTAL	**544.9 acres**	**789.94 acres**

The downtown area has been identified as the key component of the redevelopment strategy the City is in the process of implementing. A movement is underway to adopt a form-based overlay district for the downtown which is based on new urbanist principles. The overlay district will increase the redevelopment potential of properties within the downtown through the use of transect-based planning. The form-based overlay district will have a regulating plan that is based upon the SmartCode, which envisions and encourages a traditional urban form for the community, block, and/or building and focuses on creating compact, walkable, mixed-use places. To implement an overlay district of this type where there will be an increase in development intensity/density, the City should adopt either a Transportation Concurrency Management Area (TCMA), Transportation Concurrency Exception Area (TCEA), Long Term Concurrency Management System or Multimodal Transportation District (MMTD) to accommodate the projected transportation facility needs.

The other area projected to experience substantial growth in the next 10 years is the area north of the Anclote River and west of U.S. Alternate 19/S.R. 595. A large portion of the area is located in unincorporated Pinellas County and has an industrial land use designation. This area has been underutilized because it does not exhibit the typical characteristics of an industrial district. This area is not easily accessible to major highway, rail, port or airport facilities nor is there a consensus on what is to be the future of this area. Pinellas County government would like to see the area maintained as an industrial district with the hope that someday a major manufacturer will locate there. The City of Tarpon Springs would like to see the area developed as a mixed-use community where the residents in that area can live, work and play all within walking distance. No matter what development pattern prevails, certain transportation network improvements will have to be undertaken to improve the mobility options in that area. If the area is to be developed as an industrial district, Pinellas County should initiate the widening of Anclote Road and partner with the City to extend L&R Industrial Boulevard to Wesley Avenue. If the area is

developed as a mixed-use community, the City should invest in all modes of travel including roads, sidewalks and trails.

I. State, Regional and Local Coordination

The City participates in the Technical Coordinating Committee (TCC) of the Pinellas County MPO. The TCC reviews, coordinates and makes recommendations on complex transportation problems that have local, regional and statewide impacts. The transportation plans of FDOT, Pinellas County and the local jurisdictions are also coordinated through the TCC.

J. Internal Consistency

The City of Tarpon Springs Transportation Element is consistent with the Future Land Use, Capital Improvements and Recreation and Open Space Elements of the City's Comprehensive Plan.

K. Concurrency Management System

The purpose of the City of Tarpon Springs Concurrency Management System (CMS) is to ensure that transportation facilities needed to support development are available concurrent with the impacts of such development. The CMS shall ensure that the adopted level of service standards for transportation facilities be maintained as additional development orders and permits are issued.

For the purpose of the issuance of development orders and permits, the City of Tarpon Springs adopted level of service (LOS) standard on local roads, excluding congestion containment, constrained and long term concurrency management facilities is LOS D peak hour. The adopted LOS standard for County and State Roads, excluding congestion containment, constrained and long term concurrency management facilities is LOS C average daily/LOS D peak hour. The adopted LOS standard for congestion containment and constrained corridors is LOS F. The intent of establishing this level of service standard is to allow development to occur with restrictions imposed by the CMS. Through the application of the CMS in combination with transportation facility improvements implemented through the CIE, the City strives to improve the level of service standard to the fullest extent possible.

For mass transit, the City of Tarpon Springs in conjunction with PSTA and PCPT shall ensure transit access to all major traffic generators and attractors with at least a 30 minute headway in the peak hour and no greater than a 60 minute headway in the off-peak hour.

V. ISSUES AND OPPORTUNITIES

Automobile traffic has become a regional rather than a local issue due to the increased mobility of today's population and the emergence of cross-commuting between people who live in Pasco County but work in Pinellas County. Unfortunately, local growth management controls cannot reduce the occurrence of "pass-through" traffic, so the City must strive to utilize the existing network as efficiently and effectively as possible. The City must also focus on connectivity of the roadway network and extend current roadways to complete existing roadway segments. More resources should be directed towards the addition of bicycle and pedestrian facilities and improving the PSTA and PCPT transit system. The City must also adopt policies that create an active and vibrant downtown and

Sponge Docks. Steps should also be taken to encourage the use of mass transit which will reduce the number of personal vehicles on the roadway.

The City of Tarpon Springs has rotating representation with Safety Harbor and Oldsmar on the Pinellas County MPO. The seat rotates on an annual basis and should be used to proactively enact policies that will encourage alternative forms of transportation. The City ~~shall partner~~ is currently part of a working group with Pinellas County, PSTA, Clearwater, Largo, Dunedin, and FDOT to ~~implement~~ evaluate the adoption and implementation of a Long Term Concurrency Management System for U.S. Highway 19, develop access management strategies, signal and intersection improvements, transit facility improvements and provide adequate facilities for pedestrians and bicyclists. With the recent passage of SB 360, all local governments in Pinellas County are currently re-evaluating the approach to transportation concurrency. Hopefully, FDCA will complete their rulemaking efforts and provide all local governments a clearer direction for the future.

VI. GOALS, OBJECTIVES AND POLICIES

A. Introduction

Pursuant to Chapter 163.31776(j), F.S. and Rule 9J-5.019(4), F.A.C., the following represents the Goals, Objectives and Policies of the Transportation Element of the City of Tarpon Springs. It is the intent of this section to establish the desired future results for all transportations modes in the City.

B. Non-Applicable Items

All the goals, objectives and policies are applicable to the City of Tarpon Springs.

C. Local Goals, Objectives and Policies

GOAL 1

PROVIDE FOR A SAFE, CONVENIENT, AND ENERGY EFFICIENT MULTIMODAL TRANSPORTATION SYSTEM THAT SERVES TO INCREASE MOBILITY, REDUCE THE INCIDENCE OF SINGLE-OCCUPANT VEHICLES, EFFICIENTLY UTILIZE ROADWAY CAPACITY, REDUCE THE CONTRIBUTION TO AIR POLLUTION FROM MOTORIZED VEHICLES AND IMPROVE THE QUALITY OF LIFE FOR THE CITIZENS OF TARPON SPRINGS.

Objective 1.1

To adopt and implement a Multimodal Transportation District (MMTD).

Policy 1.1.1

The established boundaries for the MMTD are generally the Anclote River to the north, the promulgation of the northern boundary line of the proposed recreation complex parcel to the south, Disston Avenue to the east, and Banana Street to the west. The boundary is more specifically identified on the Multimodal Transportation District Map and resource document included in Appendix B.

Policy 1.1.2

Developments proposed in the MMTD that satisfy the following two

conditions:

a. Follows urban form and multimodal facility design standards as described in Policy 1.1.4 and the Smartcode; and

b. Contributes towards achieving the adopted multimodal level of service standard designated in Policy 1.4.7 through the provision of on-site and/or off-site improvements necessary to mitigate transportation impacts. The amount of mitigation required will be determined by calculating a development project's net external trips as a proportion of total projected trips for anticipated development within the MMTD. The cost per trip shall be determined by dividing the total cost of needed multimodal improvements by the total number of trip ends projected to occur to support mobility for anticipated redevelopment.

Policy 1.1.3

Development within the Community Redevelopment Area, as designated in the Future Land Use Element, shall meet standards of intensity, diversity, design, and connectivity of land uses to establish a high concentration and variety of destinations that can be easily accessed by a variety of transportation modes. The standards shall be applied in conjunction with the Smartcode overlay as established in the Land Development Code governing special design criteria and density/intensity bonuses. These standards shall address the following:

a. Intense and dense development to establish a high concentration of activities and destinations. Residential density and intensity, as provided in the Smartcode, are allocated as follows*:

Transect Zone	T3	T4	T5	T6	SD
Density	12	18	24	40	18
Floor Area Ratio	.55	1.0	1.5	2.0	1.5

b. Complementary mix of land uses to increase transportation efficiency;

c. Location of workforce housing along transit routes;

d. Maximum front setbacks to improve access between buildings and the multimodal transportation network. Setback requirements shall range from six feet to 24 feet, depending on the transect zone. Additional setbacks may be required for Pinellas Avenue in order to provide additional width for sidewalks, planting strips, or outdoor seating.

e. Site design characteristics such as building location, parking location, and landscaping to maximize access to the multimodal transportation network.

f. Building orientation to increase accessibility to the public street with a secondary emphasis towards on-site parking.

g. A continuous façade line with significant ground floor transparency to provide a continuous and attractive streetscape.

h. On-site multimodal transportation infrastructure to provide connections to public sidewalks, cycling facilities, transit stops, buildings, parking, and adjacent land uses.

i. Shade trees, lighting, street furniture, and other amenities along sidewalks and at transit stops to improve the design and accessibility of the on-site multimodal transportation infrastructure.

Policy 1.1.4

Development outside the CRA but within the MMTD shall maintain its mixed use and residential future land use classifications. This area is predominately single family residential in character, but also includes important destinations such as the Tarpon Springs Elementary School, Saint Petersburg College, the Helen Ellis Memorial Hospital, and the proposed recreational complex. As one of the goals of the MMTD is to improve the linkages from the CRA to the surrounding area by increasing connectivity and constructing multimodal infrastructure, the City shall adopt standards for development and redevelopment that shall require, at a minimum, the following:

a. On-site multimodal transportation infrastructure to provide connections to public sidewalks, cycling facilities, transit stops, buildings, parking, and adjacent land uses.

b. Shade trees, lighting, street furniture, and other amenities along sidewalks and at transit stops to improve the design and accessibility of the on-site multimodal transportation infrastructure.

Policy 1.1.5

The City shall adopt the Smartcode within one year of adopting Ordinance 2007-49 to amend the Comprehensive Plan.

Policy 1.1.6

The City may utilize a portion of tax increment revenues to fund multimodal improvements within the CRA.

Policy 1.1.7

The City shall monitor the multimodal transportation district by producing an MMTD Monitoring Report every two years. This report shall summarize the City's progress towards achieving the multimodal objectives and policies described herein.

Policy 1.1.8

The City shall use multimodal performance measures to help evaluate the progress towards implementing the goals of the MMTD. On a system wide level, the City shall:

- Calculate the number of new developments and redevelopments that are completed and meet the design standards of the Smartcode, contributing towards the development of the multimodal transportation system and the creation of a thriving, functional focal point to the City.

- Calculate the number and length of new multimodal facilities and new street connections that have been completed or planned.

- Calculate the transit ridership on all transit services within the City.

Policy 1.1.9

In coordination with FDOT, the city shall mitigate for the anticipated impacts of redevelopment within the MMTD on the Strategic Intermodal System (U.S. 19), through the implementation of the following projects:

a. Extend Meres Boulevard from U.S. Alternate 19/S.R. 595 to U.S. Highway 19/S.R. 55;

b. Improve traffic signal spacing on U.S. 19 by relocating the signal from MLK and U.S. 19 to the intersection of Meres Boulevard and U.S. 19, and limiting turning movements to “right-in, right out” at the intersection of MLK and U.S. 19; and

c. Create a multimodal extension of Disston Avenue from Curlew Place to Mango Street. At a minimum, this connection shall entail a shared-use path of at least 12’ in width. The City shall consider a roadway connection compatible with adjacent residential development with a multimodal emphasis. The design of this extension shall be consistent with the 60’ ROW urban street design illustrated in Policy 1.2.17 to minimize the traffic impacts on the surrounding residential neighborhood including appropriate traffic calming measures. These measures shall be included in cost estimates developed for the road extension and shall also be required for the existing Disston Avenue segment from Mango Street to Live Oak Street. Instead of on-street parking, the City shall construct a bike lane on each side of the street.

d. The City shall consider the extension of Huey Avenue between Live Oak and Cypress Streets, and will determine if a connection is feasible due to wetlands impacts.

Policy 1.1.10

The City shall coordinate with the Pinellas County MPO’s Annual Transportation Concurrency Report and State of the System Report that establish the existing conditions on all arterial roads within the City. These data shall be used to

monitor the operating conditions on U.S. 19, Alternate U.S. 19, and Tarpon Avenue.

Objective 1.2

To provide a safe traveling environment for automobiles, bicycles and pedestrians.

Policy 1.2.1

The City shall utilize traffic safety awareness programs, appropriate signage, signalization, intersection improvements and access management strategies to reduce the number of traffic accidents.

Policy 1.2.2

The City shall require that bicycle lanes be constructed where technically feasible, as part of new road construction or resurfacing projects.

Policy 1.2.3

The City shall require that new sidewalks be constructed where technically feasible, as part of new commercial, residential, industrial and mixed-use projects.

Policy 1.2.4

The City shall monitor accident data on an annual basis and assess the need for corrective action.

Policy 1.2.5

The City shall prepare and adopt a comprehensive bicycle and pedestrian master plan by the year ~~2009~~ 2010.

Policy 1.2.6

The City shall require the provision of adequate on-site parking and maneuvering space to ensure safe and efficient on-site traffic flow in accordance with the adopted development regulations for new development or redevelopment.

Policy 1.2.7

The City shall implement a comprehensive wayfinding (signage) system for the Sponge Docks area and the Downtown District by the year 2009.

Policy 1.2.8

The City shall provide pedestrian crosswalks at the appropriate intersections. These facilities shall be constructed as part of resurfacing or new construction projects.

Policy 1.2.9

The City shall provide parking credits for projects that provide accommodations for bicycles and motorcycles.

Policy 1.2.10

The City shall provide parking credits for projects that are adjacent to the Pinellas Trail.

Policy 1.2.11

The City shall utilize landscaping to improve the aesthetic quality of the City's transportation facilities, to act as a traffic-calming mechanism and buffer adjoining land uses from major roadways.

Policy 1.2.12

The City shall enforce signage regulations along all roadways.

Policy 1.2.13

The City shall support development proposals that incorporate new urbanist principles and create a more walkable urban environment.

Policy 1.2.14

The City shall actively pursue a partnership with the private sector to construct a parking garage in the Sponge Docks and Downtown District.

Policy 1.2.15

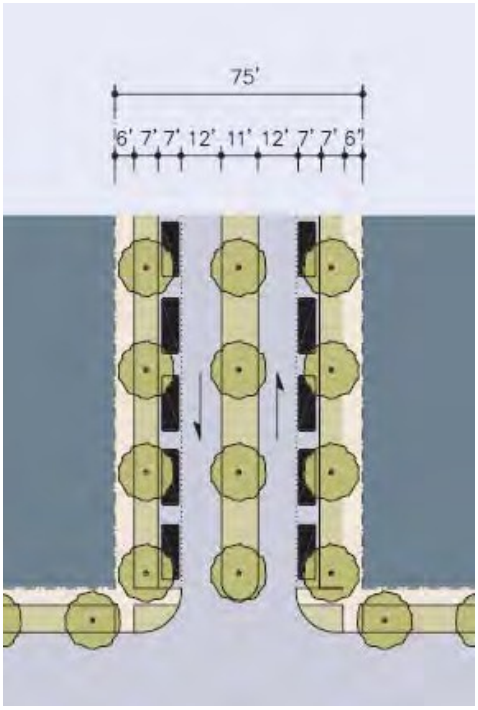
The City shall evaluate the feasibility of operating the Tarpon Springs Trolley as a circulator along Tarpon Avenue to provide another mobility option along that corridor.

Policy 1.2.16

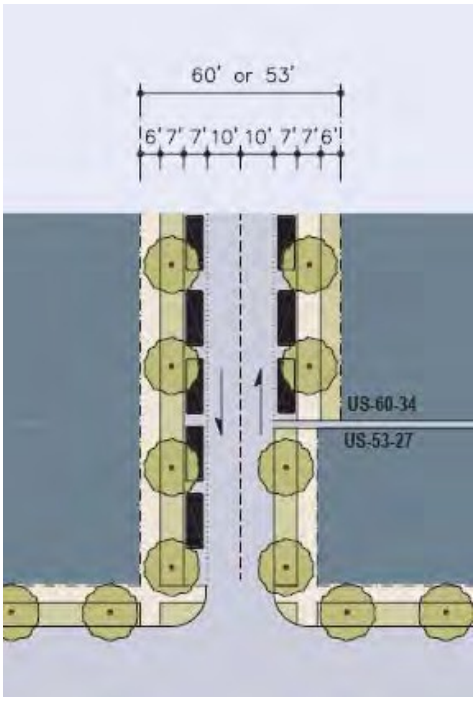
The City shall evaluate the feasibility of one-way pairs for certain roads within the Community Redevelopment Area (CRA).

Policy 1.2.17

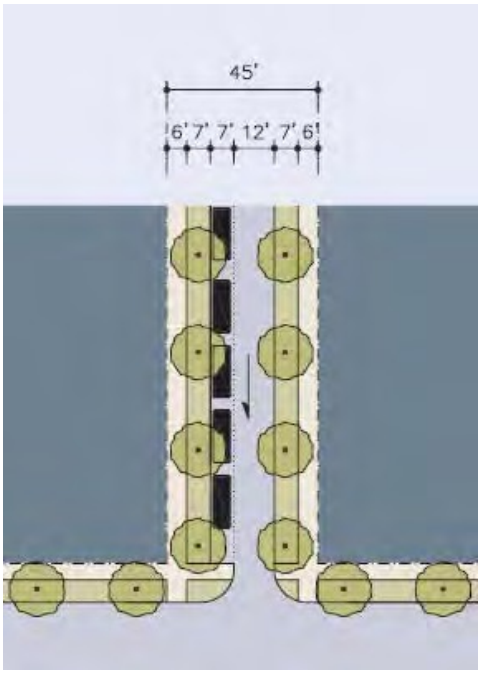
The City shall utilize the following right-of-way cross-sections as guidelines in the design of new transportation facilities and the improvement of existing transportation facilities:



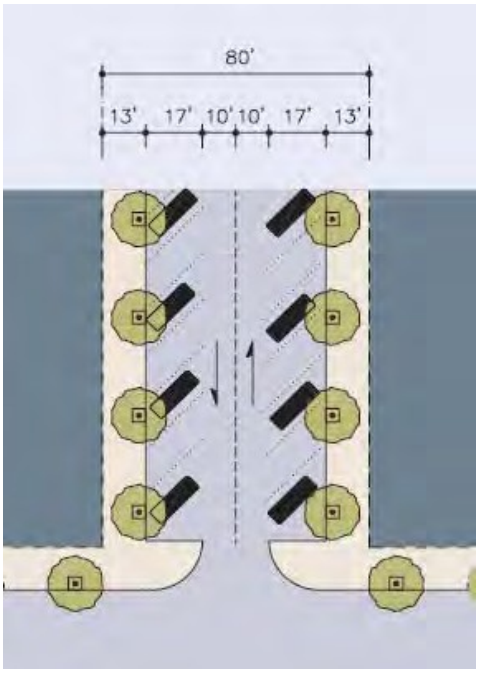
Avenue: 75' ROW



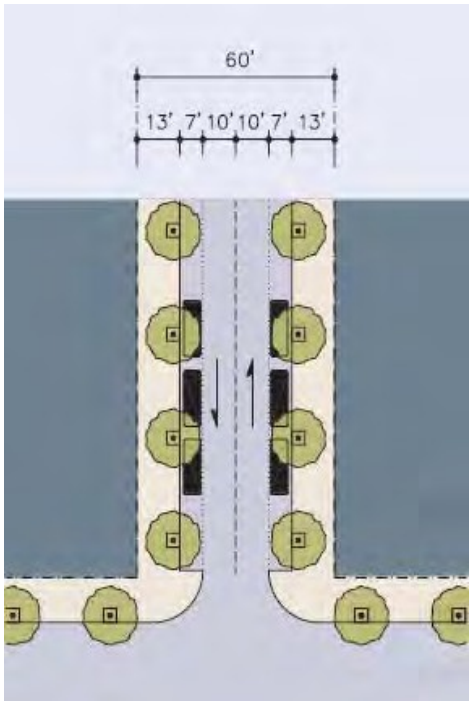
Urban Street: 53'-60' ROW



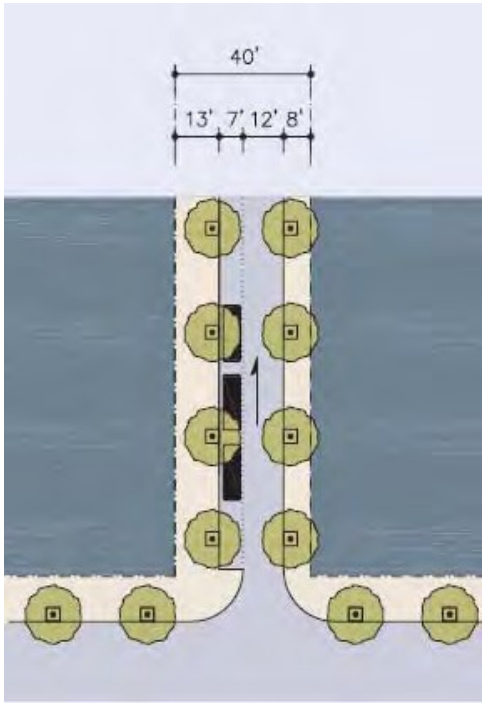
Urban Street: 45' ROW



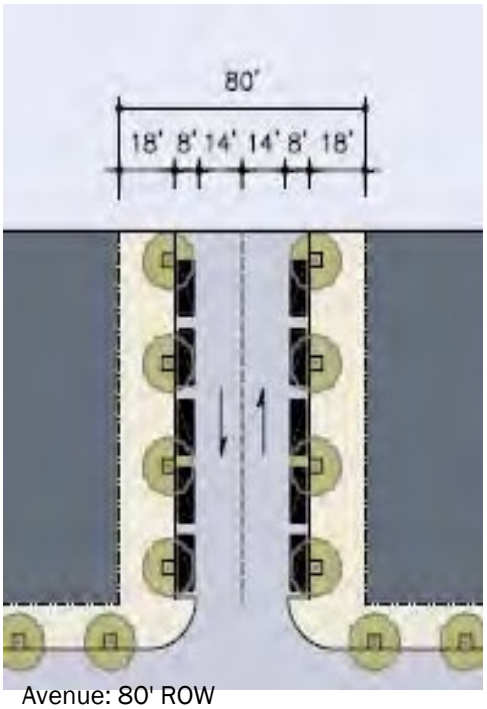
Commercial Street: 80' ROW



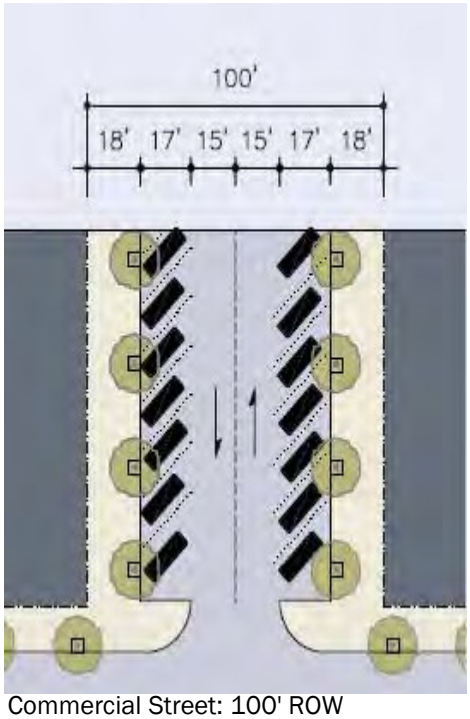
Commercial Street: 60' Row



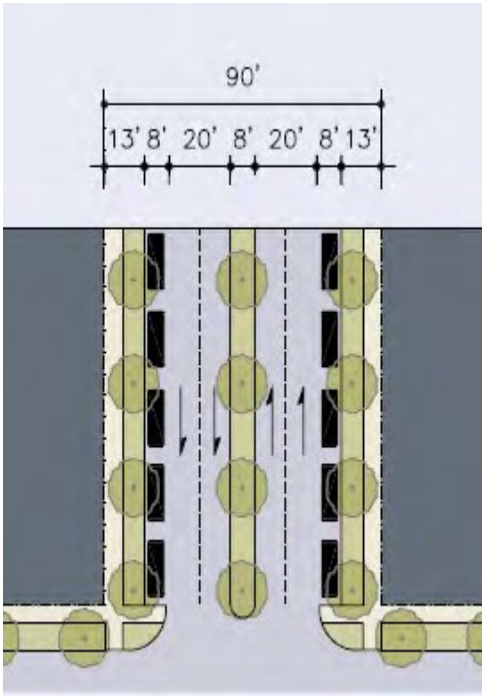
Commercial Street: 40' ROW



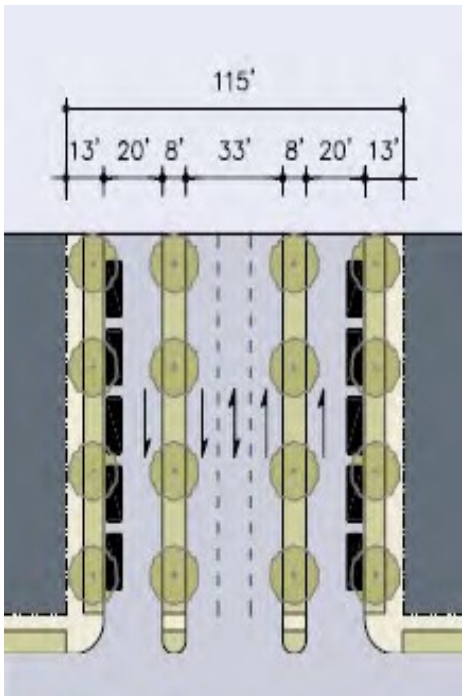
Avenue: 80' ROW



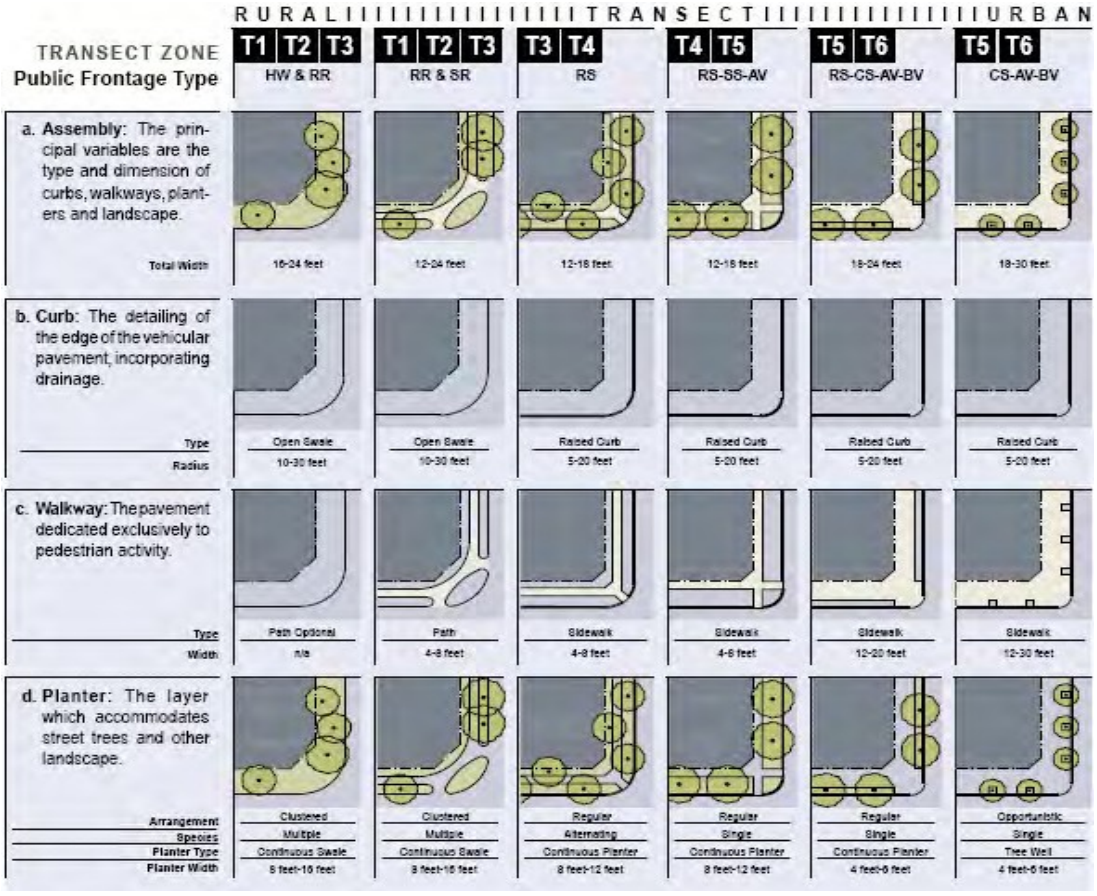
Commercial Street: 100' ROW



Avenue: 90' ROW



Boulevard: 115' ROW



Objective 1.3

To establish an interconnected transportation network which distributes automobiles, pedestrians, and bicyclists within and among existing and proposed residential, commercial, industrial and mixed-use areas.

Policy 1.3.1

The City shall construct new roads that complete existing roadway segments.

Policy 1.3.2

The City shall discourage the use of cul-de-sacs for new residential subdivisions.

Policy 1.3.3

The City shall preserve all brick streets within the Historic District and Sponge Docks area.

Policy 1.3.4

The City shall preserve existing alleys and work to create new alleys within the Community Redevelopment Area (CRA).

Policy 1.3.5

The City shall encourage the use of shaded, separate walkways that extend from existing sidewalks within road rights-of-way to buildings to promote pedestrian travel to commercial and employment centers.

Policy 1.3.6

The City shall continue to fund bicycle and pedestrian facilities every other year. The following projects or acceptable alternatives that improve the level of service for bicycles and/or pedestrians shall be completed within the MMTD:

SEGMENT	FROM	TO	FACILITY
Levis Avenue	Lemon Street	Tarpon Avenue	Sidewalk Gap
Levis Avenue	Orange Street	Pine Street	Sidewalk Gap
MLK	Alt 19	Safford Avenue	Sidewalk Gap
Lemon Street	Grosse Avenue	Ring Avenue	Sidewalk Gap
Lemon Street	Walton Avenue	Huey Avenue	Sidewalk Gap
Disston Avenue	Woodhill Drive	Klosterman Road	Sidewalk Gap
Disston Avenue	MLK	Meres Blvd./Mango Street	Sidewalk Gap
Pine Street	Alt 19	Disston Avenue	Sidewalk Gap
Curlew Place	Alt 19	Disston Avenue	Bike Lane
Lemon Street	Alt 19	Disston Avenue	Bike Lane
Pine Street	Safford Avenue	Huey Avenue	Bike Lane

Policy 1.3.7

The City shall extend L&R Industrial Blvd. from Anclote Road to Wesley Avenue.

Policy 1.3.8

In order to provide an east-west bicycle route, the City shall evaluate design options for Lemon Street, including the conversion of the diagonal parking to parallel parking and striping of a bicycle lane.

Objective 1.4

To maintain the performance of the major road network within the County while furthering development of a multimodal transportation system that increases mobility for bicyclists, pedestrians and transit users as well as motorists.

Policy 1.4.1

The City shall manage the impacts of land development projects and increase mobility through application of Transportation Element policies and Land Development Code provisions through the site plan review process in accordance with the Pinellas County Mobility Plan.

Policy 1.4.2

The land development regulatory system shall include provisions to address development that impacts “deficient” roadways, including facilities operating at peak hour level of service (LOS) E and F and/or volume-to-capacity (v/c) ratio 0.9 or greater to ensure that development that generates more than 51 peak hour trips does not occur without providing for a mitigating improvement scheduled for construction within three years.

Policy 1.4.3

The City shall utilize multimodal impact fee revenue to fund multimodal improvements to local, county or state facilities that are consistent with the comprehensive plan as well as the Metropolitan Planning Organization (MPO) Long Range Transportation Plan.

Policy 1.4.4

The City shall work cooperatively with the MPO, Pinellas County, and other local governments to complete any subsequent update of the Pinellas County Multimodal Impact Fee Ordinance through the MPO planning process, which includes review by the MPO Technical Coordinating Committee and MPO Policy Board.

Policy 1.4.5

The City shall continue to work with the Pinellas Suncoast Transit Authority (PSTA) to increase the efficiency of the fixed-route system by encouraging mass transit use through the application of the Pinellas County Mobility Plan and the City's Site Plan Review Process.

Policy 1.4.6

The City shall work with the MPO, Pinellas County, and other local governments to coordinate the application of the Pinellas County Mobility Plan throughout the County.

Policy 1.4.7

The existing Level of Service (LOS) standard for bicycle, pedestrian, and transit facilities is based on the measured existing conditions in the MMTD and shall serve as a baseline to achieve future LOS targets. Adopted LOS standards are based on the maximum achievable LOS grade given implementation of multimodal improvements within the MMTD and pedestrian-oriented urban design within the district. Establishing interim LOS standards reflects the long-term implementation of multimodal improvements and urban design standards.

The existing and adopted LOS standards in the MMTD are as follows:

	BICYCLE LOS STANDARD	PEDESTRIAN LOS STANDARD	TRANSIT LOS STANDARD
Existing Condition	D	C	F
Adopted Target (2015)	C	B	E
Adopted Target (2025)	C	B	D

Policy 1.4.8

By December 31, 2009, the City shall evaluate the feasibility of a transit circulator within the MMTD, identifying a funding source(s) and strategies, ridership projections, implementation priorities, operating hours and frequencies, and recommendations for route alignments, shelters, and transit stop amenities.

Policy 1.4.9

The City shall review all proposed development or redevelopment applications for consistency with this element and potential impacts upon the adopted level of service standards if located within the MMTD. Development approvals and permits for projects located within the MMTD shall only be issued when it is documented that such development is consistent with the LOS standards and will not degrade the LOS standard for the affected facilities or the City approves a Transportation Management Plan to offset the facility impact.

Policy 1.4.10

The adopted LOS standard for public transit outside of the MMTD is to ensure transit access to all major traffic generators and attractors with at least a 30-minute headway in the peak hour and no greater than a 60-minute headway in the off-peak hour.

Policy 1.4.11

Within the MMTD, the City shall apply the Proportionate Fair-Share Program to mitigate the impacts of development on pedestrian, bicycle, and transit facilities despite a lack of adequate capacity on the impacted transportation facility. The applicant must contribute their fair-share towards the pedestrian, bicycle, and transit facilities.

Policy 1.4.12

Within the MMTD, the City shall also apply the Proportionate Fair Share Program to fund operating and capital costs associated with improving transit service and the bicycle and pedestrian environment to meet the target level of service standards defined in Policy 1.4.7. The City shall determine a developer's fair share based on the proportion of net external trips generated by the proposed development relative to the total number of trips generated at build-out by redevelopment within the MMTD. The city shall reevaluate its estimated costs and build-out projections as part of the biannual monitoring report.

Objective 1.5

Transportation planning shall be coordinated with the Future Land Use Map Series, the Capital Improvements Element and the Future Right-of-Way Needs Map.

Policy 1.5.1

The City shall review the Future Land Use Map Series when planning roadway, sidewalk, bicycle, or transit facility construction and improvement projects to ensure that they are designed to meet the current and future needs of the traveling public.

Policy 1.5.2

The City shall ensure that the required right-of-way is identified in the Future Right-of-Way Needs Map and reserved for future acquisition during the development review process.

Policy 1.5.3

The City shall discourage the development of low density residential projects which will increase urban sprawl and dependency on the personal automobile.

Policy 1.5.4

The City shall support mixed-use development and redevelopment in appropriate locations, particularly within the MMTD. This shall occur through the City's role as the approving authority of site plans, planned developments and associated land use amendments.

GOAL 2

ENSURE CONSISTENCY BETWEEN THE CITY'S TRANSPORTATION PLANNING EFFORTS AND THOSE OF OTHER GOVERNMENTAL AGENCIES.

Objective 2.1

To coordinate transportation planning with the FDOT 5-Year Work Program, the Pinellas County MPO 5-Year Transportation Improvement Program (TIP), the Pasco County Public Transportation Transit Development Plan (TDP) and the PSTA Transit Development Plan (TDP) to ensure that existing and proposed development intensity, housing and employment patterns are consistent with the transportation facilities which serve those areas.

Policy 2.1.1

The City shall review future versions of the FDOT and MPO short and long range transportation plans and the PCPT TDP and PSTA TDP in order to update this element as needed.

Policy 2.1.2

The City shall review the transportation plans of neighboring jurisdictions for consistency with this element.

Policy 2.1.3

The City shall coordinate with Pinellas County and FDOT to correct existing and future deficiencies on County and State roadways within local boundaries.

Policy 2.1.4

The City shall coordinate with the Pinellas County MPO and FDOT to ensure that the Intelligent Transportation System (ITS) Phase 3 improvements are fully funded for U.S. Alternate 19/S.R. 595 and Tarpon Avenue/S.R. 582.

Policy 2.1.5

The City shall coordinate with any planning efforts related to the Pinellas Mobility Initiative (PMI) or Tampa Bay Area Regional Transportation Authority (TBARTA), and assist with data sharing, provide review comments and coordinate its planning activities, as appropriate.

Policy 2.1.6

The City shall participate in MPO sponsored corridor studies to examine potential opportunities to encourage mass transit ridership and other alternative modes of transportation that reduce demand on the Strategic Intermodal System and other regionally significant roadways.

Policy 2.1.7

The City shall continue to coordinate roadway, transit and other transportation mode improvements through active participation on the Pinellas County Metropolitan Planning Organization's (MPO) Technical Coordinating Committee (TCC).

Policy 2.1.8

The Transportation Element shall be coordinated with the goals, objectives and policies of the Future Land Use Element to efficiently guide residential and non-residential development patterns.

Policy 2.1.9

The City shall encourage partnering opportunities with PCPT and PSTA to expand the installation of bus shelters in the City.

Policy 2.1.10

The City shall coordinate with Pinellas County and FDOT during the design phase of construction, reconstruction and resurfacing projects to ensure that bicycle and pedestrian-friendly provisions are included on County and State roads.

Objective 2.2

To manage future growth and development through the implementation and enforcement of the Comprehensive Zoning and Land Development Code consistent with the adopted comprehensive plan.

Policy 2.2.1

The City shall continue to implement the Transportation Element policies and continue to enforce land development regulations consistent with Chapter 163.3202(10), F.S. which addresses the provisions and intent of the objectives and policies contained in the Transportation Element.

Policy 2.2.2

The City shall annually review and amend as needed, the Comprehensive Zoning and Land Development Code for consistency with the adopted comprehensive plan.

Policy 2.2.3

The City shall ensure that the required right-of-way that is identified in the Future Transportation Map Series is reserved during the site plan review or planned development process.

Policy 2.2.4

The City shall not vacate public right-of-way until it is determined that the right-of-way is not required for present or future public use, including utilities, roads, etc.

Policy 2.2.5

The City shall ensure that transportation facilities needed to serve new development are in place or under actual construction within 3 years after the local government approves a building permit or its functional equivalent that results in traffic generation

Appendix A - Transportation Definitions

Annual average daily traffic – The volume passing a point or segment of a roadway in both directions for 1 year divided by the number of days in the year.

Average daily traffic – The total traffic volume during a given time period (more than a day and less than a year) divided by the number of days in that time period.

Bicycle – A mode of travel with two wheels in tandem, propelled by human power.

Capacity – The maximum number of vehicles or persons that can pass a point on a roadway during a specified time period (usually 1 hour) under prevailing roadway, traffic and control conditions.

Capacity constrained – A condition in which traffic demand exceeds the capacity of a roadway.

Collector - Provides a lower degree of mobility than arterials. They are designed for travel at lower speeds and for shorter distances. Collectors are usually two-lane roads that collect and distribute traffic from the arterial system.

Concurrency – A systematic process utilized by local governments to ensure that new development does not occur unless adequate infrastructure is in place to support growth.

Constrained roadway – A roadway on the State, County or City Road System that will not be expanded by 2 or more through lanes because of physical, environmental, or policy constraints.

Corridor – A set of essentially parallel transportation facilities for moving people and goods between two points.

Demand – The number of persons or vehicles desiring service on a roadway.

FDOT – Florida Department of Transportation.

FHWA – Federal Highway Administration.

Florida Intrastate Highway System (FIHS) – An interconnected statewide system of limited access facilities and controlled access facilities developed and managed by FDOT to meet standards and criteria established for the FIHS. It is part of the State Highway System, and is developed for high-speed and high-volume traffic movements. The FIHS also accommodates high occupancy vehicles (HOV's), express bus transit and in some corridors, interregional, and high-speed intercity passenger rail service. Access to abutting land is subordinate to movement of traffic and such access must be prohibited or highly regulated.

Functional classification – The assignment of roads into systems according to the character of service they provide in relation to the total road network.

Generalized Level of Service Volume Tables – Maximum service volumes based on areawide roadway, traffic and control variables and presented in tabular form.

Local – They represent the largest element in the road network in terms of mileage. Local roads provide basic access between residential and commercial properties and connect with higher order roadways.

LRTP (Long Range Transportation Plan) – A long-range (20-25 year) strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities that takes into account all modes of transportation, including automobile, bicycle, air, rail, surface freight, and pedestrian travel.

K100 – The ratio of the 100th highest traffic volume hour of the year to the annual average daily traffic.

Level of service (LOS) – A quantitative stratification of the quality of service of a service or facility into six letter grade levels with "A" describing the highest quality and "F" describing the lowest quality.

Minor Arterial – Provides service for trips of moderate length and at a lower level of mobility. They also connect with principal arterials, collector and local routes.

Mobility – The movement of people and goods.

MPO – Metropolitan Planning Organization.

Multimodal transportation district – An area in which secondary priority is given to vehicle mobility and primary priority is given to assuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit (F.S. 163.3180(15)).

PCPT - Pasco County Public Transit

Peak direction – The course of the higher flow of traffic.

Peak hour –A one hour time period with high volume.

Peak hour factor (PHF) – The ratio of the hourly volume to the peak 15-minute flow rate for that hour; specifically hourly volume / (4 x peak 15-minute volume).

Pedestrian – An individual traveling on foot.

Preliminary engineering – Engineering analyses performed to support decisions related to design concept and scope, e.g., need for improvement, design controls and standards, traffic, alternative alignment, preliminary design, conceptual design plans.

Principal Arterial - Serves the major activity centers of a metropolitan area, has the highest traffic volume corridors and the longest trip desires. The facility should carry a high portion of the total urban area travel on a minimum of mileage. It carries most trips entering and leaving urban areas, and it provides continuity from outside areas that intersect urban boundaries.

PSTA - Pinellas Suncoast Transit Authority

Scheduled fixed route – Bus service provided on a repetitive, fixed schedule basis along a specific route with buses stopping to pick up and deliver passengers to specific locations.

Seasonal factor – A factor used to adjust for the variation in traffic over the course of a year.

Segment – A portion of a facility defined by 2 end points; usually the length of roadway from one signalized intersection to the next signalized intersection.

Sidewalk – A paved walkway for pedestrians at the side of a roadway.

Signalized intersection – A place where 2 roadways cross and have a signal controlling traffic movements.

TIP (Transportation Improvement Program) – A five-year program of transportation improvements adopted annually by the MPO that incorporates State, PSTA and local work programs. The TIP is based on the State's fiscal year (June 30 – July 1).

Traffic – A characteristic associated with the flow of vehicles.

Transportation Concurrency Exception Area (TCEA) – A geographically compact area designated in a local government comprehensive plan where intensive development exists, or is planned, so as to ensure adequate mobility and further the achievement of identified important state planning goals and policies, including discouraging the proliferation of urban sprawl, encouraging the revitalization of an existing downtown and any designated redevelopment area, protecting natural resources, protecting historic resources, maximizing the efficient use of existing public facilities, and promoting public transit, bicycling, walking, and other alternatives to the single-occupant automobile.

Urban infill – A land development strategy aimed at directing higher density residential and mixed-use development to available sites in developed areas to maximize the use of adequate existing infrastructure; often considered an alternative to low density land development.

Urbanized area – Based on the Census, any area the U.S. Bureau of Census designates as urbanized, together with any surrounding geographical area agreed upon by the FDOT, the relevant Metropolitan Planning Organization (MPO), and the Federal Highway

Administration (FHWA), commonly called the FHWA Urbanized Area Boundary. The minimum population for an urbanized area is 50,000.

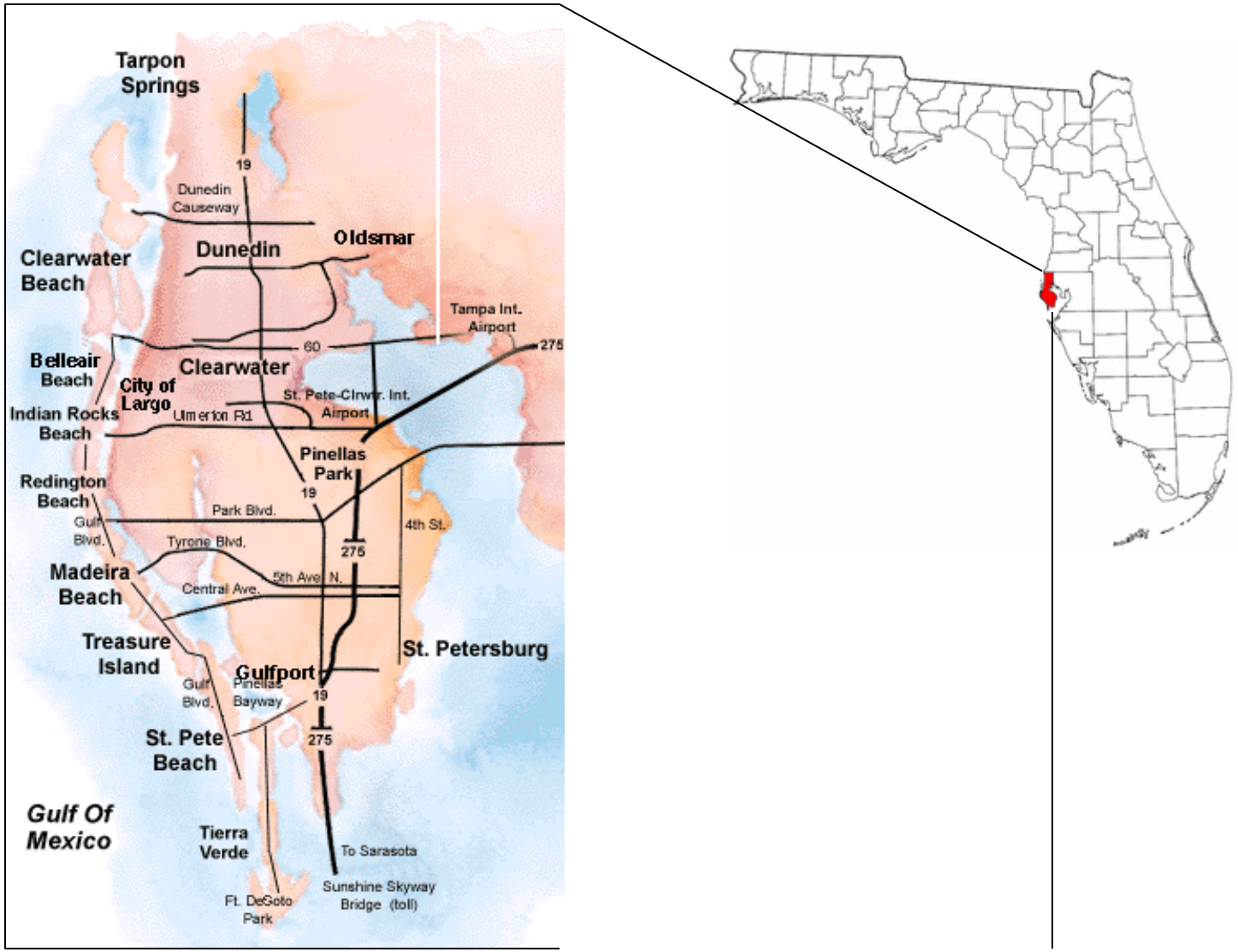
v/c – The ratio of demand flow rate to capacity of a signalized intersection, segment or facility.

Volume – In this Handbook usually the number of vehicles, and occasionally persons, passing a point on a roadway during a specified time period, often 1 hour; a volume may be measured or estimated, either of which could be a constrained value or a hypothetical demand volume.

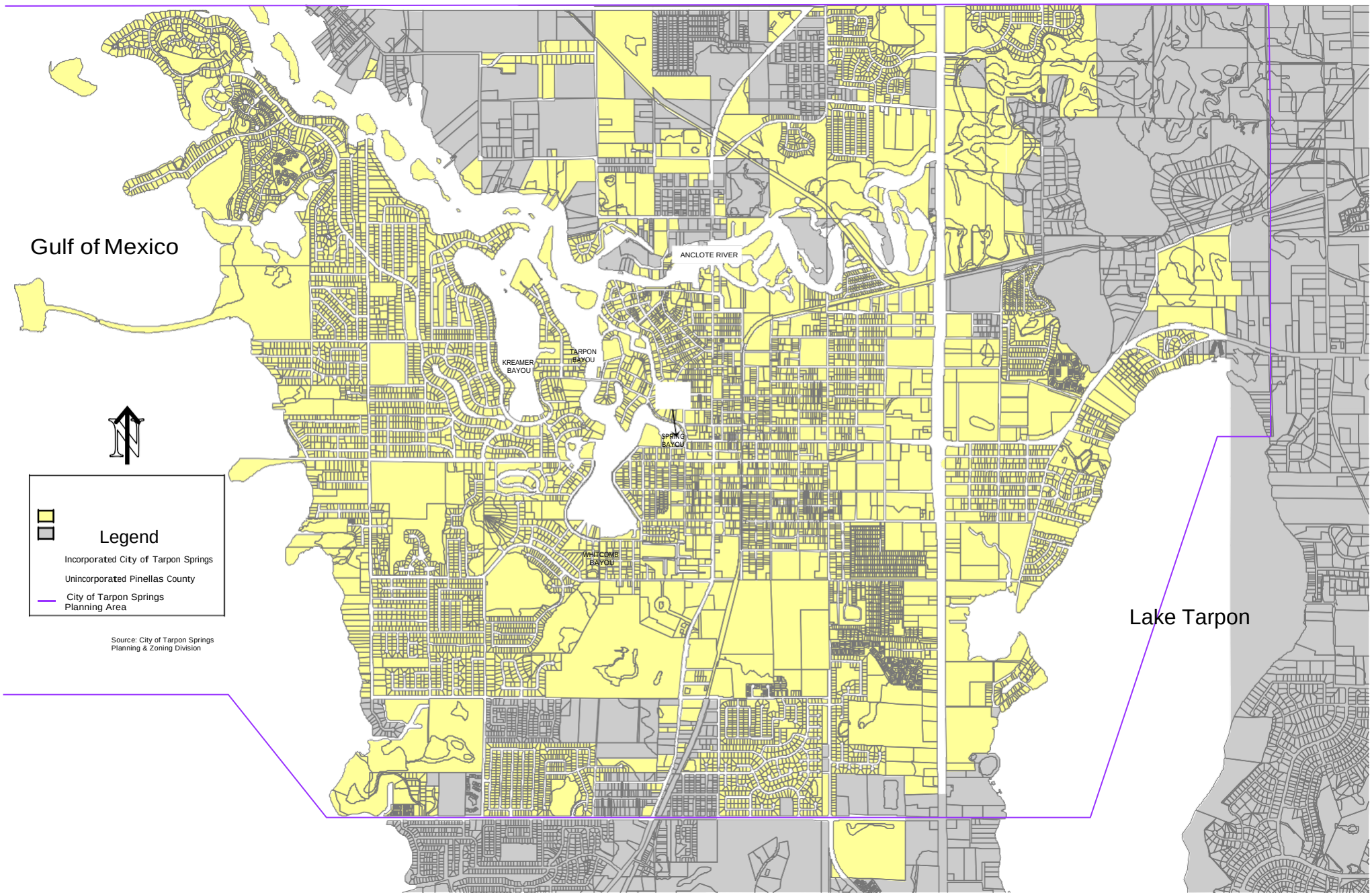
Source: FDOT 2002 Level of Service Manual

Existing and Future Year 2025 Transportation Map Series

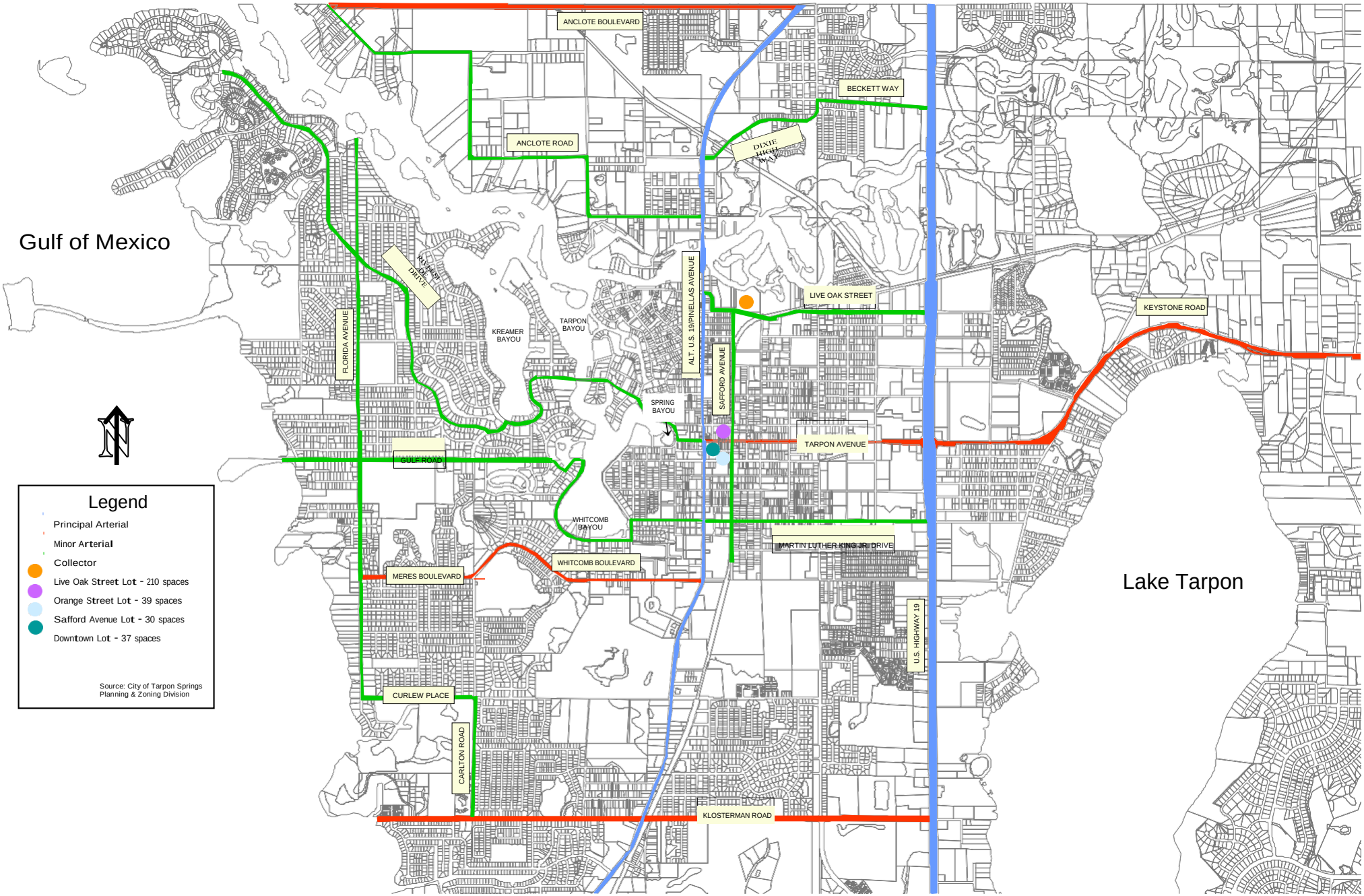
Map 1 – Pinellas County Area Map



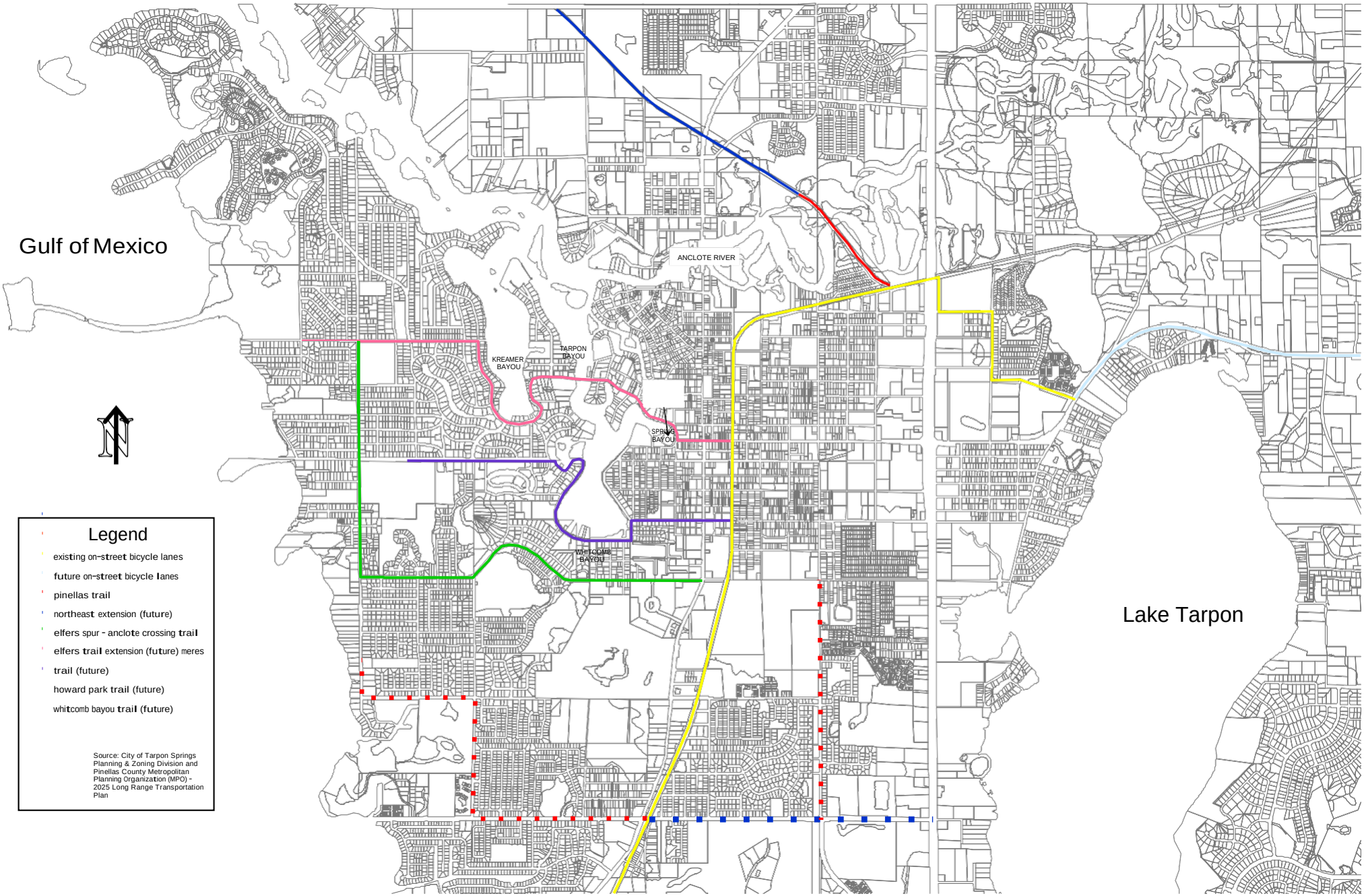
Map 2 – City of Tarpon Springs / Unincorporated Pinellas County



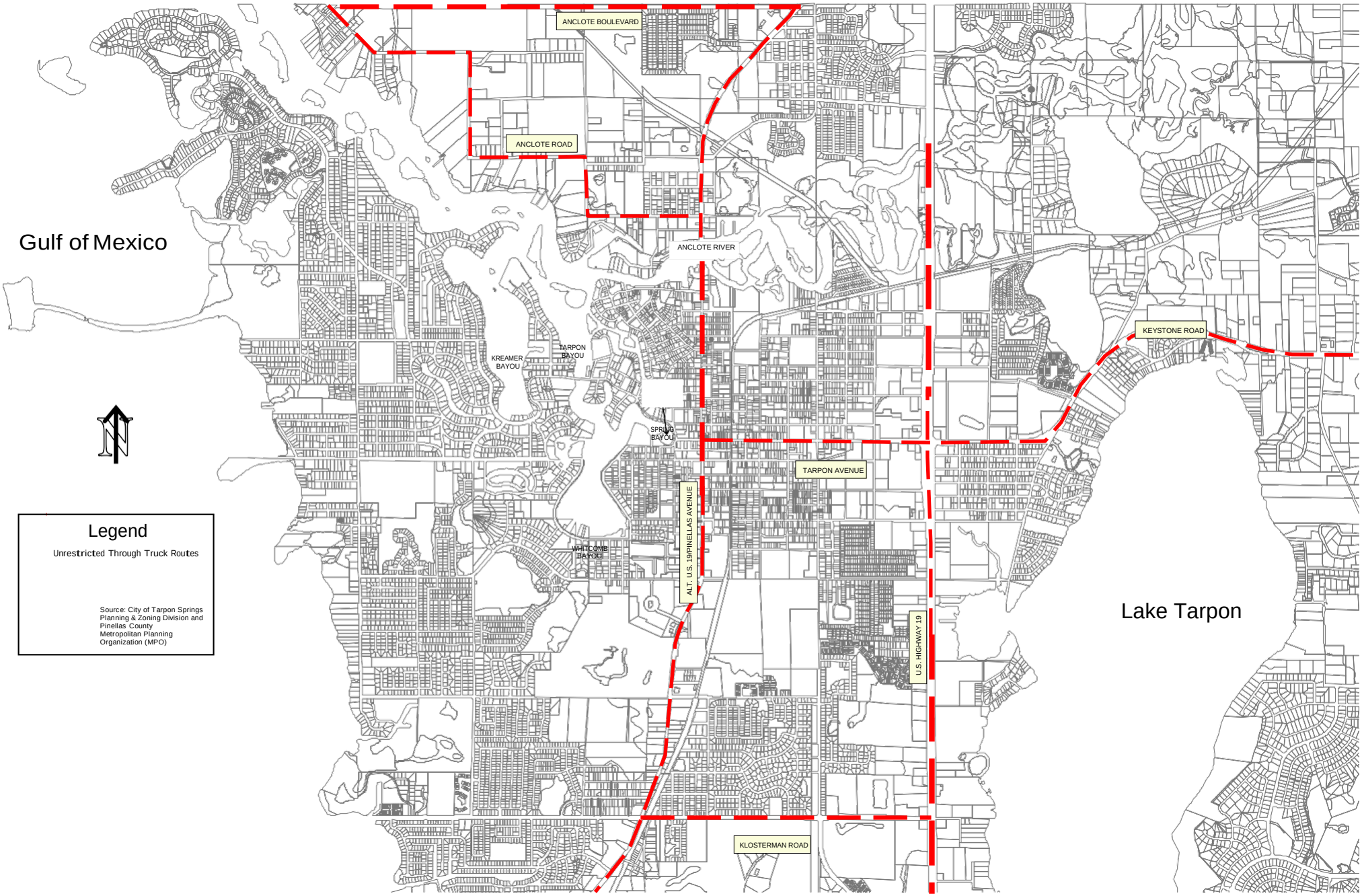
Map 3 – Year 2025 Roadway Classification and Public Parking Facilities



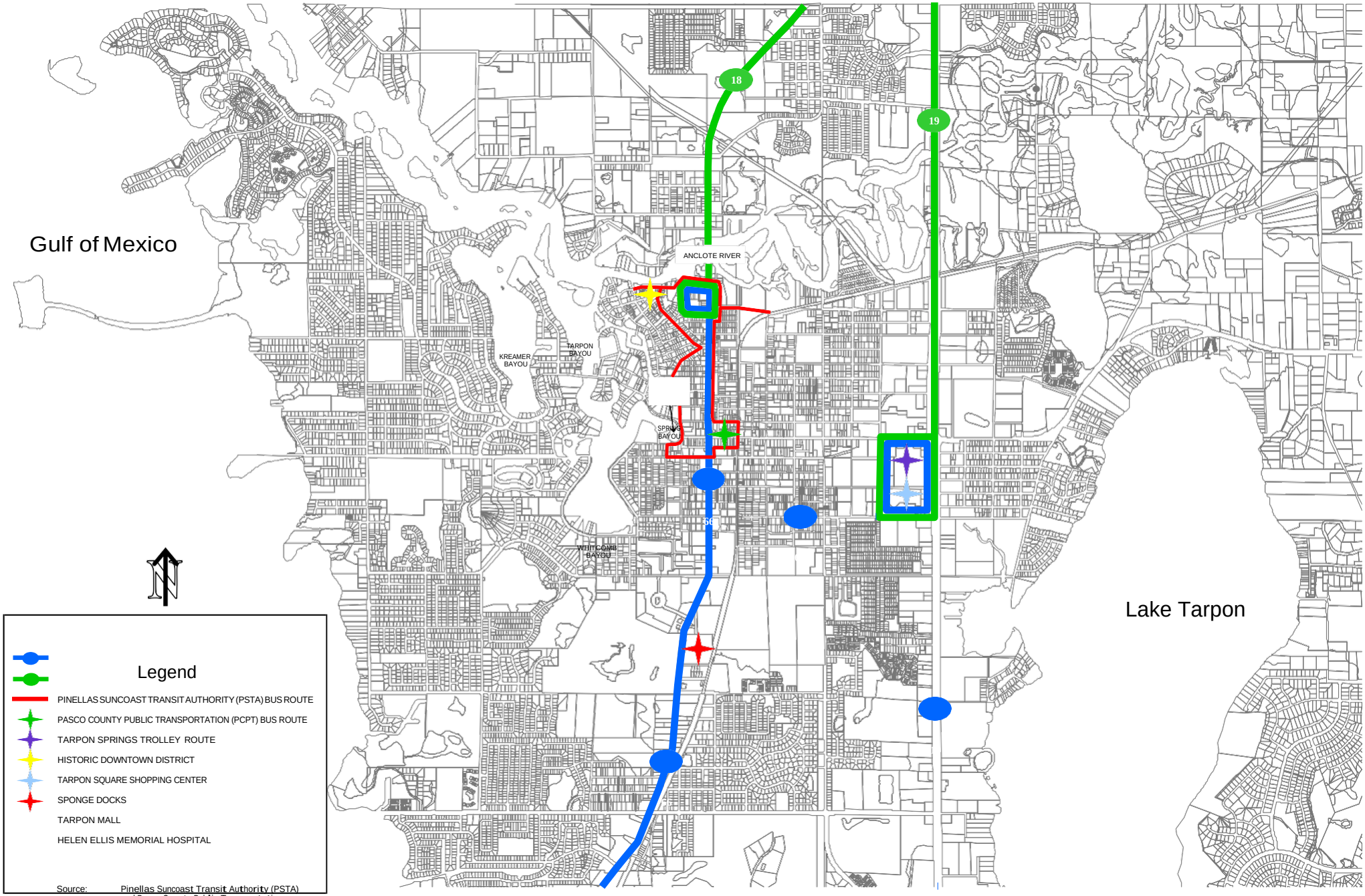
Map 4 − Significant Bicycle and Pedestrian Facilities



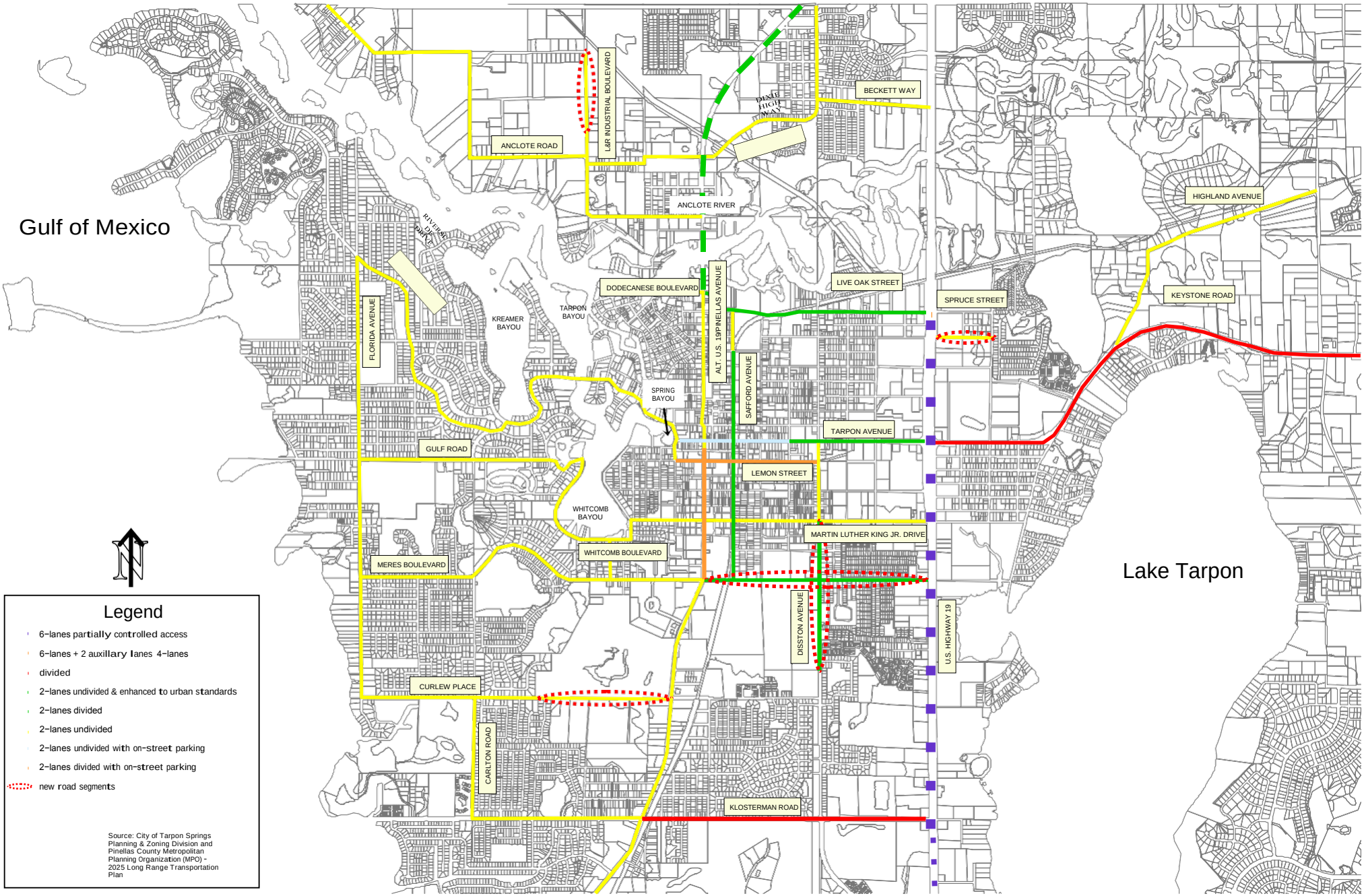
Map 5 − City of Tarpon Springs Truck Routes



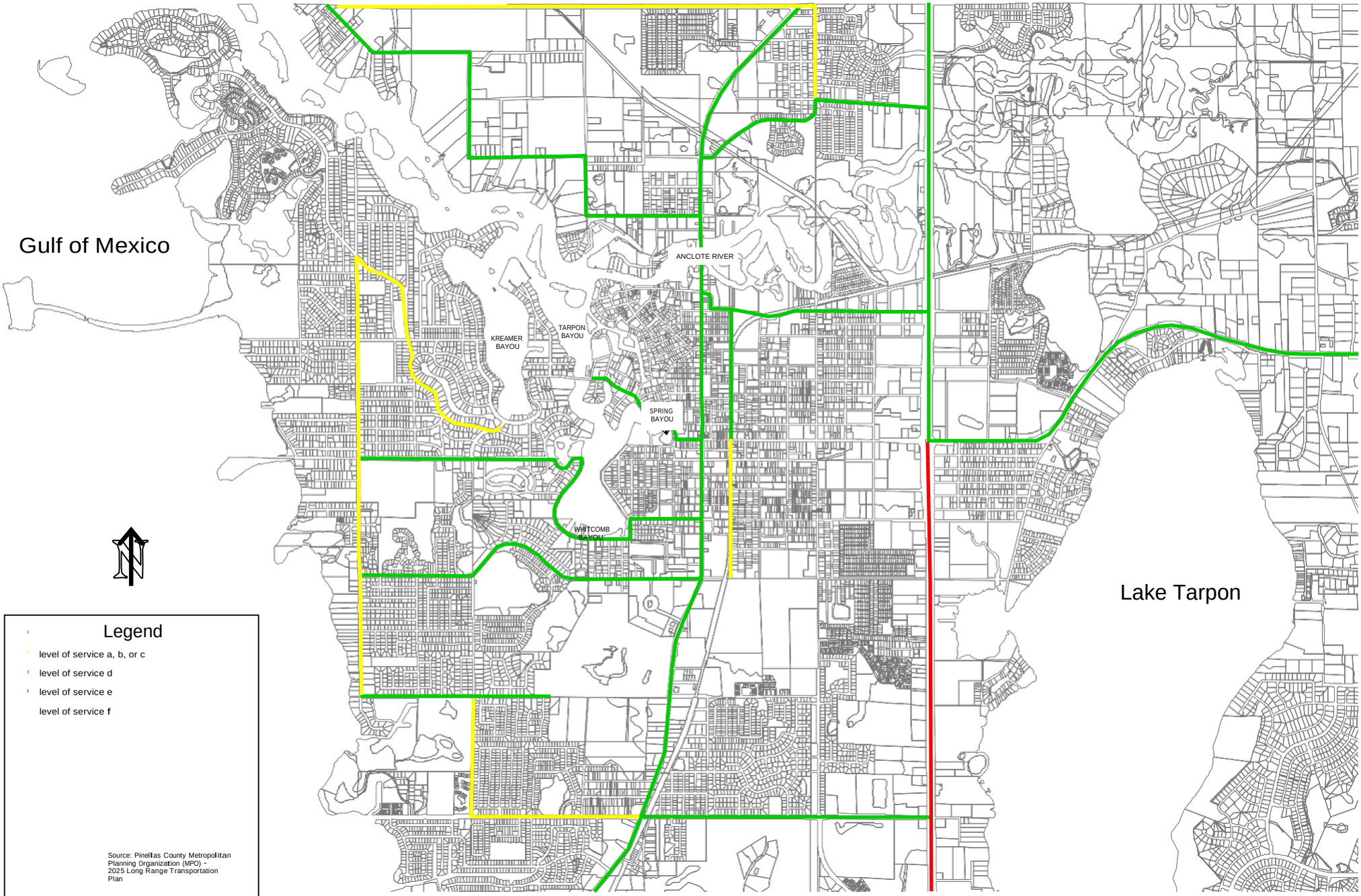
Map 6 – Public Transit Systems & Major Transit Trip Generators and Attractors



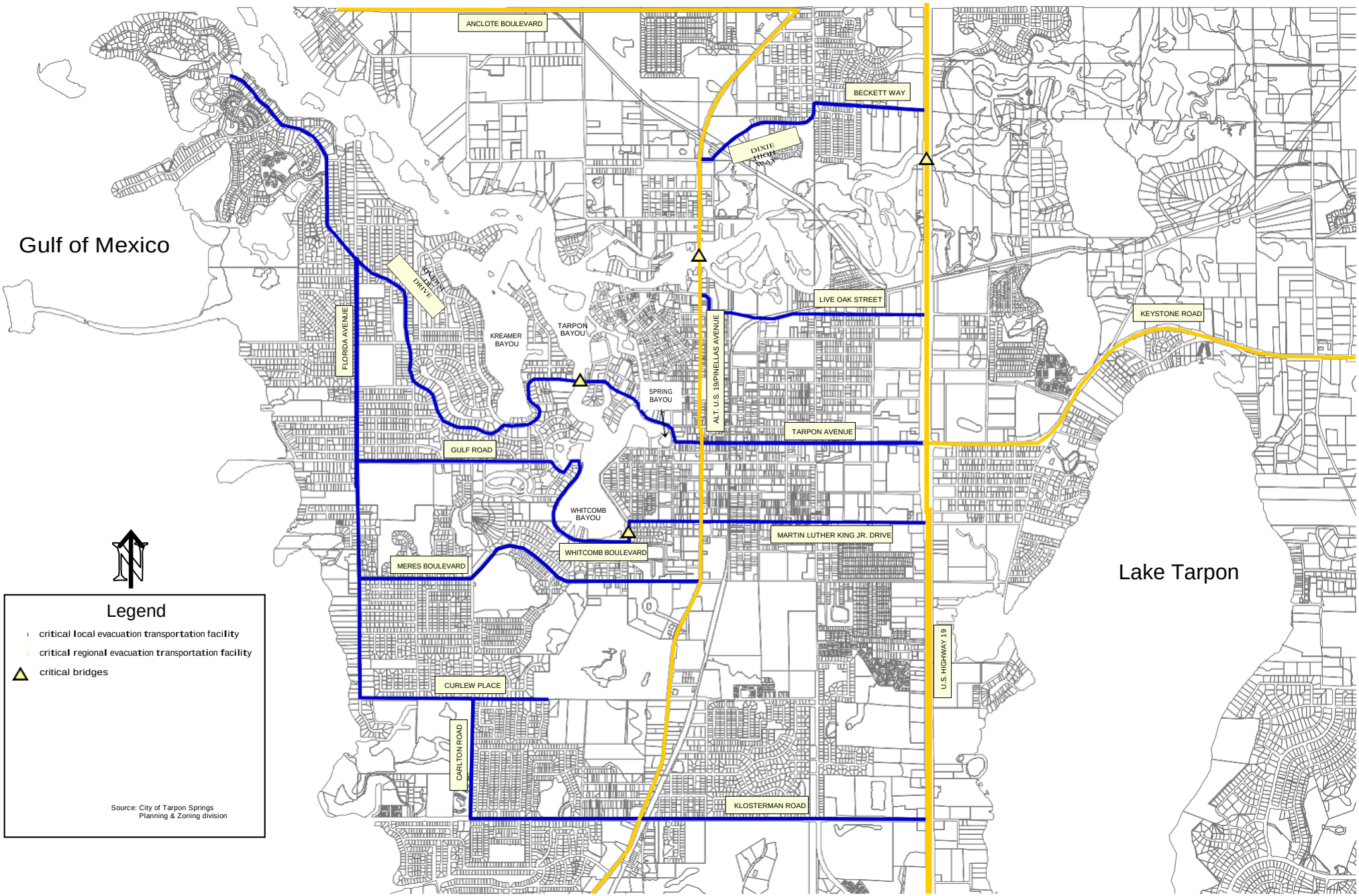
Map 7 – Year 2025 Future Traffic Lanes



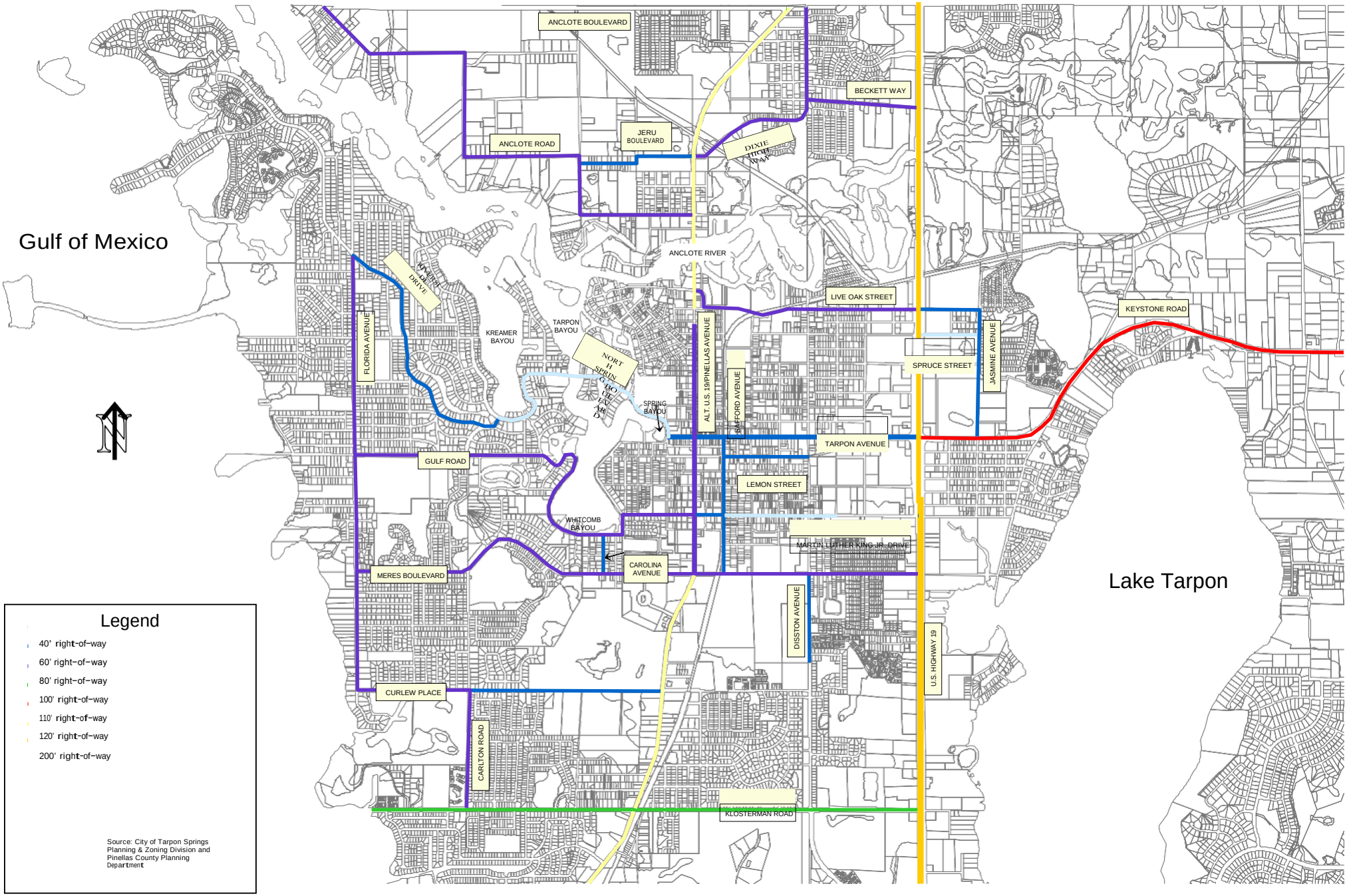
Map 8 − Year 2025 PM Peak Level of Service with Scheduled Improvements thru 2008/2009



Map 9 – Critical Evacuation Transportation Facilities



Map 10 − Year 2025 Future Right−of−Way Needs



Appendix B -
Multimodal Transportation District

City of Tarpon Springs
Multimodal
Quality of Service Analysis

september, 2007

RENAISSANCE PLANNING GROUP

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INTRODUCTION

Like much of Pinellas County, the City of Tarpon Springs is faced with the challenge of encouraging quality redevelopment that fits the desired community character while also ensuring adequate mobility for residents, employers and visitors. That is no small challenge for any community. Widening roads to meet those needs in the nearly built-out environment of coastal Pinellas County, with its associated right-of-way costs, impacts to historic buildings and cultural resources, community opposition and lack of financial resources, is not a practical solution. A multimodal approach must make a stronger connection between urban form, development character and transportation to ensure an improved array of choices for personal mobility and accessibility that can support desired redevelopment in the City. A multimodal transportation district – which requires minimum densities, human scaled design, and a mix of uses that encourage and support transit use, walking, and bicycling – is one solution the City can employ to encourage redevelopment while improving mobility for both residents and visitors.

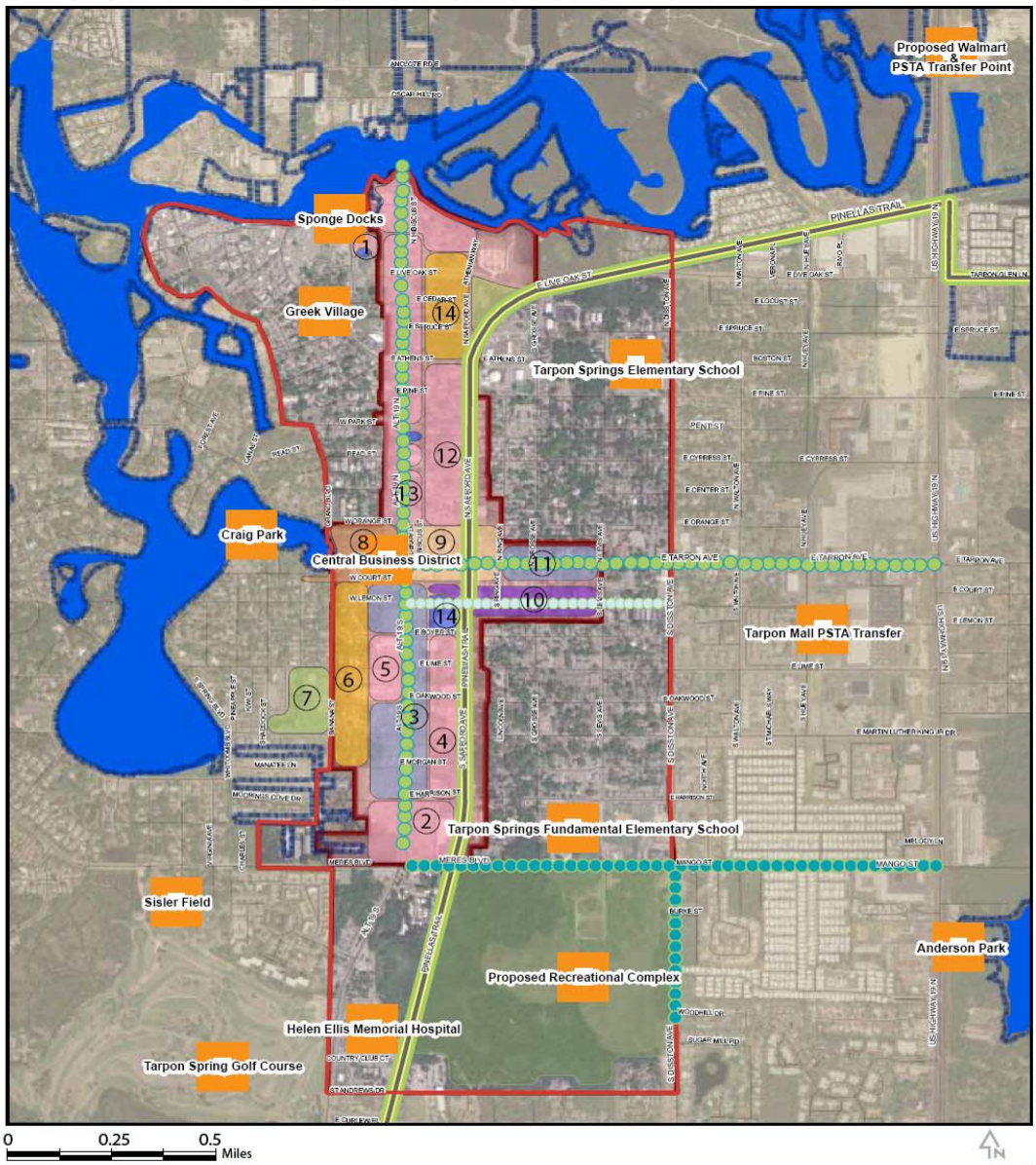
The principal roadways providing access to Tarpon Springs' historic downtown – Pinellas Avenue (Alternate US 19) and Tarpon Avenue (SR 582) – are constrained roadways that cannot be widened to meet the existing traffic levels or future demand generated by redevelopment. At the same time, however, Tarpon Springs is seeking to revitalize its downtown core areas and encourage redevelopment that provides for a vibrant, thriving destination with a wide range of travel options. Rather than viewing this situation as an inherent conflict, it presents an opportunity to link land use and transportation objectives in a way that promotes more compatible, resource-efficient mobility options at the local level, while supporting countywide and regional mobility strategies.

To support those objectives, the City has evaluated its pedestrian, bicycle, and transit facilities to determine what capital improvements are needed to transform the Community Redevelopment Area (CRA) to a walkable, transit friendly community. Tarpon Springs has spent more than $16 million on streetscaping and related improvements for Pinellas and Tarpon Avenues to make the pedestrian experience more pleasant, but a complementary strategy for density, diversity, and design is needed to complete the redevelopment and mobility goals of the City.

In short, the purpose of the multimodal transportation district is to link the CRA with important destinations in the vicinity, including the Helen Ellis Memorial Hospital, a major employment center for the city; Saint Petersburg College, the proposed recreational complex, and the Tarpon Mall. Effective multimodal linkages between these destinations make it easier for a student or professor to get a cup of coffee downtown or Greek food downtown between classes, a visitor to leave the sponge docks and stroll through the "Hibiscus Walk" artist district, or a resident of the historic district can go to the grocery store, all without traveling in a single-occupant vehicle. The following graphic illustrates the city's vision along with the proposed linkages between these and other key destinations.

Map i – Community Vision

FOCAL POINTS AND COMMUNITY VISION



COMMUNITY VISION

1	Tourist Retail	8	Historic District / B&B's / Cafes
2	Community Commercial District	9	Historic Downtown
3	Office / Financial / Professional	10	Art Foundry District
4	Community Commercial District	11	Office / Professional
5	Auto Museum	12	Live-Work / Professional / Boutique
6	Single Family Residential	13	"The Avenue" Community Center
7	Park	14	Infill Residential

Legend

- Road Network
- Pinellas Trail
- Existing Parks
- Future Parks
- Commercial Districts
- Water
- City of Tarpon Springs
- Community Redevelopment Area
- Multi-Modal Transportation District
- Focal Points
- Proposed Transportation Corridor
- Streetscape Projects
- Proposed Streetscape Projects

This report summarizes the methodology and results of the quality of service analysis conducted for the City of Tarpon Springs in support of the development of a Multimodal Transportation District (MMTD) generally covering the downtown redevelopment area. The findings of this report will inform the comprehensive plan amendments required to establish and implement the MMTD, providing an alternative transportation concurrency system for the City and establishing incremental levels of service for bicycle, pedestrian, and transit facilities. Rather than assessing roadway capacity and providing additional capacity to meet the demands of new development, the MMTD concurrency system requires developers to design pedestrian-oriented sites and contribute towards the construction or enhancement of the pedestrian, cycling, and transit systems in the City to improve accessibility and personal mobility.

EXISTING MULTI-MODAL QUALITY OF SERVICE (MMQOS) ANALYSIS

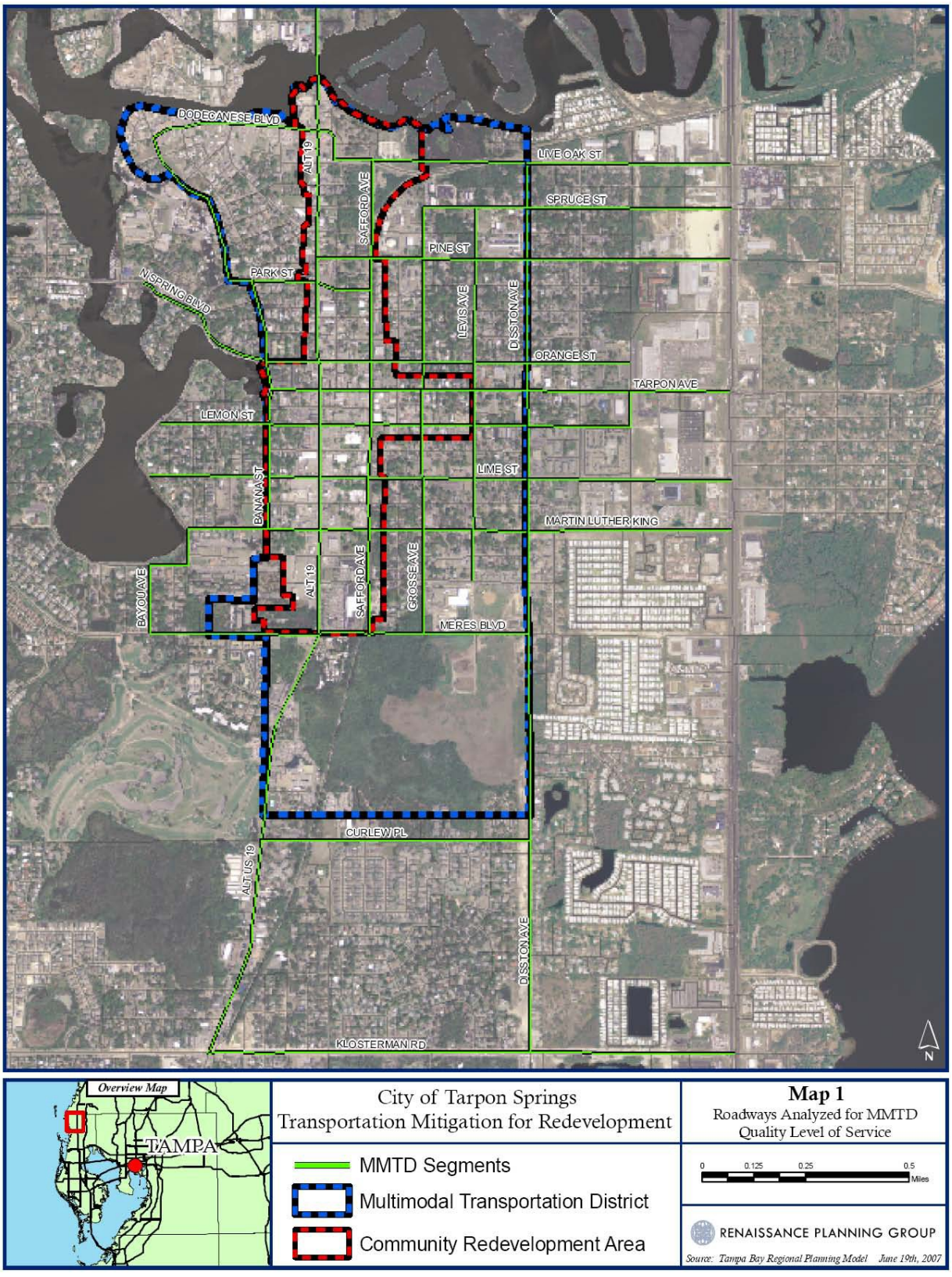
The proposed MMTD boundary was identified in the "Transportation Mitigation for Redevelopment" white paper. However, for the purposes of this analysis, the study area also includes the northern boundary of St. Petersburg College, as it is a logical destination and activity/employment center with a high potential for bicycle, pedestrian, and transit interaction with the downtown redevelopment area and surrounding residential neighborhoods. The study boundary is illustrated in Map 1.

Generally, an MMTD level of service analysis consists of evaluating the conditions for bicycle, pedestrian and transit accessibility on roadway segments that are identified within a local government's concurrency management system (CMS). The analysis of individual road segments is combined with an area-wide quality of service analysis to measure overall transportation system performance for a given study area. In Tarpon Springs' case, only three roads exist within the proposed MMTD for the purpose of concurrency management: Tarpon Avenue, Alternate US 19, and a potion of Meres Boulevard. However, the City has a well-established grid street system within its Community Redevelopment Area (CRA) and proposed MMTD, and several important destinations and focal points are identified in the CRA plan and the white paper that are located on roads not evaluated as part of the CMS, including:

- Historic residential neighborhoods;
- Tarpon Springs Fundamental Elementary School;
- The sponge docks;
- The Greek Village;
- The Central Business District;
- Craig Park;
- The proposed recreational complex on the closed landfill; and
- Helen Ellis Memorial Hospital

Because of these possible links to these destinations, the following roads highlighted in green in Map 1 were evaluated for their existing and future multimodal quality/level of service:

Map 1 – Roadways Analyzed for MMTD Quality Level of Service



Current transportation conditions were assessed through an analysis of geographic information system (GIS) data, aerial photography, and from on-site field data collection. During this process, the following conditions were analyzed for the roadways identified in Map 1:

Pedestrian:

- Presence of sidewalk;
- Width of sidewalk;
- Buffer between the sidewalk and street; and
- Presence of parked cars, street trees, or other objects that protect the pedestrian from moving traffic.

Bicycling:

- Presence of bike lane or paved shoulder;
- Width of bike lane or paved shoulder;
- Width of outside travel lane; and
- Condition of pavement.

Transit:

- Presence of transit service;
- Barriers to accessing a transit stop;
- Frequency of transit service; and
- Span of transit service.

Data from the field review and the Art-Plan model, developed by the Florida Department of Transportation for multimodal analysis, were used to calculate the existing pedestrian, bicycle and transit MMQOS scores. However, the Art-plan model does not take into account urban form characteristics or the street connectivity when calculating a level of service for pedestrians or bicycles. While there may be a sidewalk that is of a width and condition that meets basic standards, the presence of a large parking lot or vacant lot adjacent to the sidewalk is likely to detract from its usefulness and reduce a pedestrian's comfort and convenience. Likewise, a well connected street network allows for a shorter and/or more direct travel route. Therefore, the model was adjusted to take into account the following urban form characteristics:

- Front yard setbacks;
- Location of parking (front, side, or rear);
- Spacing between buildings; and
- Presence of barriers on the sidewalk network (utility poles, signs, etc.)

Each characteristic was given a rating of good, fair, or poor, depending on the state of the following:

CHARACTERISTIC	GOOD	FAIR	POOR
Setback	0 - 10 feet	10-20 feet	> 20 feet
Spacing	Continuous	< 30 feet	> 30 feet
Barriers	None	Inconvenience	Impediment
Parking	Rear	Side	Front

A rating of 'good' was given a numeric score of 0.8; 'fair' was given a numeric score of 0.95; and 'poor' was given a numeric score of 1.2. These scores were then averaged and multiplied by the ARTPLAN score for each segment to adjust the overall score.

Connectivity was calculated by counting the number of links (road segments) and dividing that Table by the number of nodes (intersections). Many cities employ a range of scores that determine an acceptable connectivity score. Generally, the minimum acceptable score is 1.4. A perfect connectivity score is 2.5. For the purpose of this analysis, a score of less that 1.4 rated "poor," 1.4 – 1.8 rated "fair" and scores over 1.8 were rated "good." The overall score for the proposed MMTD is 1.81, a good score.

The overall adjusted level of service scores for bicycle and pedestrian facilities are 'D' and 'C,' respectively. The level of services scores for bikes, pedestrians, and transit for each individual segment are illustrated in Table 1 and in Maps 2, 3 and 4.

Table 1 – City of Tarpon Springs Multimodal Level of Service

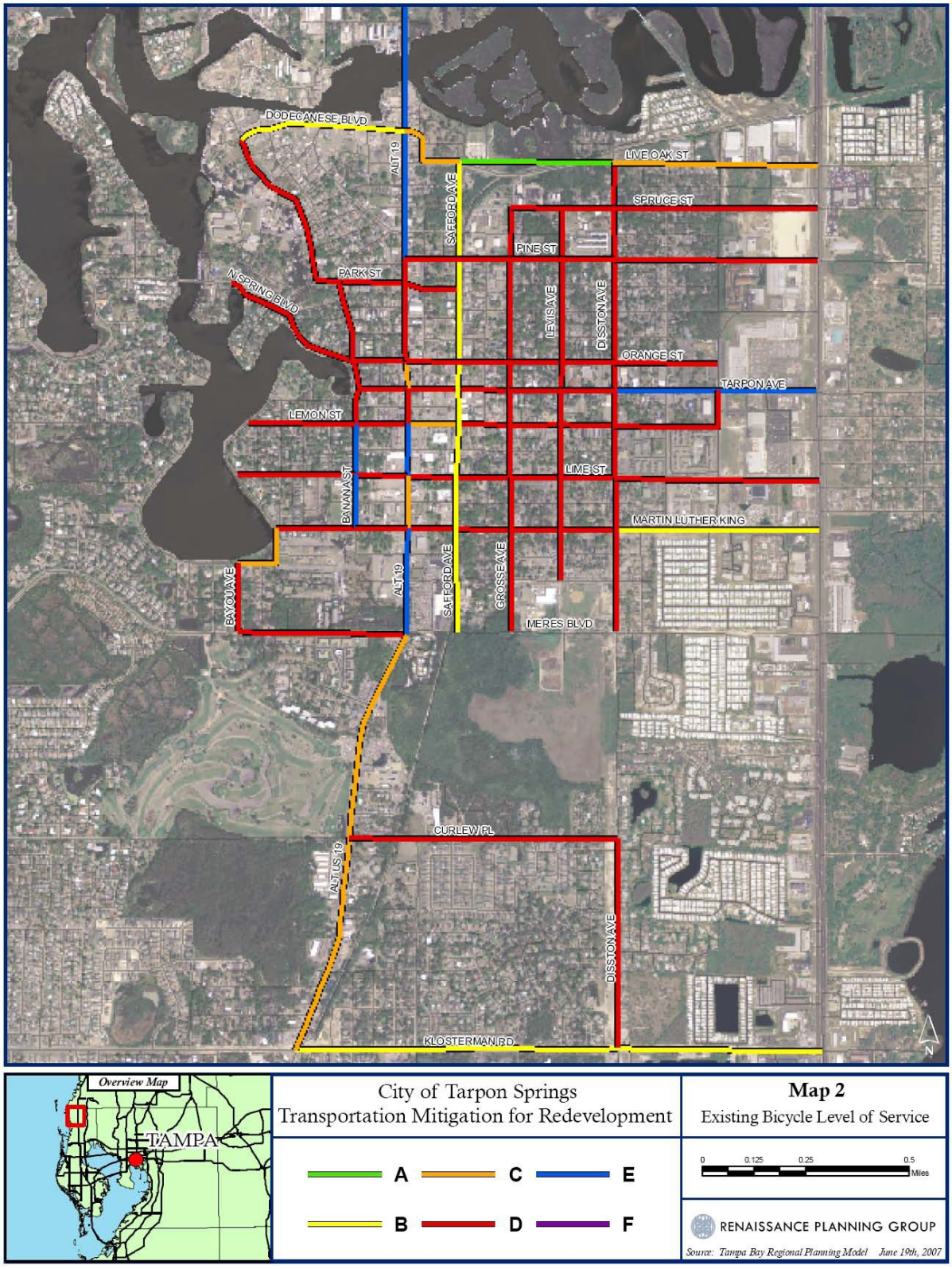
			ARTPLAN LOS SCORE			LOS GRADE			ADJUSTED EXISTING LOS		ADJUSTED EXISTING LOS SCORES	
ROADWAY	FROM	TO	Bike	Ped	Bus	Bike	Ped	Bus	Bike	Ped	Bike	Ped
ALT 19	DODECANESE BLVD	ANCLOTE RD	4.63	4.2	0.77	E	D	F	4.21	4.21	D	D
ALT 19	PINE ST	DODECANESE BLVD	4.57	4.48	0.55	E	D	F	3.43	3.36	C	C
ALT 19	LIME ST	LEMON ST	4.43	3.86	0.8	D	D	F	3.81	3.32	D	C
ALT 19	MERES BLVD	MARTIN LUTHER KING	2.95	4.47	0.5	C	D	F	2.21	3.35	B	C
ALT 19	ORANGE ST	PINE ST	4.44	4.37	0.55	D	D	F	4.26	4.20	D	D
ALT 19	LEMON ST	TARPON AVE	4.16	3.15	0.88	D	C	F	3.00	2.27	C	B
ALT 19	MARTIN LUTHER KING	LIME ST	2.61	3.6	0.8	C	D	F	2.38	3.28	B	C
ALT US 19 | PINELLAS AVE	TARPON AVE	ORANGE ST	4.4	4.37	0.55	D	D	F	2.82	2.80	C	C
ALT US 19 | PINELLAS AVE	CURLEW PL	MERES BLVD	3.2	5.68	0.55	C	F	F	2.82	5.00	C	E
ALT US 19 | PINELLAS AVE	KLOSTERMAN RD	CURLEW PL	3.15	5.68	0.55	C	F	F	2.87	5.17	C	E
BANANA ST	LIME ST	LEMON ST	4.61	5.26	0.85	E	E	F	3.96	4.52	D	E
BANANA ST	MARTIN LUTHER KING	LIME ST	4.61	5.64	0.55	E	F	F	3.73	4.57	D	E
BANANA ST | LEMON ST	TARPON AVE	ALT US 19	3.73	1.82	1.16	D	B	E	3.21	1.57	C	B
BAYOU AVE	MERES BLVD	WHITCOMB BLVD	3.7	2	1.1	D	B	E	3.18	1.72	C	B
CURLEW PL	ALT 19	DISSTON AVE	3.75	2.43	1.16	D	B	E	3.20	2.07	C	B
DISSTON AVE	MERES BLVD	MARTIN LUTHER KING	3.72	3.94	1	D	D	E	3.20	3.39	C	C
DISSTON AVE	MARTIN LUTHER KING	LIME ST	3.68	2.35	1.1	D	B	E	3.16	2.02	C	B
DISSTON AVE	LIME ST	LEMON ST	3.68	2.35	1.1	D	B	E	2.98	1.90	C	B
DISSTON AVE	LEMON ST	TARPON AVE	3.67	2.34	1.1	D	B	E	2.89	1.84	C	B
DISSTON AVE	TARPON AVE	ORANGE ST	3.67	2.34	1.1	D	B	E	3.05	1.94	C	B

			ARTPLAN LOS SCORE			LOS GRADE			ADJUSTED EXISTING LOS		ADJUSTED EXISTING LOS SCORES	
DISSTON AVE	ORANGE ST	CYPRESS ST	3.68	3.31	1.05	D	C	E	3.16	2.85	C	C
DISSTON AVE	CYPRESS ST	PINE ST	3.68	3.16	1.05	D	C	E	2.98	2.56	C	C
DISSTON AVE	PINE ST	SPRUCE ST	3.68	2.35	1.1	D	B	E	2.98	1.90	C	B
DISSTON AVE	SPRUCE ST	LIVE OAK ST	3.67	3.44	1.05	D	C	E	2.57	2.41	C	B
DODECANESE BLVD	ROOSEVELT BLVD	ALT 19	2.18	1.82	2.31	B	B	D	1.87	1.57	B	B
GRAND BLVD	ORANGE ST	PARK ST	3.71	2.01	1.1	D	B	E	3.01	1.63	C	B
GROSSE AVE	MERES BLVD	MARTIN LUTHER KING	3.72	3.16	1.05	D	C	E	3.01	2.56	C	C
GROSSE AVE	MARTIN LUTHER KING	LIME ST	3.72	3.16	1.05	D	C	E	3.01	2.56	C	C
GROSSE AVE	LIME ST	LEMON ST	3.68	2.6	1.05	D	C	E	2.98	2.11	C	B
GROSSE AVE	LEMON ST	TARPON AVE	3.67	2.34	1.1	D	B	E	2.64	1.68	C	B
GROSSE AVE	TARPON AVE	ORANGE ST	3.67	2.34	1.1	D	B	E	2.57	1.64	C	B
GROSSE AVE	ORANGE ST	CYPRESS ST	3.68	2.35	1.1	D	B	E	2.98	1.90	C	B
GROSSE AVE	CYPRESS ST	PINE ST	3.68	2.35	1.1	D	B	E	2.98	1.90	C	B
GROSSE AVE	PINE ST	SPRUCE ST	3.68	3.84	1	D	D	E	3.16	3.30	C	C
KLOSTERMAN RD	US 19	DISSTON AVE	1.86	2.47	1.1	B	B	E	1.64	2.17	B	B
KLOSTERMAN RD	DISSTON AVE	ALT US 19	1.89	2.47	1.05	B	B	E	1.81	2.37	B	B
LEMON ST	SAFFORD AVE	DISSTON AVE	3.74	2.66	1.1	D	C	E	3.10	2.21	C	B
LEMON ST	WALTON AVE	HUEY ST	3.71	3.39	1.05	D	C	E	3.38	3.08	C	C
LEMON ST	ALT 19	SAFFORD AVE	3.19	2.3	1.1	C	B	E	2.74	1.98	C	B
LEMON ST	S SPRING BLVD	BANANA ST	3.72	2.4	1.1	D	B	E	3.39	2.18	C	B
LEVIS AVE	HARRISON ST	MARTIN LUTHER KING	3.68	2.35	1.1	D	B	E	2.87	1.83	C	B
LEVIS AVE	LIME ST	LEMON ST	3.68	3.32	1.05	D	C	E	2.87	2.59	C	C

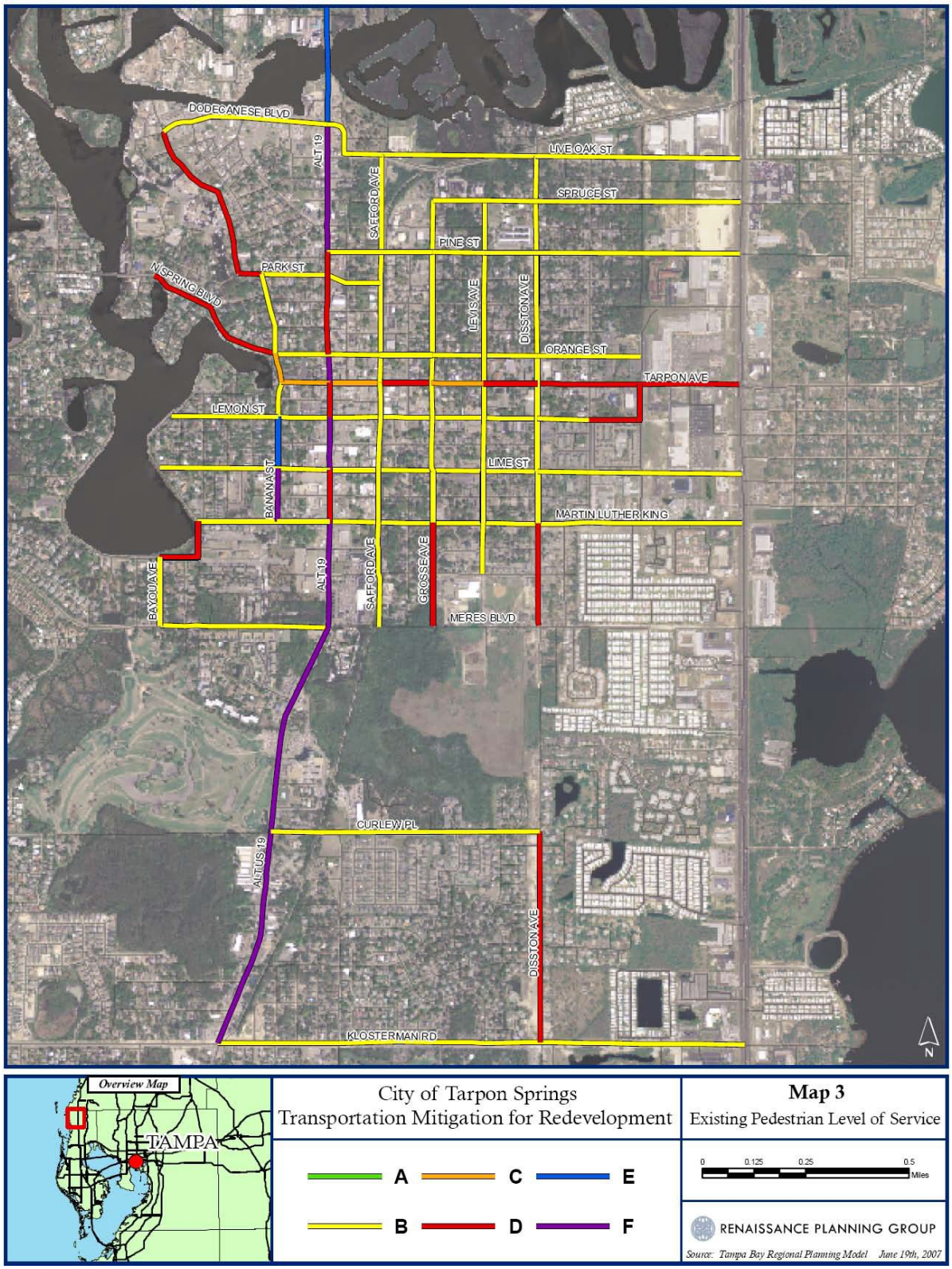
			ARTPLAN LOS SCORE			LOS GRADE			ADJUSTED EXISTING LOS		ADJUSTED EXISTING LOS SCORES	
LEVIS AVE	MARTIN LUTHER KING	LIME ST	3.68	2.99	1.05	D	C	E	2.87	2.33	C	B
LEVIS AVE	LEMON ST	TARPON AVE	3.67	3.3	1.05	D	C	E	2.97	2.67	C	C
LEVIS AVE	TARPON AVE	ORANGE ST	3.67	2.34	3.31	D	B	E	2.86	1.83	C	B
LEVIS AVE	ORANGE ST	CYPRESS ST	3.68	3.31	1.05	D	C	E	3.05	2.75	C	C
LEVIS AVE	CYPRESS ST	PINE ST	3.68	3.31	1.05	D	C	E	3.16	2.85	C	C
LEVIS AVE	PINE ST	SPRUCE ST	3.68	3.16	1.05	D	C	E	3.16	2.72	C	C
LIME ST	ALT US 19	SAFFORD AVE	3.68	2.35	1.1	D	B	E	3.35	2.14	C	B
LIME ST	SAFFORD AVE	DISSTON AVE	3.74	2.42	1.16	D	B	E	3.40	2.20	C	B
LIME ST	WALTON AVE	US 19	3.67	3.08	1.05	D	C	E	3.34	2.80	C	C
LIME ST	BANANA ST	ALT 19	3.68	2.35	1.1	D	B	E	2.87	1.83	C	B
LIME ST	S SPRING BLVD	BANANA ST	3.73	2.95	1.05	D	C	E	3.21	2.54	C	C
LIME ST	DISSTON AVE	WALTON AVE	3.67	3.08	1.05	D	C	E	2.64	2.22	C	B
LIVE OAK ST	US 19	SAFFORD AVE	0.93	1.96	1.04	A	B	E	0.74	1.57	A	B
LIVE OAK ST	US 19	DISSTON AVE	3.01	2.1	0.88	C	B	F	2.65	1.85	C	B
LIVE OAK ST	SAFFORD AVE	ALT 19	3.22	2.11	0.99	C	B	F	2.83	1.86	C	B
MARTIN LUTHER KING	WHITCOMB BLVD	BANANA ST	3.73	3.43	1.05	D	C	E	3.02	2.78	C	C
MARTIN LUTHER KING	ALT US 19	SAFFORD AVE	3.69	2.37	1.1	D	B	E	3.54	2.28	D	B
MARTIN LUTHER KING	SAFFORD AVE	DISSTON AVE	3.53	2.44	1.16	D	B	E	2.75	1.90	C	B
MARTIN LUTHER KING	DISSTON AVE	US 19	2.36	1.59	1.1	B	B	E	2.15	1.45	B	A
MARTIN LUTHER KING	BANANA ST	ALT US 19	3.69	2.37	1.1	D	B	E	2.88	1.85	C	B
MERES BLVD	CAROLINA AVE	ALT 19	3.51	2.42	1.16	D	B	E	3.09	2.13	C	B
N SPRING BLVD	PAMPAS AVE	GRAND BLVD	4.31	3.89	1	D	D	E	3.02	2.72	C	C

			ARTPLAN LOS SCORE			LOS GRADE			ADJUSTED EXISTING LOS		ADJUSTED EXISTING LOS SCORES	
N SPRING BLVD	TARPON AVE	ORANGE ST	4.28	3.06	1.05	D	C	E	3.47	2.48	C	B
ORANGE ST	N SPRING BLVD	ALT 19	3.68	1.76	1.1	D	B	E	2.98	1.43	C	A
ORANGE ST	ALT 19	SAFFORD AVE	3.68	1.76	1.1	D	B	E	2.87	1.37	C	A
ORANGE ST	SAFFORD AVE	GROSSE AVE	3.68	1.98	1.1	D	B	E	2.98	1.60	C	B
ORANGE ST	GROSSE AVE	DISSTON AVE	3.72	2.4	1.1	D	B	E	2.90	1.87	C	B
ORANGE ST	DISSTON AVE	HUEY AVE	3.72	2.4	1.1	D	B	E	3.01	1.94	C	B
PINE ST	ALT 19	GROSSE AVE	3.72	3.23	1.1	D	C	E	3.01	2.62	C	C
PINE ST	GROSSE AVE	DISSTON AVE	3.72	2.64	1.05	D	C	E	3.01	2.14	C	B
PINE ST	DISSTON AVE	US 19	3.74	3.23	1.1	D	C	E	2.92	2.52	C	C
ROOSEVELT BLVD	PARK ST	DODECANESE BLVD	3.74	3.94	1.05	D	D	E	3.40	3.59	C	D
SAFFORD AVE	MERES BLVD	LEMON ST	2.04	2.79	1.1	B	C	E	1.75	2.40	B	B
SAFFORD AVE	LEMON ST	TARPON AVE	1.97	2.21	1.1	B	B	E	1.47	1.65	A	B
SAFFORD AVE	TARPON AVE	LIVE OAK ST	2.05	2.3	1.16	B	B	E	1.76	1.98	B	B
SPRUCE ST	GROSSE AVE	DISSTON AVE	3.72	3.73	1	D	D	E	2.93	2.93	C	C
SPRUCE ST	DISSTON AVE	US 19	3.74	3.61	1.05	D	D	E	3.03	2.92	C	C
TARPON AVE	ALT US 19	SAFFORD AVE	4.13	3.46	1.05	D	C	E	2.97	2.49	C	B
TARPON AVE	SAFFORD AVE	GROSSE AVE	4.39	3.66	1	D	D	E	3.56	2.96	D	C
TARPON AVE	DISSTON AVE	US 19	4.55	4.17	1.05	E	D	E	4.37	4.00	D	D
TARPON AVE	S SPRING BLVD	ALT 19	4.13	3.46	1.05	D	C	E	3.55	2.98	D	C
TARPON AVE	GROSSE AVE	LEVIS AVE	4.13	3.57	1	D	D	E	3.22	2.78	C	C
TARPON AVE	LEVIS AVE	DISSTON AVE	4.38	3.65	1	D	D	E	3.77	3.14	D	C
WHITCOMB BLVD	BAYOU AVE	MARTIN LUTHER KING	2.77	3.72	1	C	D	E	2.16	2.90	B	C

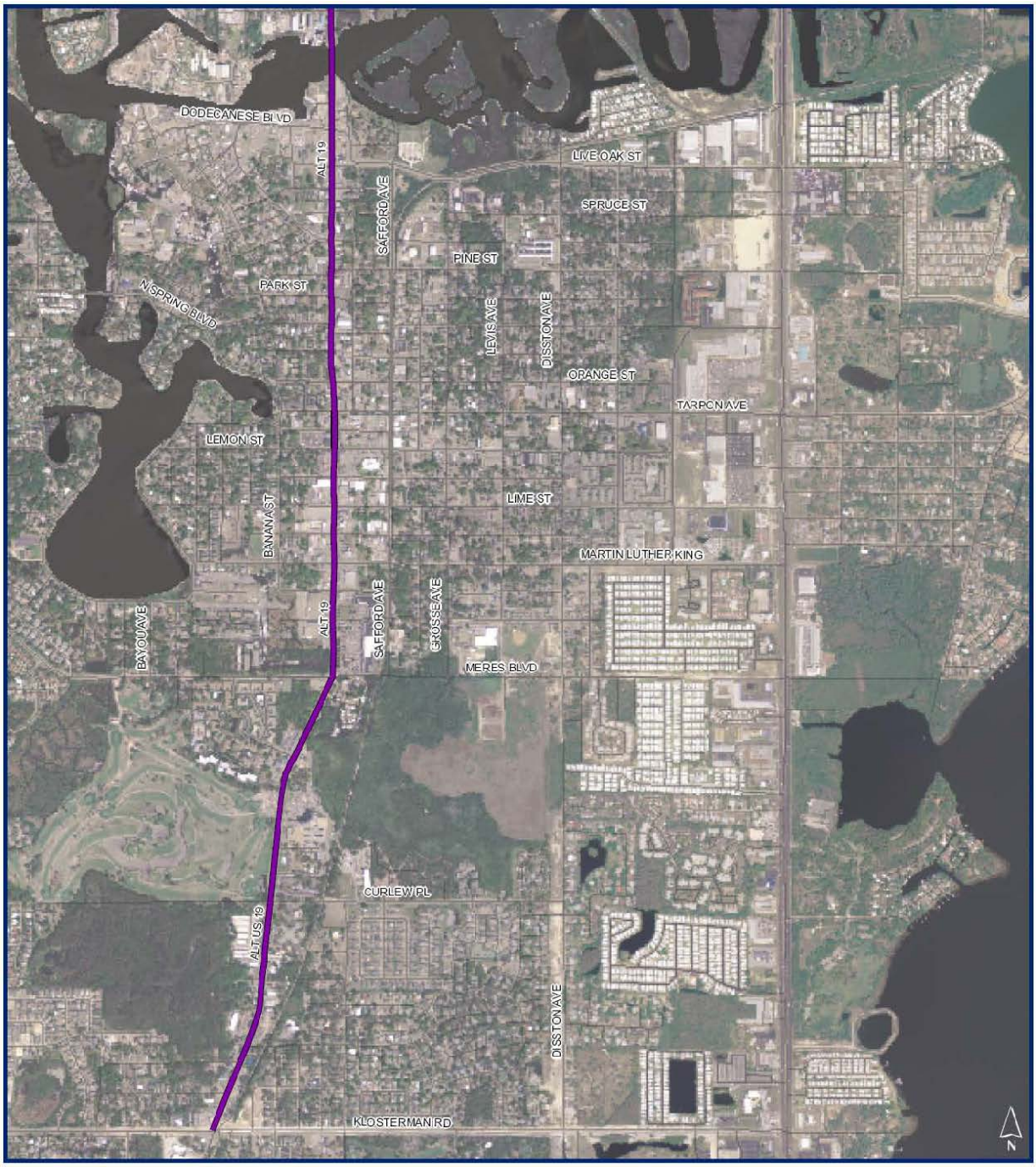
Map 2 – Existing Bicycle Level of Service

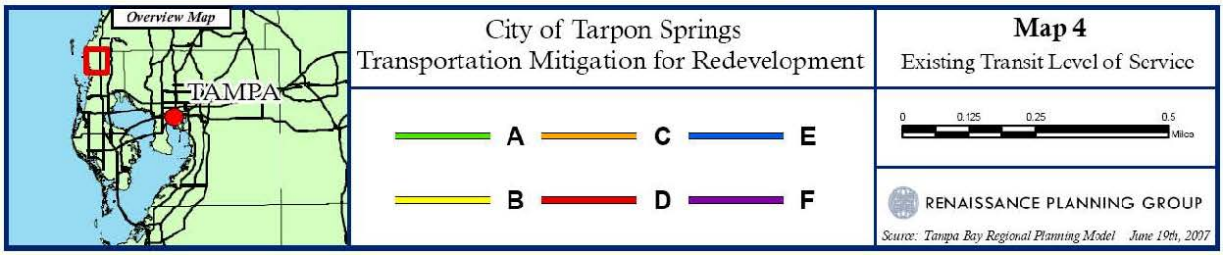


Map 3 – Existing Pedestrian Level of Service



Map 4 – Existing Transit Level of Service



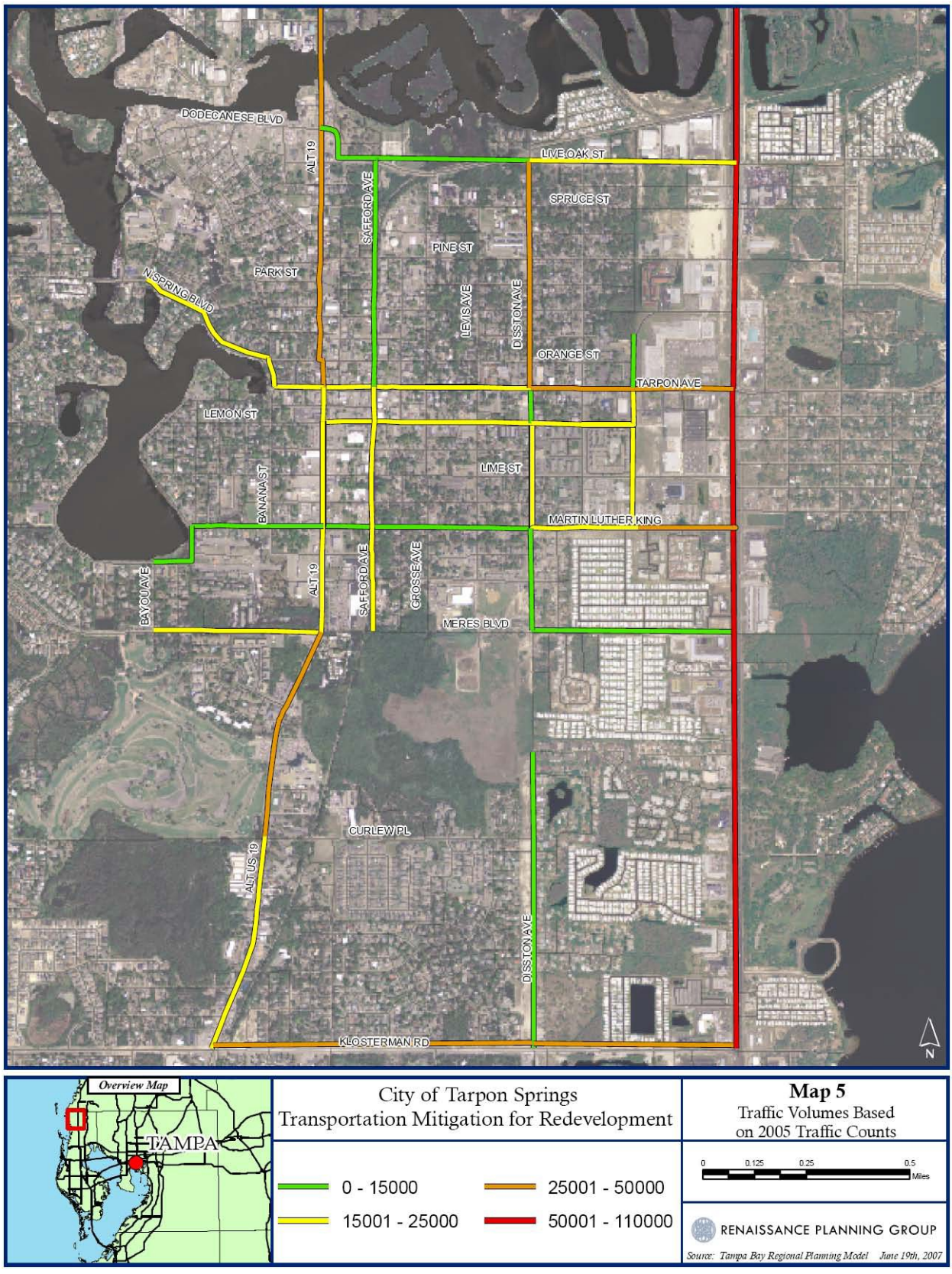


RESULTS

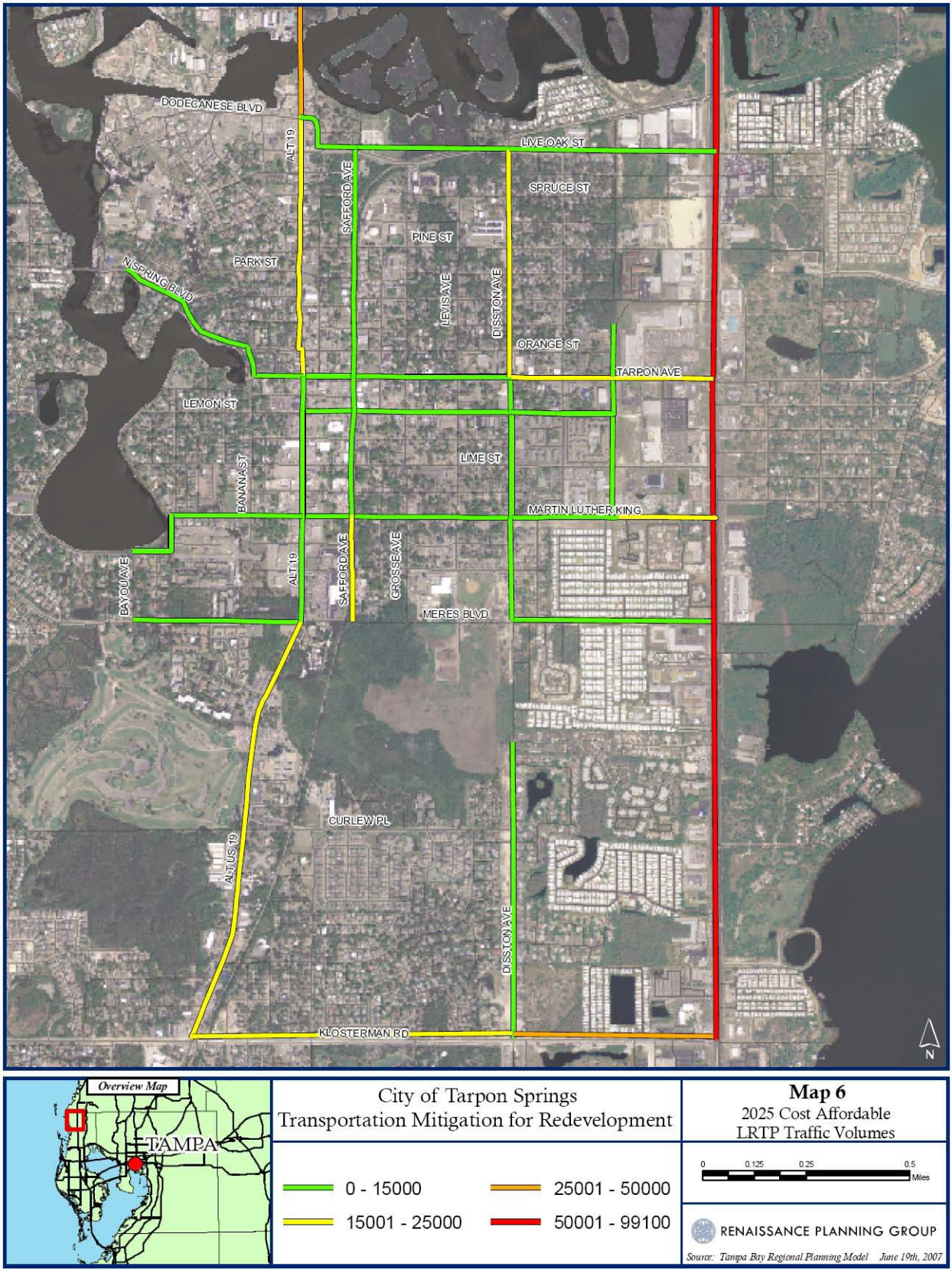
Without adjusting for urban form, the overall pedestrian level of service within the proposed MMTD is fair, a letter grade of 'C.' However, once urban form is factored in, several links drop at least one letter grade due to large setbacks, parking areas in the front of buildings, wide building spacing, or sidewalk barriers. While the existing urban form drops the scores for several segments, the pedestrian quality of service within the MMTD has the potential to become a "B" overall if the city fills in the gaps in the sidewalk and bicycle network identified in the analysis, and the sites identified as vacant or redevelopable in the build-out analysis redevelop per the adopted Smartcode. Based on the raw numbers, the bicycle level of service is poor, with a grade of a 'D+.' This is due, in part, by high traffic volumes and a lack of east-west facilities. The Pinellas Trail offers an excellent north-south route. Because of the trail, recommendations for bicycle connections will concentrate on east-west connections. Transit service along Alt. US 19 received a failing grade, due to limited service coverage and hour-long headways.

US 19, which is a road on the state's Strategic Intermodal System (SIS), is currently operating below its adopted level of service standard. Existing traffic volumes for US 19, as well as other roads evaluated in this study, are depicted in Map 5. Map 6 shows that volumes on some segments decrease once the programmed capital improvements have been completed.

Map 5 - Traffic Volumes Based on 2005 Traffic Counts



Map 6 – 2025 Cost Affordable LRTP Traffic Volumes



IMPACTS OF FUTURE DEVELOPMENT

The Future Land Use categories and the *Smartcode* envision a mix of land uses that transition from the high densities and intensities in the urban core to lower densities and intensities in the general urban neighborhoods. The FDOT manual titled "Model Regulations and Plan Amendments for Multimodal Transportation Districts" recommends a mix of office, commercial, residential, and recreation uses, with a minimum residential density of eight units per acre. The range of densities and intensities in each section of the transect is adequate to support transit, and the location of the most intense mix of uses is within a one quarter mile of transit. The proposed *Smartcode* overlay achieves the suggested mix by allowing the following uses:

- Residential
- Lodging
- Office
- Retail
- Civic

In order to determine the effects of re-development on the SIS (US 19) and on hurricane evacuation shelters, vacant and re-developable parcels (those at or below 80 percent of the median value) were allocated the maximum density/intensity for the *Smartcode* district inside the CRA, and the maximum permissible by the Future Land Use designation for those parcels inside the proposed MMTD but outside the CRA. Map 7 illustrates those parcels evaluated for infill and redevelopment. The analysis concluded that there would be an increase of 2,612 dwelling units and 1,540,000 square feet of non-residential space. This equates to a jobs-housing ratio of 0.96, which is more balanced than today's ratio of 0.56.

Projected dwelling units and non-residential gross floor areas were input into the Tampa Bay Regional Planning Model in order to determine the amount of traffic that would be generated by new development within the MMTD. Moderate increases in traffic volume are projected for Alternate US 19, Tarpon Avenue, and US 19, - roughly 8,000 trips - as illustrated in Map 8.

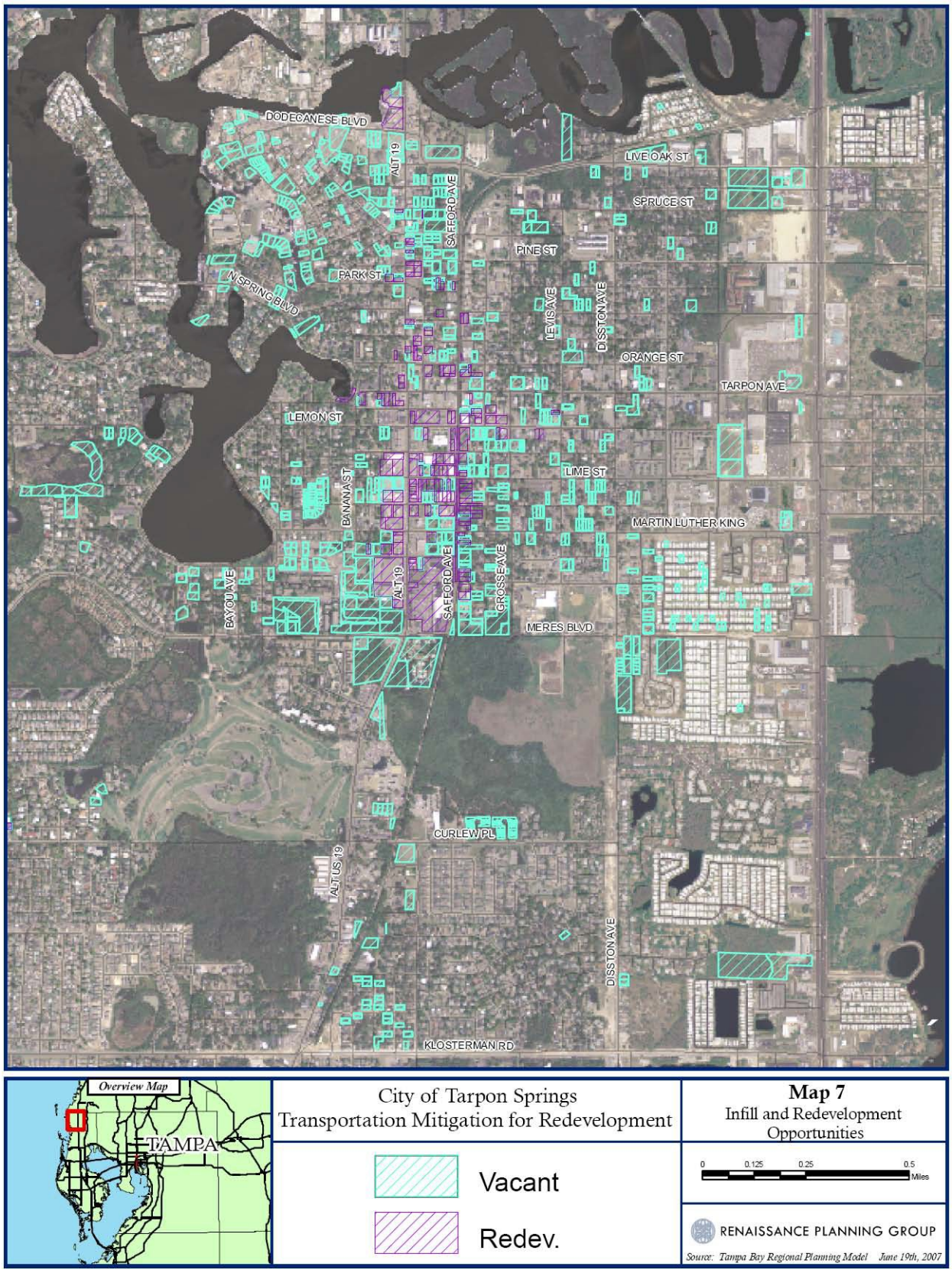
The Coastal Management Element of the City's adopted Comprehensive Plan states that by the year 2030, the City will have a shelter deficit of 292 spaces, assuming a demand of 5,492. However, this information is based on the Hurricane Evacuation Study conducted by the Tampa Bay Regional Planning Council in 1988, and assumes that 25 percent of the population will seek shelter in a public facility (based on the behavioral analysis of those who evacuated for hurricane Elena in 1985).

Since that time, state and regional emergency management personnel have stressed through public education and outreach that evacuees should stay in a hotel, motel, or with a friend or relative outside of the evacuation area. The updated Hurricane Evacuation Behavioral Study (2006) indicates that people adhered to this message: only 10 percent of the evacuating population in Evacuation Zone A, and 15

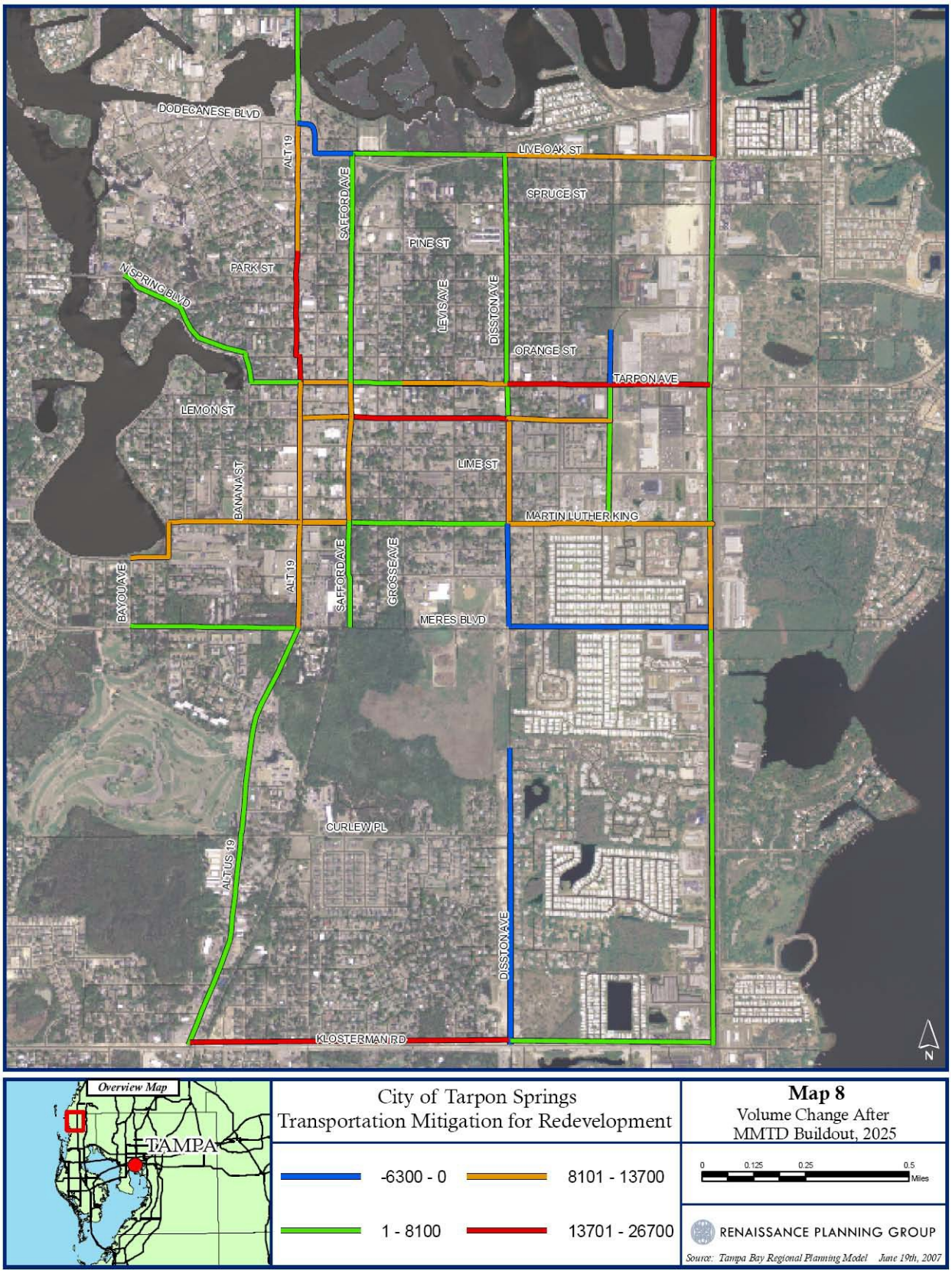
percent of those in Evacuation Zones B-E, went to a public shelter during the active 2004-2005 storm seasons. Therefore, future demand on public shelters, including the projected buildout in the CRA, is less that what was projected in the Comprehensive Plan: 2,973.

The Evacuation Study lists three public shelters for Tarpon Springs, two of which are outside city limits. The Study did not take into account Tarpon Elementary School, which has since been torn down and is being re-built to accommodate 2,600 evacuees. Tarpon Springs Middle School can accommodate 2,617 people. Therefore, by the end of 2008, evacuation shelters within the city limits can accommodate 5,217 people; an excess of 2,244 spaces.

Map 7 – Parcels Identified for Infill and Redevelopment



Map 8 – 2025 Traffic Volumes



CAPITAL IMPROVEMENT RECOMMENDATIONS

The City is currently undertaking significant streetscape projects on Pinellas Avenue (Alt US 19) and Tarpon Avenue that will greatly improve the pedestrian experience. The improvements include widening sidewalks and adding brick paving accents, landscaping, street furniture, pedestrian-scaled lighting, medians, and bulb-outs at intersections. According to FDOT, the scheduled completion date of these projects is summer 2008. This streetscape project represents a major financial commitment on the City's part to enhance a pedestrian-supportive downtown redevelopment district to create a "park once" environment that reduces vehicle trip-making.

RECOMMENDED SIDEWALK IMPROVEMENTS

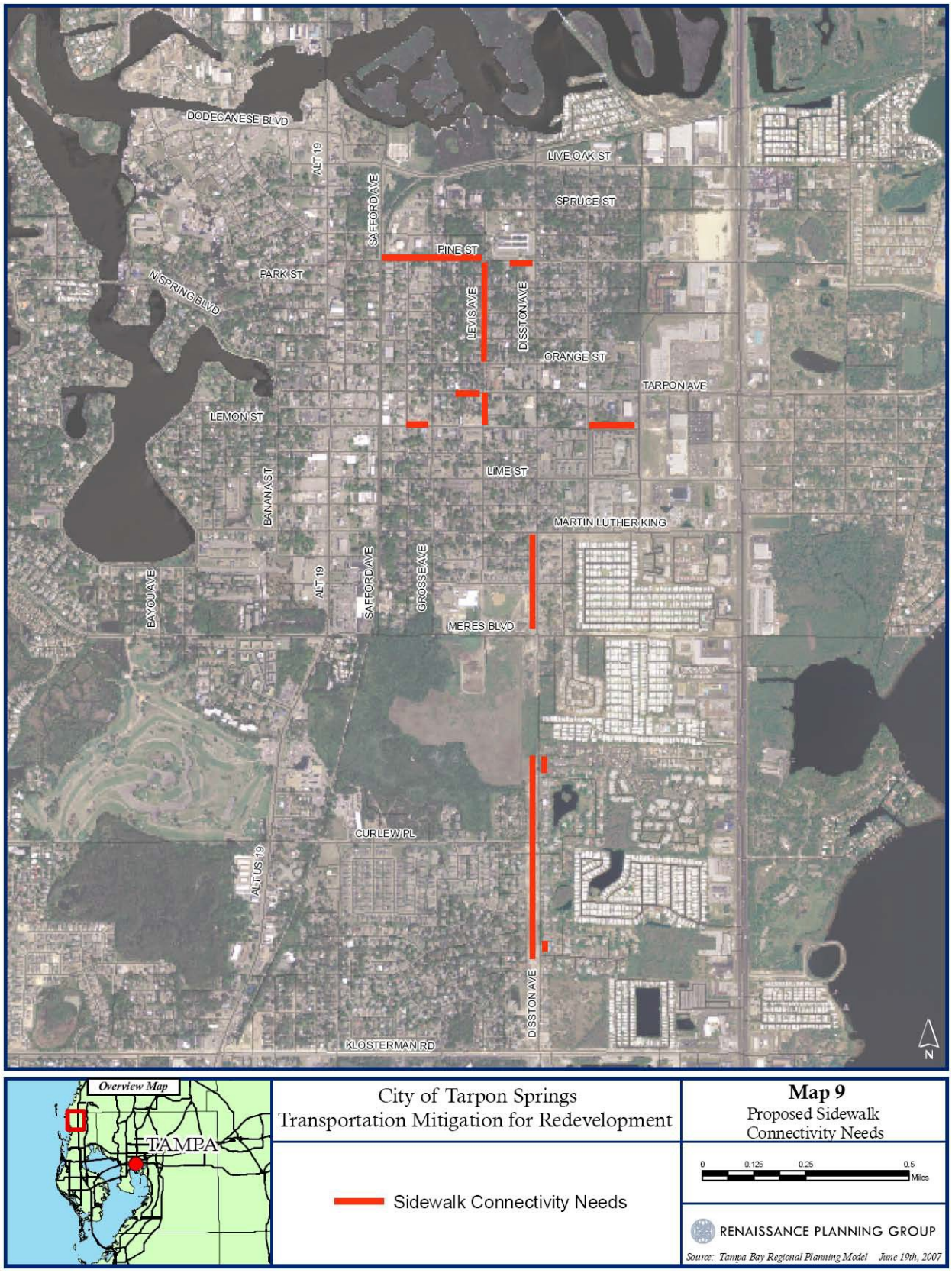
There are several small sidewalk gaps within the MMTD that should be filled in order to complete the sidewalk network. These projects and their estimated costs are summarized below in Table 2 and illustrated in Map 9.

Table 2 – Pedestrian Facility Needs

SEGMENT	FROM	TO	LENGTH (FT.)	COST *	FACILITY
Levis	Lemon	Tarpon	223.00	$19,178	Sidewalk Gap
Levis	Orange	Pine	1,324.00	$113,864	Sidewalk Gap
MLK	Alt 19	Safford	500.00	$43,000	Sidewalk Gap
Lemon	Grosse	Ring	316.00	$27,176	Sidewalk Gap
Lemon	Walton	Huey	683.00	$58,738	Sidewalk Gap
Disston	Woodhill Drive	Klosterman	3,537.00	$304,182	Sidewalk Gap
Disston	MLK	Meres/Mango	1,052.00	$90,472	Sidewalk Gap
Pine	Alt 19	Disston	674.00	$57,964	Sidewalk Gap
Total			8,309.00	**$714,574**	

**Cost estimate based on 2006 FDOT average costs per linear mile for a 6-foot sidewalk, one side of the street, construction cost only.*

Map 9 – Proposed Sidewalk Connectivity Needs



RECOMMENDED BICYCLE FACILITY IMPROVEMENTS

The Pinellas Trail is an excellent north-south multi-use path that runs along Safford Avenue through downtown Tarpon Springs. The trail extends the entire length of the MMTD and is within one half mile of all destinations within the CRA boundary, and therefore no north-south improvements are recommended for this area. However, some east-west connections are recommended in order to connect several destinations via a bicycle route.

Given the relative availability of existing right of way and its connection between downtown, commercial areas along US 19, and residential areas, Lemon Street is a preferred street for adding bicycle lanes. Parts of Lemon Street currently have diagonal on-street parking. It is recommended that the City consider converting this parking to parallel parking in order to improve safety conditions for cyclists, as well as to provide the additional space for a bike lane on both sides of the street.

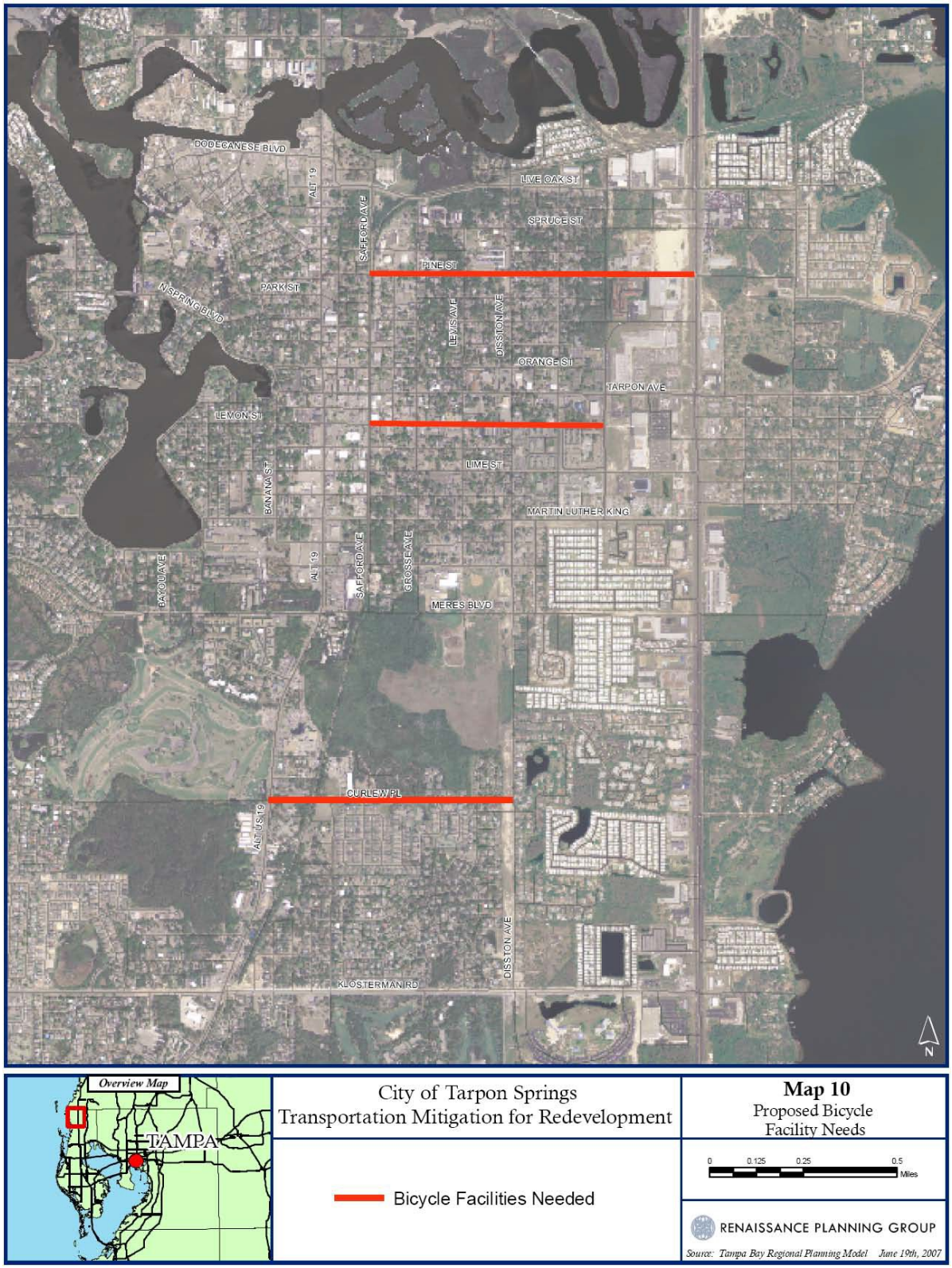
Other logical east-west bike facility locations include Curlew Place from Alt. US 19 to Disston Avenue, which would connect the Helen Ellis Memorial Hospital with the Pinellas Trail and the proposed recreation complex, as well as Pine Street from Safford Avenue to Huey Avenue, which would provide a connection between the Pinellas Trail to Tarpon Springs Elementary School and the surrounding residential neighborhood.

These proposed routes are depicted in Map 10 and estimated costs are shown in Table 3. Cost estimates are based on re-striping the lanes only.

Table 3 – Bicycle Facility Needs

SEGMENT	FROM	TO	LENGTH	COST	FACILITY
Curlew	Alt 19	Disston	3,431	$32,595	Bike Lane
Lemon	Alt 19	Disston	2,660	$25,270	Bike Lane
Pine	Safford	Huey	3,357	$31,892	Bike Lane
Total			9,448	**$89,756**	
Cost based on cost per mile for 4' bike lanes on both sides of road. Source: FDOT handbook Accessing Transit, re-striping only					

Map 10– Proposed Bicycle Facility Needs



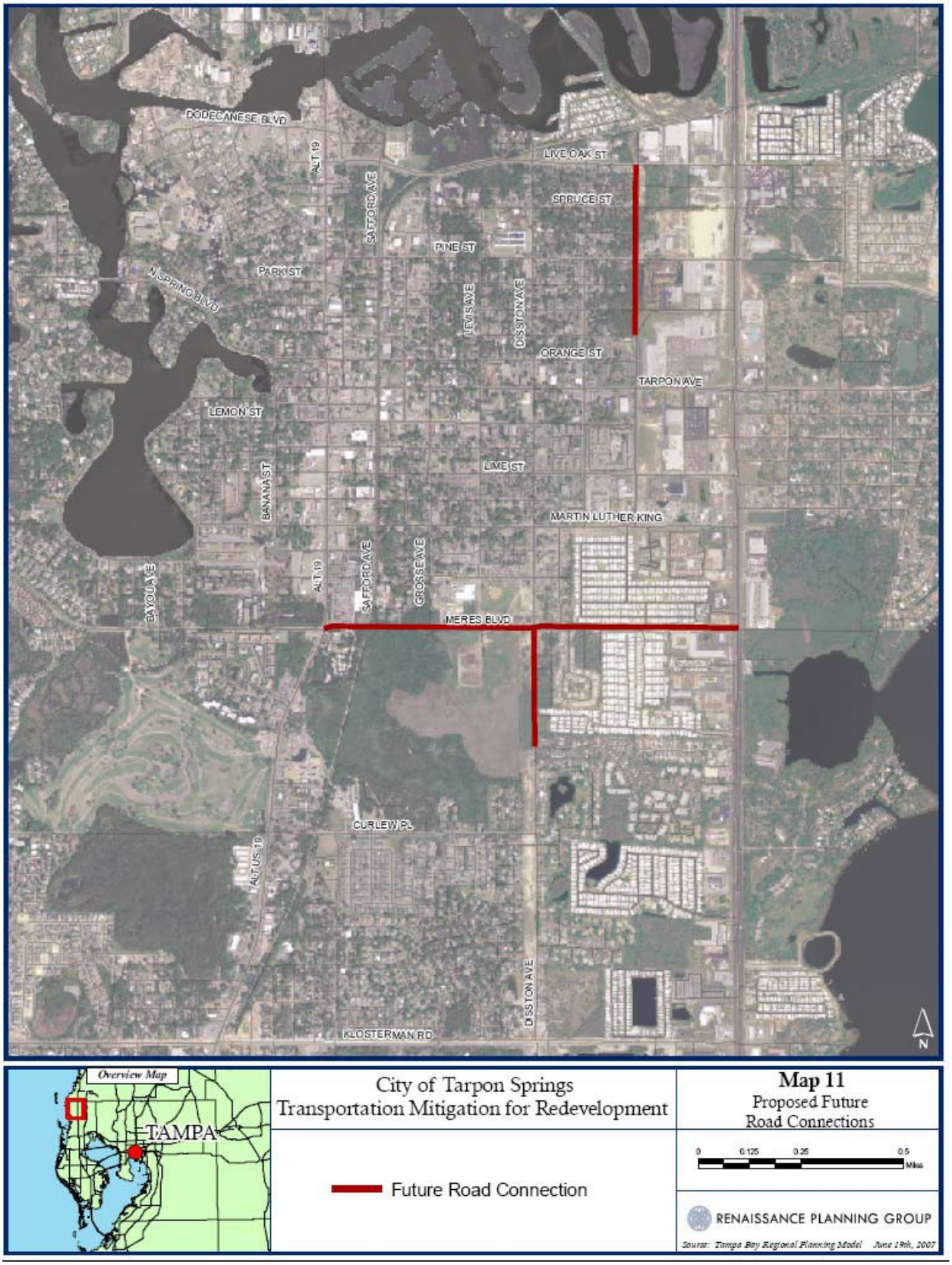
RECOMMENDED STREET CONNECTIONS

As stated above, the overall street connectivity within the MMTD is good; the area north of Meres Boulevard has an excellent grid network of streets with short blocks, which is one indicator of a good multimodal environment. However, Meres Boulevard between Alt. US 19 and Disston Avenue and Disston Avenue from Meres Boulevard to Woodhill Boulevard have not been constructed. These roadway connections are key to providing local alternate routes to US 19 and Alt US 19, as well as improving the bicycle and pedestrian connections between residential areas to the hospital, Saint Pete College, downtown, elementary schools, the proposed recreational complex, and Tarpon Mall. Another possible link is the segment of Huey Street between Live Oak and Cypress, which could be another local parallel route to US 19. Map 11 illustrates the location of the proposed segments, and Table 4 summarizes the estimated costs for the construction of these recommended road segments.

Table 4 – Recommended Street Connections

SEGMENT	FROM	TO	LENGTH	COST*	FACILITY
Meres	Alt 19	Disston	0.51	$2,346,000	New segment
Disston	Meres	Woodhill	0.29	$1,334,000	New segment
Huey	Live Oak	Cypress	0.41	$1,886,000	New segment
Total				**$5,566,000**	
Cost based on Pinellas County 2006 estimates for 2 lane road w/ 12' travel lanes, 5'sidewalks / 4' bikes lanes both sides					

Map 11 – Proposed Future Road Connectivity Needs



RECOMMENDED TRANSIT IMPROVEMENTS

The City has expressed interest in providing an improved local circulator system to better serve the CRA and adjacent destinations. The Local Circulator would provide a local transit loop serving the MMTD, connecting tourist destinations such as the sponge docks to downtown. It would also provide connections from residential areas to employment centers, such as the hospital and St. Pete College. Table 5 shows estimated capital and operating expenses for such an endeavor. Map 12 illustrates the existing transit routes through the MMTD as well as the proposed circulator. The cost estimate assumes that the circulator will operate with 15 minute headways, 16 hours per day, Monday through Saturday.

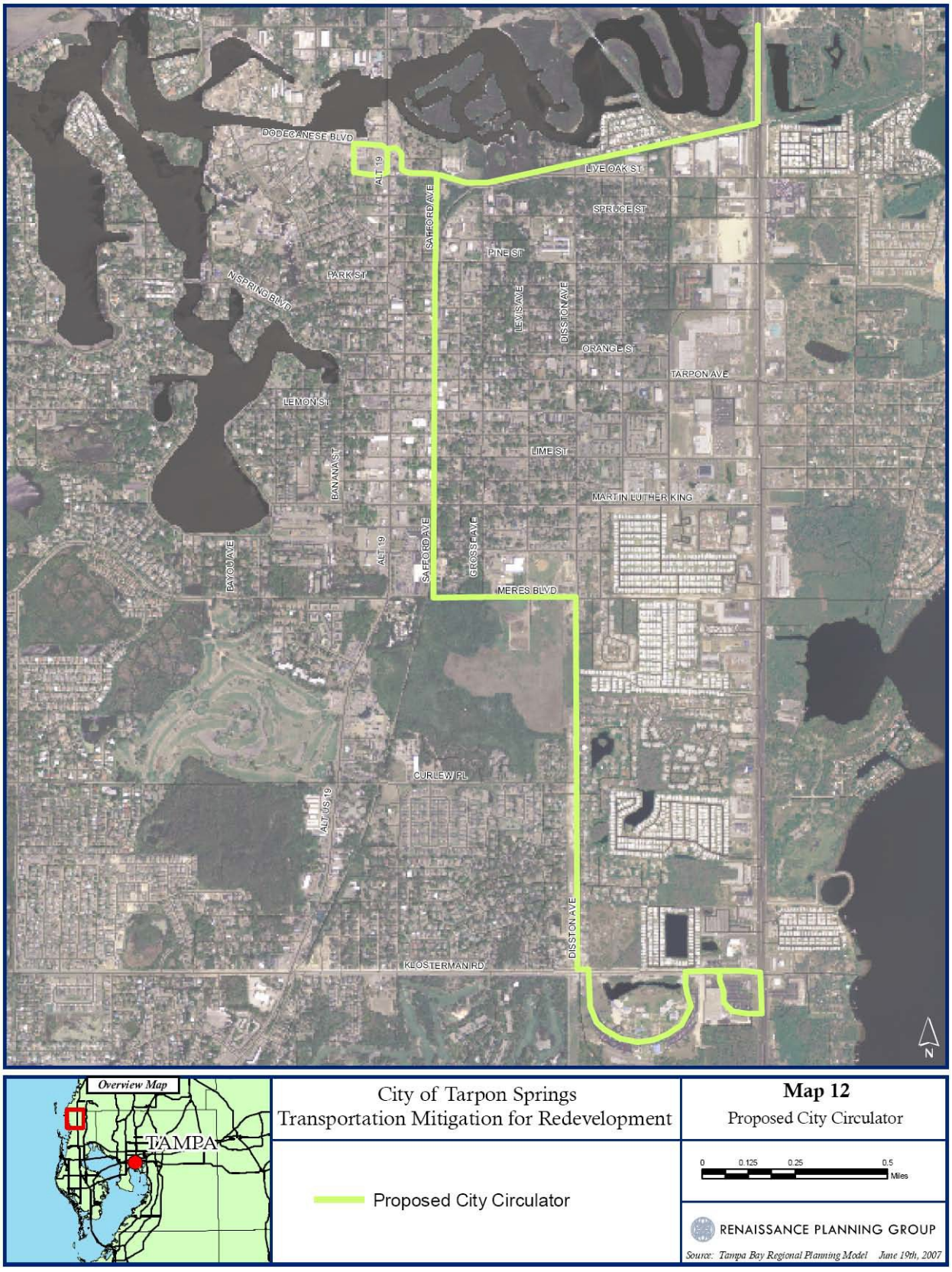
To solidify the presence and importance of transit in the MMTD and to tie in the circulator with PSTA Route 66, the City may also want to consider adding a transfer point in the downtown area as redevelopment occurs and when the circulator is implemented.

Table 5 – Proposed Circulator Service

DISTANCE (MILES)	HEADWAY (MINUTES)	AVERAGE SPEED (MPH)	HOURS OF SERVICE	BUSES NEEDED TO OPERATE	TOTAL BUSES NEEDED1	CAPITAL COST2	OPERATING COST PER HOUR3	DAYS PER WEEK OF SERVICE	WEEKS PER YEAR OF SERVICE	ANNUAL OPERATING COST	ANNUAL FARE-BOX REVENUE4
5.26	15	15	16	2	3	$702,000	$67.87	6	52	$677,614	$169,404

1includes provision of 20% spare buses
2$234,000 per 30' bus (American Public Transportation Association 2005-2006 survey)
3operating cost = $67.87/hr (2005 National Transit Database PSTA profile)
4assumes 25% farebox return

Map 12 – Recommended City Circulator



City of Tarpon Springs
Transportation Mitigation for Redevelopment

Map 12
Proposed City Circulator

Proposed City Circulator

0 0.125 0.25 0.5 Miles

RENAISSANCE PLANNING GROUP

Source: Tampa Bay Regional Planning Model June 19th, 2007

The proposed project lists are preliminary at this stage of the project - these are unfunded projects that contribute towards improving the multimodal quality of service. Subsequent analysis will need to be conducted to verify the feasibility of funding and constructing these projects over the next 20 years. Selected projects will be programmed in the City's Capital Improvement Program (CIP) over time to incrementally complete the needed multimodal improvements to achieve the quality of service targets. In the next 5 years, the City should consider funding the following projects to meet its target level of service:

SEGMENT	FROM	TO	FACILITY
MLK	Alt 19	Safford	Sidewalk Gap
Lemon	Grosse	Ring	Sidewalk Gap
Lemon	Walton	Huey	Sidewalk Gap
Lemon	Alt 19	Disston	Bike Lane
Pine	Safford	Huey	Bike Lane

FUTURE MULTIMODAL QUALITY OF SERVICE ANALYSIS

The future MMQOS analysis assumes implementation of all currently programmed improvements and the recommendations in Tables 2-5 above. In addition to capital improvement recommendations, the future MMQOS analysis also acknowledges improvements in urban form and network connectivity. This score should be considered a best case or "ideal" future MMQOS. Achieving this MMQOS is dependent on the implementation of projects that currently have no funding commitment.

The future segment QOS scores were weighted by segment length and averaged over the area of the entire MMTD to determine the district-wide bicycle and pedestrian QOS, grades 'C' and 'B' respectively. With the implementation of the circulator that runs with 15 minute headways on the route shown in Map 13, future LOS for bus service improved to an overall letter grade of 'B.' Future levels of service for bicycles, pedestrians, and transit are illustrated in Maps 13, 14, and 15, respectively.

Table 6 – City of Tarpon Springs Future Multimodal Scores

			FUTURE ARTPLAN LOS			FUTURE ADJUSTED LOS		FUTURE LOS SCORES		
ROADWAY	FROM	TO	Bike	Ped	Bus	Ped	Bike	Bike	Ped	Bus
ALT 19	DODECANESE BLVD	ANCLOTE RD	4.36	3.89	6.12	2.49	2.79	C	B	A
ALT 19	PINE ST	DODECANESE BLVD	4.28	3.65	4.4	2.34	2.74	C	B	B
ALT 19	LIME ST	LEMON ST	3.95	3.8	3.3	3.27	3.40	C	C	C
ALT 19	MERES BLVD	MARTIN LUTHER KING	2.46	3.86	3.3	2.90	1.85	B	C	C
ALT 19	ORANGE ST	PINE ST	4.16	3.65	4.8	3.50	3.99	D	D	B
ALT 19	LEMON ST	TARPON AVE	3.81	3.68	4.8	2.65	2.74	C	C	B
ALT 19	MARTIN LUTHER KING	LIME ST	1.92	3.55	4.8	2.27	1.23	A	B	B
ALT US 19 | PINELLAS AVE	TARPON AVE	ORANGE ST	4.11	3.62	3.3	2.32	2.63	C	B	C
ALT US 19 | PINELLAS AVE	CURLEW PL	MERES BLVD	2.52	3.92	2.2	3.45	2.22	B	C	D
ALT US 19 | PINELLAS AVE	KLOSTERMAN RD	CURLEW PL	2.52	3.92	2.2	3.57	2.29	B	D	D
BANANA ST	LIME ST	LEMON ST	5.29	4.65	3.4	4.00	4.55	E	D	C
BANANA ST	MARTIN LUTHER KING	LIME ST	4.69	5.66	2.2	4.58	3.80	D	E	D
BANANA ST | LEMON ST	TARPON AVE | N SPRING BLVD	ALT US 19	3.73	1.82	2.2	1.57	3.21	C	B	D
BAYOU AVE	MERES BLVD	WHITCOMB BLVD	3.71	2.02	4.4	1.74	3.19	C	B	B
CURLEW PL	ALT 19	DISSTON AVE	1.35	1.7	4.62	1.45	1.15	A	A	B
DISSTON AVE	MERES BLVD	MARTIN LUTHER KING	3.73	3.95	4.4	3.40	3.21	C	C	B

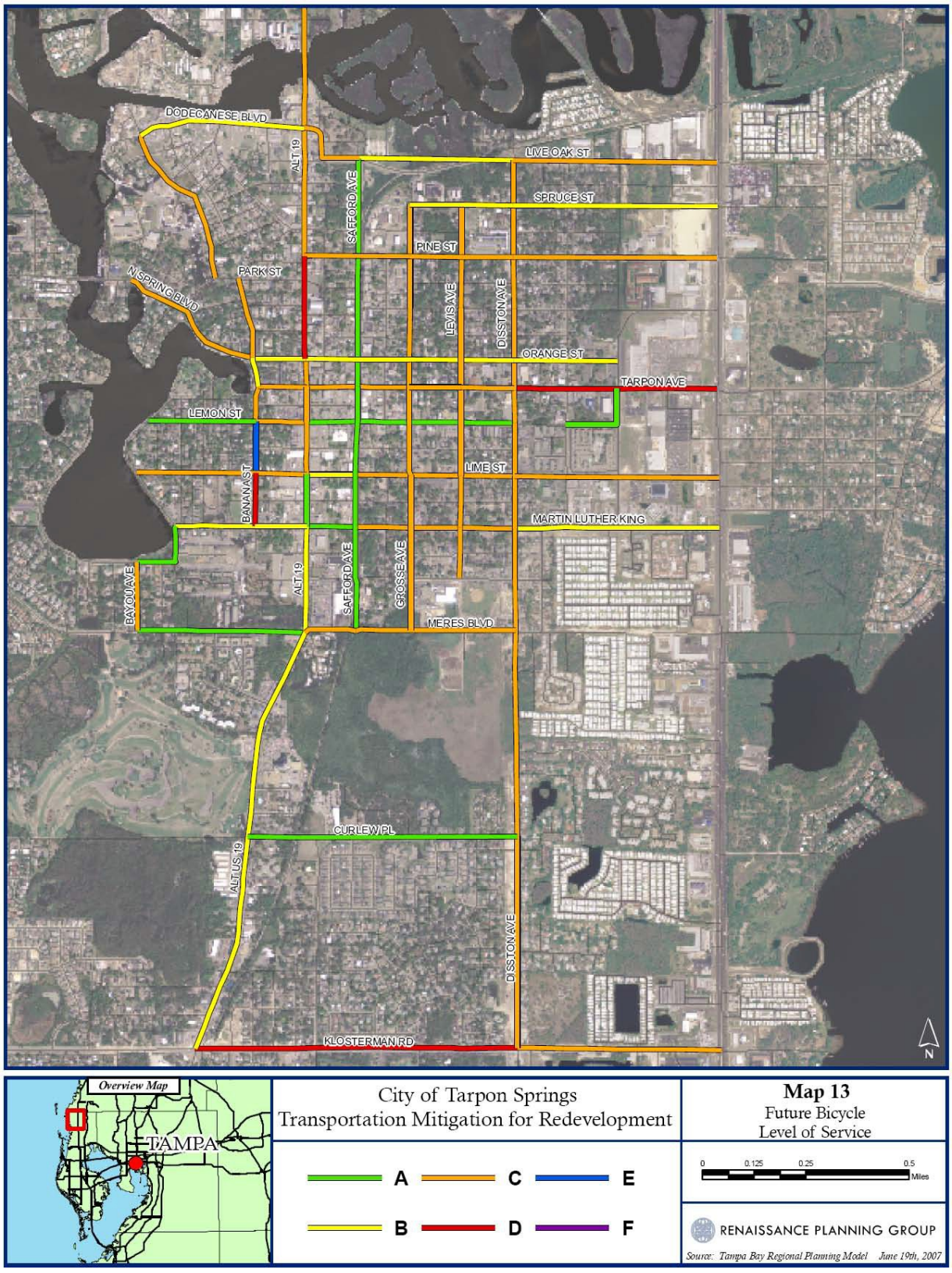
			FUTURE ARTPLAN LOS			FUTURE ADJUSTED LOS		FUTURE LOS SCORES		
DISSTON AVE	MARTIN LUTHER KING	LIME ST	3.73	2.41	4.4	2.07	3.21	C	B	B
DISSTON AVE	LIME ST	LEMON ST	3.73	2.41	4.4	1.95	3.02	C	B	B
DISSTON AVE	LEMON ST	TARPON AVE	3.73	2.41	4.4	1.90	2.93	C	B	B
DISSTON AVE	TARPON AVE	ORANGE ST	3.73	2.41	4.4	2.00	3.10	C	B	B
DISSTON AVE	ORANGE ST	CYPRESS ST	3.73	3.37	4.4	2.90	3.21	C	C	B
DISSTON AVE	CYPRESS ST	PINE ST	3.73	3.22	4.4	2.61	3.02	C	C	B
DISSTON AVE	PINE ST	SPRUCE ST	3.73	2.41	4.4	1.95	3.02	C	B	B
DISSTON AVE	SPRUCE ST	LIVE OAK ST	3.73	3.51	4.2	2.46	2.61	C	B	B
DODECANESE BLVD	ROOSEVELT BLVD	ALT 19	2.18	1.82	6.93	1.57	1.87	B	B	A
GRAND BLVD	ORANGE ST	PARK ST	3.73	2.04	4.4	1.65	3.02	C	B	B
GROSSE AVE	MERES BLVD	MARTIN LUTHER KING	3.73	3.17	4.4	2.57	3.02	C	C	B
GROSSE AVE	MARTIN LUTHER KING	LIME ST	3.73	2.96	4.4	2.40	3.02	C	B	B
GROSSE AVE	LIME ST	LEMON ST	3.73	2.65	4.4	2.15	3.02	C	B	B
GROSSE AVE	LEMON ST	TARPON AVE	3.73	2.41	4.4	1.76	2.72	C	B	B
GROSSE AVE	TARPON AVE	ORANGE ST	3.73	2.41	4.4	1.69	2.61	C	B	B
GROSSE AVE	ORANGE ST	CYPRESS ST	3.73	2.41	4.4	1.95	3.02	C	B	B
GROSSE AVE	CYPRESS ST	PINE ST	3.73	2.41	4.4	1.95	3.02	C	B	B
GROSSE AVE	PINE ST	SPRUCE ST	3.73	3.9	4.4	3.35	3.21	C	C	B
KLOSTERMAN RD	US 19	DISSTON AVE	3.73	3.9	4.2	3.43	3.28	C	C	B
KLOSTERMAN RD	DISSTON AVE	ALT US 19	3.73	3.9	4.4	3.74	3.58	D	D	B

			FUTURE ARTPLAN LOS			FUTURE ADJUSTED LOS		FUTURE LOS SCORES		
LEMON ST	SAFFORD AVE	DISSTON AVE	1.29	2.16	4.62	1.79	1.07	A	B	B
LEMON ST	WALTON AVE	HUEY ST	1.33	2.36	6.6	2.15	1.21	A	B	A
LEMON ST	ALT 19	SAFFORD AVE	1.29	2.16	6.6	1.38	0.83	A	A	A
LEMON ST	S SPRING BLVD	BANANA ST	1.34	2.21	4.4	2.01	1.22	A	B	B
LEVIS AVE	HARRISON ST	MARTIN LUTHER KING	3.68	2.35	4.4	1.83	2.87	C	B	B
LEVIS AVE	LIME ST	LEMON ST	3.68	2.36	4.4	1.84	2.87	C	B	B
LEVIS AVE	MARTIN LUTHER KING	LIME ST	3.68	2.35	4.4	1.83	2.87	C	B	B
LEVIS AVE	LEMON ST	TARPON AVE	3.67	2.34	4.4	1.90	2.97	C	B	B
LEVIS AVE	TARPON AVE	ORANGE ST	3.67	2.34	4.4	1.83	2.86	C	B	B
LEVIS AVE	ORANGE ST	CYPRESS ST	3.68	2.35	4.4	1.95	3.05	C	B	B
LEVIS AVE	CYPRESS ST	PINE ST	3.68	2.35	4.4	2.02	3.16	C	B	B
LEVIS AVE	PINE ST	SPRUCE ST	3.68	1.98	4.4	1.70	3.16	C	B	B
LIME ST	ALT US 19	SAFFORD AVE	3.74	2.35	4.4	1.50	2.39	B	B	B
LIME ST	SAFFORD AVE	DISSTON AVE	3.74	2.42	4.4	2.20	3.40	C	B	B
LIME ST	WALTON AVE	US 19	3.74	2.42	4.4	2.20	3.40	C	B	B
LIME ST	BANANA ST	ALT 19	3.68	2.35	3.96	1.83	2.87	C	B	C
LIME ST	S SPRING BLVD	BANANA ST	3.73	2.41	4.4	2.07	3.21	C	B	B
LIME ST	DISSTON AVE	WALTON AVE	3.74	2.42	4.62	1.74	2.69	C	B	B
LIVE OAK ST	US 19	SAFFORD AVE	3	2.09	4.4	1.67	2.40	B	B	B
LIVE OAK ST	US 19	DISSTON AVE	3	2.09	4.62	1.84	2.64	C	B	B
LIVE OAK ST	SAFFORD AVE	ALT 19	3.24	2.14	3.52	1.88	2.85	C	B	C

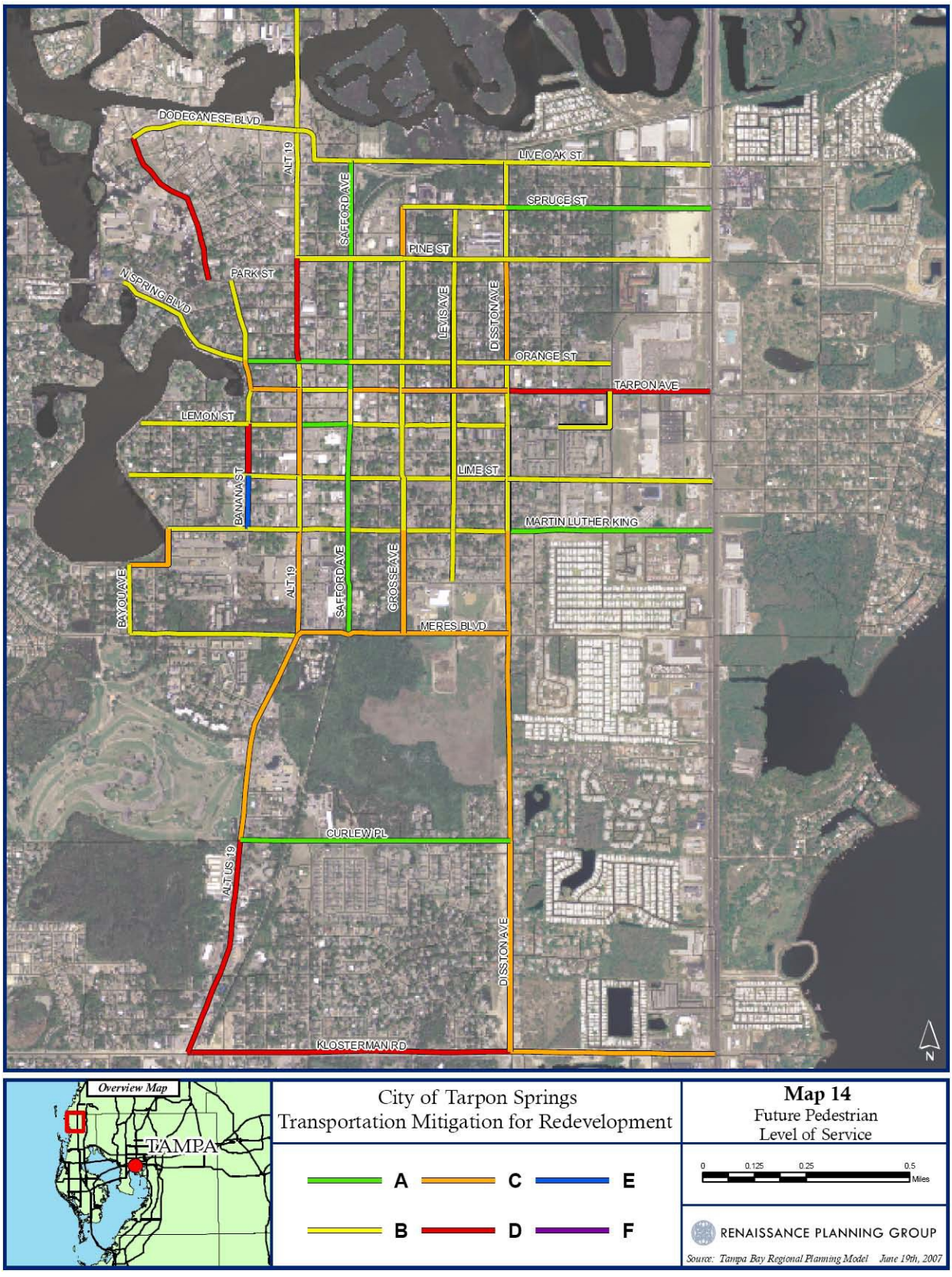
			FUTURE ARTPLAN LOS			FUTURE ADJUSTED LOS		FUTURE LOS SCORES		
MARTIN LUTHER KING	WHITCOMB BLVD	BANANA ST	2.03	2.26	4.4	1.83	1.64	B	B	B
MARTIN LUTHER KING	ALT US 19	SAFFORD AVE	1.99	2.23	6.6	1.61	1.43	A	B	A
MARTIN LUTHER KING	SAFFORD AVE	DISSTON AVE	3.53	2.44	4.62	1.90	2.75	C	B	B
MARTIN LUTHER KING	DISSTON AVE	US 19	2.36	1.59	6.6	1.45	2.15	B	A	A
MARTIN LUTHER KING	BANANA ST	ALT US 19	1.99	2.23	4.4	1.74	1.55	B	B	B
MERES BLVD	CAROLINA AVE	ALT 19	1.85	1.81	4.4	1.59	-0.75	A	B	B
N SPRING BLVD	PAMPAS AVE	GRAND BLVD	3.61	2.54	4	1.78	2.53	C	B	C
N SPRING BLVD	TARPON AVE	ORANGE ST	2.58	3.18	4.2	2.58	2.09	B	C	B
ORANGE ST	N SPRING BLVD	ALT 19	1.98	1.67	4.4	1.35	1.60	B	A	B
ORANGE ST	ALT 19	SAFFORD AVE	1.98	1.67	4.4	1.30	1.54	B	A	B
ORANGE ST	SAFFORD AVE	GROSSE AVE	1.98	1.88	4.4	1.52	1.60	B	B	B
ORANGE ST	GROSSE AVE	DISSTON AVE	2.02	2.26	4.4	1.76	1.58	B	B	B
ORANGE ST	DISSTON AVE	HUEY AVE	2.02	2.26	4.4	1.83	1.64	B	B	B
PINE ST	ALT 19	GROSSE AVE	3.72	2.4	4.4	1.94	3.01	C	B	B
PINE ST	GROSSE AVE	DISSTON AVE	3.72	2.4	4.4	1.94	3.01	C	B	B
PINE ST	DISSTON AVE	US 19	3.7	2.43	4.62	1.90	2.89	C	B	B
ROOSEVELT BLVD	PARK ST	DODECANESE BLVD	3.73	3.93	4.62	3.58	3.39	C	D	B
SAFFORD AVE	MERES BLVD	LEMON ST	2.24	2.09	4.62	1.34	1.43	A	A	B
SAFFORD AVE	LEMON ST	TARPON AVE	1.97	2.21	4.4	1.65	1.47	A	B	B
SAFFORD AVE	TARPON AVE	LIVE OAK ST	2.05	1.75	4.62	1.12	1.31	A	A	B
SPRUCE ST	GROSSE AVE	DISSTON AVE	2.02	2.08	4.4	1.64	1.59	B	B	B

			FUTURE ARTPLAN LOS			FUTURE ADJUSTED LOS		FUTURE LOS SCORES		
SPRUCE ST	DISSTON AVE	US 19	2.04	1.74	6.93	1.41	1.65	B	A	A
TARPON AVE	ALT US 19	SAFFORD AVE	3.9	3.46	4.2	2.49	2.81	C	B	B
TARPON AVE	SAFFORD AVE	GROSSE AVE	4.16	3.66	4	2.96	3.37	C	C	C
TARPON AVE	DISSTON AVE	US 19	4.06	3.91	4.2	3.75	3.90	D	D	B
TARPON AVE	S SPRING BLVD	ALT 19	3.9	3.46	4.2	2.98	3.35	C	C	B
TARPON AVE	GROSSE AVE	LEVIS AVE	3.64	3.4	4.2	2.65	2.84	C	C	B
TARPON AVE	LEVIS AVE	DISSTON AVE	3.89	3.59	4	3.09	3.35	C	C	C
WHITCOMB BLVD	BAYOU AVE	MARTIN LUTHER KING	0.61	3.29	4.2	2.57	0.48	A	C	B

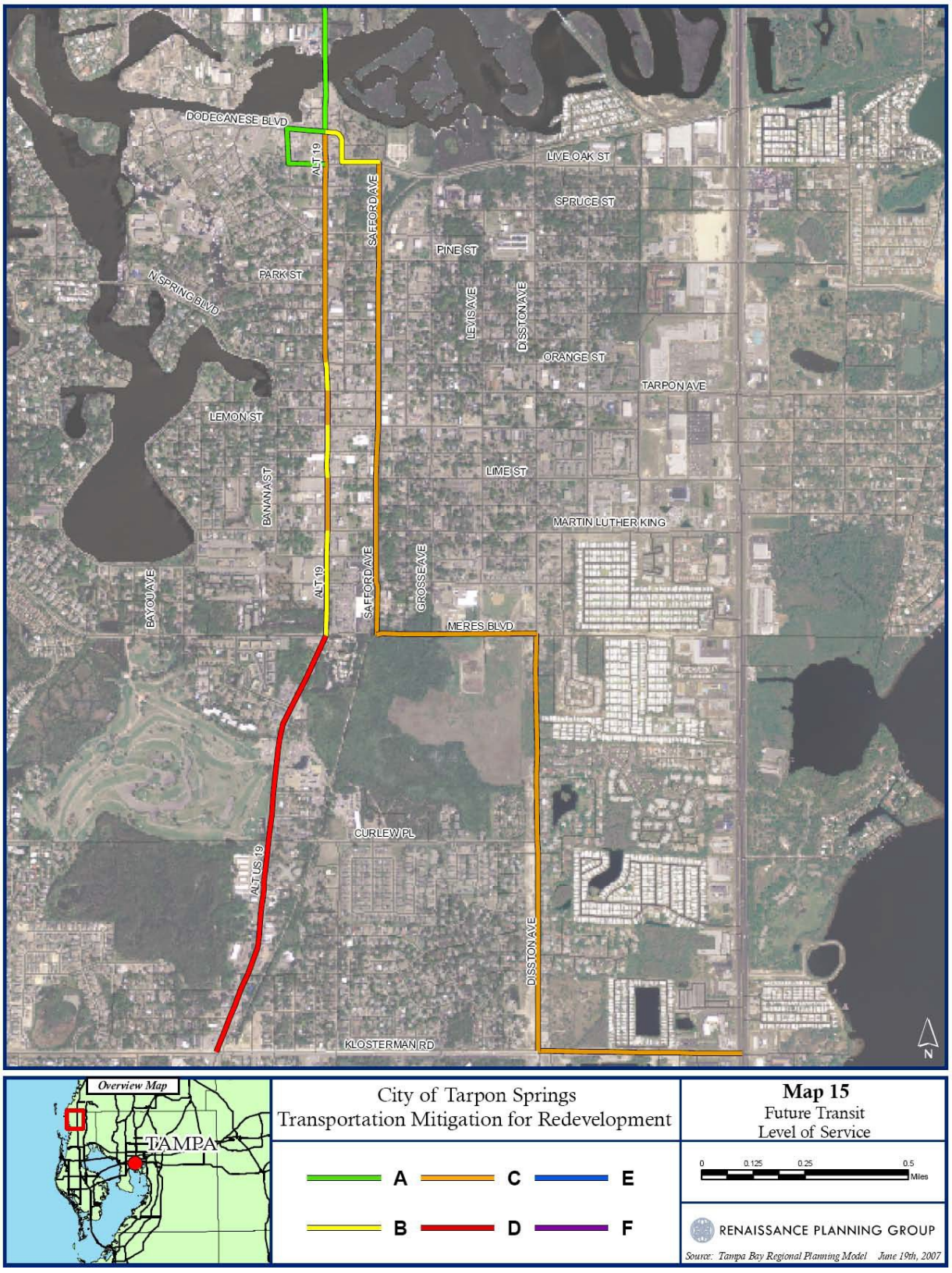
Map 13 – Future Bicycle Level of Service



Map 14 – Future Pedestrian Level of Service

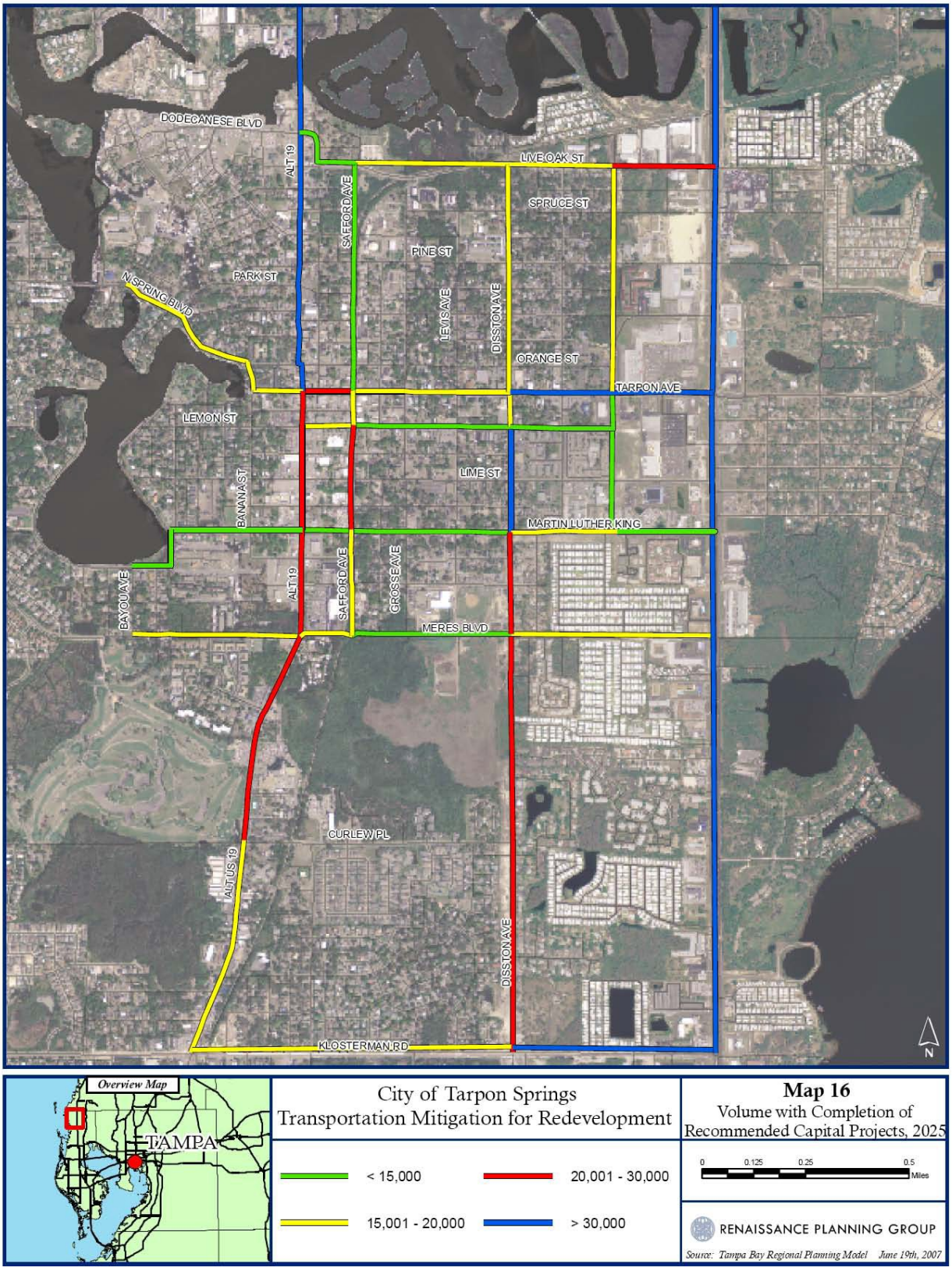


Map 15 – Future Transit Level of Service

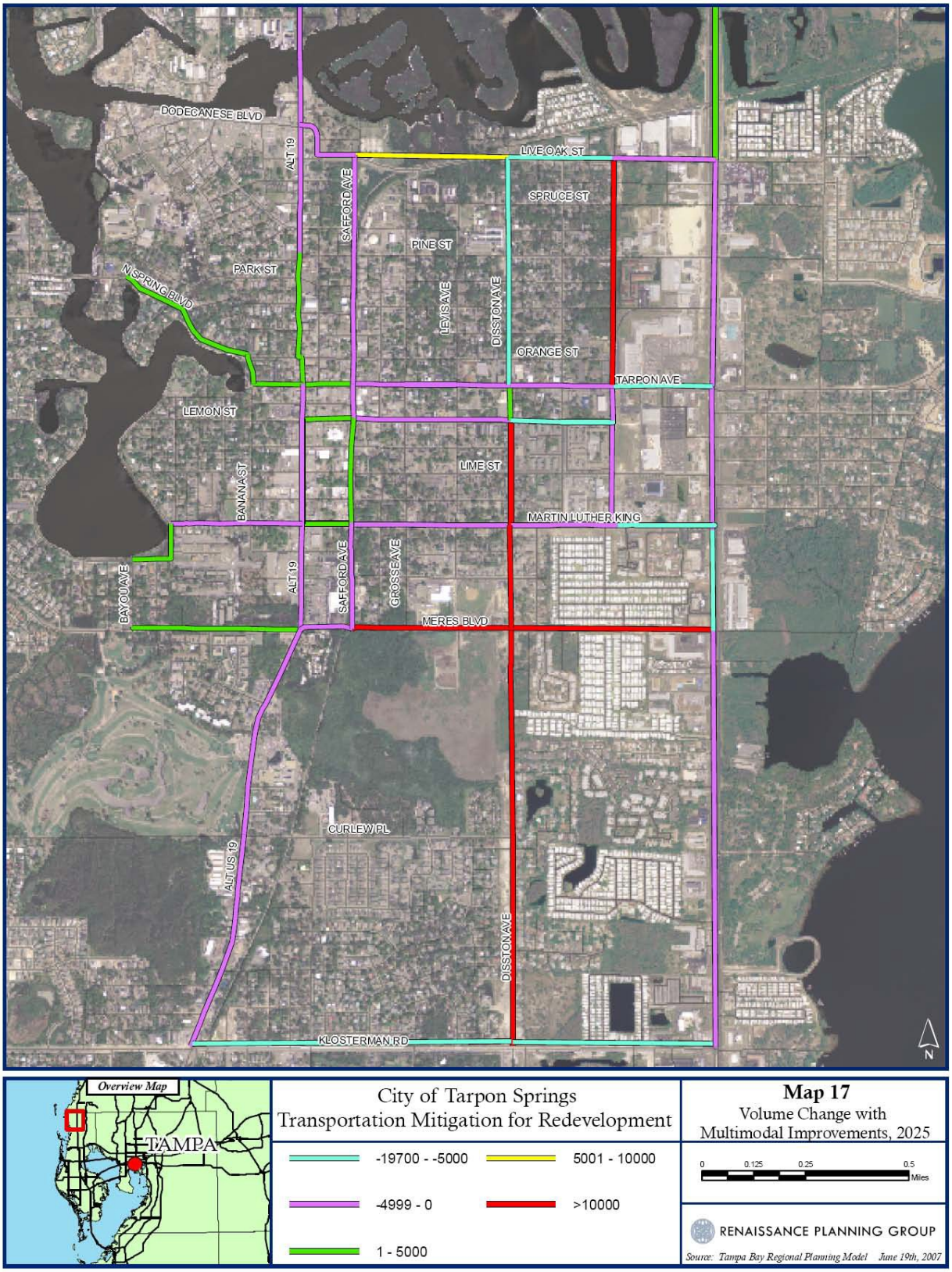


Construction of the recommended street connections in Table 4 alleviates the impact of redevelopment on the SIS (US 19). In particular, the connection of Disston Avenue will take the brunt of the traffic generated by build-out in the redevelopment area off of US 19, as shown in Maps 16, 17, and 18. The regional planning model indicates that the connection of Disston and Huey alleviate the impacts of redevelopment on US 19, and is an essential project to support the City's estimated build-out of the CRA redevelopment plan. Care should be taken in the design of these roadways to reduce the impacts of traffic on the adjacent neighborhoods and with proper facilities to maintain a multimodal environment.

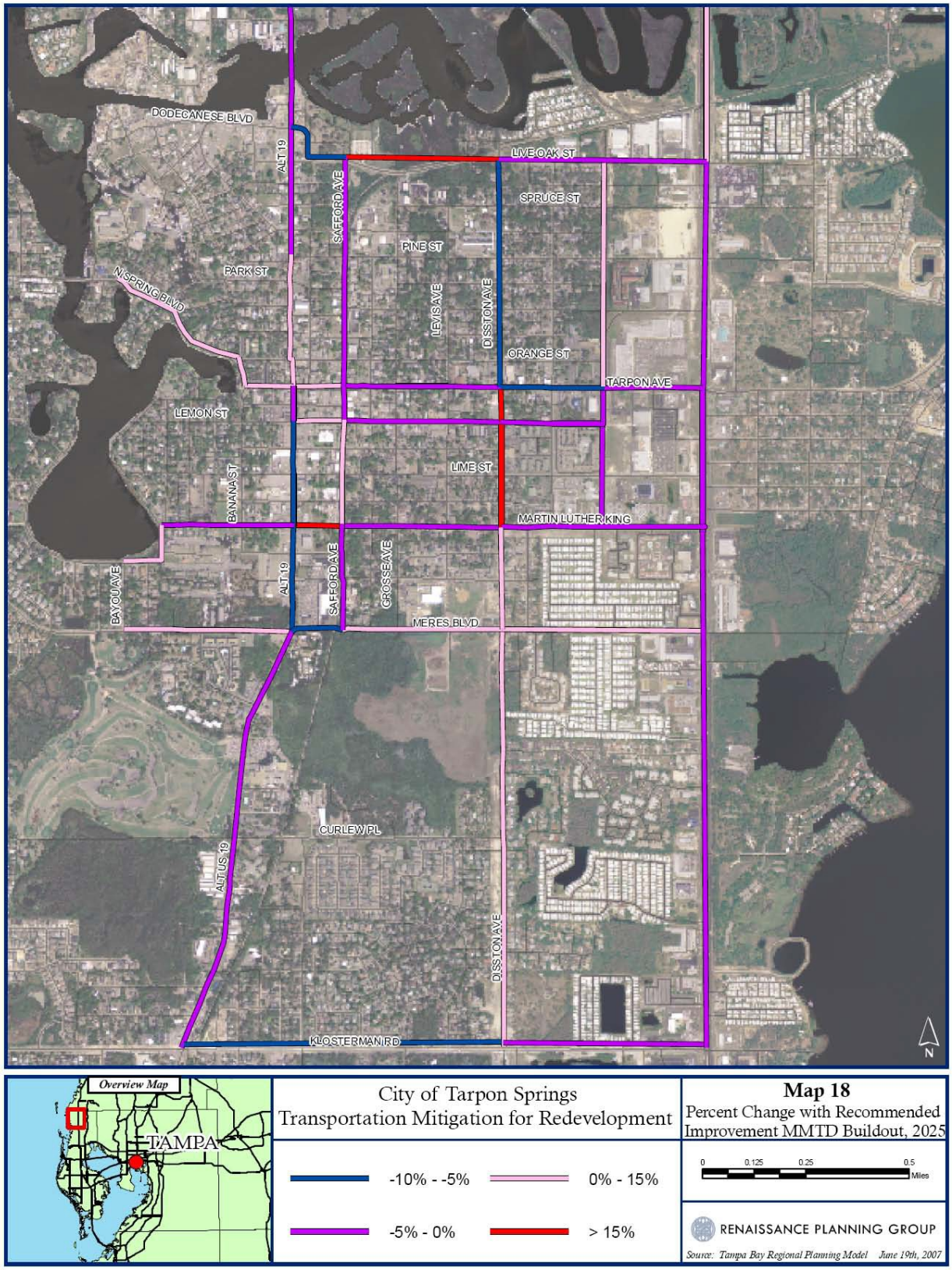
Map 16 – Volume with Completion of Recommended Capital Projects, 2025



Map 17 – Volume Change with Multimodal Improvements, 2025



Map 18 – Percent Change with Recommended Improvement MMTD Buildout, 2025



FINANCING THE CAPITAL IMPROVEMENTS

Creating an MMTD allows for increased development in an area that may be otherwise restricted from development due to the failure or unwillingness to add sufficient roadway capacity to meet roadway transportation concurrency. To mitigate the impacts of re-development, the city will commit to requiring an urban form, mix of uses, and infrastructure improvements that promote greater connectivity and encourage alternative modes of transportation. However, the city may not want to solely carry the cost burden of providing adequate multimodal infrastructure improvements for the sake of redevelopment. One way the city can finance the multimodal capital improvements recommended in this report is through charging a 'fair share' cost to new development projects within the MMTD, particularly within the city's targeted redevelopment district.

It is recommended that the city follow a "needs based approach" to calculating the proportionate fair share impact for multimodal mobility strategies within the MMTD. This entails identifying the total costs for the needed mitigation strategies to support desired redevelopment and density levels within the CRA, and determining a total cost per trip that would be assessed for each new development based on the estimate net external trip ends created by the development.

To calculate the costs a developer should pay into the trip bank, the following steps should be followed:

Step One: Calculate the total cost of capital improvements that are necessary for the city to meet its target multimodal levels of service.

Example:

10 Year Operating Cost- Circulator	$6,776,141
Sidewalk Connections	$714,574
Bike Lanes	$89,756
Street Connections	$5,566,000
Total	**$13,146,471**

Note: Recommended projects and planning level costs are discussed in detail in the Capital Improvement Recommendations section of this report.

Step Two: Determine the number of acres of land that are available for redevelopment.

Use property appraiser data to identify vacant and underutilized properties. Underutilized properties are those that are valued at 80 percent or less the median value of comparable properties (see Map 11.) Validate the data by conducting a windshield survey.

Step Three: Calculate the total number of dwelling units and non-residential floor area that can theoretically be constructed based on the zoning and future land use map designations.

Step Four: To determine the number of trips in the trip bank, calculate the total number of trip ends that will theoretically be generated by residential and non-residential uses based on the latest ITE Trip Generation report. Because ITE estimates trips based on specific land uses, some assumptions have to be made regarding the type and distribution of individual land uses. Check the zoning and future land use element for permitted and prohibited uses in the area.

Example:

Land use allocation assumptions:

LAND USE	% ALLOCATION	SQ FT ALLOCATION
Hotel	25%	385,000
Office	30%	462,000
Retail	40%	616,000
Restaurant	5%	77,000
Total	100%	1,540,000

Land use: Office, ITE code 710

462,000 square feet * 11.01 trips per 1,000 square feet

(462,000/1000) * 11.01 = 5,087 AADT

5,087/2 = 2,543 trip ends

LAND USE	ITE CODE	SQUARE FEET/DWELLING UNITS	TRIP ENDS
Hotel	310	385,000	3,434
Office	710	462,000	2,543
Retail	814/870	616,000	16,940
Restaurant	931	77,000	3,463
Sub-Total		1,540,000	26,380
Residential	231	2,612	7,653
Total Trip Bank			**34,033**
Hotel: ITE code calculates 8.92 trips per room. All other uses calculated by trips per 1,000 sq. ft.			

Step Five: Calculate the cost per trip by dividing the estimated total cost of improvements by the total number of trip ends.

Example:

$13,146,471/34,033 = $386

Step Six: Apply per trip cost to a proposed project.

Example:

One of the uses allowed by the *Smartcode* and envisioned by the CRA plan is a hotel. The T-6 transect zone could allow a small hotel, such as the one seen here in historic downtown Fernandina Beach; a downtown with a similar scale as Tarpon Springs. This particular 4-story hotel consists of 125 rooms and 125,000 square feet with a floor area ratio of 2.0. In this case, a developer would pay $215,159 into the trip bank (556 trip ends x $386 per trip.)

Because operating and construction costs increase over time, the city should re-evaluate the cost per trip in conjunction with the MMTD bi-annual report to DCA, and adjust the costs accordingly, if necessary.

Pinellas County gives a transportation impact fee credit for bicycle and pedestrian improvements that are constructed on-site as well as for the construction of bus shelters and service roads that connect with adjacent developments. It does not give credit for fees paid in lieu of actual construction. It is recommended that the city coordinate with Pinellas County to amend the impact fee ordinance to exempt developments within the MMTD from paying the impact fee if the city collects a multimodal fare share fee.

SUMMARY

The overall existing multimodal quality of service within the proposed MMTD is fair, with the potential to improve substantially by completing the sidewalk network between key destinations, adding bicycle lanes to improve the east/west bicycle network, and adding a local circulator to the transit network to enhance service availability by connecting downtown with other major activity centers. With these capital improvements and the implementation of the Smartcode, the core of the city has the potential to become a very walkable, visually interesting, and transit-friendly destination for residents and visitors alike.

NEXT STEPS

Following any revisions to the proposed project list or analysis methodology, the results and detailed methods for the multimodal quality of service analysis will be used as the "data and analysis" resource document for the goals, objectives, and policies created for the implementation of the MMTD through a comprehensive plan amendment. These goals, objectives, and policies will outline the strategies and standards for development and redevelopment in the City that will help to develop a balanced transportation system supported by appropriate land use patterns and pedestrian-oriented site and building design.

The City will then revise its development review procedures for the MMTD, once adopted, to require consistency with the site planning principles and multimodal quality of service standards defined in this resource document and the goals, objectives and policies of the Comprehensive Plan.