SECTION 4

TRANSPORTATION

1. PURPOSE

The purpose of the Transportation element is to evaluate the existing conditions of traffic circulation within the City of Panama City Beach in relation to the existing land use and population growth. After this evaluation and the defining of specific problem areas, the Plan will evaluate different alternatives to determine what effect they will have on the community, considering the projected population and future land use. The ultimate goal is to provide an integrated system of free-flowing safe movement for pedestrian, motorized and non-motorized vehicles throughout the City.

In order to accomplish this effort, it is necessary to see what improvements have been made over the past years, and the effect of these improvements. This will include improvements by the City of Panama City Beach, Bay County and the Florida Department of Transportation since all three governments control streets and roads within and adjacent to the City. Through proper planning, land use regulations, funding and Intergovernmental Coordination with Bay County and the State, an effective traffic circulation plan can be developed.

2. INTRODUCTION

The City of Panama City Beach continues to be one of the fastest growing communities in Bay County. Major improvements have been and are being implemented by the City of Panama City Beach regarding traffic and street improvements. These improvements have been primarily the result of implementing the plan for the Front Beach Road Community Redevelopment Area. Churchwell Drive, Richard Jackson Boulevard, South Thomas Drive, and Front Beach Road (segnents 1 and 2) from North Thomas Drive to Richard Jackson Boulevard were expanded to three and four lanes and improved with sidewalks, bicycle lanes, street lighting, landscaping, and a public parking area (125 spaces) for the nearby beach accesses. The Front Beach Road CRA is a $400 million multimodal transportation plan that will be implemented through the year 2031. Other roadway improvements occur in the paving and resurfacing of existing local streets. Funding for these projects is provided through local funds and Bay County Ordinance 85-02, a local option gas tax, adopted September 1, 1985. This tax is collected by Bay County and distributed to the different communities based upon population for roadway improvement projects.

The Front Beach Road Transportation Concurrency Exception Area (the TCEA) is located within the Front Beach Road Community Redevelopment Area. Sitting as the Front Beach Road Community Redevelopment Agency, the City Council has approved a redesign of Front Beach Road and other roadways that are vastly different than the original plan in existence when the TCEA was adopted in 2004. Front Beach Road segment 3, 4 and 5 now have FDOT approved Project Development and Environmental plans with dedicated transit (tram) lanes that will cover the length of the City limits. , A transit feasibility study is ongoing until such time the system is completed. The first phase of the tram system was constructed along with the roadway widening of

S. Thomas Drive as part of segment 1 of the Front Beach Road CRA.
Because the TCEA follows the boundaries of the Front Beach Road CRA, the TCEA benefits from the tax increment financing of the CRA and the associated transportation improvements. The CRA will widen connector roads between Front Beach Road and Panama City Beach Parkway; create a transit system; construct two multimodal centers, pocket parks and other public parking; and design the area to be bicycle/pedestrian friendly by providing sidewalks, dedicated bike lanes, public gathering areas, landscaping, lighting and enhanced public beach accesses. Construction is completed on the 3-laning of Churchwell Road and South Thomas Drive and the 4-laning of Richard Jackson Boulevard and Front Beach Road segments 1 and 2. Front Beach Road segment 3 is scheduled to begin construction in early 2020 The growth in tax increment over the life of the CRA is expected to result in approximately $400 million with the cost of the CRA improvements estimated to be approximately $350 – $400 million.

The City coordinated with the FDOT on the creation of the FBR-TCEA. The configuration of the CRA boundaries and the programmed improvements are expected to have little impact on the Florida Strategic Intermodal System (SIS). The City has taken ownership and maintenance authority from FDOT of Front Beach Road segments 1 and 2 and is expected to do the same with the remaining segments as each segment begins construction.

The City is also in the process of beginning segment 2 of the Bay Parkway which at full build out will consist of a 4-lane road connecting SR 79 North Pier Park Drive and Panama City Beach Parkway by way of Nautilus Street. This project is anticipated to divert approx. 4,800 weekday trips and 6,100 weekend trips from the already over capacity PCB Parkway in this section as well as improve the LOS for the intersection of SR 79 and PCB Parkway. The Parkway will also serve as a bypass in disaster situations for all emergency personal and first responders.

Roadways within the City of Panama City Beach fall under three classifications. These classifications and their definitions are as follows:

A. Arterial Road - Is a roadway providing service for relatively continuous high traffic volume, long trip length, and high operating speeds.

B. Collector Road - Is a roadway providing service for relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local and arterial roads.

C. Local Road - Is a roadway providing service which is of relatively low traffic volume, short average trip length or minimal through traffic movements, with high volume land access to abutting property.

The Future Traffic Circulation Map is Exhibit number 3.

3. INVENTORY OF EXISTING SYSTEM

Transportation planning areas are defined as one of the following three types of areas:

A. Existing Urbanized Area - An area consisting of an incorporated place and adjacent densely settled surrounding area that together have a minimum population of 50,000, characterized by Panama City and surrounding communities.

B. Transitioning Urbanized or Incorporated Areas- Existing areas projected to become part of the urbanized area in the next approximate 20 years.

C. Rural Areas - Areas currently not projected to become urbanized in approximately the next 20 years.

The road system of Panama City Beach is considered a part of the urban system.

All roadways within the City limits of Panama City Beach are included in this inventory. The roads leading into, around and through the City are an integral part of the City's traffic circulation system.

The Transportation Planning Organization (TPO) was created to oversee the transportation planning process in Bay County and performs a variety of tasks of which one of the most important is the development of the Long Range Transportation Plan (LRTP). The first LRTP was produced in 1984, projecting transportation needs through the year 1995. The most recent Plan update was for 2040 and was completed in 2016. The LRTP attempts to forecast an areas mobility needs to a point in the future based on projected transportation demands. Typically, LRTPs have a twenty to twenty five year planning horizon.

The LRTP is used by the TPO to establish a five (5) year implementation schedule for the Transportation Improvement Plan (TIP). The TIP is updated annually by the TPO after receiving comments and recommendations from the Technical Coordinating Committee and the Citizens Advisory Committee.

4. ANALYSIS OF EXISTING DEFICIENCIES

Levels of service (LOS) are used to analyze roadway capacities. A LOS is determined for roadways by analyzing operational roadway characteristics and traffic volumes. The most recent FDOT Quality Level of Service Handbook was published in 2013 and based upon the 2010 Highway Capacity Manual Update. The Generalized Service Volume Tables included in this publication have been adopted as the basis for determining levels of service for this Plan. There are six parameters used to determine the LOS for each roadway. They are:

A. Type of Planning Area:
   1. Urbanized Areas
   2. Areas Transitioning into Urbanized Areas or

Areas over 5,000 Not in Urbanized Areas

3. Rural Undeveloped Areas and Cities or Developed Areas less than 5,000 Population.

B. Functional Classification:
   1. Freeways
   2. Arterials
   3. Non-State Roadways

C. Number of Lanes:
   1. 2
   2. 4
   3. 6
   4. 8

D. Facility Type:
   1. Divided
   2. Undivided

E. Signalized Intersections per Mile

F. Types of Analyses:
   1. Annual Average Daily Traffic (AADT) Count
   2. Peak Hour Directional Volumes
   3. Two-Way Peak Hour Volumes

Listed below are the descriptions of the six levels of service (LOS) used in transportation planning:

A. LOS A: Highest LOS, which describes primarily free flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at intersection is minimal.

B. LOS B: Represents reasonable unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.

C. LOS C: Represents stable traffic flow operations, however, ability to maneuver and change lanes may be more restrictive than LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds. Motorists will experience noticeable tension while driving.

D. LOS D: Borders on a range in which small increases in traffic flow may cause

substantial increases in approach delays and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combinations of these.

E. LOS E: Represents traffic flow characterized by significant delays at lower operating speeds. Such operations are caused by some combination or adverse progression, high signal density, intense queuing at critical intersections, and inappropriate signals.

F. LOS F: Represents traffic flow characterized at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse signal progression and heavy pedestrian traffic is frequently a contributor to this condition.

Every year Planning staff updates and makes available to the public through the City's website, the City's Traffic Data Summery table which shows the existing traffic counts and evaluates the level of service for the roads in Panama City Beach. . FDOT counts are not available on some roads, so in some cases counts from Bay County were used where available. Exhibit 3 shows the existing roadway network.

Historically, Panama City Beach has been a tourist destination that has thrived on slow moving traffic on Front Beach Road (referred to by tourists as "cruising the strip"). Because Panama City Beach is long and narrow and parallels the water, traffic can usually transfer from Front Beach Road to less traveled streets. In some areas of Front Beach Road, existing development is constructed up to the front property line with parking in the right-of-way. In these areas during congested times, it may be difficult for emergency vehicles to quickly get through traffic. In essence, traffic congestion on Panama City Beach, as in other tourist attractions, is created by the choice of the travelers. However, appropriate land use and traffic controls should continue to be developed to ensure that traffic congestion on Front Beach Road does not compromise safety issues.

According to the TPO's Congestion Management System Process Plan (September, 2018), three roadways fall below the minimum acceptable level of service in the Panama City Beach city limits. These failing segments are Panama City Beach Parkway from Mandy Lane to Richard Jackson Boulevard, Front Beach Road from Richard Jackson Boulevard to N. Thomas Drive and N. Thomas Drive from Front Beach Road to Thomas Drive. Front Beach Road, Panama City Beach Parkway and N. Thomas Drive are within the Front Beach Road Transportation Concurrency Exception Area. Hill Road from Front Beach to the Parkway, Front Beach Road from SR 79 to Hutchison and Panama City Parkway from Richard Jackson Boulevard to Front Beach Road exceed the adopted level of service once committed trips are added. As such, the City has been collecting proportionate fair share payments from development impacting these segments. All of the segments have been added to the Capital Improvements Element and will be widened or modified as part of the Front Beach Road CRA program, using collected proportionate fair share funds or by other funding sources.

5. ACCIDENT FREQUENCY DATA

The sources of accident data for the City of Panama City Beach are the Panama City Beach Police Department, the Bay County Sheriff's Office and the Florida Highway Patrol. Accident data shows most occurrences are at signalized intersections along Panama City Beach Parkway, Hutchison Boulevard, and Front Beach Road. The highest occurrences are the Frank Brown / Pier Park area on Panama City Beach Parkway and Front Beach Road, Front Beach Road between Hutchison Boulevard and South Thomas Drive and Front Beach Road near the western intersection with Hutchison Boulevard. The accidents on the Parkway tend to be more severe as running speeds are much higher than on Hutchison Boulevard and Front Beach Road. It is expected that more accidents will occur as the number of signalized intersections on the Parkway increases. The City will continue to construct intersection improvements on all three major roadways as part of the Front Beach Road Community Redevelopment Program.

Some of the measures the City has recently taken to minimize the amount of accidents include; modifications to the Panama City Beach Parkway median opening between Lowes and Home Depot, a speed limit study for Cobb Road which resulted in the speed being lowered to 30 MPH and a FDOT Road Safety Audit for Panama City Beach Parkway from Alf Coleman to Richard Jackson Boulevard and North Richard Jackson Boulevard.

6. BICYCLE AND PEDESTRIAN PROGRAM

The City recognizes the needs for pedestrian and bicycle facilities. In 2016 the Bay County Transportation Planning Organization (TPO) adopted the Bay 2040 Long Range Transportation Plan Update that identifies Gayle's Trails and Future Trail Systems in Panama City Beach. Exhibit 3-2 shows the existing and proposed pedestrian trail improvements. The Plan also states that the Florida Department of Transportation has adopted a new complete street policy. With this new policy, FDOT will provide safer, context-sensitive roads by putting the right street in the right place. FDOT has committed that roadways will now be designed to serve the transportation needs of system users or all ages and abilities, including but not limited to:

- Cyclists
- Motorists
- Transit riders
- Freight handlers
- Pedestrians

The FDOT specifically recognizes Complete Streets are context sensitive and require transportation system design that considers local land development patterns and built form. The Department will coordinate with local governments, Transportation Planning Organizations, transportation agencies and the public, as needed to provide Complete Streets on the State Highway System, including the Strategic Intermodal system.

Additionally, the Front Beach Road CRA program will construct sidewalks and bicycle lanes on all reconstructed roadways. The City also amended sidewalk requirements in the LDC by adding

several road segments where sidewalks are required as part of any new development, redevelopment, or changes of use.

Every new and reconstructed Street segment (except those serving residential subdivisions with speeds limited to 25 MPH) within the City are required to make adequate provision for pedestrian and bicycle traffic by containing sidewalks and bicycle lanes or paths.

The City currently has a paved bicycle/pedestrian trail system which runs from Power Line Road to West Bay Elementary and connects the Colony Club subdivision, Frank Brown Park with Conservation Park. This network of bicycle/pedestrian trails will eventually connect to Pine Log State Forest.

7. MASS TRANSIT

The Bay Town Trolley serves the public transit needs for Bay County and beaches. The trolley is funded by the TPO and, in part, by user fares. The trolley operates on weekdays from 6 am to 8 p.m. Several cities, including Panama City Beach, pay extra for weekend service. Since its inception, the routes and stops has changed in order to respond to consumer demand and preferences. Exhibit 3-1 shows the location of major Attractors and Generators and the current trolley route within the Panama City Beach Service Area. Front Beach Road has already been designed with dedicated transit lanes as part of the Front Beach Road CRA program. A transit plan has been completed and has been adopted into the TPO Transit Plan. It has not yet been determined if the City, a private contractor, or the Bay Towne Trolley will actually provide the service.

8. HURRICANE EVACUATION

The Coastal High Hazard Area (CHHA) is defined as the Category 1 Storm Surge Area. According to updated storm surge data, category 1 surge areas within Panama City Beach are predominantly located along the shores of the Gulf of Mexico (Front Beach Road, Beach Boulevard, and Thomas Drive). Other less significant areas within the CHHA are near Turtle Cove (, along Grand Lagoon, and in the Colony Club area. When comparing the Category 1 Storm Surge area with current aerial photos, there appears to be very few structures within these areas which appear to be vulnerable to a category 1 storm surge.

The hurricane evacuation routes for Panama City Beach are shown on Exhibit 14. It is expected that some residents on the eastern portion of the city would opt to travel east across Hathaway Bridge to State Road 77 or US 231 just as the residents on the western end may opt to travel west to State Roads 81 and 331.

The location of the hurricane evacuation routes are shown on Exhibit 14. The Bay County Comprehensive Plan states that the County has adopted a hurricane evacuation time of 24 hours for category 4-5 storms. Bay County and the City worked together to create the Bay County Hurricane

Abbreviated Transportation Model (Updated, 2014). The County and the City have continued to share information on development order approvals in order to keep the hurricane model updated. Below is the most recent tables that have been updated with additional development orders approved by the City.

Modeled/Critical Roadway Segment	Times Cat 1-2 low occ	Times Cat 1-2 high occ	Times Cat 3 low occ	Times Cat 3 high occ	Times Cat 4-5 low occ	Times Cat 4-5 high occ
SR 79 at SR 20	**3.1**	**4.0**	**4.0**	**4.6**	**5.4**	**6.8**
SR 77 at SR 20	**3.0**	**3.4**	**3.6**	**4.2**	**4.5**	**5.3**
US 231at SR 20	**4.7**	**5.7**	**7.7**	**9.7**	**10.5**	**13.1**
SR 20 eb out of Bay	**2.3**	**2.8**	**3.5**	**4.4**	**4.7**	**5.8**
Hathaway Bridge	**5.6**	**6.5**	**6.6**	**8.1**	**7.4**	**9.4**
US 231/SR77/US98 int	**5.1**	**6.3**	**7.4**	**9.5**	**8.7**	**11.4**
CR 386 into Gulf County	**1.2**	**1.3**	**1.3**	**1.5**	**1.4**	**1.6**

The results of the updated model show that under a high occupancy and a category 4-5 hurricane, the critical segment will be US 231 at SR 20 with an evacuation time of 13.1 hours. This, however, is still below the adopted evacuation time of 24 hours.

9. PARKING FACILITIES

The City constructed a beach access public parking area on Churchwell Drive that accommodates approximately 12 vehicles. There are also preliminary plans to build a multimodal center adjacent to the City Hall campus.

10. EVALUATION

Based on historical data FDOT estimates it is anticipated traffic volumes will continue to increase by 3% per year system wide. To mitigate this growth the City continues to collect proportionate fair share payments, utilizes FDOT funding, continue to enhance bicycle/pedestrian and transit facilities and explore other smart growth options.

11. GOALS, OBJECTIVES AND POLICIES OF TRAFFIC CIRCULATION

GOAL: Provide a safe and efficient transportation system to accommodate current and future land use patterns and to maintain an adopted traffic circulation level of service standards.

OBJECTIVE 1: With the adoption of this Plan, establish level of service (LOS) standards to be used in the processing of development and redevelopment orders.

POLICY 1.1: With the adoption of this Plan, the following peak hour level of service standards for roads shall be established to evaluate the facility's capacity for issuance of development permits.

FACILITY TYPE	PEAK HOUR LEVEL OF SERVICE
Principal Arterial	D*
Minor Arterial	D*
Collector	D*
Local	D*
Front Beach Road	D *
FIHS Road Segments	As determined by FDOT

Note: * is to denote that some roads, or portions of roads, may be located within the Front Beach Road Transportation Concurrency Exception Area and not subject to the LOS designation.

POLICY 1.2: The City will review with Bay County and the State Department of Transportation any special transportation needs. If necessary, the City will review its roadway standards and their application to particular roadways.

POLICY 1.3: Continue evaluating and reporting the level of service for each road segment identified in this Plan. POLICY 1.4: The City shall review all proposed developments for consistency with the level of service standards adopted by this Plan to maintain concurrency as specified in the Concurrency Management System.

POLICY 1.4.1: Deminimis exceptions to transportation concurrency are adopted as defined in Chapter 163.3180(6) F.S. The City shall maintain records of all deminimis

exceptions through the annual update of the Capital Improvements Element.

POLICY 1.5: The City will use a proportionate fair-share process consistent with Chapter 163.3180(16) in order to satisfy the level of service standard for roads.

POLICY 1.5.1: Revenues collected for an improvement on a facility may be used on a parallel facility or another improvement within that same corridor or sector that in the discretion of the City would mitigate the impacts of development.

POLICY 1.6: The Front Beach Road Transportation Concurrency Exception Area will be evaluated annually to assess its progress of increasing mobility within the Front Beach Road Community Redevelopment Area.

POLICY 1.6.1: The City hereby creates a Transportation Concurrency Exception Area for Front Beach Road for the reasons and based upon the information contained within the April, 2004 City of Panama City Beach Transportation Concurrency Exception Area (TCEA) Report.

POLICY 1.6.2: The boundary of the Transportation Concurrency Exception Area is the boundary of the Front Beach Road Redevelopment Area.

POLICY 1.6.3: The Front Beach Road Community Redevelopment Plan is incorporated by reference and adopted as part of this Comprehensive Plan pursuant to Policy 4.6 of the Future Land Use Element *(updated, 2004).*

POLICY 1.7: A detailed level of service study shall be conducted for any road segment that has reached at least ninety percent (90%) of the adopted maximum level of service volume.

POLICY 1.8: The City will continue to encourage the TPO to give a high priority ranking to the six-laning of Panama City Beach Parkway from Mandy Lane to Richard Jackson Boulevard.

POLICY 1.9: Through land development regulations, the City will, amend when necessary, land development policies for the Panama City Beach Parkway that further implement and support the recommendations of the US 98 (Panama City Beach Parkway) Corridor Management Report.

OBJECTIVE 2: Establish a procedure to protect existing and future rights-of-way for building encroachment.

POLICY 2.1: A twenty-five foot minimum front building set back from rights-of-way will be required of future development, unless reasons exist why such setback cannot be implemented on a particular parcel. A five foot minimum building setback may be permitted for future development where expressly authorized by the Land Development Code for a particular zone or overlay district as shown on the zoning map.

POLICY 2.2: The City shall establish minimum right-of-way requirements for each street classification.

OBJECTIVE 3: Traffic circulation and planning will be coordinated with the future land uses shown on the Future Land Use Map, the Florida Department of Transportation's five-year transportation plan, the Panama City TPO Long Range Transportation Plan, and plans of adjoining jurisdictions.

POLICY 3.1: The City shall review the traffic circulation plans of adjacent incorporated and unincorporated areas for compatibility with this Plan.

POLICY 3.2: The review of development orders for projects connecting to the State road system shall be reviewed for compatibility with the Florida Department of Transportation's five-year transportation plan.

POLICY 3.3: When appropriate, the City will control land use to meet level of service standards adopted as part of this Plan.

POLICY 3.4: Continue to participate in the Panama City Transportation Planning Organization planning process in coordination with adjacent local governments and other public agencies and private organizations whose purpose is to implement the transportation, land use, parking, and other provisions of the transportation element.

POLICY 3.5: Continue to participate in the development and update of the Transit Development Plan especially in the establishment of numerical indicators against which the achievement of the mobility goals of the community can be measured, such as modal split, annual transit trips per capita, and automobile occupancy rates.

OBJECTIVE 4: Coordinate the traffic circulation system with the plans and programs of the Transportation Planning Organization (TPO) and the Florida Department of Transportation's five-year transportation plan.

POLICY 4.1: Support the TPO by designating a City representative to serve on a transportation technical advisory committee.

POLICY 4.2: Coordinate changes in this traffic plan with changes in the Florida Department of Transportation's five-year transportation plan, the TPO's Long Range Transportation Plan, and subsequent updates.

POLICY 4.3: Continue to support the provision of transportation services to the transportation disadvantaged through the TPO.

POLICY 4.4: The City shall coordinate and schedule any major roadway improvements consistent with the Florida Department of Transportation's five-year construction plan.

OBJECTIVE 5: Provide convenient and efficient movement of motorized and non-motorized traffic.

POLICY 5.1: Continue controlling the installation of sidewalks and bicycle paths.

POLICY 5.2: Require the Panama City Beach Police Department to compile accident data by location involving motorized vehicles, bicycles and pedestrians. Utilize this data to improve safety conditions.

POLICY 5.3: Continue implementing off-street parking requirements through the Land Development Code. Applications for development orders shall not be approved if adequate and safe parking is not provided.

POLICY 5.4: Cooperate with the TPO and Bay County in planning studies for a comprehensive bicycle plan. Panama City Beach shall consider the establishment of bicycle and pedestrian ways upon completion of the studies. If necessary, Panama City Beach shall amend the Plan in the future to address these considerations.

POLICY 5.5: Direct through traffic onto principal arterials and away from local streets, and promote the use of traffic calming strategies to protect local streets from high traffic volumes and speeds.

POLICY 5.6: Facilitate the provision of a network for pedestrians and bicyclists that allows shortcuts and alternatives to traveling along high-volume streets.