B. TRANSPORTATION ELEMENT

B. Transportation Element

Introduction

This Transportation Element has been prepared to meet the requirements of Chapter 163, Florida Statutes. The 1990 Plan contained only a Traffic Circulation Element; however, Section 163.3177(6)(j), Florida Statutes was amended in 1994 to require each unit of local government within an urbanized area to adopt a Transportation Element in lieu of the more limited Traffic Circulation Element. The Transportation Element addresses traffic circulation; alternative modes of travel; parking; hurricane evacuation capacity; land use densities to support public transportation and energy efficient strategies for reducing greenhouse gases. Existing and planned Transportation Facilities are identified within Map B-1 of the Future Land Use Map Series.

This Transportation Element provides an analysis of transportation and mobility issues within the City of Atlantic Beach. A planning timeframe of twenty years is incorporated into the analysis of future conditions. Traffic data from the Florida Department of Transportation (FDOT), Jacksonville Transportation Authority (JTA) and the City's Department of Public Works has been compiled into this element.

Level of Service Standards and Criteria

Level of Service (LOS) is a method of describing the operating conditions of a roadway for various traffic volumes. It is a qualitative measure of the effect of a number of factors including speed and travel time, traffic interruptions, freedom to maneuver safely, driving comfort, convenience, and operating costs. Measurement criteria to establish traffic circulation efficiency goals are often expressed in terms of average speed for arterial streets and highways. Because of the difficulty in measuring actual average speeds, traffic flow or Level of Service (LOS) comparison is used to show a measure of efficiency along the roadway. Levels of service represents a range of operational conditions, not a precise number or volume. The following are general descriptions of the six Levels of Service as established by the Transportation Research Board, 1997.

LOS A – This is a condition of free flow, accompanied by low volumes and high speeds. Traffic density is low, with uninterrupted flow speeds controlled by driver desires, speed limits, and physical roadway conditions. Little or no restriction in maneuverability due to the presence of other vehicles enables drivers to maintain their desired speeds and arrive at their destinations with little or no delay.

LOS B – This is a condition of stable flow, with operating speeds somewhat restricted by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation. Reductions in speed are not unreasonable, with a low probability of traffic flow being restricted. The lower limit (lowest speed, highest volume) of this Level of Service has been used in the design of highways.

LOS C – This is still a stable flow, but speeds and maneuverability are more closely controlled by the higher volumes. Most drivers are restricted in their freedom to select their own speed, change lanes or pass. A relatively satisfactory operating speed is still obtained, with service volumes suitable for urban design practice.

LOS D – This Level of Service approaches unstable flow, with tolerable operating speeds being maintained, though considerably affected by changes in operating conditions. Fluctuations in volume and temporary restrictions to flow may cause substantial drops in operating speeds. Drivers have little freedom to maneuver, and comfort and convenience are low. These conditions can be tolerated, however, for short periods of time.

LOS E – This Level of Service cannot be described by speed alone, but represents operations at low operating speeds, typically, but not always, in the neighborhood of 30 miles per hour, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages of momentary duration. This Level of Service is associated with operation of a roadway at capacity flow.

LOS F – This describes a forced-flow operation at low speeds, where volumes are well above capacity. In the extreme, traffic comes to a standstill. These conditions usually result from vehicles backing up from a restriction. The section under study will be serving as a storage area during parts or all of the peak hour. Speeds are reduced substantially, and standstills may occur for short or long periods of time because of the downstream congestion.

The most recent edition of the FDOT Level of Service Standards Handbook was used to estimate the standards for determining acceptable and unacceptable operating conditions for roadways within the City of Atlantic Beach. The FDOT Handbook incorporates standardized service volumes for each of the LOS designations listed above. The Handbook is a tool to provide for a general overview of the operating conditions of the roadway segments. More refined methods can be used during concurrency review for those segments where a more detailed traffic engineering analysis is critical for determining whether there exists adequate roadway capacity.

The FDOT Handbook determines service volumes based on a number of standardized factors. These factors include; 1) area type; 2) roadway functional classification; 3) number of lanes; 4) median type; and 5) number of signals per mile.

The FDOT Handbook sets the minimum Level of Service standards for roadways on the State Highway System. The LOS standards for an urbanized area of over 500,000 apply to roadways within Atlantic Beach, in that the City of Atlantic Beach is part of the Jacksonville Urbanized Area. The FDOT standard for all roadways in such an urbanized area is LOS D. However, pursuant to S. 163.3180(10), Florida Statutes, a local government may adopt alternative LOS standards for any State roadway that is not on the Florida Intrastate Highway System (FIHS). None of the roadways within the City of Atlantic Beach are on the FIHS; therefore, LOS standards lower than those adopted by FDOT may be adopted.

Existing Operating Conditions

Roadways – An inventory of the existing transportation network within the City of Atlantic Beach was undertaken to determine the type of transportation systems available, functional classification of roadways, number of through lanes, corresponding capacities and daily volumes.

Atlantic Boulevard (State Road 10) is one of three major roadway corridors from I-95 to the County's beaches. It is also the most heavily traveled of the three corridors, primarily because it is the most direct route from the communities of Jacksonville to the Mayport Naval Station. The Navy base is one of the largest employers within the County. Within the City, Atlantic Boulevard is a divided six-lane arterial roadway with several signalized intersections. A construction project was completed in 2002 that widened

Atlantic Boulevard to six-lanes over the Intracoastal Waterway. Commercial establishments are located on both the north and south sides of Atlantic Boulevard, and much of the existing traffic results from motorists entering and exiting driveways that serve these establishments.

Mayport Road extends from the southern limits of the City at Atlantic Boulevard to the northern limits of the City near Assisi Lane. Mayport Road continues within the City of Jacksonville providing access to the Mayport Naval Station and on to the north as State Road A1A. Numerous local public streets and driveways intersect with Mayport Road on both sides of the roadway. These streets and driveways serve mostly low to moderate density residential and strip-type commercial developments. In March 2002, the Mayport Flyover was completed and opened to traffic. The Mayport Flyover provides an interchange at the intersection of the two most traveled roadways within the City of Atlantic Beach. Construction of the Flyover alleviated a traffic problem identified in the 1990 Traffic Circulation Element. The intersection of Atlantic Boulevard and Mayport Road was identified as operating at LOS F prior to completion of the Mayport Flyover.

Seminole Road, Ocean Boulevard, Plaza, and Sherry Drive are urban collectors, which primarily serve the residential areas north of Atlantic Boulevard, and east of Mayport Road. These are all two-way, two-lane roadways and experience relatively low volumes with low accident rates.

The Wonderwood Connector, which was completed and open to traffic in 2007 provides an alternative east-west connection between the City of Atlantic Beach, Mayport Village, Naval Station Mayport and I-295.

Needs Assessment and Future Traffic Projections

There have been a number of traffic improvements within and surrounding the City of Atlantic Beach that have addressed capacity issues on major roadways. The Mayport Flyover addressed the capacity problems experienced at the intersection of Mayport Road and Atlantic Boulevard. The widening of Atlantic Boulevard to six- lanes over the Intracoastal Waterway significantly increased capacity for the improved segments of Atlantic Boulevard. Completion of the Wonderwood Connector has improved traffic patterns within the northeast section of the County. Most recently, construction of raised landscaped medians and improvements to access management conditions has improved the aesthetic quality and safety of Mayport Road.

Table B-1. Projected Traffic Volumes

Street	Link	2010	2015	2020
S.R. AIA	0.1 mile North of SR 101	17,417	18,467	19,517
S.R. 101	0.1 mile North of SR A1A	35,667	38,167	40,667
S.R. AIA	200 feet North of Church Street	54,417	57,167	59,917
S.R. AIA	North of 2nd Street	43,417	45,167	46,917
S.R. AIA	South of 11th Street	57,333	59,833	62,333
SR 10	175 feet West of Third Street	35,250	37,000	38,750
SR 10	East of SR AIA (East of Ramps)	45,333	48,333	51,333

A linear regression analysis was performed to calculate the projected traffic volumes. For the purposes of the Comprehensive Plan EAR based updates it is suggested that the above descriptions replace the current

traffic descriptions provided in the Plan. (NEFRC used the TTMA and PTMS sites to determine the best suited sites to report in the Transportation Element)

Mass Transit

Transit service within the City of Atlantic Beach is provided by the Jacksonville Transportation Authority (JTA). The JTA operates three routes through the City including two local routes with service 7 days a week and one community shuttle with a fixed route and curbside service 6 days a week. Route 10 is a local route operating along Atlantic Boulevard, connecting the South Beach area of Jacksonville Beach to downtown Jacksonville. Route 24 is the other local route providing a loop between Mayport Village to the north of the City and the Atlantic Village shopping center on Atlantic Boulevard. Route 303 is the community shuttle and consists of a loop that connects the Atlantic Village shopping center on Atlantic Boulevard, with the Mayo Clinic via Penmen Road and South Beach Parkway. The JTA is currently constructing a Bus Rapid Transit route as part of their First Coast Flyer system that will connect Beach Boulevard in Jacksonville Beach with Downtown Jacksonville. There is also express route 202 operating rush hour service six days a week north of the City between Naval Station Mayport and the Regency area of Jacksonville. The transit routes, which serve the City of Atlantic Beach, are part of a larger system of transit routes that were redesigned as a result of JTA's efforts to enhance service within eastern Duval County. These routes have been successful in meeting the transit needs for the City of Atlantic Beach.

Bicycle and Pedestrian Facilities

The City completed a bicycle and pedestrian pathway planning and public participation study in collaboration with the City of Neptune Beach and the City of Jacksonville Beach in 2002. This collaboration produced a general and conceptual plan for a system of bike and pedestrian routes to connect each of the three beach Cities, and also provides for a better system of east-west bikeway connections within each City and to other existing or planned facilities. Based on the findings of the study a priority list of desired routes was developed and the City of Atlantic Beach has adopted a phased development approach to implement the interconnected multi-use path system. The first phase of the City's bikeway plan was in completed in 2004. The plan was updated in early 2009, and development of future phases will continue as budget resources permit with consideration to community desires.

Bike and pedestrian facilities continue to be a high priority to this community in order to provide for a high level of recreational activity, energy efficiency and conservation and decreased reliance on vehicular transportation. In 2018, construction began on a Safe Routes to School project along Sherry Drive and Seminole Road identified in the bikeway plan. Once completed, the project will link approximately 1.4 miles of residential neighborhoods with an eight foot multiuse path.

B. Transportation Element
Goals, Objectives, and Policies

All transportation related activities within the City of Atlantic Beach shall be in accordance with the following Goals, Objectives, and Policies.

Goal B.1

The City shall provide a safe, reliable and efficient roadway system with reasonable operational and maintenance characteristics.

Objective B.1.1

Safe Roadway Conditions

The City shall develop and maintain a roadway system that provides the safest possible environment for motorists, bicyclists and pedestrians.

Policy B.1.1.1 The City shall maintain a program to promote the safety of all activities occurring on streets and within right-of-ways under the City's jurisdiction.

Policy B.1.1.2 The City's Department of Public Works shall be responsible for the planning, review, supervision and coordination of all activities that impact the safety characteristics of the roadway system.

Policy B.1.1.3 The City shall develop and maintain its roadway system in accordance with the minimum criteria as set forth within the FDOT's Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways.

Policy B.1.1.4 The City shall require warrants for installation of new traffic control devices and coordinate their efforts with FDOT.

Policy B.1.1.5 The City shall maintain coordinated or traffic actuated traffic signal systems.

Objective B.1.2

Construction and Maintenance Standards

The City shall maintain procedures for construction, reconstruction, maintenance, and also for utility and emergency services functions, which provide for safe roadway operating conditions during these activities.

Policy B.1.2.1 The City shall continue to implement the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways prepared by the FDOT for minimum requirements of work site safety.

Policy B.1.2.2 The City shall maintain its program of work site safety, and all roadway plan reviews and permit applications shall be reviewed for compliance with established Maintenance of Traffic and Safety Practices.

Policy B.1.2.3 The City shall coordinate construction scheduling within the public right-of-ways and shall minimize whenever possible, any adverse impacts to normal traffic flow resulting from such construction.

Objective B.1.3

Operating Conditions

The City shall provide streets with operating characteristics that conform to established and accepted standards so as to ensure safe conditions for vehicles, motorists, cyclists, and pedestrians.

Policy B.1.3.1 The City shall accept the 2010 Highway Capacity Manual definitions for Levels of Service, which utilize qualitative measures for establishing the operational characteristics of the various roadways.

Policy B.1.3.2 The minimum Level of Service (LOS) standards, as established by FDOT, and as shown by the following table, shall be applicable to all local streets and State highway system facilities within the City of Atlantic Beach.

Table B-2. City of Atlantic Beach Planning Area Minimum Levels of Service

Freeways	Level of Service D
Principal Arterials	Level of Service D
Minor Arterials	Level of Service E
Collector Streets	Level of Service E
Local Streets	Level of Service E

Policy B.1.3.3 The City shall make LOS determinations on an as needed basis by utilizing Average Daily Traffic (ADT) and peak hour data with the methods established in the 2010 Highway Capacity Manual.

Policy B.1.3.4 The City shall maintain provisions for landscaping and other buffering methods within the Land Development Regulations so as to prevent inappropriate land use relationships; prevent noise transmission; provide screening of unattractive views; and enhance the aesthetic qualities of streets, neighborhoods, and public areas of the City.

Policy B.1.3.5 The City shall support the incorporation of bike paths and pedestrian way systems in the design of new roadway facilities and the upgrading of existing facilities in accordance with accepted design standards and in response to the demonstrated need for such facilities based on survey data or information maintained by the City and the North Florida TPO.

Goal B.2

The City shall provide an integrated system of streets that encourage and facilitate coordinated and compatible land use patterns, including the integration of private development with public transportation facilities.

Objective B.2.1

Operating Standards

The City shall meet all accepted design and operating standards in the design and construction of all streets within its jurisdiction.

Policy B.2.1.1 The City shall coordinate with FDOT for the incorporation of minimum standards for roadway construction, reconstruction and maintenance for City streets as presented in FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways and the FDOT Access Management Manual.

Policy B.2.1.2 Minimum design standards for the construction of new streets or the reconstruction of existing streets shall be in accordance with FDOT roadway and traffic design standards.

Policy B.2.1.3 Traffic control devices on private property shall conform to the Manual on Uniform Traffic Control Devices for Streets and Highways, as published by the U.S. Department of Transportation, Federal Highway Administration.

Objective B.2.2

Private Driveways and Access Management

The City shall, to the extent feasible, provide for the satisfactory resolution of conflicts between the public roadway system and private driveways and parking areas in order to enhance public safety as well as existing and future neighborhood environmental conditions.

Policy B.2.2.1 The City shall ensure proper management of the connections and access points of driveways and private roads to State roadways by coordination of development permitting with FDOT to achieve applicable design standards.

Policy B.2.2.2 The City shall protect existing and future right-of-ways from building encroachment by on-going coordination with the North Florida TPO and FDOT to establish right-of-way requirements for future widening projects prior to issuance of development permits.

Policy B.2.2.3 New development sites and redevelopment sites shall be required, where possible, to provide for interconnectivity and the sharing of existing access points to major arterials.

Policy B.2.2.4 The City shall coordinate traffic planning and development permitting with State and Federal agencies so as to assist in implementing air quality improvement programs. As part of the North Florida TPO, air quality status and future projection levels are monitored. FDOT uses the Northeast Florida Regional Planning Model (NFRPM) to monitor air quality. The future projections come from estimated building permit, housing and traffic projections provided by each entity in North Florida area.

Objective B.2.3

Provision of Bikeways and Multi-use Facilities

All new right-of-ways established within the City shall be of adequate width to provide for bikeways, sidewalks or similar facilities as required to encourage safe and increased pedestrian and bicycle activity. Where possible, existing right-of-ways should provide for bikeways, sidewalks or similar facilities to encourage safe and increased pedestrian and bicycle activity.

Policy B.2.3.1 All new streets, including unimproved existing right-of-ways, shall be constructed to provide for safe use by bicycles, and where sufficient right-of-way exists, separated bicycle paths shall be provided.

Policy B.2.3.2 All new residential developments containing five or more dwelling units shall provide for internal sidewalks, bike paths, or multi-use paths, and it shall be the responsibility of the developer to construct such facilities and to provide connections to any other such public facilities existing on adjoining lands.

Policy B.2.3.3 All existing rights-of-way shall be reviewed when resurfaced, redesigned or modified to provide for bikeways, sidewalks, multi-use paths, or similar facilities throughout the city to provide linkages to schools, parks, and other destination points.

Objective B.2.4

Coordination with Transportation Agencies

The City shall coordinate its transportation related activities with the plans and programs of all transportation facility providers including the North Florida TPO, the Jacksonville Transportation Authority, and the Florida Department of Transportation.

Policy B.2.4.1 The City shall continue to enforce land use and subdivision regulations to provide for the safe and convenient on-site traffic flow, considering motorized and non-motorized traffic movements and parking requirements.

Objective B.2.4

Energy Efficient Strategies

The City shall maintain its existing street patterns, which have developed to provide a network of connected neighborhoods and an ability to walk, bike and travel throughout the City with minimum vehicular travel miles and minimal traffic congestion.

Policy B.2.4.1 New retail and commercial services development and redevelopment shall be designed to provide maximum opportunity for accessibility to transit, for pedestrians and bicycles and where possible, shall connect to adjacent commercial uses.

Policy B.2.4.2 Strategies to promote mixed-use development and redevelopment in appropriate locations, which shall be those locations that currently have Commercial land use designations or High Density Residential land use designations, and where adjacent to other commercial development or adjoining commercial corridors, shall be used to provide opportunities for living in proximity to the workplace as an alternative housing and transportation choice.

Policy B.2.4.3 Mixed-use development and redevelopment as described in the preceding Policy shall not be construed to permit industrial or intense commercial activities in combination with or close proximity to new or existing residential uses, but rather to provide for an appropriate mix of residential and neighborhoods serving retail, services and office types of uses where the need for vehicular miles travelled can be minimized.